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Review Article

Animal Welfare Considerations: Should Context Matter?

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Abstract

Much consideration of animal welfare issues, as well as the bulk of welfare legislation, is closely related to context, with clear distinction between defined responsibilities towards farm-, laboratory-, companion- and wild animals. It has however been recognised that such distinction leads to inconsistencies, in that it might lead to different welfare management practices for the same rat (for example) as a pet, laboratory animal or pest. We suggest that if legal provisions recognize animals as having moral status, then that implies certain responsibilities towards the animal that cannot be context-dependent.

Although we argue the moral responsibility to consider an animal's welfare is context-independent, we suggest that the requirement to take action (and the form of that action) may alter with context. From a biological perspective, we argue that there exists an obligation to take action to address potential welfare problems only when a challenge exceeds the animal's adaptive capacity, such that it cannot adequately respond by changes of its behaviour. The obligation to intervene further depends on whether or not there are practical (and economically feasible) options available for mitigation. Beyond this, additional constraints may be posed by anthropocentric aims or objectives, where any suffering may be adjudged avoidable (in theory), but necessary (because of specific human interests). Finally, whatever may be determined necessary or unavoidable by the actual manager or agent himself/herself, such judgement is inevitably subjective and possibly subject to self-interest. Thus any decision must be further evaluated within the context of what is considered by a wider society to be (morally) acceptable or unacceptable.

Keywords: animal suffering; animal welfare; duty-of-care; animal management; adaptive behaviour

Introduction

There has been much debate in the more philosophical literature about human responsibilities to animals and about the moral value of animal life. A relevant part of this literature recognizes animals as having moral status: that is, as being an entity (a being) towards which we can have moral duties [1]. However, there is a diversity of arguments that underlie this recognition of some moral standing of animals: Appleby and [2,3,4] amongst others, offer comprehensive reviews.

This broad acknowledgement of animals as having moral status appears, however, not to result in one broadly shared

view on how we should treat them. As an example, current legislative provisions for the management of animal welfare are in general closely tied to context, such that there may be a clear legal distinction between responsibilities defined towards farm animals, lab animals, companion animals, closely managed wildlife, and truly wild animals experiencing little management input (for overview see, for example, [5,6]). As far as we are aware, the Netherlands is the only country in Europe which actually imposes a legal obligation on all citizens "to take responsibility and provide the necessary care for animals that need help" [7]. In other countries primary legal responsibilities are enshrined in context-specific legislation dealing individually with farm animals, laboratory animals etc. (and any legal responsibility is generally limited to

the prohibition of actions likely to cause suffering - or actually calculated to cause suffering- rather than an imposition of a more general responsibility for welfare).

In this paper we do not propose to engage further in philosophical debate about what may be our responsibilities to animals in different relationship with humans. Rather, the question we wish to pose is whether or not, from a biological perspective, the implicit presumption of current legal provision- that we may have different responsibilities towards animals in different circumstances of interaction - is valid or even defensible; thus, after [8], whether our responsibility for the welfare of a mouse or a rat should really be any different if that animal is a pet, an experimental laboratory animal or a pest? We will argue that, within those legal provisions that recognize an animal as having moral status [5,6] and which consider this moral status to result in certain responsibilities towards the animal, the moral duty to have regard to the welfare of any animal cannot be context-dependent, while the question of whether or not we should intervene in an given instance may depend on practical or economic constraints rather than any principal moral difference in obligation towards the individual as such.

At this stage we should make clear that our considerations relate only to responsibilities in relation to animal welfare; our considerations do not in any way address the rather separate issue of animal rights e.g. [9,10,11]. Thus, quite explicitly and quite deliberately, we do not address here questions of whether or not humans have the right to exploit animals for food, to use them as laboratory models, to hunt, or to keep animals as pets. Simply we consider what may be the duty of care and requirements of action to ensure acceptable welfare of wild or more closely managed animals, whatever the (philosophical) debate about rights and wrongs of management in the first place.

