

How Good? Ethical Criteria for a ‘Good Life’ for Farm Animals

James W. Yeates¹

Accepted: 23 January 2017 / Published online: 27 February 2017
© The Author(s) 2017. This article is published with open access at Springerlink.com

Abstract The Farm Animal Welfare Council’s concept of a Good Life gives an idea of an animal’s quality of life that is over and above that of a mere life worth living. The concept needs explanation and clarification, in order to be meaningful, particularly for consumers who purchase farm animal produce. The concept could allow assurance schemes to apply the label to assessments of both the potential of each method of production, conceptualised in ways expected to enhance consumers’ engagement such as ‘naturalness’ and ‘freedom’; and the concept of a life worth living as a safeguard threshold below which no animal’s actual welfare should fall, based on each animal’s overall affective states. This may provide a framework for development of the Good Life concept, within scientific and sociological fields, in order to allow reliable and influential use by assessors, consumers and retailers.

Keywords Animal welfare · Farm assurance schemes · Good Life · Life worth living · Labelling · Naturalness

Introduction

In 2009, the Farm Animal Welfare Council introduced a three-tiered hierarchy of overarching assessments of an animal’s quality-of-life (QOL) during its whole life, involving a Life not worth living, a Life Worth Living (LWL) and a Good Life (FAWC 2009). The former concepts were intended to provide a minimum for all farming, while the Good Life concept is intended to provide an achievable aspiration of some farmers (FAWC 2009).

FAWC were merely suggesting ideas, requiring further work to define and analyse the concepts and their potential applications. To that end, the LWL concept

✉ James W. Yeates
James.yeates@rspca.org.uk

¹ RSPCA, Wilberforce Way, Southwater, Sussex, UK

was analysed and extended by Tim Green, David Mellor (e.g. Green and Mellor 2011) and Yeates (2011, 2012). In comparison the Good Life concept has had limited analysis or definition. At the same time, there has been a major body of work on the normative ethical, consumer engagement, and assessment of food assurance schemes (and in this, we will focus on food of animal origin), such as the EU Welfare Quality project. This work has, to some extent, focused on animal welfare rather than other concepts identified as important to consumers (e.g. naturalness). This paper is intended to begin the analysis of the Good Life concept in ways that will utilise insights from a range of fields of enquiry—recognising that a single paper can only make a start on what must be a larger-scale body of work.

This paper proposes to develop the concept in a way that prioritises motivating appropriate behaviour changes to improve animal welfare by translating scientific assessment of animal welfare into ‘folk categories’. It could be argued that public views should be included because animal welfare is a social concept (Fisher 2009; McInerney 1991; Korthals 2008) or, more simply, that animal welfare labels should be relevant to consumers’ concerns, since it is consumers who need to make the choices to purchase the products and pay for welfare improvements.

After a **short** review of the concepts involved, the paper describes some of the general controversies in involving consumers’ views in food labels/assurance schemes, and particular challenges of using the Good Life concept. It then suggests some features of positive welfare and uses these analyses to propose an approach to defining the Good Life on two necessary criteria: (1) all animals have at least a LWL determined by outcome-based assessments and (2) method-of-production-based criteria determined by consumer preferences.

This paper is intended to describe the idea of classifying rearing practices according to their ‘potential’ to allow animals opportunities to experience positive affective states, as one that is innovative and worth exploring. The conceptual description of the approach in the paper is deliberately succinct and will need further development and empirical work. In particular, the paper is not a comprehensive review of the empirical social scientific work. Indeed this remains an overly neglected aspect of animal welfare and, in the context of this new concept, it would be good to review some of the literature that has already addressed this issue. This paper therefore identifies some key ideas for illustrative purposes, recognising that fuller work should be done by other, sociologist authors.

