



FCRN **foodsource**

A free and evolving resource to empower informed discussion on sustainable food systems

Building Block

What is animal welfare?



Suggested citation

Bartlet, H. & Lee-Gammage, S. (2017). What is animal welfare? (Foodsources: building blocks). Food Climate Research Network, University of Oxford.

Written by

Harriet Bartlet, University of Cambridge

Samuel Lee-Gammage, Food Climate Research Network, University of Oxford

Edited by

Tara Garnett, Food Climate Research Network, University of Oxford

Funded by

The Daniel and Nina Carasso Foundation

The Esmée Fairbairn Foundation

The Oxford Martin School

Cover

Cover picture by Oleksandr Pidvalnyi via [Pexels](#).

FCRN 
Food Climate Research Network

The FCRN is based at the Environmental Change Institute at the University of Oxford and receives generous funding from a range of supporters.

For more details see:
<http://fcrn.org.uk/about/supporters-funding-policy>

Food Climate Research Network,
Environmental Change Institute,
University of Oxford
Tel: +44 (0)20 7686 2687

Contents

Why should you read this building block?	4
Definitions	4
1. Introduction	4
2. How can an animal's welfare be known?	5
3. What things affect the welfare of an animal?	6
Recommended resources	7
References	8

Why should you read this building block?

The role of animals in food systems, and the degree to which their needs should be accounted for as compared to humans, are ethical issues about which there is both concern and disagreement.

This building block explains what is meant by the concept of animal welfare.

Definitions

Animal welfare (state of being). A state of being – lying along a continuum – which corresponds to the overall balance between positive and negative feelings experienced by an animal, reflecting the control it has in order to meet its mental and physical needs, and so its ability cope in a particular context.

Animal welfare (ethical position). An ethical position that claims: (1) that the use of animals for human purposes is sometimes necessary or unavoidable; (2) that the welfare status of animals is an issue of moral significance; and (3), that humans who care for animals, have a moral duty to promote their welfare.

1. Introduction

In public discussions, an animal's welfare is often described as its quality of life or its sense of well-being.

In scientific terms, an animal's welfare is a potentially measurable 'state' experienced by an animal, which can be placed somewhere along a continuum from very good to very poor. This state corresponds to its ability to cope in a given environmental context, where coping means that an animal has a sufficient degree of control in order to be able to meet both its mental and physical need.¹

A poor welfare state reflects difficulty or the failure of an animal to meet its basic mental and physical needs; the likely outcome of this being that an animal will experience more negative and fewer positive feelings, overall (Figure 1), in any given moment. Animals can suffer as a result of poor welfare by experiencing situations placed upon them, that are unpleasant, and which they would endeavour to get out of if they could; yet lack the control to be able to do so for themselves.²

Conversely, positive welfare is not just the absence of suffering. It also includes the the ability of an animal to experience situations that do more than just meet basic needs, but which provide it with positive feelings, that they would endeavour to obtain, if they had the control to do so.³

Much discussion about the term 'animal welfare' revolves around what, if anything, humans should be doing about it. However, there is an important distinction to be made between an animal's welfare state as informed by science, and any ethical positions which may be formulated, that are based upon this information.

Such discussions tend to revolve around the following claims:⁵

1. Animals have physical and mental needs, that are linked to the experience of positive and negative feelings;
2. Animal feelings makes it possible for them to experience both suffering and contentment;

3. The degree of welfare that animals experience is a morally significant issue;
4. Animals' welfare is affected by the way in which they are cared for by humans;
5. Humans that care for animals have a moral obligation to promote their welfare;
6. Where necessary, human use of animals is morally acceptable, providing animal welfare is kept high.

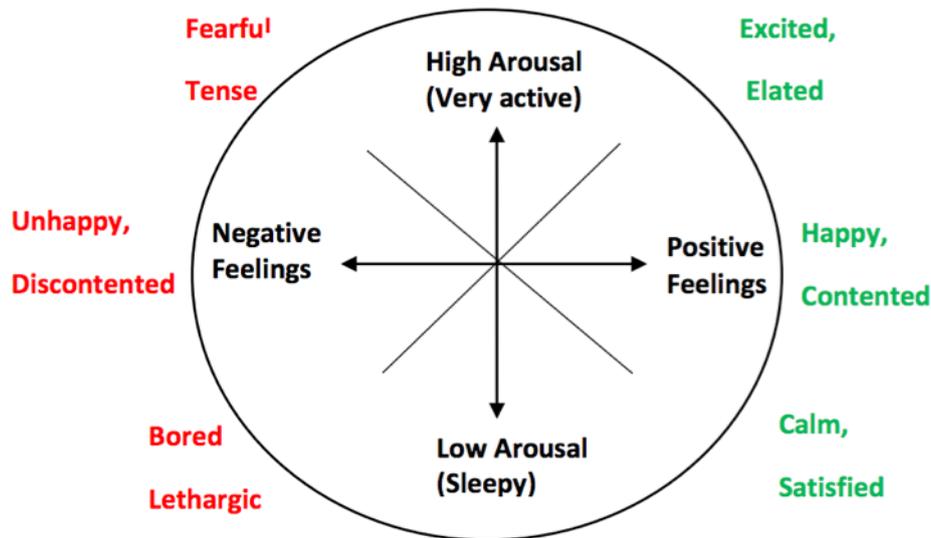


Figure 1: A model of emotion, defined by dimensions of activity level, and negative to positive feeling. Examples of where different emotions fit are shown on the outside of the circle.