Welfare is in fact relatively rarely explicitly defined and it is perhaps appropriate here to consider various interpretations of what should be understood by the term. Broom [12,13] defined welfare "an individual's state as regards its attempts to cope with its environment" while noting that "Feelings, such as pain, fear and the various forms of pleasure, are a key part of welfare". Duncan [14,15] and Fraser and Duncan [16] suggest that welfare is entirely to do with how animals feel. At the same time, those with a medical or veterinary background sometimes present the view that physical health is all, or almost all, of welfare. Dawkins [17] stated that "the feelings of the individual are the central issue in welfare but other aspects such as the health of that individual are also important", while most recently Webster [18] notes that: "There is now broad agreement amongst academics and real people that the welfare of a sentient animal is defined by how well it feels; how well it is able to cope with the physical and emotional challenges to which it is exposed".

The problem of defining welfare in terms of the avoidance of negative experience

Even among those who are currently attempting to develop

frameworks for the assessment and management of welfare, much of the current emphasis, as also in most existing legislation, is focused on an avoidance of suffering. This strong focus on the avoidance of circumstances promoting negative welfare states is hardly surprising; the Committee's report [20] on (farm) animal welfare has cast a long shadow, such that the majority of the early literature, and most of the management guidelines arising, were also based on such presumption. However, this emphasis on the avoidance of negative welfare states has little to do with safeguarding welfare as more broadly defined above.

With a growing emphasis on the importance of positive experiences [16,20-22]. Early approaches towards management of welfare simply in terms of the avoidance of suffering are increasingly regarded as inadequate. Even in 1998, Fraser and Duncan noted that public discussion on animal welfare suggested that "(i) that minimizing suffering (strong, negative affective states such as severe hunger, pain, or fear) is of primary concern; (ii) that allowing animals to experience normal pleasures of life is considered relevant to welfare [although] of lower priority than prevention of suffering; and (iii) that factors producing no affective response in the animal are seen as either not relevant or of reduced relevance to animal welfare".

Accordingly, while most legislative provision does indeed remain directed towards the avoidance of management practice which might result in suffering, there has more recently been a greater emphasis given to the view that good animal welfare requires the presence of positive affective states, as well as the absence of negative ones [23-25]; recognizing this, it would seem that society increasingly expects that management action will seek proactively to enhance positive welfare status rather than simply avoid negative welfare.

More fundamentally, a view of welfare which is dominated by an emphasis on the avoidance of negative states neglects the fact that, except in the specific instances where natural selection processes have been largely countermanded by deliberate selection by humans, animals have evolved, optimizing the ability to interact with and adapt to (changing conditions within) their environment and that thus exposure to environmental challenge; short periods of 'negative welfare' may be inevitable, indeed essential, if these are understood as triggers to release from the animal's repertoire the appropriate behavioral or physiological response to adapt to those challenges.

The idea that animals have generally evolved adaptations to their environment, optimizing the ability to adapt to changes within that environment through the expression of a variety of physiological and/or behavioral responses, was first applied within a welfare context some 3 decades ago (see for example [12,26,27] and has more recently been championed by (for example) [13,14,16,20, 28,29] among others. In such a concept, the animal's welfare is not at risk as long as it is able to meet environmental challenges, i.e. "when the regulatory range of allostatic mechanisms matches the environmental demands" [28].

In recognition of this, a number of authors have advocated a more dynamic view of welfare which recognises that wild and domestic animals have adaptive responses which enable them in normal conditions to respond appropriately to address some environmental or physiological challenge, to restore a more positive welfare state (except perhaps in those cases where artificial selection may have resulted in loss of some responses from domestic stock). In such a view, assessment of welfare should therefore focus not so much on the challenges which any animal may face at a given moment but on whether or not the individual possesses the appropriate (behavioural or physiological) responses to adapt appropriately to both positive and potentially harmful (negative) stimuli and has adequate opportunity to express those responses [29].

On this basis we may then suggest that assessment of welfare should therefore focus not so much on the challenges which any animal may face at a given moment but on whether or not the animal has the freedom and capacity to react appropriately (i.e. adaptively) to both positive and potentially harmful (negative) stimuli. Negative welfare thus relates to an inability of the animal to react appropriately (whether through lack of appropriate behaviors within the behavioral repertoire, or lack of opportunity adequately to express those behaviors).