The Basic Concepts

The idea of a life worth living is, as the name suggests, one that is valuable for the animal—which, on currently hegemonic approaches, would focus on the animal’s feelings (pleasure and pain) and, indirectly, causes thereof (e.g. ill health or poor environments). FAWC (2009), Yeates (2011) and Green and Mellor (2011) have related the concept of a LWL to animals’ affective states and/or quality of life (QOL), which can be considered as an aggregation of an individual’s affective states over a period of time into an overall assessment (McMillan 2000, 2003; Yeates and Main 2009; Yeates 2013). These affective states can be both negative and positive,

including comfort, pleasure, interest and confidence (FAWC 2009), engagements and achievements (Yeates and Main 2008). Perhaps there are also some affective states that would not be included in a concept of quality-of-life, e.g. if they are not valuable (positively or negatively) for the animal. Whatever the exact nature of positive affective states, we can assert (and analytically define) that a positive affective state is worth experiencing, all else being equal; a negative affective state is worth avoiding.

In its assessment, the LWL concept still requires complex and somewhat subjective judgements. Nevertheless, it has several advantages (Yeates 2011). It relates both to what is important to the animal (insofar as it concerns whether the life is worth living for the animal) and to what is important for farmers and consumers. It is important to animals in that it relates to what matters to them in their life (i.e. not the instrumental value of the animals to humans). Specifically, it provides a realist threshold—insofar as it uses a life without experiences as a threshold against which lives are assessed, in comparison to other animal welfare thresholds that are more relativistic (or at least relative), such as “acceptable” or “severe” (Yeates 2011). It is important for consumers insofar as it seems understandable for customers, and may be considered directly morally relevant (insofar as pleasure and pain are deemed to have intrinsic value), particularly to ethical consumer decisions (insofar as consumers would not want to support the creation of animals who would have been better never to have lived). One disadvantage of the concept is that the underlying moral value for consumers seems relatively un-ambitious: i.e. more aspirational consumers might want their food to come from animals whose lives are considerably better than being *merely* worth living. Another disadvantage is that it excludes other ethical concepts that consumers may have, such as naturalness and animal liberty.

The concept of a “good life” has not had the same amount of analysis at all since the original FAWC report. It needs a degree of conceptual analysis and considerations of how it might be applied in practice. As a starting point, it is worth noting that the term has Aristotelian connotations with the concept of *eudaimonia*. This concept is, in some ways, more than the animal’s (or human’s) own experiences (i.e. some highly pleasurable lives may still not be considered good lives in this sense). This thickness of the concept is, to some degree, reflected in popular media such as the UK (i.e. the country in which FAWC operate) situation comedy *The Good Life*, in which two suburban people try to return to a more natural and independent existence. (The film *La Dolce Vita* also contrasts a hedonic lifestyle of excess with a more flourishing existence, although this idea is harder to map onto concepts of animal lives).

Tensions in Food Labelling “Meta-Ethics”

Before considering the concept of a Good Life, it is worth highlighting some potential conflicts within food labelling/assurance schemes. In particular, there are tensions between what we might call realist approaches (in particular focusing on the real states of the animals) and relativistic approaches (in particular relative to the concepts that consumers expressly endorse); between basic universal morality versus more aspirational (or supererogatory) concerns; between idealism (in the

explicit content of the scheme) versus pragmatism (in using whatever labels will achieve the desired behaviour change outcomes) and in the width of the scheme's scope.

There is a degree to which food labels should adopt an ethical realist approach. There are facts about the world that labels should reflect. In particular, there are facts about animals' welfare, insofar as that is taken to relate to the real world (e.g. the actual states of animals as they attempt to cope with their environments; their health etc.). Even approaches to food labelling and to animal welfare that concern what animals feel—in particular their suffering affective states such as pain, fear and distress—are concerned with reality, albeit one to which each individual animal has privileged access. This difficulty of access presents a challenge for us to assess their welfare with perfect confidence.¹ Nevertheless, in many cases, we can make evaluations of their welfare with a greater or lesser degree of precision and (reciprocally) confidence. To provide a meaningful labelling system, these difficulties are ones that must be overcome. We might call this a more animal-based approach to labels. Such realist approaches might be thought to be in tension with more relativistic approaches. Consumers have views about the world that labels should reflect.² In one sense, food ethics is about personal choices. Consumers are agents making personal decisions. It could be argued that labelling systems should have a limited degree of paternalism regarding consumers: at some point, consumers should be permitted, indeed empowered, to make their own, autonomous ethical food procurement choices. We might call this a more consumer-based approach to labelling.

