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Applying Positive Psychology to Animal Well Being.

Ghandi once said...

"The greatness of a nation and its' moral progress can be judged by the way its' animals are treated."



This is a commonly held belief in society today. Worldwide there are over 17,000 animal welfare groups campaigning daily (World Animal Directory) and in 2011, 43% of UK households were said to house at least one pet (National Pet Month, UK). With all of this in mind, one begins to question how much more we can do to improve the well being of the animals we care so much about. Recent scientific research suggests a big way to improve the welfare of our domesticated animals is to train them in a positive way, thus the field of Positive Psychology has branched out from it's solely human applications.

The main application so far has been in the promotion of Positive Reinforcement as a method of domestic animal training as well as animals in ZOO or farm animals. Positive reinforcement methods have been applied to almost any type of animal and its well-being.

Using positive reinforcement to train animals is a fairly recent method with punishment being the main method before. Positive reinforcement was first mentioned by Skinner in the 1930s and is now a common method of animal training. Numerous animal trainers, for example Victoria Stilwell, Debbie Berriman or Patricia McConnell, have adopted this technique and train canines all over the world.

A main issue in the area of applying positive psychology to animals is the question of whether animals are able to experience emotion. Research suggests this is the case and should be considered in regards to the treatment of animals.

Positive reinforcement works on the basis of reward, whenever the animal does as the trainer desires and has shown to enhance well-being.

Applied research in the area has found that with dogs, using positive reinforcement results in less problem behaviours and better behaviour. This can also be said for other animals although they can be more difficult to train. It has also been extended to environmental enrichment.

Carrying out positive reinforcement on animals can be done in the home with pets and is a straightforward task.

Within this area an important question should be asked: have positive psychologists gone too far by saying that an animal's mental health is as important as their physical health? It is difficult to assess an animals mental health and there are instances where wild animals have been domesticated through positive reinforcement.

There are criticisms within this area, that assessing animal welfare is never carried out properly and that it is ethically wrong to do so.

Some key references which we have found particularly useful are noted below;

Boissy, A., Manteuffel, G., Jensen, M. B., Moe, R. O., Spruijt, B., Keeling, L. J., Winckler, C., Forkman, B., Dimitrov, I., Langbein, J., Bakken, M., Veissier, I., & Aubert, A. (2007). Assessment of positive emotions in animals to improve their welfare. *Physiology & Behavior*, 92(3), 375-397.

- *This is a good overview of research looking at emotions in animals.*

Hiby, E.F., Rooney, N.J., & Bradshaw, J.W.S., (2004). Dog Training Methods: their use, effectiveness and interaction with behaviour and welfare. *Animal Welfare*, 13. 63-69.

- *This is a good review of the research looking at behaviours in relation to different training methods in dogs.*

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It has been a long time since Skinner and his box. But how did animal training start out?

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There is a body of empirical evidence suggesting that Positive Reinforcement works as a training technique, and it is more beneficial to an animals' well being than other techniques.

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Here are some examples of how positive training works in practice.

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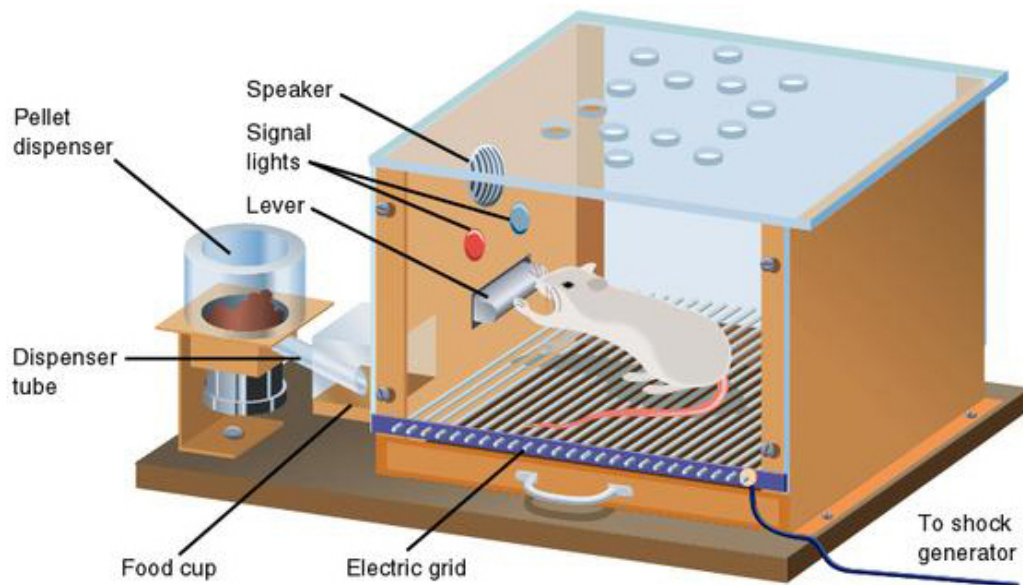
1. History