Such redefinition of the concept of welfare as being related to the animal's adaptive capacity immediately frees such considerations from the straitjacket of context and suggests that assessment of any animal's welfare status should be based simply on observation of that ability to respond adequately to a given challenge, irrespective of context. We believe that a construct cuts across the rather artificial distinctions of current legal/practical provisions between kept and non-kept animals (it obviates the need for such artificial and arbitrary distinctions) and replaces these with a more robust and functional construct applicable in more general terms.

Duty of Care: Responsibilities to have regard for welfare

As noted earlier: rather than engage further in the more philosophical debate about rights and responsibilities to animals in different relationship with humans, the question we wish to pose in this paper is whether or not the presumption, of current legal provisions, that we may have a greater moral responsibility towards more closely-managed animals is actually valid, or whether such presumption is perhaps in large part a false consequence of the 'Compartmentalisation' of welfare legislation itself. We would argue that, once the ethical decision is taken to accept a moral responsibility for animals in general as a legal presupposition, then that initial moral duty of care for all animals is constant and unchanging, and it is only the decision of whether or not to take action in mitigation of suffering, or the type of care offered which may vary across the different contexts of the human-animal relationship.

If we wish to try to justify such a claim for a universal (moral) duty of care, we may argue that at least within a European context, all animals (whatever their status as kept or non-kept) are to some degree influenced by human activity – whether to a greater or lesser extent, and whether deliberate or incidental. Closely managed animals in whatever context (farm animals, laboratory animals, companion animals) have their whole environment controlled by human agency; but even for free-ranging or apparently wild animals, their habitat, movement patterns are affected by human land-use and land-management and many populations are directly controlled by culling. Thus even in terms of those philosophical considerations which base responsibilities for animals on their relationship with humans [4,30], some duty of care might be expected.

In practice however such separate 'justification' is unnecessary if we simply argue that in sharing our planet with other living beings that have some inherent or intrinsic value we have a moral responsibility to consider their welfare. According to Regan [31] animals, like humans, are subjects-of-a-life. Even though they are not moral agents, he claims that they have subjective experiences, can experience the quality of their lives, and enter into and maintain relationships with others. Thus, an inherent value is ascribed to an individual animal on the basis of it being a subject-of-a-life. Taylor[32] argues that all organisms have 'inherent worth' because, as 'teleological centres of life', they have a good of their own, while Rollin [33] ascribes an intrinsic value to animals because "what happens to an entity matters to it even if it does not matter to anyone or anything else. Because it is capable of valuing what happens to it, either in a positive or negative way, such valuing is inherent in it." (For further review, see, as above, [3], especially pages 345-349.)

Responsibility for action?

In effect, although the basis for the belief may differ, many western philosophies now accept that all animals have moral status and that in consequence, and without exception, they merit moral consideration. What may change is the degree of obligation (or requirement) to take action in situations where we may consider welfare status to be compromised.

Swart and Keulartz [4] link this latter responsibility (for intervention) to a practical context, in presuming that responsibility to address some compromise of welfare status is higher in animals more closely managed by man (or free-ranging animals more heavily impacted upon by human activities), because we are more closely responsible for providing all resources for more closely-managed (farm or companion) animals, which thus have less freedom and have fewer opportunities to respond 'naturally'. They also suggest we should acknowledge a greater responsibility for wild-life species where humans are demonstrably responsible through their actions, either for the compromise to welfare status in the first place and/or for the restricted opportunities available to those wildlife animals to perform appropriate adaptive behavior (perhaps because of human impacts in

restricting habitat diversity).

We would argue that such context dependency of the principal moral responsibility towards animals challenges the initial construct of an equal moral status of animals as defined in current legal provisions, which is supposedly universal and independent of the context of the human-animal relationship. We would however suggest that, within that subset of cases where we may feel it appropriate to intervene (that is: where we believe that any individual or group of animals is genuinely beyond the limits of its own adaptive capacity), the obligation to take action may indeed depend to a degree on context, in that it is constrained by the actual practicalities of intervention and the availability of (realistic) mitigation measures to effect a change in welfare status.