Another potential divide in labelling schemes is between what might be called a basic morality that might be expected (and perhaps imposed) on all and any consumers. This is perhaps reflected in the approach of setting “minimum standards” below which no animals' welfare should be permitted to fall (whatever consumers might or might not want). This is, of course, often a reason for setting basic *legal minima*, as FAWC suggest for the LWL concept. In comparison, there might be some ways in which consumers might be allowed to go beyond that basic morality, into “higher, perhaps supererogatory, food choices based on additional concerns. (In practice, this allowance would require more detailed transparency of the procurement chain). Such higher aspirations might be considered a matter for each individual consumer, so long as they are safeguarded from going below any basic minima.

Another tension relates to operational ethical tension between “idealistically” linking the scheme explicitly to what we are trying to achieve, versus more “pragmatically” linking the scheme to what will actually engage consumers to make real changes in their purchasing behaviour. Labelling schemes might be taken to represent the actual animal's (or other relevant) states—which consumers may then choose to buy into (and buy) or not. In this sense, the scheme is “right” but it

¹ Hence I have avoid refer to this approach as ‘objectivism’ or ‘universalism’, or to the following relativistic approach as ‘subjectivism’—recognising that moral realism and relativism are not perfect antonyms.

² Of course, fact about what consumers prefer are facts about the real world, and whatever consumers are concerned about may need assessment (e.g. how natural a farm is); I am making this distinction along the traditional meta-ethical lines.

might not be that effective in leading to improvements on farm. Alternatively, labelling schemes might be taken to represent a behaviour change strategy (and more specific tactics) that is tailored to whatever (within reason) will lead to the best outcomes. These might be thought of as ‘idealist’ versus ‘pragmatic’, although without the former necessarily having the higher standards.

Another tension is in a scheme’s scope. Labelling might focus on what is important in its entirety, to avoid any systematic “bias” that improves farming on one domain at the expense of another, for example by causing animals to suffer severe illness as a result of attempts not to use unnatural antibiotics. Alternatively, labelling schemes could focus on particular concerns of consumers. This focus might be a definitional limitation of the scheme’s scope (e.g. “free range” could be defined purely in terms of range space) or as a marketing “label” that attracts consumers to a scheme that, in fact, covers a more holistic approach. It should be noted that different consumers may have different views—which, this approach might argue, should be reflected by market differentiation (i.e. a variety of different schemes for different countries or different market segments within one country).

We might broadly cluster the different tensions into two approaches (Table 1). While there are no firm lines on this division, thinking of the approaches in these two ways may be helpful for deciding what labelling systems should achieve and how to set them up. In one sense, many people might be described as “ethical hybrids”, holding some aspects of each “camp” (indeed, there might even be an argument to be made that labelling schemes should reflect this hybridism). Nevertheless, I think there is a tension between these two approaches. I will go further and hypothesise (given reflections on other debates such as GM foods) that these two approaches are at tension between different stakeholders. Some people (e.g. some expert scientists) would be concerned if a labelling scheme were to overly “pander” to consumers’ unreflective wishes—such an approach might risk endorsing marketing schemes that actually involve considerable unnecessary suffering. Other people might think, on either pragmatic or theoretical ethical grounds, that overly focusing on traditional approaches to animal welfare will risk alienating and disempowering consumers. This may underlie reported disagreements between scientific experts and lay views (e.g. see Bracke et al. 2005; Lassen et al. 2006; Dawkins 2008—although see Bock and van Huik 2007 disagreements within groups; and De Greef et al. 2006 on agreement across groups). This paper is an attempt to find an approach to food labelling that can bridge, if not completely reconcile, these possible tensions.

