

ANIMAL WELFARE - WHERE DOES SCIENCE END AND ETHICS BEGIN?

Peter Sandøe, Björn Forkman & Karsten Klint Jensen

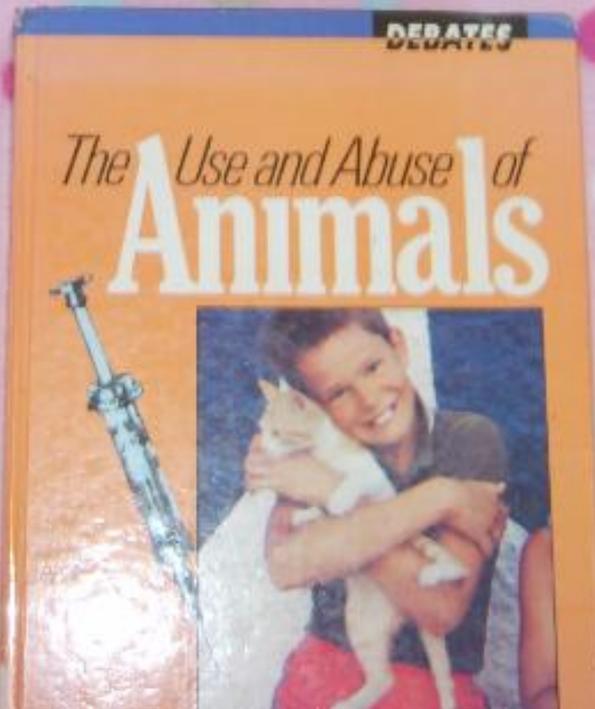
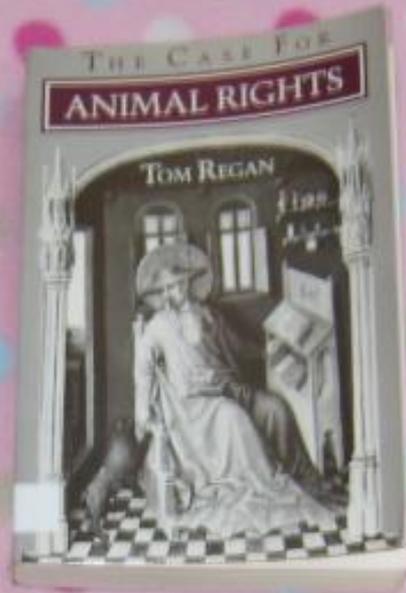
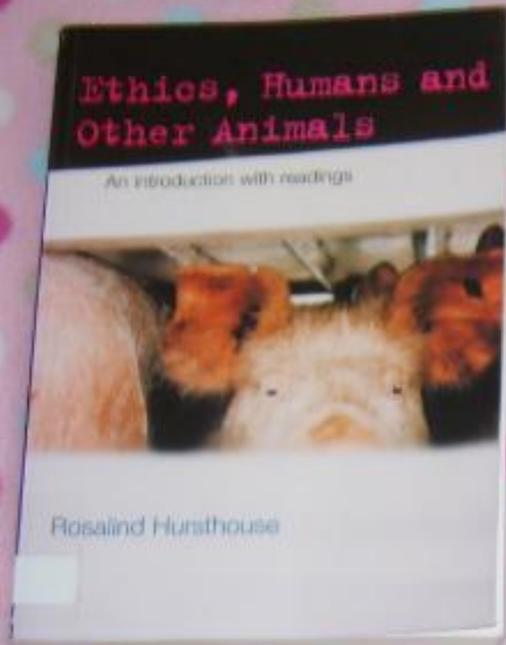
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PLAN

- 1. The idea of science as an arbiter of animal welfare**
- 2. How ethical assumptions inform the study of animal welfare at different levels:**
 - a) The definition of animal welfare**
 - b) The choice of indicators**
 - c) The aggregation of results**
 - d) The handling of scientific uncertainty**
- 3. The ethical context (farm-, companion, wild ... animals)**
- 4. Maintaining the objectivity of animal welfare science by making ethical assumptions transparent**



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BRAMBELL COMMITTEE



Report of the
Technical Committee to Enquire into the
Welfare of Animals kept under
Intensive Livestock Husbandry Systems

Chairman : Professor F. W. Rogers Brambell, F.R.S.