The History of Positive Reinforcement in Animals

In the last few decades, it has been positive training methods that have been used to train animals. These methods are based first and foremost on two of four principles of learning, developed by behavioural scientist B.F. Skinner (Millar, 2008). Skinner developed these ideas from classical conditioning (introduced originally by Pavlov). Although animals were trained through reward, this conditioning also included punishment.

The idea of using the alternative method of positive reinforcement started with Skinner in the 1930s. Skinner was the one to originally show how positive reinforcement works. He created what he called a 'Skinner Box,' which was a box containing a lever at one side. A hungry rat would be placed in the box and when it moved around inside, it accidentally knocked into the lever. When this happened a food pellet dropped into a container beside the lever, within the box. After a few minutes of being within the box, and this series of events happening each time contact was made with the lever, the rats learnt to go to the lever immediately. The rats learned they would receive food by pressing the lever, meaning the rats would continually repeat the action of pulling the lever whenever placed there. The act of a behaviour producing a reward is known as 'Positive Reinforcement.' This process allows a consequence an individual finds rewarding to be strengthened (McLeod, 2007).

Skinner's Box



Using positive reinforcement as a tool for training animals has recently become a more common method, with even guide and police dogs being trained in this way.

Perhaps the reason for the perseverance of positive and negative reinforcement in the training of animals is the success found through using this technique in dog training (Miller, 2008).

Historically, pet dogs were trained with the use of negative reinforcement or punishment (Hiby et al, 2004). However, when research began to suggest that animals had more of an ability to feel than had ever been anticipated, this began to change.

In 1976 Donald Griffin published a book which was the first of its kind "The Question of Animal Awareness". In this book he aimed to change the view that inferring mental states in animals was superstitious and contradict the rejection of mind, consciousness, thinking, desire, purpose and awareness in the study of animals. This view had been held for nearly three quarters of a century by the behaviourists. He aimed to point out that so much of human behaviour is automatic and unlearned and that we can think about more than one thing at the same time so why can't the same be said for animals. He also pointed out that unless humans are a special creation or have become different from our fellow inhabitants on Earth then there should be some kind of continuum of mental experience. His book gave "the stamp of scientific credibility to the study of the animal mind". Behaviourists began to claim they had never stamped out the idea of mind and consciousness in animals. His work allowed for animal behaviours to be organised (Gould, 2004).

Despite Skinner's box, an understanding of how animals behave through mental systems was not historically well established. It was proposed that once sensory systems were understood everything else an animal did emerged from learning which went against any evolutionary theory (Panksepp, 1990). Behaviourism emphasised that the appliance of rewards, punishments and reinforcement resulted in *everything* animals do. This view was and still is to an extent a view caused by a fight for dominance between Anglo-American Animal Learning Psychology and European Animal-Behaviour and Ethological Traditions. Animals do in fact maintain brain representations of reward value in mind. Many neurologists believe the study of emotional feelings should be reserved for humans. However there is still some debate suggesting that this study might apply to animals also. If this understanding is not accepted, it has been proposed that the future holds "an impoverished understanding of the deep neural nature of affective experience in both animals and humans" (Panksepp, 2000).

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2. Animals and Emotion

Do Animals Experience Emotion?

The real question to begin with is;

'Do animals have feelings?'