Table 1 Meta-ethical tensions in food assurance labelling

Animal-focus	Consumer-focus
Basic (AW) standards	Supererogatory “additional” standards
Realism	Relativism
Pragmatic	Ideological
Holism	Focus on particular concerns (e.g. naturalness)
Paternalism (to consumers)	Consumer autonomy/empowerment

Approaches to a Good Life: Affective States and Consumers' Concerns

Affective States

FAWC introduced a Good Life as a highest category, 'over and beyond' that of a mere LWL (FAWC 2009; Wathes 2010). FAWC defined this concept as involving an especially high affective ratio of positively to negatively valenced experiences (FAWC 2009; see also Green and Mellor 2011). While the required ratio is not specified, FAWC argue that, for a Good Life, there should be 'full compliance with the law but also with examples of good practice' and 'disease controlled by the strictest measures and with minimal prevalence, normal behaviour, availability of environmental choices and harmless wants, a ban on most, if not all, mutilations, certain husbandry practices (including the manner of death) prescribed or forbidden, opportunities provided for an animal's comfort, pleasure, interest and confidence, ... the highest standards of veterinary care [and] the highest standard of stockmanship' (FAWC 2009, p. 16). These additional criteria seem to be based on the reasonable assumption that they are instrumentally necessary to ensure a sufficiently positive ratio of positive to negative experiences (given appropriate specification of the degrees of each, e.g. what constitutes "minimal prevalence"). Since then, Joanne Edgar and colleagues have used expert opinions to define a mixed list of criteria for a Good Life (see Edgar et al. 2013).

However, this approach presents several challenges, relating largely to the likelihood of disagreements about which animals have Good Lives (e.g. Vanhonacker et al. 2008). There is no approach to assessing a Good Life that is scientifically-based and universally-agreed amongst consumers.

Assessing positive affective states is challenging primarily because of the lack of scientific research. There is a large amount of research into suffering, poor health and their causes, which are key determinants of whether an animal has a LWA. In comparison, we lack information on positive welfare (though see Boissy et al. 2007; Yeates and Main 2009). This may make assessing a GL particularly challenging.

Comparing different, positive and negative, affective states over time is challenging primarily because there is limited agreement about how this should be done. Positive and negative affective states may be comparable in terms of duration and frequency, but there are no agreed units of pleasure and pain and bringing together multiple elements of welfare into overall assessments is complex (Botreau et al. 2007a, b). Validated methods such as the Animal Needs Index or the Welfare Quality protocols have considerable support but may not be universally endorsed (and in any case, these methods need adaption to incorporate the idea of a Good Life).³ Consequently, people may score particular animal's QOL differently (e.g. Vanhonacker et al. 2008).

Setting the threshold for the ratio to be a GL is a challenge if the threshold is intended to be widely agreed. While the LWL/LWA distinction has a non-arbitrary

³ FAWC's or Edgar et al.'s lists of additional criteria may provide useful check-lists, if the relative terms such as strictest and minimal are defined and the content is related to the concept of the Good Life (e.g. a particular affective ratio).

set point of balance, there is no obvious theoretical basis for defining the point between a mere LWL and a Good Life. Schemes risk setting the bar too low and labelling as a GL only modest welfare improvements that consumers feel insignificant (see Mellor and Stafford 2001). Other schemes may set the bar too high, requiring welfare improvements that farmers cannot achieve and consumers will not afford.

A related challenge for assessments at the group level is to work out *which* animals to assess against this threshold: whether animal welfare at the group level should be assessed by reference to the worst, average, or best-off animals within that group (Lassen et al. 2006). Focusing only on the average/best-off risks missing severe suffering in some individuals; focusing only on the worst-off risks missing opportunities to provide better welfare for some.