*Presented to Parliament by the Secretary of State for Scotland and the
Minister of Agriculture, Fisheries and Food
by Command of Her Majesty
December, 1965*

“Any attempt to evaluate welfare ... must take into account scientific evidence available concerning the feelings of animals that can be derived from their structure and functions and also from their behaviour” (1965)



DONALD BROOM



“The **assessment of welfare should be **quite separate from any ethical judgement** about how animals should be treated, but once an assessment is completed it should provide information which can be used to take decisions about the ethics of the situation.” (1996)**





Food Safety - From the Farm to the Fork

EUROPA > European Commission > DG Health and Consumer Protection > Overview

Scientific Committee on Animal Health and Animal Welfare - Mandate

Mandate

Sub-committee Animal Health:

Scientific and technical questions concerning all aspects of animal health, hygiene, animal diseases and therapies, including zoonoses of non-food origin and zootechnics.

Sub-committee Animal Welfare:

Scientific and technical questions concerning the protection of animals, notably in regard to animal husbandry, herd management, transport, slaughter and experimentation.

THE EU SCIENTIFIC COMMITTEE ON ANIMAL HEALTH AND WELFARE

“When stocking rates exceed approximately 30 kg/m², it appears that welfare problems are likely to emerge regardless of indoor climate control capacity...”

SCAHAW (2000) *The Welfare of Chickens Kept for Meat Production (Broilers)*.



HUME'S GUILLOTINE



No ethical (or evaluative) conclusion can be validly inferred from any set of purely factual premises

Ethical statements *guide* action in a way that factual statements do not

Note that the term “ethical” is used in a broad sense

HOW ETHICS ENTERS THE PICTURE



Assessments of welfare have an ethical component: they say something about what is *good* or *bad* from the point of view of the animals

Biological facts never by themselves say anything about what is good or bad



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WHAT IS A GOOD ANIMAL LIFE?



EUROPEANS AND AUSTRALIANS ON GESTATION STALLS FOR SOWS

“Some serious welfare problems for sows persist even in the best stall-housing system” (von Borell *et al* 1997)

“Both individual [including stalls] and group housing can meet the welfare requirements of pigs” (Barnett *et al* 2001)

(Example borrowed from Fraser 2003)



WHAT IS A GOOD LIFE? - COMPETING VIEWS

- **Mental State Theories**
 - What matters is the avoidance of pain
 - Other unpleasant states (“frustration”) also matter



A GOOD DEFINITION OF WELFARE?

Good welfare is defined as animals being healthy and having what they want

This straightforward and deceptively simple definition of good animal welfare

- > is readily understandable by everyone
- > encapsulates what most people mean by 'welfare'
- > is measurable in a scientific way



Marian Stamp Dawkins



WHAT IS A GOOD LIFE? - COMPETING VIEWS

- **Mental State Theories**

- What matters is the avoidance of pain
- Other unpleasant states (“frustration”) also matter
- **Positive mental states also matter**





WHAT IS A GOOD LIFE? - COMPETING VIEWS

- **Mental State Theories**
 - What matters is the avoidance of pain
 - Other unpleasant states (“frustration”) also matter
 - Positive mental states also matter
- **Desire or Preference Theories**
 - What matters is getting what one wants
- **Perfectionism**
 - What matters is realising important species-specific potentials



PIGS OUGHT TO BE DIRTY

“... I have a pile [of cards] here containing the organic label and these pigs, I believe they are organic. They do not have a ring in the nose and they are dirty! That is crucial, pigs should be dirty! The reason why I have all the other pictures of pigs in the other pile is that they are far too clean. That means that it is a pure industrialised production. All the pigs are clean – I don’t like that. And that includes the one with the curly tail too! Nice and curly, but a little too clean, I find. It should have been dirty like the others.”