If animals do have feelings, surely this has serious implications for types of the training chosen for them and the general manner by which they are cared for, be that in wildlife enclosure's, households or laboratory settings. Because there is a similarity in the neural anatomy of species and because their physiological responses to stimuli that elicit feelings in humans this strongly suggests that animals have a widespread capacity for feelings (Kirkden & Pajor, 2006). There are several different way to assess the emotions of animals. They can be assed by giving by observing the choices animal make when they have some control over their environment, by looking at their motivations and preferences or by looking for signs of frustration, deprivation or distress when animals have no control(Kirkden & Pajor, 2006). However, most of studies look at negative experiences since the positive experiences are a little more difficult to assess. As with human research (Baumeister, 2011), negative experiences in animals have been far better researched than the positive. Ideally, we do not wish to define positive experience simply as 'a lack or removal of negative emotion,' but instead as the presence of positive emotion (Boissy, 2007). However, the majority of the research we will go on to discuss will measure positive training outcomes through an absence of negative behaviours.

Despite the obvious subjective difficulties involved in assessing emotions in animals, more recent research has begun to find objective alternatives. Advances in technology have allowed researchers to find neurocorrelates for positive emotion, mainly through imaging responses to reward. This has so far allowed more of an insight into mechanisms and emotions which underly training methods in mammals, mainly active in the limbic system. The existence of neurocorrelates strengthens models suggesting variations in training method will impact on animal wellbeing (Salamone et al. 2002).

Further physiological markers have been suggested to be explanatory in the realm of animal emotion. Systems common to mammals, and key to positive emotion in humans, such as the autonomic nervous and immune systems have been found to also fluctuate in the face of 'positive experiences' in rats.

Both anecdotally, and now with more research, empirically; we suggest animals DO have emotions.

Sometimes it's just hard to ignore..

... because they can Laugh Out Loud...



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3. Positive Reinforcement

[How does positive reinforcement work?](#)

Animal professionals continue to recognize the importance of animal training in animal well-being and care (Laule and Desmond, 1990; Priest, 1990; Baker, 1991; Reichard et al., 1992; Laule, 1993).

Any time the animal does what the trainer wishes, it receives something it likes as a reward – Positive Reinforcement. This differs from training based on negative reinforcement, where the animal performs the correct behaviour in order to escape or avoid something it does not like, or punishment. Operationally, it may not be feasible to utilize positive reinforcement exclusively. However, the positive alternatives should be exhausted before any kind of negative reinforcement is employed.

Researchers nowadays believe that applying positive reinforcement in a dog's day to day life and in veterinary procedures can enhance well-being and reproduction potential (Desmod & Laule, 1994). Petto and colleagues (1990) believed that only animals with maintained psychological well-being (apparently increased through positive interaction) are successful to reproduce.

In a pilot study recently conducted with four young adult male chimpanzees, preliminary results indicate that training sessions utilizing positive reinforcement techniques have direct enrichment value for animals. Bloomsmith (1992) showed that there are three particular positive changes that can occur during training:

- 1. *Reduced self-directed behaviour.*
- 2. *Reduced inactivity.*
- 3. *Increased social play.*

Alexander and colleagues (2011) showed that positive reinforcement methods, preferred by women, are a successful training method for working search dogs. However, they also noted that as the age of the dog increased more alternative measures were required for successful training.

Besides researchers in this field there are also professionals who dedicate their career to animal, especially dog, training via positive methods. Victoria Stilwell;

"...believes it is vitally important for owners to give their dogs the opportunities and the tools they need to live successfully in a human world. A dog that is given consistent guidance from an early age grows up to be a confident dog. Education brings security, security brings confidence, and a confident dog has no need to show anxiety-based behaviours"

She further believes, that forceful handling such as; *"physical punishment, leash yanking, or making a dog submit by rolling it on its back is psychologically damaging for the dog and has potentially dangerous consequences for owners"*.

By using positive techniques, rewarding good behaviour and ignoring bad behaviour, trainers such as Stilwell believe dogs will learn to behave consistently in the correct manner through positive reinforcement and furthermore that the dog-owner bond will be strengthened as a consequence.