The idea of a high threshold of a ratio of affective states may also be difficult for consumers to appreciate. It is a relatively complicated concept, which consumers may struggle to understand. Consumers can also be overloaded by excessive information (Verbeke 2005, 2009) and ignore complex issues (Pouta et al. 2010), and may be less willing to pay for higher welfare standards if there are confusing or conflicting concepts (Napolitano et al. 2008). Schemes should instead translate scientific definitions of animal welfare into a ‘popular’ concept (Vanhonacker et al. 2012). Consumers may also be less motivated by positive than by negative messaging (Verbeke and Ward 2001; Verbeke 2009), which might make the idea of promoting a Good Life more difficult, unless a way can be found to link the Good Life to a more negative concern, for example by the GL label being associated with consumer confidence that the animals are avoiding LWAs.

Consumers’ Concerns

Even if they do understand it, consumers may not fully agree with the principle that systems should be assessed based on the affective states. Many consumers appear to evaluate welfare based on the production system (Vanhonacker et al. 2008) and, in particular, freedom (Vanhonacker et al. 2009; Verbeke 2009); naturalness (Evans and Miele 2008; Vanhonacker et al. 2008); the avoidance of certain mutilations (FAWC 2009); and a humane death. For example, evaluating lives purely on affective criteria could allow unnatural interventions that consumers think ethically inappropriate such as genetic modification or particular mutilations (Verhoog 2003; de Vries 2006). This suggests an obvious alternative approach to evaluating the ratio of affective states is to reflect consumers’ other concerns directly. A scheme could label an animal’s life as a GL if they are sufficiently natural or free, based on inputs. Of course, consumers’ concerns for such concepts does not mean that they are not concerned with animals’ suffering as well—they might be concerned with both, in which case a way might be found to address all of their concerns.

In many cases, concern for freedom or naturalness may well coincide with concern for animal’s affective states (Ferguson 2014). Insofar as an animal’s needs are determined by the animal’s species, animals’ affective states may be (in some ways) better in natural environments for which they have evolved (Dawkins 1998;

Yeates 2010). Insofar as those needs are determined by the individual, this suggests that an animal's affective states may be better (in some ways) when given opportunities from which it can make choices. In general, greater freedom or naturalistic environments might be expected to have the *potential* to avoid some forms of anthropogenic suffering and to provide beneficial opportunities (e.g. for various motivated behaviours).

However, they do so alongside certain risks of welfare compromises. These risks, if they come to pass, could mean some animals in these systems end up having Lives Worth Avoiding. The provision of resources with the *potential* for a GL may lead to *actual* neutral or unpleasant affective states for some animals. Greater freedom or naturalness might lead to predation, competition, exposure or inappropriate choices by some animals (Špinka 2006; Fraser 2008). Inter-individual differences may mean some animals find a given input aversive, rather than rewarding, influenced by their previous historical experiences and subsequent learning (e.g. food preferences or preferences for company determined in early life). Other animals may not perform a behaviour necessary to obtain the reward, for example not engaging in interactive enrichment devices or performing appropriate social behaviours in order to enjoy play or develop personal relationships. We might provide a novel enrichment that some animals find interesting but others find fearful, or digging/water sources that allow for enjoyable behaviours but which can increase the risks of infectious disease (if combined with poor hygiene). In practice, these risk efforts to provide inputs that provide greater opportunities for positive affective states actually worsening the welfare of some individuals. Consumers may lose faith in a scheme if animals are marketed as having Good Lives that they actually believe have Lives worth avoiding, or if the risk of animal suffering Lives worth avoiding mean that animal welfare scientists cannot support a scheme that uses other concepts.

A Proposal

These considerations suggest that a scheme using the GL label should aim to:

- Present a single, simple label
- Combine representations of:
 - Consumers' concern to avoid Lives worth avoiding
 - Consumers' concern for naturalness, freedom etc.
 - The system's potential and actual outcomes
 - The worst-off and the average/best-off animals.