WHAT IS A GOOD LIFE? - COMPETING VIEWS

- **Mental state theories**
 - What matters is the avoidance of pain
 - Other unpleasant states (“frustration”) also matter
 - Positive mental states also matter
- **Desire or preference theories**
 - What matters is getting what one wants
- **Perfectionism**
 - What matters is realising important species-specific potentials
- **Mixed theories**



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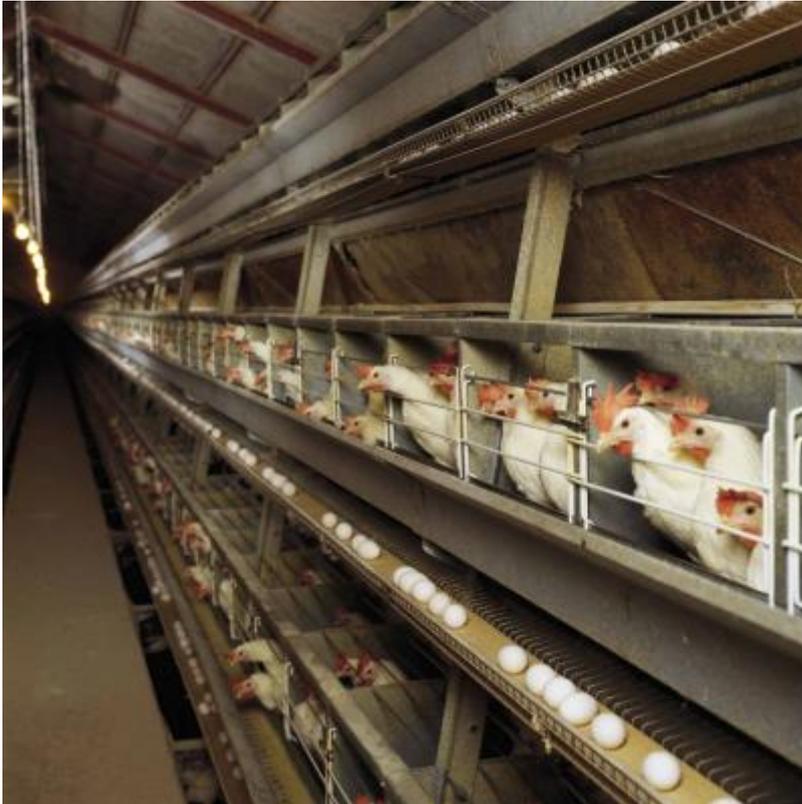


CHOOSING WELFARE INDICATORS

- **To measure welfare scientists need indicators**
- **However, the choice of indicators may greatly affect the measurement**
- **E.g. measures of mortality or of pathologies may favour safe but barren production systems**



WHICH ANIMALS HAVE THE LARGEST PROBLEMS?



Hen welfare in different housing systems¹

D. C. Lay Jr.,^{*2} R. M. Fulton,[†] P. Y. Hester,[‡] D. M. Karcher,[§] J. B. Kjaer,[#] J. A. Mench,^{||}
B. A. Mullens,[¶] R. C. Newberry,^{**} C. J. Nicol,^{††} N. P. O'Sullivan,^{‡‡} and R. E. Porter^{§§}

It appears that no single housing system is ideal from a hen welfare perspective. Although environmental complexity increases behavioral opportunities, it also introduces difficulties in terms of disease and pest control. In addition, environmental complexity can create opportunities for the hens to express behaviors that may be detrimental to their welfare.

2011 Poultry Science 90:278–294



WHICH ANIMALS HAVE THE LARGEST PROBLEMS?