This video outlines Stilwell's work and the Positive Reinforcement Technique;

The general rules of Positive Reinforcement emphasise;

CONSISTENCY

UNDERSTANDING

PATIENCE

COMMUNICATION

REWARD

PATIENCE

KINDNESS

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3. Positive Reinforcement

4. Applied Research

Positive Psychology and Dogs.

As mentioned previously, *Positive Reinforcement* is a technique which is now being used more and more in the training of household dogs. This technique involves rewarding the dogs when they express some desired behaviour.

When we consider a 'happy' dog we anecdotally associate behaviours such as jumping, tail wagging and maybe in some cases barking. Most often these behaviours are seen after/during some sort of social contact be that petting, play, or the receiving of food, which are all associated with Positive Reinforcement.

Various establishments use this form of training, such as the Guide Dogs for the Blind Association and sectors in law enforcement (Alexander, 2011; Hiby, 2004). Alternative types of training commonly used are *Positive Punishment*, where undesirable behaviours are met with a negative consequence such as a telling off, and *Negative Reinforcement*, where no punishment is given in the face of negative behaviours but rewards and affection are instead withheld.

A recent review suggests that positive experience is associated with general wellbeing and various papers suggest the best way to increase the level of positive affect experienced is to use positive training techniques. To directly assess whether this is true, researchers have designed studies comparing the occurrence of problem behaviours related to training techniques. It is hypothesised that negative techniques will result more 'problem behaviours' than positive techniques will.

Hiby and colleagues (2004) looked at a sample of domestic dogs, and issued questionnaires to households covering demographics, training methods, obedience and problematic behaviours. The data collected is summarised here;

<u>Training Method</u>	<u>Percentage Used (%)</u>	<u>Median No. of Problem Behaviours</u>
Punishment Alone	10	5
Positive Reinforcement Alone	20	4
Punishment and Reward	60	5

Results show that most dog owners used a mixture of reward and punishment when training their dogs, with a smaller percentage using Punishment alone and Reward alone. More problem behaviours were associated when Punishment was involved (5 problematic behaviours) and less when no Punishment and only Reward were present (4 problematic behaviours). The behaviours refer to things such as over-excitement, aggression and eating non-food stuffs. It would seem that dogs that don't experience punishment have increased positive affect, displayed through a smaller number of negative behaviours.

A similar study was carried out by Blackwell and colleagues (2008). They classified their data via 4 training methods; Positive Reinforcement,

Negative Reinforcement, Positive Punishment and All of these. The data is displayed below;

<u>Training Method</u>	<u>Percentage Used (%)</u>	<u>Median No. of Problem Behaviours</u>
Positive Reinforcement	16	9
Negative Reinforcement	12	14
Positive Reinforcement and Punishment	32	11
All Types	40	12

Both papers found that using ONLY Positive Reinforcement as a training method significantly produced a lesser number of undesirable behaviours than any other examined technique. The use of punishment produced the highest numbers of undesirable behaviours in both studies and the introduction of negative reinforcement significantly increased the occurrence of these behaviours also. The literature seems to suggest that dogs will behave better if trained through positive reinforcement (Boissy, 2007). It would appear that using negative reinforcement, and more so punishment increases then number of negative behaviours.



Hiby and colleagues propose that these negative behaviours are often caused by or lead to states of anxiety and physiological stress. Additionally, they suggest that dogs displaying a significant number of aversive behaviours strain the relationship they hold with their owner, and ultimately increase the chance they will become abandoned or be given away.

Literature suggests that:

Dogs are impacted by positive and negative influences in their environment.

The type of training which a dog is put through has a direct result on behaviour.

These behaviours, if undesirable have negative consequences for their own wellbeing, and that of their owners.

Applying Positive Psychology to Other Animals.

All animals are impacted by positive and negative influences in their environment, not only dogs. Positive reinforcement techniques have also been used with non-human primates.

Just as with dogs, positive reinforcement is used as a training technique, however in a laboratory setting. According to

Prescott and Buchanan-Smith (2003) training animals to cooperate voluntarily, using positive reinforcement training, is one means of significantly reducing the adverse impact of procedures and husbandry routines on them in the lab. Reindhardt, Liss & Stevens (as cited in Prescott & Buchanan-Smith) also noted this training can reduce fear, anxiety and distress caused by many traditional lab methods.