Thus, and from a purely practical management point of view rather than from a philosophical one, if there are no practical mitigation options possible, then almost by definition, this must lessen the obligation to take action. However simple this last constraint may appear, it opens an additional debate about the actual relation between moral and practical responsibility, which translates for example into a debate about the understanding of avoidable versus unavoidable animal suffering and further, whether our duty to consider animal welfare should be restricted to the prohibition of 'avoidable' suffering or should include the enhancement of positive welfare status.

5. Differing dichotomies in relation to animal suffering

In this context, animal suffering should be interpreted in a broad sense and, after [34], we here presume that suffering can result from experiencing a wide range of unpleasant emotional states such as fear, boredom, pain, and hunger. While short-term exposure to such negative states/emotions is accepted as a necessary part of any mechanism triggering appropriate adaptive behavior, if the suffering is acute, or if an animal continues to be exposed to such states over a prolonged period, then it is clear that the situation exceeds the individuals' adaptive capacities and thus does constitute a welfare issue.

As a principal framework, we would suggest that suffering of animals that is technically avoidable should be considered (morally) unacceptable. However, there may be constraints on intervention that are posed purely by practicalities of intervention or mitigation.

Thus effective intervention in the lives of free-ranging or wild animals may simply not be feasible; in a farm context, if livestock animals are kept outdoors (which may itself be warranted in terms of promoting positive welfare in other respects, they may be exposed to extreme weather that may cause transient suffering. Sudden changes of weather are neither predictable nor controllable and occasional experience of 'unpleasant emotional states' is unavoidable when animals are kept outdoors. Of course, such consideration

holds the danger of being misused in that one could argue that efficiency and economics might always justify a limitation of practical responsibilities towards animals and, thus, in itself raises the question of what we may more explicitly consider necessary or unnecessary suffering in relation to human-centred objectives.

We suggest that necessary suffering in this context should be understood as that required to achieve some anthropocentric objective (e.g. animal experimentation, food production or pest control) or animal-centred goal (for example in veterinary practice). In such cases, there may be mitigation options which are not implemented for reasons of efficiency or economics. Here, any suffering resulting from non-intervention may be considered avoidable (in theory) but necessary (because of distinct subjective/individual human interests) [35].

Cutting across these dimensions of necessary or unavoidable suffering, we must recognise that even science-based, operational definitions of animal welfare and suffering will necessarily be influenced by societal mores. Thus, in addition to determining whether considering an animal's suffering may be avoidable vs. unavoidable, or as necessary vs. unnecessary, it is appropriate also to evaluate along a third axis, based upon what is considered by a wider society to be (morally) acceptable or unacceptable [35]. Of course, moral frames differ markedly between cultures, thus differ between societies as well as showing a range of 'attitudes' even within one given society. Our assessment of what is acceptable must thus be framed within a proper understanding of what the majority of members of our own contemporary society believe and accept, although this implies an additional responsibility to inform and educate that wider society so that reactions are not simply based on untutored and unreflected intuitions see e.g. [29,36].

6. To intervene or not to intervene?

Following this line of reasoning, the obligation to take action in response to a perception of suffering, or in an attempt in general to promote more positive welfare of an individual or population, is constrained by what may be considered necessary or acceptable suffering, as well as by the actual practicalities of intervention and the availability of (realistic) mitigation measures to effect a change in welfare status. We must recognize that if there are no practical mitigation options possible, then almost by definition, this must lessen the obligation to take action. Thus the obligation to intervene (in any context, wild or closely managed) depends primarily on whether or not there are practical (and economically feasible) options available for intervention (whether or not such intervention is in the interests of avoidance of suffering or positive, proactive enhancement of general welfare status).

It is clear that even in such cases, some interventions are mistaken or misguided and run the risk of resulting in great-

er harm, whether to the animal directly concerned, or, by their consequences, in other parts of the biological system to which it belongs (in each case a casualty of unforeseen and unintended consequences). As a refinement of the responsibility for intervention therefore we may suggest that our obligation to intervene (where it is practical to do so) should further be restricted to those cases where we can be certain that our intervention will not result in greater harm [37,38]. (This perhaps avoids the obvious logical inconsistency of interfering within a natural predator-prey interaction, for example) see for example [39,40]. We may summarize much of this “thought-process”, in debate over whether or not a given situation demands some intervention (and thus our human responsibility for action in a given situation), in the decision-making framework presented in Figure 1.