The answer depends very much on what problems you are looking for

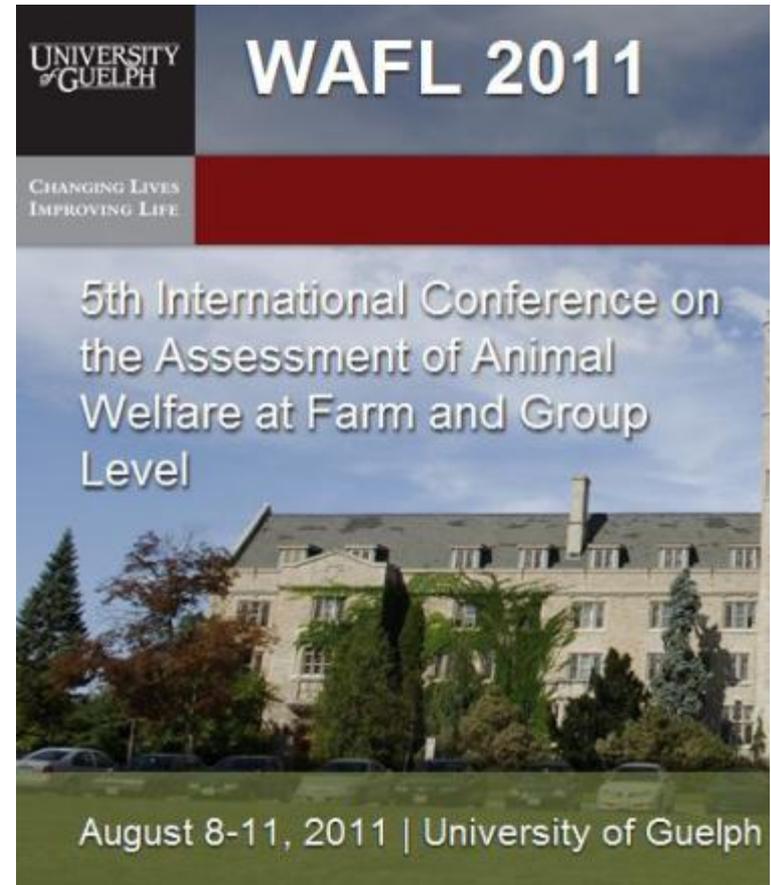
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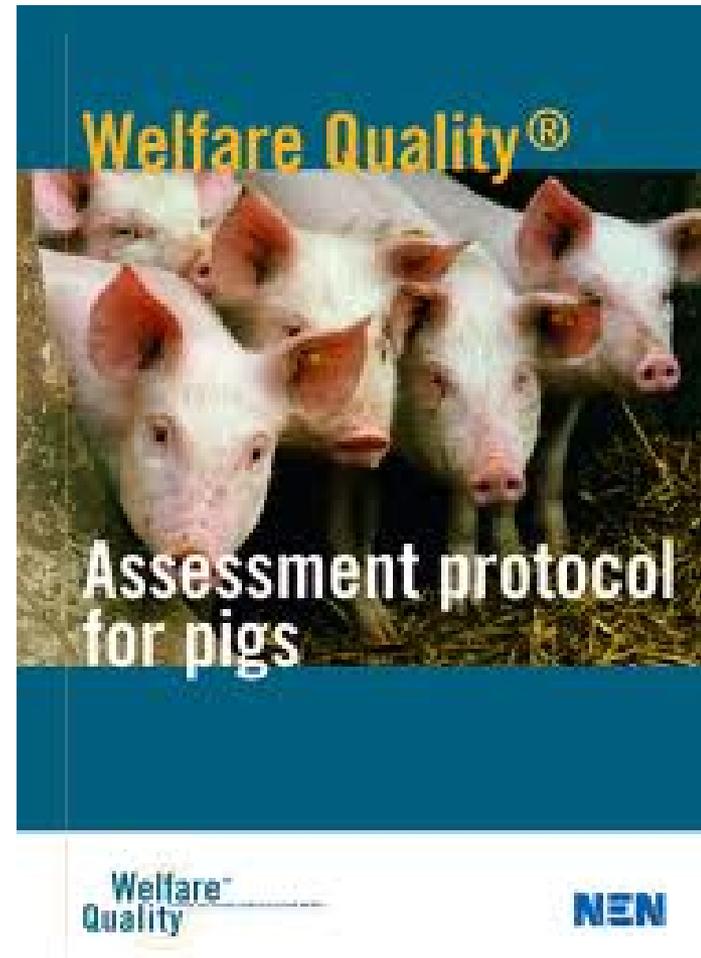
RECENT DEVELOPMENTS IN ANIMAL WELFARE SCIENCE

