Nordenfelt is proposing here a view of happiness classifiable as a comparison (or gap) theory. The problem is, he never applies his thoughts on long-term happiness to animals. The importance here is that although it is now generally accepted that non-human animals can feel happy in the short-term sense, we do not know (yet, at least) whether they experience the long-term type of happiness. And because, based on the human experience, this may be defining an extremely large and important aspect of the whole life experience for animals, the issue of whether it exists and what form(s) it may take in non-human life could not carry more significance for our comprehension of animal welfare.

In all, Nordenfelt has met the goals he set for himself. As a result, he has given us a book that is a joy to read, stimulates thought (I was constantly scribbling notes in the margins while reading), and contributes importantly to the understanding of welfare in humans and animals. Providing a meaningful clarification amidst the flurry of confusion throughout the welfare concepts has thus far been akin to herding cats. Nordenfelt doesn't quite accomplish this feat, but he does better than anyone else I've seen in at least getting the cats to face the same direction

So, getting back to the beaver analogy. Will your dam look the same after the torrent of water subsides? Will it be weakened? Will your dam even hold up? Read the book and find out.

FD McMillan Los Angeles

Pleasurable Kingdom: Animals and the Nature of Feeling Good

Jonathan Balcombe (2006). Published by MacMillan, 175 Fifth Avenue, New York, NY 10010, USA. 260 pp Paperback (ISBN 1-4039-8601-0) \$US16.47.

Fortunately, the experience of pleasure in animals receives increasing scientific attention after the first papers of Cabanac, who argued pleasure to be functional. Recently, he contributed a chapter on the experience of pleasure in animals in McMillan's book Mental Health and Well-Being in Animals (2005).

Now, Jonathan Balcombe provides us with a book that is dedicated solely to pleasure in the Animal Kingdom. He uses a wide scale of scientific evidence combined with what he regards "the power of anecdote" to inform us about animals' private pleasures. This results in an easy-to-read book that provides pleasure to the reader.

In his book, Balcombe surmises: "And because we cannot know for certain how another animal feels, we have neglected, and in some cases censured, the study of emotions and feelings - including pleasure - in animals. Happily, this situation is now changing. The academic study of animal minds and emotions is now blossoming". He utters to hope that his book will prod researchers, ethicists,

legislators, farmers and zookeepers, pet-owners and the rest of us to look for animal pleasure and to study it.

This book is divided into 3 parts, each with its own focus: 1) Why animal pleasure? 2) What animal pleasure? and 3) From animal pleasure. These parts cover topics from the adaptive basis for pleasure and examples of animal pleasure; including play, food, sex and touch, to the implications of a pleasurable kingdom. Balcombe does not narrow his vision to species such as chimpanzees, dolphins and dogs, but also searches for the margins of pleasure in one of the last chapters: 'From Flies to Fish'.

Although it seems Balcombe regularly attempts to discard the evolutionary explanation of certain behaviour, he concludes in the last chapter that "pleasure encourages behaviours that enhance survival". He acknowledges, like several other scientists, that evolution has equipped animals with the capacity to experience their rewards, which contributes to their adaptive capacities and stay alive and reproduce. For several anecdotes and scientific data, he accepts that, besides interpretations in terms of feelings and awareness, simpler and practical explanations, or interpretations in terms of evolutionary benefits can be given. But, he argues that neither approach excludes the other.

In line with this, he states that although we cannot absolutely know, it may be more reasonable to accept the experience of pleasure in animals than to deny it. It seems he wants to encourage scientists, and people in general, not to just leave it at objective observations and descriptions of animal behaviour but give animals the benefit of the doubt when it comes to the question of what they actually feel and why they exhibit certain activities. He suggests that it might very well be that animals also do things "just for the fun of it"; just like us, animals are pleasure-seekers.

By describing phenomena like thrill-seeking, anticipation of future events and the exercise of self-control to optimise rewards, Balcombe indicates that pleasure plays a central role in animal life and is related to behavioural flexibility and awareness. He even challenges the reader by regarding love as an aspect of animal existence. He admits that love is difficult to describe in humans and even harder to interpret in animals. He states that "it is not a pleasure that scientists are willing to entertain". No clear definition of love can be given and phenomena like social bonding, pair-bonding, courtship and companionship can easily be misinterpreted. So, as Balcombe indicates himself, one is left having to speculate from anecdotes.

As a scientist who focuses on the background and importance of positive emotions for animal welfare, it is not hard to see the animal welfare implications of pleasure. A book like this might be an eye-opener to a broader public and should have great implications for the welfare of captive animals. Balcombe states: "if we recognise an animals' capacity for pleasure, than we may conclude that it's wrong to deprive them of it".

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Balcombe points out that most animal welfare legislation aims to reduce pain and suffering, not maximise pleasure. Yet, to the extent that pain and pleasure lie on a continuum, they may grant animals more opportunities to feel good.

We should accept that pleasure is a *necessity* for a happy life in most living creatures. Thus, people should provide captive animals with the opportunity to experience pleasure in order to counteract stress and improve welfare. As Balcombe mentions in his book, a first step in achieving this might be by providing the opportunity to display a more extensive species-specific behavioural repertoire. This is a relatively easy tool to provide pleasure, since the display of certain species-specific behaviours such as exploratory (and

food-seeking), locomotory and social behaviours is argued to be rewarding in itself.

To conclude, this book is well worth having for one's personal bookshelf and probably also to give to others who are, or need to be, interested in what is going on in the minds of animals. It could even be used for educational purposes since it is largely scientifically-based and easy to read and comprehend.

It contributes to the appreciation of the importance of pleasure in the lives of captive animals which should result in improvement of animal welfare.

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