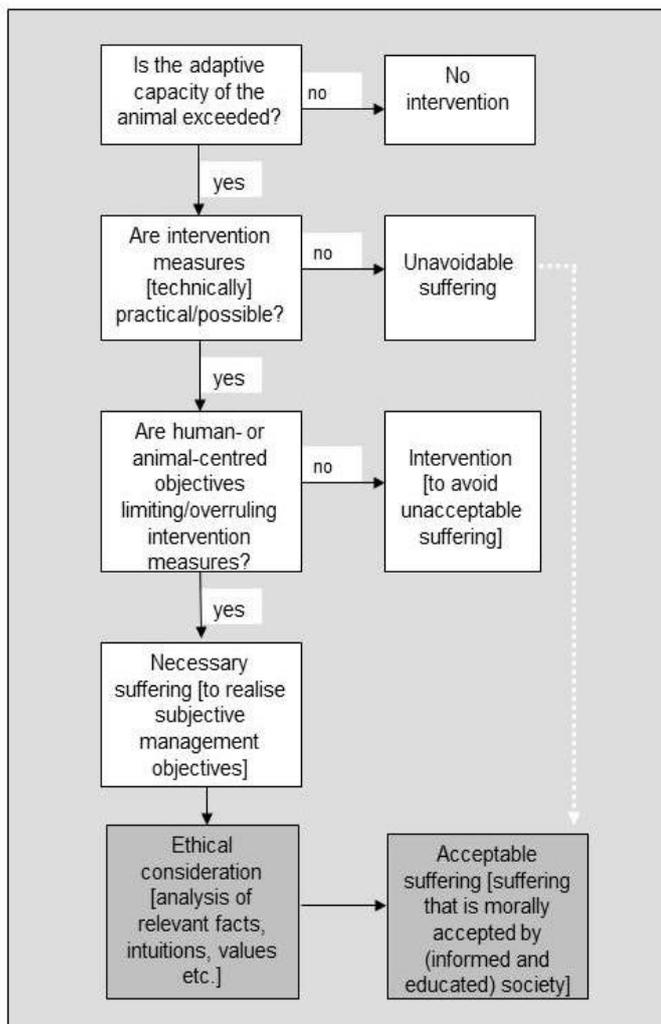


Figure 1: When an animal or a group of animals have sufficient opportunity to respond appropriately to a potential welfare ‘challenge’ through adaptation by changes in its own behaviour, there should clearly be seen to be no requirement to intervene. We have an obligation to take action to address potential welfare problems only in those situations where the animal cannot adapt appropriately by changes of its own behaviour (sufficient to bring about appropriate environmental

adjustments required not only to avoid suffering, but to restore its positive welfare status) - or perhaps in immediate operational terms if we are uncertain whether or not the animal has that capacity. The obligation to intervene (in any context, whether the animals concerned are wild or closely managed) further depends on whether or not there are practical (and economically feasible) options available for intervention. Beyond this, constraints may be posed by anthropocentric aims or human objectives, and here, any suffering resulting from non-intervention may be adjudged avoidable (in theory) but necessary (because of distinct subjective/individual human interests). Finally, whatever may be determined necessary or unavoidable by the actual manager or agent himself/herself, such judgement is inevitably subjective and possibly subject to self-interest. Thus any decision must be further evaluated within the context of what is considered by a wider society to be (morally) acceptable or unacceptable. (Figure modified from [35]).

Finally - as well as discussing whether or not one should intervene at all in any given situation of potential animal suffering we may also discuss what might be the appropriate form of intervention in cases where we do feel it is our responsibility to do so. While we disagree with [41] and [4]’s contention that duty of care is itself dependent on context, [41] argues convincingly that the form of that intervention (if intervention is justified at all) might indeed be more dependent on context - such that for wild animals, welfare is more likely to be affected by ‘non-specific care’, focused on maintaining and developing the natural environment of the wild animal so that it can lead a natural life. As the counterpart of non-specific care, Swart suggests ‘specific care’ for animals kept by humans, including domesticated animals. These animals are entrusted to our care or are placed in human environments, and are therefore much more dependent on us for their welfare and needs. Although the two different types of care exclude each other to a certain extent, they do not rule each other out completely, since there may be good reason to provide specific care when an individual wild animal happens to find itself in acute distress [4,41].