This might be achieved by using multiple criteria for a production system to be deemed as providing a Good Life: Firstly, that (there is sufficient confidence that) every single animal within that system has a LWL. Secondly, that the system meets additional objective criteria based on consumers' concerns (e.g. naturalness). The former criterion should be assessed using outcome-based measures, set by animal

welfare experts, although public confidence should be assessed by reference to consumers' concerns. The additional criteria could include freedom, naturalness, the absence of mutilations and/or a humane death, again assessed by reference to consumers' motivations.

Applications

We may now consider possible uses of the concept of a GL. An animal's life would be a Good Life only if (a) it is generally agreed that all animals in the group/system have a LWL and (b) the method of production meets these additional objective criteria. If either (a) or (b) is not met, then that life is deemed a mere LWL, not worth living or worth avoiding, as appropriate.

The concept has a number of characteristics that may be considered to increase its usefulness. Firstly, it allows the incorporation of multiple consumer concerns, into one concept (see Fraser 2008; Korthals 2008; Mellor and Bayvel 2011). Secondly, it avoids the risk that doing so would lead to any animal suffering a LWA. Thirdly, the concept is one that people can understand, at least on a superficial and intuitive level; indeed, as for the LWL concept, its GL concept's novelty may actually help public dialogue and understanding of animal welfare. Fourthly, it promotes a level of welfare that is higher than the bare minimum, offsetting criticism that the LWL concept is insufficiently aspirational.

Animal Welfare Management Decisions

All else being equal, it seems better to cause an animal to have a Good Life than a LWL. Furthermore, even if there is no strict moral duty, many consumers may *want* animals' lives to be better. As such, the Good Life concept's most useful application seems likely to be in aiming beyond the legal LWL minimum. There is potential merit in a concept that focuses primarily on positive welfare and the Good Life concept may encourage this focus (Green and Mellor 2011). Strictly speaking, the LWL concept already requires some focus on positive welfare (since a LWL requires some positive affect to place an animal's quality-of-life above the point of balance), but there is an argument that the Good Life concept makes the requirement for pleasant affective states more focused.

However, the concept is not useful for a strict judgement on whether euthanasia or breeding is acceptable (unlike that of a LWL; Wathes 2010). The GL concept is not useful for deciding whether it is wrong, in isolation, to breed or keep alive an animal, because even animals with a mere LWL have lives that are, by definition, worth living. When an animal's welfare drops below a LWL, farms operating at the LWL level can provide timely euthanasia. But it seems excessive for any animal whose welfare drops below a GL to be killed, insofar as its life remains worth living. Similarly, while it is better to breed an animal that will have a GL, it is not wrong to breed an animal that will have a mere LWL. This could create a conflict for farms operating at the GL level, if there was not scope for considering the welfare of both the average/best-off and the worst-off animals.

Setting Standards

There also seems potential value in applying the concept to standards for assurance schemes. Representing what is valued by consumers may help motivate purchasing choices, while providing a safeguard that the animal's lives are not compromised by those aims. Essentially, the proposal above is of an outcome-assured, method of production-based approach to a Good Life that combines consumers' opinion and outcome-based animal-welfare measures. For example, it might allow naturalistic environments that avoid the suffering involved in natural levels of starvation or disease (which would cause animals to have a LWA). Any harms sufficient to mean some animals have a LWA would be classed outside of a Good Life (indeed as a LWA). This allows the provision of opportunities that all animals *could* take, without necessarily requiring that every animal takes the opportunities provided. At the same time, the objective criteria create safeguards against interventions that improve affective states by greater interventions (e.g. genetic manipulation or intensification).

The confidence that no animal has a LWA and the setting of the objective criteria should both involve sociological research, to allow schemes to be inclusive and directly motivating. It arguably combines both lay (i.e. consumer) and expert viewpoints. It even allows the values included in the Good Life to change over time, as consumers' views change, as farming methods improve or as consumers' preferences change. Such flexibility should be based on rigorous methods to determine sociological opinions and limited to processes to avoid shifting too frequently. If the label was controlled by legislation then this might achieve both, through democratic and legislative processes.