- **Welfare science once based mainly on controlled experiments**
- **Insights into animal needs but not much about welfare outcomes in real life**
- **Recent focus on how to assess animal welfare at farm or group level**



NEED FOR AGGREGATION

- **Welfare Quality[®]**
- **So far the most comprehensive attempt to assess animal welfare at farm level**
- **Within Welfare Quality[®] the need to aggregate became very visible**



WELFARE QUALITY[®] SCORING MODEL

54 Measures in dairy cows

Body condition score
Provision of water (Drinkers no / clean)

Behaviour around resting, cleanliness
No reliable measure available at present
Presence of tethering, exercise

Skin alteration, lameness
Respiratory, digestive, reproductive
Dehorning, Tail docking

Incidence of aggressive behaviour
Access to pasture
Avoidance distance to human approach
Qualitative assessment of behaviour

12 criteria

Absence of prolonged hunger
Absence of prolonged thirst

Comfort around resting
Thermal comfort
Ease of Movement

Absence of injuries
Absence of disease
Absence of pain due to management procedures

Expression of social behaviours
Expression of other behaviours
Good human-animal relations
Absence of general fear

4 principles

Good feeding

Good housing

Good health

Appropriate behaviour

Overall assessment

Table 4 Example of scores for the overall principle ‘good health’ in fattening pigs given by scores obtained for the criteria ‘absence of injuries’, ‘absence of diseases’ and ‘absence of pain due to management procedures’.

Criteria: absence of...			Principle
Injuries	Disease	Pain	Good health
25	50	75	32
25	75	50	35
50	50	50	50
75	25	50	28
75	50	25	34

ETHICAL ISSUES ARISING IN THE PROCESS OF AGGREGATION

- 1. Balancing between better off and worse off animals**
- 2. Aggregating across measures, criteria and principles: compensation allowed or not?**
- 3. Defining the boundry between acceptable and unacceptable conditions**



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CAN FETUSES SUFFER?



“We conclude that the embryo and fetus cannot suffer before or during birth. Furthermore, we conclude that suffering can only occur in the newborn when the onset of breathing oxygenates its tissues sufficiently to substantially reduce the dominant adenosine inhibition of brain electrical activity.”

‘Onset of sentience: The potential for suffering in fetal and newborn farm animals’, David J. Mellor & Tamara J. Diesch.

Applied Animal Behaviour Science

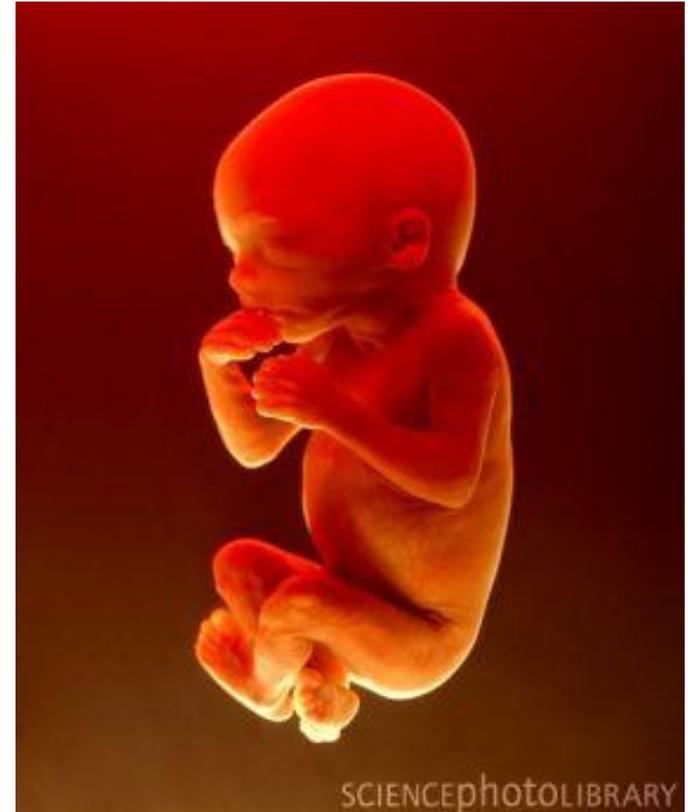
Volume 100, Issues 1–2, October 2006, Pages 48–57

FACULTY OF LIFE SCIENCES
UNIVERSITY OF COPENHAGEN



SHOULD FETUSES BE “GIVEN THE BENEFIT OF THE DOUBT”?