While we would decouple this construct from an initial contention that the responsibility for care is in the first place dependent on context, this suggestion that the form of intervention must be more closely related to circumstances seems entirely appropriate. Swart’s deliberations also ‘fit’ nicely with the concept of what managers of wildlife populations might concern themselves with in relation to proactive measures aimed at for improving the welfare status of wild animals through general environmental enhancement, rather than a simply focus on reducing suffering caused by culling or other population control measures [42].

Conclusion

We would suggest that for considerations on the management of animal welfare.

1. The moral duty of care can be considered absolute and independent of context
2. the requirement to intervene should in the first instance be based on biological assessment of whether or not sufficient opportunities exist for the animal or animals to respond appropriately to a potential compromise of welfare status through appropriate and adaptive changes in its own behavior (sufficient to bring about appropriate environmental adjustments required not only to avoid suffering, but to restore its positive welfare status)
3. Thereafter, any requirement for intervention is also constrained by the physical possibility/impossibility of any effective mitigation (avoidable versus unavoidable suffering)
4. Intervention is further constrained by considerations of human interest in the animals concerned (necessary versus unnecessary suffering)
5. There is in addition a moral dimension in co-determining the scale of required intervention in relation to societal norms of what may be acceptable versus unacceptable suffering.

We believe that a construct cuts across the rather artificial distinctions of current legal provisions for kept and non-kept animals and replaces these with a more robust and functional construct applicable in more general terms. In effect, the whole neatly defines recognition of welfare issues (in all contexts) as lack of opportunity to respond appropriately to environmental challenges, and offers a simple concept of appropriate solutions in terms of providing the opportunities which enable the animal(s) to react appropriately to such challenge. It provides a recognition that we (humans) have an obligation to take action only if an animal is (for whatever reason) unable to respond appropriately and effectively through its own adaptive behavior; a recognition that obligations are further constrained by actual practicalities of what is possible in terms of mitigation.

How might such considerations impact upon attitudes and approaches to welfare practitioners and those who assess and promote welfare? The minimalist approach implied by legislation is generally regarded even by an informed public as inadequate. While much of this legislation is based on the Brambellian tradition of the Five Freedoms, it is apparent that the Five Freedoms were never originally conceived as more than a minimum safeguard to protect the welfare of farm animals, over the years and were never intended to define welfare per se, or to be necessary and sufficient to ensure positive welfare. We believe that in addition to any responsibility to address issues of negative welfare, veterinarians and other animal welfare professionals should seek actively to promote positive welfare in all contexts of engagement.

In addition, [12,13,16,27-29,43,44] we urge that welfare is

not seen as some unitary, rather passive quality of animal condition, but as a more dynamic function of adaptive capacity. In effect this construct recognizes that animals have adaptive responses which enable them in normal conditions to address some environmental or physiological challenge, to respond appropriately to restore a more positive welfare state; in such a view that a welfare issue arises only when an animal or a group of animals have insufficient opportunity to respond appropriately to a potential welfare 'challenge' by changes in its own physiology or behavior.

How do such considerations translate to veterinary practice? While the veterinarian's basic professional responsibility towards animals clearly is independent from the context of animal use, it is obvious that veterinarians are in practice obliged to comply with context-specific legal frames. But this might argue a responsibility within the profession to challenge this compartmentalization of legislation and to stimulate the discussion as to whether actual legal frames are appropriate in promoting a more consistent approach to welfare management.

Such an approach might also embrace a more dynamic view of welfare; [45] has noted that "A more dynamic concept of welfare may lead to a less interfering approach to our patients and a greater appreciation that conservative options are not always just cheaper 'second-best' options, but suggested that "our paternalism is probably here to stay, and so too are the Five Freedoms. Both are probably too entrenched in the veterinary consciousness to be successfully altered, however insightful the underlying logic". The rapid developments within the field of veterinary ethics perhaps challenges the later assertion and perhaps encourage wider debate as to whether current legal frames adequately reflect developments both in our scientific and moral understanding and, thus, whether they provide veterinarians with the instruments needed to comply with their responsibilities as custodians of good welfare.

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