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Distress or suffering: what should be measured to determine animal well-being?

Ian J.H. Duncan, University of Guelph, Canada

Introduction

It is generally accepted that all the vertebrates and some of the invertebrates (those with large neural ganglia such as the cephalopods) are capable of subjective experiences. Amongst those experiences are the subjective, affective states, sometimes called 'feelings' or 'emotions'. The strong negative feelings are often lumped together as 'suffering' and the positive feelings as 'pleasure'. I have argued for many years that animal welfare/well-being is completely dependent on what the animal feels (Duncan, 1993, 1996, 2002). An animal's well-being is decreased by experiencing suffering and increased by experiencing pleasure. It's as simple as that.

Definitions

I have never made much of a distinction between the terms 'distress' and 'suffering'; their dictionary definitions are almost the same:

American College Dictionary

distress: great pain, anxiety or sorrow; acute suffering; affliction

suffering: feeling of pain or distress; the experience of pain, distress, injury, loss, or anything unpleasant

Oxford English Dictionary

distress: the sore pressure or strain of adversity, trouble, sickness, pain or sorrow; anguish or affliction affecting the body, spirit or community.

suffering: the bearing or undergoing of pain, distress or tribulation; a painful condition.

However, in my writings, I hardly ever use the term 'distress'. I much prefer 'suffering' because it is possible to talk about different 'states of suffering' whereas 'states of distress' does not seem to be quite correct usage. Of course, the fact that in this instance, the two terms cannot be used interchangeably, probably means that they are *not* synonymous.

Operationally Defined States of Suffering

In my own research, I have been interested in investigating specific states of suffering such as pain, fear, frustration and conflict, which are believed to be the states mainly responsible for reducing well-being in animal agriculture and which are possible to define operationally. So, because of my experimental approach, of trying to understand specific states of suffering, I have little need to use term 'distress'; I can usually be specific in my experimental work and say that an animal is in pain, or frightened, or frustrated. I would only use the term 'distress' in a general way, when it is obvious that an animal is suffering but the specific state is unknown.

States of Suffering with Analogous¹ Human States

Some species are thought to experience other states of suffering which are also experienced by human beings such as loneliness, sadness, boredom, and social conflict, but these have not been investigated to the same extent as the previously-mentioned states. Boredom has received a little theoretical attention (Wemelsfelder, 1993) but to my knowledge has not been investigated experimentally. There are many anecdotal accounts of apparent loneliness and sadness in animals (often companion animals) but again, to my knowledge, these have not been investigated experimentally.

A word needs to be said about social conflict since the capacity to experience this state probably varies enormously amongst species (and so it may not be valid to claim there is an analogous human state). Nevertheless, I am including it in this category because with a little ingenuity it *should* be possible to define it operationally. I am assuming that it is experienced during all types of agonistic encounter – when animals are crowded together, when they are threatened or have to threaten others, when they attack, when they fight and when they flee.

It may be appropriate to use the term 'distress' in those circumstances in which we suspect loneliness, sadness, boredom or social conflict, but the state has not been properly axiomatized.

Other States of Suffering

It is also recognised that animals may suffer from some states not experienced by human beings. This is more likely to be true of species with very different sensory systems. Thus fish may experience aversive states when water quality declines. It is also possible to imagine that the aversive feelings they experience may differ depending on whether it is oxygen level or pH or ionic content that deteriorates. Since there are no analogous states in human beings, we can have no idea of what these experiences are to the fish. I would suggest that these are exactly the circumstances in which the term 'distress' might be very useful – when it is obvious that an animal is suffering but the specific state is unknown (and probably unknowable).

Summary so far

1. Being a reductionist, I favour being as specific as possible when describing states of suffering. Thus, I favour using 'pain', 'fear', 'frustration' and 'conflict' because these states can be defined operationally.
2. I see no benefit in lumping these known states into the class 'distress'.
3. I think that 'distress' is exactly the right term to use when the animal is obviously suffering but the state is unknown because there is no analogous state in human beings.
4. I am undecided about what term to use to describe states of suffering such as loneliness, sadness, boredom or social conflict which are analogous to human states but which have not been properly elucidated in animals. Perhaps 'distress' could be used here.

What Should be Measured to Assess Well-Being?

At last I get round to the title of this chapter! Having argued that I see little difference between 'suffering' and 'distress', I now have to re-model my title and replace "Distress or suffering" with

¹ In order to err on the conservative side, the term 'analogous' has been used throughout this paper; in certain cases 'homologous' could have been used.

“Distress or in other words suffering”. For brevity, and to keep in line with the rest of this report, I will reduce this to ‘Distress’. In fact, I wish to modify my title even further. I agree fully with David Fraser that animal welfare scientists should pay less attention to ‘measuring’ animal welfare and instead concentrate on identifying, solving and preventing animal welfare problems (Fraser, 1995). Therefore, I would like to replace “measured” with “taken into account”. I would also like to change the question in my title so that it makes more sense. So, my title now reads “Distress: is this all that should be taken into account to determine animal well-being?”

The answer to the question in my new title is a resounding “No”. Certainly distress is a very large and very important component of well-being, **but** there is another component, and that is pleasure. David Fraser and I have argued that pleasure and suffering are not at either end of a one-dimensional scale (Fraser and Duncan, 1998). These feelings (or sets of feelings) are quite distinct and have evolved to solve two very different types of problem. Thus, to some extent, they can be experienced simultaneously (we can enjoy a joke while we have toothache and they can certainly alternate quickly (joy and sadness alternating as we think of a loved, lost friend).

Therefore, what has to be taken into account in order to assess an animal’s well-being is all of its distress balanced against all of its pleasure. In the vast majority of cases, well-being will be maximised if distress is minimised. If we could minimise distress tomorrow, there would be a huge increase in animal well-being. However, it is always wise to think of exceptions to this ‘rule’.

For example, it is possible to envisage a situation in which the way to minimise the pain experienced by dogs after some experimental surgical procedure might be to leave them undisturbed in their home pen. On the other hand, it might be possible to walk the dogs every day but only if they are fitted with some sort of protective device. Fitting the device causes a little short-term pain (the dogs flinch and yelp as the device is being fitted). However, these symptoms are very short-lived and anyone observing the dogs while being walked would conclude that they gain enormous pleasure from this activity. In this case, the probability is that well-being has been increased without distress/suffering having been minimised. I use the term ‘probability’ because this balancing act I am talking about cannot be reduced to hard numbers.

It is obvious from this example that ‘snapshots’ of an animal’s well-being can be very misleading. Members of an Institutional Animal Care and Use Committee (IACUC) inspecting these dogs would be (a) very satisfied if they saw the dogs undisturbed in their home pens, (b) concerned if they saw the distress elicited by the fitting of the protective devices, and (c) delighted if they saw the pleasure the dogs were deriving from their daily walks. The IACUC members require a report on the total quality of life these dogs are experiencing from a caretaker they can trust. This caretaker should (i) be extremely knowledgeable about dogs and the feelings of dogs, (ii) have the best interests of the dogs at heart, and (iii) be able to judge if the pleasure gained by the walks out-weighs the distress caused by fitting the protective devices.

Quality of life decisions of this type are always going to be difficult. Think how difficult it is for a pet owner to decide when to euthanize a pet that is old and failing and the periods of distress are gradually starting to outweigh the periods of pleasure. Luckily, these types of decision are not all that common. In the majority of cases, striving to minimise distress will result in increased well-being. However, we should always keep in mind that it may be possible to counter-act some distress by promoting pleasure.

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