- **Despite the results presented by Mellor, the New Zealand Animal Welfare Act covers “any mammalian fetus ... that is in the last half of its period of gestation or development”**
- **Similar rules apply in Victoria and Queensland**



ETHICS AND PRECAUTION



BETTER SAFE THAN SORRY

The one who said that never had a homemade helmet on his head...

motifake.com

- **When, and to what extent, animals should be “given the benefit of the doubt” is clearly an ethical issue**
- **The issues that arise here are clearly similar to those raised by the “Precautionary Principle”**

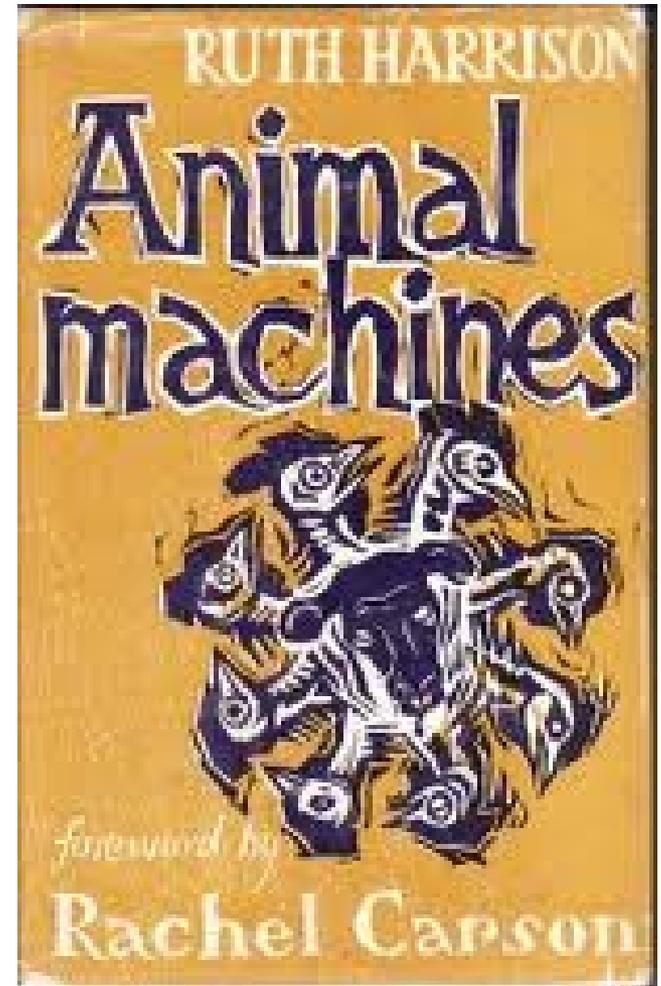
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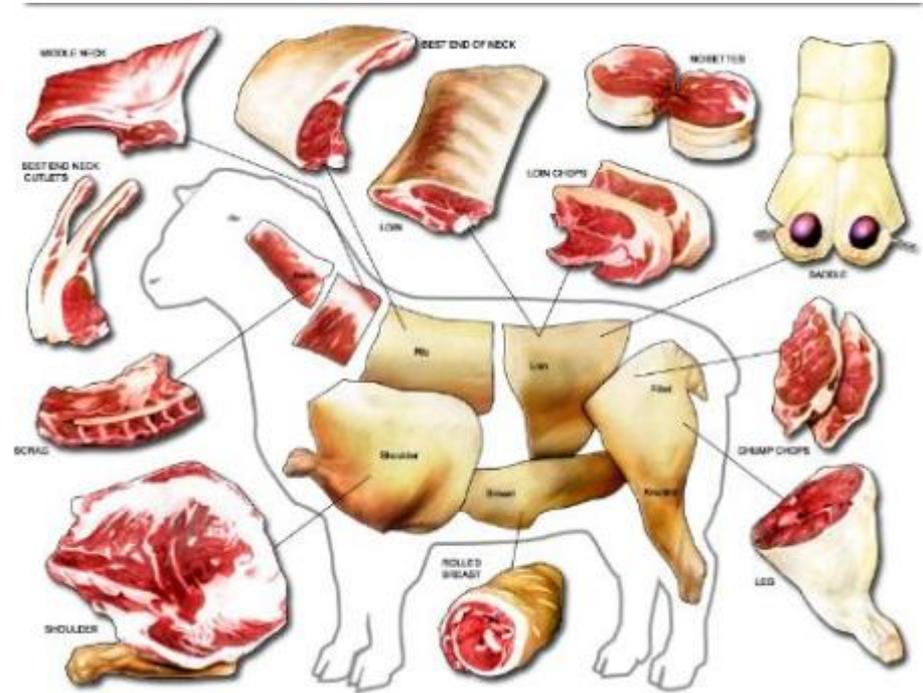
IT WAS ABOUT FARM ANIMALS

