POSITION PAPER

Why fitting animals itself is ethically dubious

Daniel Wawrzyniak[1]

Received: August 13, 2019
Revised: September 8, 2019
Accepted: October 25, 2019

© Frieda Krist

Daniel Wawrzyniak

KEYWORDS **animal welfare, animal disenhancement, animal enhancement, genetic modification, genetic engineering, animal husbandry, human-animal relations, selective breeding**

1 Description of the problem

During the last couple of years, two parallel developments have become apparent. On the one hand an increasing public concern for the welfare of animals, especially those used in the food production sector, while on the other hand vast advances have been made in genetic engineering that seemingly enable current animal welfare problems that occur in today's livestock husbandry systems to be dissolved. Those new technologies promise countless new ways of adapting animals to man-made husbandry systems on a level that could not be achieved through selective breeding, e.g. by directly knocking out genes responsible for the development of behavioural urges (Streiffer and Basl, 2011:837). In addition, they promise to avoid causing the suffering usually associated with surgical modifications of already existing animals (e.g. dehorning or tail-docking).

The main ethical question at hand is: should we make use of these new possibilities? Today the promotion of animal welfare is usually accompanied by a credo the German Federal Ministry of Food and Agriculture formulated as follows: "Animal housings and animal husbandry management must be adapted to the animals' needs – not the other way round" (BMEL, 2014). While this may sound like a rejection of fitting animals, in general not all cases seem to be considered as equally morally problematic by welfare scientists and the public (e.g. breeding animals more resistant to diseases). Despite this, I will claim that any kind of fitting animals, no matter how subtle, deserves critical scrutiny and offers no satisfactory solution to current animal welfare problems. This criticism goes beyond the risk of unintentionally harming animals due to our limited understanding of their genetics and the future outcomes of our actions. The fitting of animals fundamentally ignores animals as individuals who deserve appreciation and consideration for their own sakes and reduces the ethical idea about consideration of welfare to a mere bio-medical technicality.

2 Philosophical analysis

The fitting of animals in order to tackle animal welfare problems touches several critical issues. Firstly, it requires a process of test runs of breeding before an animal with the desired biological traits is successfully bred. Therefore, a risk of creating ill-suited animals or even breeding of defects is to be anticipated alongside other suffering during the testing of these "prototype" animals (Ferrari, 2012:71). Secondly, while creating animals that are adapted to man-made husbandry systems may reduce suffering in animals, husbandry systems still include the confinement and premature killing of these animals for economic reasons. While it may be possible, although practically and economically unlikely, to confine and kill animals without causing any suffering, confinement and early death can still limit the range of pleasure an animal can experience during its lifetime (Schmidt, 2015; Bruijnis, 2013). So fitting animals just seems to perpetuate husbandry systems that still involve several other animal welfare problems.

[1] Graduate of the interdisciplinary doctoral program 'Animal Welfare in Intensive Livestock Production Systems', University Göttingen, Germany
CONTACT: dwawrzyniak@freenet.de

For the purpose of this paper I will put these issues aside and focus instead on the question of whether the act of fitting animals itself deserves criticism. In my view we can roughly distinguish between three different types of fitting animals genetically. First: genetically removing the ability of an animal to feel certain kinds of pain, stress or develop urges which are difficult to satisfy in current husbandry systems ('animal disenhancement'). Second: shaping an animal's physical appearance to be better suited for current husbandry systems in order to either reduce the risk of injury for the animal in question, other animals, or humans handling them. This could either be achieved through selective breeding (e.g. breeding cows without horns) or by manipulating genes responsible for the growth and development of other specific body parts. (I will call both methods 'animal shaping'). Third: genetically enabling an animal to be more resistant to certain diseases, more tolerant to stress, or to be able to 'perform' better ('animal enhancement').

Even though some of the examples that will be mentioned may be hypothetical or, not as yet, practically realisable, it is worth considering these scenarios since they help illustrate the complexity of the ethical issues involved in this subject matter. I will focus on the ethical question of what we morally 'should' do – not on what we already 'can' do by contemporary bio-medical means. This is important on one hand because we should not wait until new technologies have been implemented before we start contemplating them critically. On the other hand, ethical self-reflection should include asking ourselves what we would be willing to do, independent of what options are currently open to us.