Different people hold different beliefs and values in relation to these factual and ethical claims, and so can come to very different conclusions about how animals should be treated. For example, when assessing an animal's state of welfare, some people focus mostly on physical health; others put primacy on an animal's feelings; and others still, see the 'naturalness' of its environment, as the primary criterion of concern.

Another key point of divergence between people in different contexts, is how the needs and preferences of humans are balanced against those of animals. Contrasting with the animal welfare position (point 6 above), an animal rights position advocates that it is not morally acceptable for humans to use animals in any circumstance.⁵

2. How can an animal's welfare be known?

The fact that an animal's welfare status is ultimately about its conscious, subjective experience, presents a major challenge to its measurement.⁶

Even in humans, consciousness and related concepts such as 'well-being' and 'quality of life', are still not well understood. For animals, it is harder still, because it is simply not possible to directly ask questions, such as:

- What things matter for your sense of well-being?
- Which of these is most important, and under what circumstances?

- What does a 'good life' look like to you?

Nevertheless, there is much that still can be understood about what animals needs both mentally and physically, by investigating how animals function and have evolved biologically, and by using experiments to identify animals' preferences and the degree to which they will work to get them.

This process of investigation has been summarised into two core research questions for animal welfare science:²

1. Will a change in X compromise or improve an animal's physical health?
2. Will a change in X provide or withhold something that an animal feels a need for?

Answering these questions is innately multi-disciplinary, requiring an understanding of basic biology, but also animal behaviour, evolutionary history, neuroscience, and psychology. Through this, a science of animal-welfare has progressively built an understanding of what things matter to animals quality of life, and of how these needs can be provided for by humans.¹

Some methods of investigation include:

- The direct measurement and monitoring of animals physical health;
- Measurement of physiology and behaviour to infer feelings and emotions;
- Experiments to identify animal preferences and expectations;
- Experiments to identify animal's cognitive abilities to think and reason;
- Investigation of 'natural' evolution-driven needs and behaviours;

An important overarching principle is that an animal's physical and mental adaptations to cope with their environment are the product of their biology, and so are shaped by the environmental context in which their species evolved. As such, it should not, automatically, be assumed that animals are well-suited to cope in novel environmental contexts, in which they have been placed by humans.

However, this is not to say that an animal's needs cannot be met in contexts other than that in which their species evolved.¹

3. What things affect the welfare of an animal?

Broadly speaking animal welfare arises from a combination of:

- **Physical well-being:** the ability of an animal's body to function in a way that is healthy, and which is adequately adapted to cope in its current environment; and
- **Mental well-being:** the degree to which an animal's mental state arising from its experience and feelings, is positive and free from suffering;

Both of which are supported, to some degree, by:

- **Naturalness:** the ability for an animal to experience a context and lifestyle that is biologically well-adapted to cope with, and so has control to meet its biological needs. This does not necessarily mean natural as in a lifestyle that is the same as that which would be experienced if the animal were 'wild'.

Research on animal welfare has been summarised into a list of basic needs that animals should have if they are to experience good welfare.¹

1. **The need for a suitable environment to ensure freedom from discomfort:** including appropriate access to shelter, temperature, humidity, and comfortable resting area.
2. **The need for a suitable diet to ensure freedom from hunger and thirst:** including easy access to fresh water, and a nutritionally balanced diet to support health and vigour
3. **The need and the freedom to exhibit normal behaviour patterns:** including sufficient space, facilities, and appropriate housing with, or apart from, other animals
4. **The need for protection and for freedom from fear and distress:** including the avoidance of practices during farming, transport and slaughter that cause mental distress and suffering
5. **The need for protection and for freedom from injury and disease:** including access to veterinary care for prompt prevention, diagnosis, and treatment of disease or injury.
6. **The need and freedom to undergo positive experiences:** including feelings of contentment, pleasure, and excitement from activities such as feeding, playing, social interaction, and exploration of their environment.

Detailed assessments of these needs and how they apply to animal husbandry inform the basis of policies on farm animal welfare worldwide.

However, what an adequate or sufficient level of welfare looks like along any of these dimensions, is not a question for science, but rather is an ethical issue to be decided upon by individuals and by society, and will vary across cultures.

Recommended resources

To learn more about this topic we recommend:

- Book: [Understanding animal welfare](#)
- Book: [Sentience and animal welfare](#)
- Review article (open): [Understanding animal welfare](#)
- Review article (paywall): [A history of animal welfare science](#)
- Review article (paywall): [Animal welfare: at the interface between science and society](#)

Note: many paywall articles linked to below can also be found online as PDFs.

References

1. Broom, D. M. (2011). A history of animal welfare science. *Acta biotheoretica*, 59(2), 121-137.
2. Dawkins, M. S. (2008). The science of animal suffering. *Ethology*, 114(10), 937-945.
3. Ohl, F., & Van der Staay, F. J. (2012). Animal welfare: At the interface between science and society. *The Veterinary Journal*, 192(1), 13-19.
4. CIWF. (n.d.). What is animal welfare (policy brief)? *Compassion in World Farming*. Retrieved from <https://www.compassioninfoodbusiness.com/media/5819259/what-is-welfare-full.pdf> [Accessed 13 Dec. 2017]
5. Garner, R. (Ed.). (2016). *Animal rights: The changing debate*. Springer.
6. Dawkins, M. (2015). Chapter Two-Animal Welfare and the Paradox of Animal Consciousness. *Advances in the Study of Behaviour*, 47, 5-38.