Limitations of the Concept of a GL

Four limitations of the GL concept seem particularly salient. Firstly, the concept inevitably involves some arbitrariness in what criteria are used, how they are assessed, and the thresholds against which they are evaluated. Secondly, this arbitrariness, particularly with the inclusion of public concerns, risks the definition of a GL being dependent solely on the whims of consumers. At best, current methods utilise surveys of public opinion (e.g. the Welfare Quality approach) or expert opinions (e.g. Edgar et al. 2013). But the value-based judgement remains. Nevertheless, how this agreement is defined will be critical, and further work should aim to minimise disagreements.

Thirdly, the GL concept does not necessarily require that animals experience a higher ratio of positive to negative experiences than those that experience a mere LWL (unless this was added as another additional criterion). It might be expected that the combination of the criteria might elevate the average, insofar as those animals who benefit from the advantages of the inputs will do so, while no animal would be disadvantaged so much as to have a LWA, so that this asymmetry may shift the average towards a more positive ratio. Nevertheless, for those who consider that lives' goodness depends entirely and solely on the ratio of affective states, this will appear to be a limitation of the concept.

Finally, another disadvantage of the concept is that, while it may motivate consumers, it may fail to motivate some farmers, particularly if the systems require non-incremental improvements (as modestly increasing the ratio of positive to negative experiences might) but complete shifts of approach (e.g. to more naturalistic systems). However, if the GL label is more motivating to purchasers, then this might provide adequate motivation (and resourcing) for such shifts to be worthwhile.

Conclusion

The concept of a LWL probably does provide a useful addition to the welfare vocabulary. It can be both motivating for consumers, while safeguarding a baseline standard of affective states. The Good Life label, and the underlying concepts, as discussed here, provide an opportunity to safely link concerns for affective states, assessed by outcome-based methods, with consumers' concerns for other aspects. As such, it may both increase the number of animals whose welfare is improved within higher assurance schemes while ensuring fewer animals suffer significant harms.

However, the concept, as it stands, has limitations and there are several areas in which further development and analysis are required. This paper, like Yeates (2011), can only sketch ideas as the start of an ongoing process. By suggesting that the Good Life concept is partly defined by scientific conceptions and partly by consumer values, the paper can only go so far in its definition, leaving specifications to such scientific and sociological research. Further work is needed to determine consumers' views on which animals have a LWL; what consumers value as constituting a Good Life—work begun by Vanhonacker and colleagues (see especially Vanhonacker et al. 2012)—and how to assess it.

Open Access This article is distributed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license, and indicate if changes were made.

References

- Bock, B. B., & van Huik, M. M. (2007). Animal welfare: The attitudes and behaviour of European pig farmers. *British Food Journal*, 109, 931–944.
- Boissy, A., Manteuffel, G., Jensen, M. B., et al. (2007). Assessment of positive emotions in animals to improve their welfare. *Physiology & Behavior*, 92(3), 375–397.
- Botreau, R., Bonde, M., Butterworth, A., Pery, P., Bracke, M. B. M., Capdeville, J., et al. (2007a). Aggregation of measures to produce an overall assessment of animal welfare. Part 1: A review of existing methods. *Animal*, 1, 08.
- Botreau, R., Bracke, M. B. M., Pery, P., Butterworth, A., Capdeville, J., Van Reenen, C. G., et al. (2007b). Aggregation of measures to produce an overall assessment of animal welfare. Part 2: analysis of constraints. *Animal*, 1, 08.
- Bracke, M. B. M., De Greef, K., & Hopster, H. (2005). Qualitative stakeholder analysis for the development of sustainable monitoring systems for farm animal welfare. *Journal of Agricultural and Environmental Ethics*, 18, 27–56.