2.1 Fitting through 'animal disenhancement'

Scenarios of 'animal disenhancement' in particular have been met with shock and rejection by many animal welfare scientists and the public at large (Thompson, 2008; Thompson, 2010). Admittedly, creating pigs with only enough brain mass to allow biological growth yet not support consciousness, to pick one example, definitely solves welfare problems connected to animal suffering. As they lack any consciousness, these animals simply cannot subjectively feel any suffering nor do they possess any subjective welfare that could be taken into account (Streiffer and Basl, 2011; Palmer, 2011). Although it is quite tricky to philosophically criticise 'animal disenhancement' (Thompson, 2008; Palmer, 2011), the wide emotional rejection of such cases among consumers and agricultural producers already seems to disqualify this kind of fitting animals as a promising future perspective for our dealing with animals (Thompson, 2010).

A key element in the rejection of such strategies to tackle animal welfare problems has been the emphasis on 'positive welfare'. An animal should not only be spared suffering but also offered a certain level of joy during its lifetime (Webster, 2011:7) which an apathetically vegetating animal cannot experience. But then again, an animal without any consciousness is incapable of noticing the lack of any positive welfare in its life, so it cannot be bad for the animal itself to live such a life. The emotional unease regarding such cases rather implies that many of us believe deliberately creating animals that no longer experience any kind of welfare (negative or positive) conflicts with our demand to treat animals respectfully. This underlying point will become clearer as we consider the other two ways of fitting animals.

Firstly, however, I should stress that there are also less drastic cases in which not the complete ability to suffer, but only some selective perceptive properties are eliminated or diminished, e.g. the ability to feel certain pain or sight (Sandøe et al., 2014; Thompson, 2008). In such cases we can assume that the range of positive experience of these animals will be limited, so their welfare will be diminished in certain aspects.

Additionally, their limitations can have harmful side effects as the incapability to feel certain pain increases the risk of injury in animals (Schmidt, 2008:350), just as the limitation of their perception negatively affects social behaviour and stress (Sandøe et al., 2014). I will claim that beside these obvious welfare constraints, the very act of disenhancing animals already betrays the sincerity of our concerns about animal welfare, simply by being an act of adapting the animal rather than adapting our consumptive habits or other ways of life.

2.2 Fitting through 'animal shaping'

By contrast, 'animal shaping' (and also 'enhancement') seems to be compatible with the consideration of positive welfare. Breeding cows with no horns is definitely less stressful and painful than surgically dehorning them and further reduces the risk of injury for other cows in the same shed and for the humans handling them. The absence of horns does not seem to limit a cow's opportunities for physical satisfaction. In a similar way, tail-docking in pigs could be substituted by creating tailless pigs thus eliminating the risk of tail-biting without causing any stress or limiting the pigs' ability to enjoy positive welfare. Admittedly, though, the absence of certain body parts can still negatively affect the social needs of animals, e.g. concerning socially important playing behaviour with conspecifics (Sambraus, 1978). This would suggest that the only things that should prevent us from adopting 'animal shaping' are our incomplete understanding of their behavioural needs and the high complexity of genetics.

But from a philosophical point of view, the problem behind this kind of fitting animals lies deeper. Let us assume for the sake of the argument that we had a perfect understanding of the ways animals and their needs work and access to perfect methods to sensitively alter the shape of their bodies. In other words, let us put aside the obvious problems of unpredicted sufferings or diminished positive welfare as side effects of 'animal shaping' through genetic engineering.

Even then, these cases of fitting animals could be criticised as unjustified meddling with the physical appearance of animals: as a violation of 'animal integrity'. This concept faces philosophical problems of its own (Bovenkerk et al., 2002; Schmidt, 2008:176) just as the idea of "naturalness" (a biological condition of animals untouched by humans) does (Thompson, 2010). However, such concepts give voice to a more general ethical claim: we cannot just interfere with the genetics of animals as we please. It is this intuitive rejection of genetic alteration of animals which deserves our attention beside our wish to reduce suffering in animals.

It is worth noting that the logic behind fitting animals follows prominent animal welfare accounts advocated, e.g. by Wiepkema. According to him, animal welfare simply consists of matching what an animal wants or needs on one hand and on the other hand which of these desires or needs it can satisfy within its current life situation – no matter how matches are brought about (Wiepkema, 1987). "Coping approaches", too, suggest that as long as an animal is able to successfully cope with its surroundings (no matter how this is achieved), its current welfare is satisfying (Webster, 2011:7). Webster, however, also emphasises that animal welfare is about more than just the state of an animal itself. It is about acknowledging that we are dealing with an individual that we can reasonably care about, that we can harm and that therefore should be treated respectfully (Webster, 2011:6). By simply focussing on mismatches between an animal's needs and its life situation we are treating the animal as a repository of a state of welfare which becomes the focus of your attention while the individual itself gets ignored and only gains indirect derivative concern.