- **Animal welfare science grew out of a discussion of how farm animals are kept and cared for**
- **This farming context brings with it certain things which are taken for granted**



THE FARMING CONTEXT

- This is about food – and food is important
- Things must be practical
- Killing is not an issue
- However, there is a duty of care



WHAT IS THE ETHICAL DIFFERENCE?



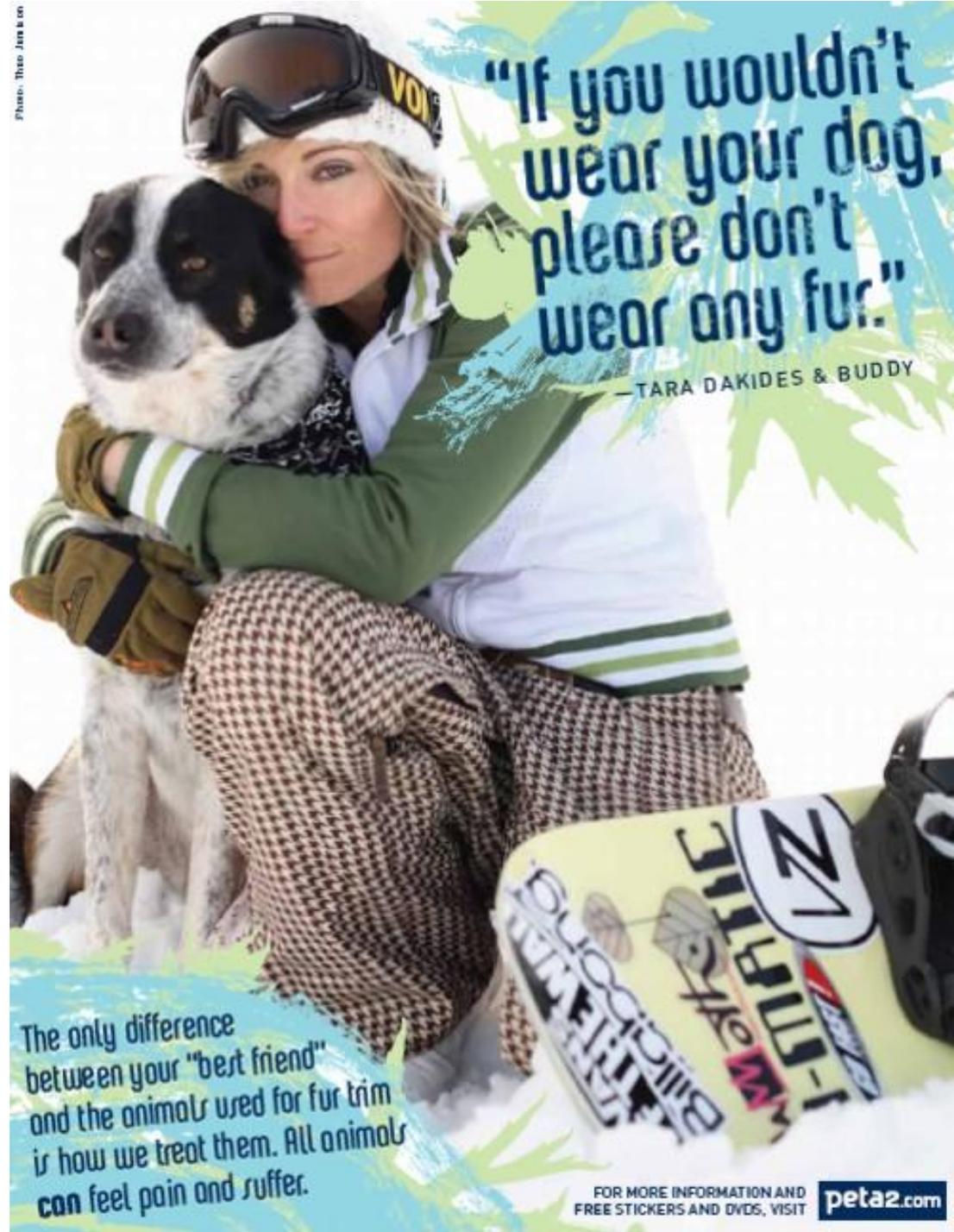
WELFARE?