So, it seems using positive reinforcement techniques can improve the welfare of non-human primates. But does it work? Schapiro, Bloomsmith and Laule (2003) analysed four different studies where positive reinforcement training was used as a technique to alter the behaviour of non-human primates. They concluded that these techniques can be used effectively to achieve both management and research goals. Both desirable and undesirable behaviours can be manipulated using these techniques. However, they add that some behaviours are more difficult to train than others.

To give you an indication on how positive reinforcement techniques work with primates we will give you an example. The example is of the technique desensitization used by Laule, Bloomsmith and Schapiro (2003). This is an effective training tool which can make sure that animals learn to accept aversive stimuli. In this example the animal is trained to accept a needle piercing the skin.

Practical Example:

Desensitization: A process similar to the 'Shaping' process to help

laboratory primates tolerate and eventually, after a gradual process, accept a wide array of frightening or uncomfortable stimuli (Laule et al. 2003).

1. Touch the leg at blood collection site with a finger or blunt object; bridge when the object touches the skin and then reinforce; repeat until the animal shows no fear or discomfort; repeat desensitization process with following objects: capped syringe, a needle with the tip cut off so it is blunted, syringe with the real needle.nt object;
2. Extend the length of time the object touches the skin.
3. Desensitize the primate to the touch and smell of alcohol swab.
4. Desensitize the animal to the presence of a second person, then to the presence of the veterinarian or technician.



Enrichment of the environment with non-human primates.

Another way of improving the wellbeing of primates through positive methods is by enriching their environment. The field of environmental enrichment is a practise aiming to provide environments of greater physical, temporal, and social complexity that affords animal more of the behavioural opportunities found in the wild (Carlstead & Sliepherdson, 1994).

Honessa and Marina (2006) reviewed studies about environmental enrichment in primates. According to them the theory behind the enrichment of the environment of animals is that will stimulate them, occupy their minds and reduces boredom. It will also help to prevent the development of abnormal behaviour such as self-injuries and natural behaviour at an unnatural frequency or intensity. Honessa and Marina concluded that the consequences of primates living in an impoverished or under enriched environment are that it makes them subordinate. They also concluded that environmental enrichment can have dramatically positive effects on both levels of aggression, stress and abnormal behaviour. However, they also note that efforts are not always straight forward with evidence of both a wide variation in the uptake and efficacy of specific enrichment.

Furthermore, Boisse and colleagues (2007) state that most studies on environmental enrichment are actually only adding resources or features to an impoverished setting. According to them the beneficial effects of supplementation are usually represented by a reduction in the indicators of poor welfare (e.g. fewer stereotypies, less aggression) rather than an increase in indicators of good welfare, similar to the core idea of positive psychology in that an absence of negative factors does not necessarily mean and addition of positive ones.

Positive reinforcement has been used with primates in a non-laboratory setting. Heath (1989) showed significant reductions of primates' aggressive behaviour towards keepers after positive reinforcement. They achieved both desired feeding and mating behaviours through positive reinforcement techniques.

Further work has also shown positive reinforcement to be beneficial to horses, pigs and other types of monkey (Sankey et al. 2010; Elmore et al. 2012; Minier et al. 2011).

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5. Try it at home

[At Home with your Dog...](#)

[Our Top Tips-](#)

Capturing: This is where the trainer rewards an animal for a spontaneous good behaviour when it is displayed. So when your dog does something good without your command, REWARD IT! This will encourage your dog to display this before again at a different time point.

Luring: This is when you desire your dog to position itself in a certain way, for example to sit or lie. Use a small food treat to lure the dog into the desired position, and give them that treat when they follow through on the action.

Shaping: This is a more longitudinal training technique. It begins with reinforcement of small signs of the desired behaviour. The behaviour can be anything from waiting, or rolling over to eating from a certain bowl. Through rewarding incremental steps, such as the dog lying down but not yet rolling over, previous approximations are extinguished and the goal behaviour is gradually achieved. Be patient, it will pay off in the long run (Alexander, 2001).