If we are more willing to alter animals instead of husbandry systems – or our consumption patterns – we are not displaying concern for an individual but rather some fixation on a desired result regarding that individual's state of welfare. At the same time, we put our own interests before that of the animals and even decide that our interests not only define how we can treat animals, but also which kinds of animals should exist, or be created. Thompson thus argues that the strategy of solving animal welfare problems through genetic means is an expression "of arrogance, of coldness and of calculating venality" (Thompson, 2008:314).

Webster's point is that animals should be acknowledged as individuals with a well-being of their own and that they should be respected for their own sakes. If we accept this, 'animal shaping', no matter how innovatively done, cannot offer us a clear conscience while continuing to use these animals. Shaping animals does not aim at improving their life situation as such. Rather, is an attempt to reduce welfare problems that were caused by humans in the first place, while at the same time giving up as few of our consumptive habits and production methods as possible. This, however, is incompatible with the demand to treat animals respectfully for their own sakes. Considering animal welfare is not just a technical question about how to achieve a desired outcome. It is also an ethical question about how we want to define our internal moral compass. This implies that the path we choose to reach our goals must also be considered.

Animal welfare, as Haynes stresses, is a complex concept consisting of measurable states of welfare and an underlying normative conviction that animals deserve our consideration. Without this there would be no motivation for us to trouble our minds about their life situation (Haynes, 2011). That is, unless we believe that welfare problems should be reduced because negative and positive welfare states are valuable in themselves, as utilitarianism implies. But this view is firstly ethically dubious (Raz, 2004) and secondly at odds with the idea of considering an animal for its own sake.

2.3 Fitting through 'animal enhancement'

If this is true for 'animal shaping', it also concerns 'animal enhancement'. If we only focus on animal welfare as an animal's state of physical fitness and mental contentment, there would seem to be nothing wrong with putting all our efforts into creating animals that are more resistant to diseases, more persistent, and more "productive", which again is defined by what humans desire of those animals, such as a high egg-laying rate, growth of muscular tissue, high fertility, etc.

However, as argued above, animal welfare is a concept with an appellative character that also covers our attitudes towards animals and which includes seeing them as individuals that matter for their own sakes. Animal suffering is not an undesirable state in itself. It is problematic, because it affects individuals that we care – or should care – about. This aspect is ignored when we try to reduce welfare problems by creating animals that are less susceptible to common welfare problems instead of treating existing animals with more consideration.

And if genetically enhancing animals is to be scrutinised with a critical eye, the same applies to selective breeding for more resistant or "productive" animals (Fernyhough et al., 2020). The only significant difference between those two methods is the level of precision in modifying animal genetics. Both follow the same logic: if the pursuit of our human interests conflicts with animal welfare, let us create animals that better match our interests. This, however, contradicts the claim that it is the animals themselves we care about. Advances in genetic engineering therefore also shed some critical light on selective breeding as a traditional and widely accepted way of fitting animals.

This point also helps to back up the emotional unease concerning 'animal disenhancement'. Creating animals that cannot experience any kind of welfare at all means acknowledging that the animals we use for our purposes usually do possess a well-being of their own which must be considered – and then choosing to remove that source of obligation instead of being more respectful and caring in our actions towards animals. Such an attitude seems highly questionable. I do not claim that advocates of the fitting of animals necessarily have bad intentions.

My point is, though, that as long as altering animals so that humans do not have to alter their habits persists, there are no just reasons to fit animals since there is no urgent necessity to maintain our current habits. Even if these people honestly only had the animals' best interests at heart, they would fail to address the fact that humans can change their living habits.

3 Conclusion and future perspectives

Using fitted animals will admittedly in some cases reduce or possibly even eliminate a range of animal welfare problems. This effect could potentially be magnified by simultaneously changing husbandry systems and our consumptive habits as well. Changing the genetics of animals to suit human ends still remains a problematic element. What does it say about us if we are more willing to create animals that need less

consideration in order to maintain our habits than to be more considerate in our actions towards animals? This is an ethical issue worthy of our attention in addition to concerns about the harmful effects of our meddling with the genetics of animals. Concern for animal welfare does not only allude to the causation or avoidance of harm in animals, but also to our moral character in dealing with them.