"Dharma"
Adult, Female - Lab mix??
Practically perfect in every way.
Adopted!!!

CHANGING THE CONTEXT?

Photo: Tara Jankov



"If you wouldn't
wear your dog,
please don't
wear any fur."

—TARA DAKIDES & BUDDY

The only difference
between your "best friend"
and the animals used for fur trim
is how we treat them. All animals
can feel pain and suffer.

FOR MORE INFORMATION AND
FREE STICKERS AND DVDS, VISIT

peta2.com

MY POINT HERE

- **is NOT that going from the farm to other contexts makes things more ethical**
- **It is all ethical**
- **Only different ethical assumptions are made in different contexts**
- **Going across contexts may help one to become aware of these assumptions**





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VALUES AND OBJECTIVITY

- **Applied science pursued with the aim of solving societal problems is bound to be linked with values**
- **As long as these values are made transparent objectivity is not under threat**



SHOULD SCIENTISTS ENGAGE IN DISCUSSIONS ABOUT VALUES?



- **Some scientists seem to think that they should stay out of ethical discussions because they are scientists**
- **That is not a good idea**
- **Scientists should enter public debates over animal welfare as informed citizens**
- **More reflective scientists?**





News

[More news](#)

'Animal ethics' by C. Palmer & P. Sandøe

'Welfare Assessments Based on Lifetime Health...

'Investigating the importance of vision in...

'Animal Ethics and Cultural Imperialism' by...

'Producing well is faring well, isn't it?' By...

'Animal Models of Dementia: Ethical...

'Ethics of Animal Research' by I. A. S. Olsson,...

'Animal Welfare' by Peter Sandøe

'De-domestication: Ethics at the intersection...

'What's wrong with my monkey?' Ethical...



Animal Ethics Dilemma

Animal Ethics Dilemma is a freely available computer-supported learning tool. The objectives are:

- Promoting understanding of the ethics related to animal use
- Illustrate ethical dilemmas that arise in animal use
- Broadening the moral imagination
- Enabling to differentiate between types of ethical argument

[Try Animal Ethics Dilemma here](#)



Animal Ethics

Why is it necessary to engage in thinking about animal ethics and why it is not enough to rely on feelings alone?

[Read the chapter: Animal Ethics](#)
by C. Palmer & P. Sandøe

Ethics of Animal Research

What are our duties to Animals? What can be done to uphold a high ethical standard in animal experimentation?

[Read the publication: Ethics of Animal Research](#)
by I. A. Olsson & P. Sandøe