[In the Lab....\(an insight into lab animal welfare\).](#)

Shaping: In the above it is mentioned that shaping can also be applied to enhance animal welfare in laboratory settings. The key to successful shaping is the ability to identify steps that are appropriate to the behaviour that must be learned by the animal and the animal itself. For example: too large steps can create confusion and frustration and too small steps can lead to a loss of motivation and boredom (Laule et al., 2003).

This is an example of a potential shaping plan to train an animal to present a leg for venepuncture (Laule et al., 2003).

1. Use a target to encourage the animal to move to the front of the cage.
2. Reinforce for staying at the target for increasing periods of time.
3. Secure the target at a height that encourages the animal to sit and reinforce when this occurs.
4. Use a second target to focus attention on desired leg; reinforce any movement of the leg towards the target.
5. Open the port in the cage and target the leg out through the opening until the leg is fully extended.
6. Reinforce for keeping the leg in that position for increasing periods of time.

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6. Unusual Claims

[Unusual Claims:](#)

As with any field of psychology, not all claims turn out to be empirically valid.

Most people believe that nonhuman animals should be kept in good physical health and live in conditions with minimised pain and distress. Recently, however, positive psychologists started to argue that animal's mental health should also be of our concern. Have they gone too far with their claims that greater efforts should be made in order to enhance positive well-being of animals?

In order to answer this question, several issues should be addressed:

1. Do animals experience emotions the same way as humans?

In assessing the emotional well-being of animals, a perspective from other species is often applied. Because of the amount of information we have about human well-being and emotions, we often assume that humans and animals experience emotions the same way. However, are these claims supported by scientific evidence?

The truth is that even authors who have published many articles and books about this do not know. For example, in his article *The Concept of Quality of Life in Animals*, McMillan admits that it is not known at present if or how does animal happiness differ from that of a human (2008b). It seems that people intuitively believe that animals experience emotions. It is natural to assume that a dog that barks at his owner and moves its tail after they reunite is happy. But currently there is no solid evidence that animals indeed experience emotions the same way as humans.

This leads to the second question:

2. How do we measure animal's quality of life?

Because we do not know if animals' emotional needs are similar to humans, how do we measure their quality of life? Additional question is: are animals aware of the quality of their life?

McMillan(2008a) argues that indeed they are. He argues that this is because while they are in groups, animals seek dominant behaviour in spite of the fact that they have no immediate reward for this action. McMillan states that "the only recognizable reward is a better life, implying at minimum, a judgement of dissatisfaction with one's own current life" (2008a). According to Dewsbury (2007), McMillan took this argument too far and seeking dominance behaviour can be explained by using evolutionary perspective.

How do we define animals' quality of life?

McMillan attempts to define it in as "the assessment that an animal makes of its life overall, of how its life is faring, experienced on a continuum of good to bad" (2008b). Dewsbury, however, argues, that it is not known whether animals possess the cognitive ability to assess their own life (2007). Dawkins (2008) states that it is beyond boundaries of the present day science.

How do we assess it?

The problem with the assessment of animals' quality of life is the inconsistency in the definitions of basic terms such as "emotions, pleasure, suffering, feelings, boredom, distress, stress, mental illness, quality of life, well-being, mental health and happiness" is necessary. Various authors use their own definitions of these terms (Dewsbury, 2007).

This leads to the third question:

3. How useful is the research about this topic?

There has been a lot of research on emotional well-being in nonhuman animals.

What are some really unusual claims?

Some of the research is presented without enough scientific evidence. For example, Fox states that controlled experiments have shown the beneficial effects of "healing-directed prayer as well as distant or remote mental intentionality on such nonhuman subjects as bacteria, plants, chicks, gerbills, cats and dogs" (Fox, 2008, p.123) Cabanac suggests that nonhuman animals, including lizards but not amphibians, experience such phenomena as emotional fever, emotional tachycardia and pleasure

(2008).

Has there been any useful research?