The demand to adapt husbandry systems to the animals' needs and not the other way around should be taken more seriously than it has been so far. Not all cases of fitting animals are met with the same degree of public rejection, but they all touch an important ethical point, which might be less alarming in some instances but still deserves the same critical eye. If we truly understand animal welfare not as an exclusively bio-medical or economic factor, but as an ethical and socio-political issue, no form of fitting animals can provide us with a satisfying solution for animal welfare concerns – it can merely gradually reduce some currently striking welfare problems. Instead we should put more innovative energy into the development of animal-free agricultural systems and steps that allow farmers and other producers to shift to new forms of businesses.

In the meantime, more responsible forms of husbandry and the use of animals able to cope with their man-made environment can be seen as minor steps toward better animal welfare standards, but not as sufficient solutions. Animal welfare is not just about empirically measurable welfare standards. It is also about what kind of people we want to be. Attempting to be more considerate towards animals by trying our hardest to create animals we can consider less is a contradiction in itself.

REFERENCES

BMEL, Federal Ministry of Food and Agriculture (2014) Minding animals: new ways to improve animal welfare [online]. Retrieved from <https://www.bmel.de/EN/Animals/AnimalWelfare/_Texte/Tierwohl-Eckpunkte.html> [at 05 Aug 2019]

Bovenkerk B, Brom F, van den Bergh BJ (2002) Brave new birds: the use of 'animal integrity' in animal ethics. Hastings Cent Rep 32(1):16–22, doi:10.2307/3528292

Bruijnis MRN, Meijboom FLB, Stassen EN (2013) Longevity as an animal welfare issue applied to the case of foot disorders in dairy cattle. J Agric Environ Ethics 26:191–205, doi:10.1007/s10806-012-9376-0

Fernyhough M, Nicol CJ, van de Braak T, Toscano MJ, Tønnessen M (2020) The ethics of laying hen genetics. J Agric Environ Ethics 33(1):15–36, doi:10.1007/s10806-019-09810-2

Ferrari A (2012) Animal disenhancement for animal welfare: the apparent philosophical conundrums and the real exploitation of animals : A response to Thompson and Palmer. Nanoethics 6(1):65–76, doi:10.1007/s11569-012-0139-1

Haynes RP (2011) Competing conceptions of animal welfare and their ethical implications for the treatment of non-human animals. Acta Biotheor 59(2):105–120, doi:10.1007/s10441-011-9124-2

Palmer C (2011) Animal disenhancement and the non-identity problem: a response to Thompson. Nanoethics 5(1):43–48, doi:10.1007/s11569-011-0115-1

Raz J (2004) The role of well-being. Philos Perspect 18(1):269–294, doi:10.1111/j.1520-8583.2004.00029.x

Sandøe P, Hocking PM, Förkman B, Haldane K, Kristensen HH, Palmer C (2014) The blind hens' challenge: does it undermine the view that only welfare matters in our dealings with animals? Environ Values 23(6):727–742, doi:10.3197/096327114X13947900181950

Sambraus HH (1978) Rind. Sozialverhalten. In: Sambraus HH (ed) Nutztierethologie. Berlin: Verlag Paul Parey, 49–72

Schmidt AT (2015) Why animals have an interest in freedom. Hist Soc Res 40(4):92–109, doi:10.12759/hsr.40.2015.4.92-109

Schmidt K (2008) Tierethische Probleme der Gentechnik. Zur moralischen Bewertung der Reduktion wesentlicher tierlicher Eigenschaften. Paderborn: Mentis, 386 p, doi:10.1007/s10806-012-9407-x

Streiffer R, Basl J (2011) Ethical issues in the application of biotechnology to animals in agriculture. In: Beauchamp TL, Frey RG (eds) The Oxford Handbook of Animal Ethics. Oxford: OUP, pp 826–854, doi:10.1093/oxfordhb/9780195371963.003.0031

Thompson PB (2008) The opposite of human enhancement: nanotechnology and the blind chicken problem. Nanoethics 2(3):305–316, doi:10.1007/s11569-008-0052-9

Thompson PB (2010) Why using genetics to address welfare may not be a good idea. Poult Sci J 89(4):814–821, doi:10.3382/ps.2009-00307

Webster J (2011) Husbandry and animal welfare. In: Webster J (ed) Management and welfare of farm animals: The UFAW farm handbook. 5th edition. Chichester: Wiley-Blackwell, 614 p

Wiepkema PR (1987) Behavioural aspects of stress. In: Wiepkema PR, van Adrichem PWM (eds) Biology of stress in farm animals: an integrative approach. Dordrecht: Martinus Nijhoff Publishers, 113–133, CTVM 42, doi:10.1007/978-94-009-3339-2_9