There are actions that can be done in order to improve animal well-being, for example in ZOOs. There is sound scientific evidence that giving animals control over their environment enhances their well-being. For example, Markowitz and Eckert (2008) devised various tasks that are given to animals that enable them to behave in a natural way, for example hunting for food rather than having it thrown into the cage.

However, as Markowitz and Eckert (2008) point out, because the assessment of the mental health of any animal is dependent on our observation of it, it will never be objective.

We will never know more about animal mental health than animals do.

Despite these questions, positive training in practice has shown results, some more dramatic than others. The links below show a few cases where wild animals have been completely domesticated; suggesting there is something in positive reinforcement based training and animal temperament that works well together.

-

(Christian the Lion)

-

(Tigers and Monks)

(Brutus the Bear)

These videos all suggest that there is scope for a case to be made in regards to positive reinforcement, positive psychology and animals.

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Criticisms

Approaches & Methods

Despite the increasing amount of research and published studies concerning animal welfare, expertise in assessing animal welfare has been seen as deficient (Hewson, 2003). There is still a large dispute over the methods used to assess the well-being of an animal (Boissy et al, 2007; Duncan, 1996; Fraser, 1995) which is mainly due to the differences in opinion to what constitutes positive well-being in animals (Barnett & Hemsworth, 2009). This can lead to different interpretations of the same data and therefore influence scientific recommendations and policy decisions.

There are several approaches to animal welfare, which identify various factors as being central to positive well-being in animals.

One approach suggests that a high degree of biological functioning, an absence of prolonged pain and distress and the presence of positive experiences and opportunities for pleasure present the framework of positive well-being in animals (Fraser, 1993). However it has been suggested that these positive feelings and emotions are internal and so cannot possibly be measured objectively (Wemelsfelder, 2007), if that is to say that they even exist, which philosophers such as Descartes (1995 - first published in 1637) thoroughly denied and other authors have been cautious to take sides on (Dawkins, 1993). This leaves assessment vulnerable to subjectivity and bias by the human observer (Fraser, 1995; Fraser et al, 1997). Due to the limitation of objectivity during assessment, it has been suggested that research should stop trying to measure welfare, but instead focus on the identification and prevention of welfare problems (Fraser, 1995).

Another approach states that the 'Five Freedoms' should be fulfilled. Those being the freedom from hunger and thirst; the freedom from pain, disease and injury; the freedom from discomfort; the freedom from fear and distress; the freedom to perform natural behaviour (Farm Animal Welfare Council, 1993). However certain typical farm procedures would interfere with this approach such as the transportation of animals - which would inhibit the animals' right to sit or lie down (Hewson, 2003). This approach has also been criticised for its focus on negative aspects of welfare (McCulloch, 2012) as it has been proposed that animal welfare is not merely the absence of negative emotions and experiences, but also the presence of positive ones (Boissy et al, 2007).



A third and simplistic approach instead assesses the answers to 2 questions: Are the animals healthy? Do they have what they want? (Dawkins, 2003). A main criticism within this approach highlights that at times the animal does not know what is best for itself and that this type of short-term fulfilment doesn't necessarily mean that it is beneficial for the animal in the long-term (Hewson, 2003). For example, a dog that is given chocolate or comes across a misplaced bar will eat it

immediately, satisfying an impulsive desire however neglecting the long term consequences that may come with ingesting chocolate's poisonous properties.

Abolitionism vs Protectionism

Regardless of these attempts to improve animal welfare - especially with regards to laboratory and farm animals - it has been highly criticised by abolitionists that the mere use of animals is unethical and demand an immediate desist and ban to these practices (Frey, 2005; Munro, 2002). Others believe that certain types of animal use is justified, and push for 'incremental improvements' which look to cause change and slowly increase the welfare of animals as opposed to abolishing the use of animals immediately - referred to as animal protectionism or animal welfare incrementalism (Munro, 2002; Jing, 2007). Abolitionists criticise the protectionists' approach, claiming that it will soothe the consciences of the people by implying that the use of animals isn't unethical in itself (Francoine & Robert, 2010). They also argue that this 'reform' that protectionists seek is founded in naivety and will be unsuccessful. This is because those industries, within which animal use is a necessary part, will not make changes possible if it will harm their profits.

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