- Dawkins, M. S. (1998). Evolution and animal welfare. *The Quarterly Review of Biology*, 73(3), 305.
- Dawkins, M. S. (2008). The science of animal suffering. *Ethology*, 114(10), 937–945.
- De Greef, K., Stafleu, F., & De Lauwere, C. (2006). A simple value-distinction approach aids transparency in farm animal welfare debate. *Journal of Agricultural and Environmental Ethics*, 19, 57–66.
- de Vries, R. (2006). Genetic engineering and the integrity of animals. *Journal of Agricultural and Environmental Ethics*, 19(5), 469–493.
- Edgar, Joanne, Mullan, Siobhan, Pritchard, Joy, Mcfarlane, Una, & Main, David. (2013). Towards a 'good life' for farm animals: Development of a resource tier framework to achieve positive welfare for laying hens. *Animals*, 3(3), 584–605.
- Evans, A., & Miele, M. (2008). Consumers' views about farm animal welfare. Part II: European comparative report based on focus group research. *Welfare quality report no. 5*.
- Farm Animal Welfare Council (FAWC). (2009). *Farm animal welfare in Great Britain: Past, present and future*. FAWC: London.
- Ferguson, D. (2014). Key features of 'environmental fit' that promote good animal welfare in different husbandry systems. *Revue Scientifique et Technique*, 33(1), 161–169.
- Fisher, M. W. (2009). Defining animal welfare—does consistency matter? *New Zealand Veterinary Journal*, 57, 71–73.
- Fraser, David. (2008). Understanding animal welfare. *Acta Veterinaria Scandinavica*, 50(Suppl 1), S1.
- Green, T. C., & Mellor, D. J. (2011). Extending ideas about animal welfare assessment to include 'quality of life' and related concepts. *New Zealand Veterinary Journal*, 59(6), 263–271.
- Korthals, M. (2008). Ethical rooms for maneuver and their prospects vis-à-vis the current ethical food policies in Europe. *Journal of Agricultural and Environmental Ethics*, 21(3), 249–273.
- Lassen, J., Sandøe, P., & Forkman, B. (2006). Happy Pigs are dirty!—conflicting perspectives on animal welfare. *Livestock Science*, 103(3), 221–230.
- McInerney, J. (1991). A socioeconomic perspective on animal-welfare. *Outlook on Agriculture*, 20, 51–56.
- Memmillan, F. D. (2000). Quality of life in animals. *Journal of the American Veterinary Medical Association*, 216(12), 1904–1910.
- Memmillan, F. D. (2003). Maximizing quality of life in III animals. *Journal of the American Animal Hospital Association*, 39(3), 227–235.
- Mellor, D., & Bayvel, A. C. D. (2011). The scientific assessment of animal welfare. In *Proceedings of the first OIE global conference on evolving veterinary education for a safer world*. Paris, France, 12–14 October 2009, (pp. 167–174).
- Mellor, D. J., & Stafford, K. J. (2001). Integrating practical, regulatory and ethical strategies for enhancing farm animal welfare. *Australian Veterinary Journal*, 79(11), 762–768.
- Napolitano, F., Pacelli, C., Girolami, A., & Braghieri, A. (2008). Effect of information about animal welfare on consumer willingness to pay for yogurt. *Journal of Dairy Science*, 91, 910–917.
- Pouta, E., Heikkilä, J., Forsman-Hugg, S., Isoniemi, M., & Makela, J. (2010). Consumer choice of broiler meat: the effects of country of origin and production methods. *Food Quality and Preference*, 21, 539–546.
- Špinka, M. (2006). How important is natural behaviour in animal farming systems? *Applied Animal Behaviour Science*, 100(1–2), 117–128.
- Vanhonacker, F., Verbeke, W., Poucke, E., Pieniak, Z., Nijs, G., & Tuytens, F. (2012). The concept of farm animal welfare: Citizen perceptions and stakeholder opinion in Flanders, Belgium. *Journal of Agricultural and Environmental Ethics*, 25(1), 79–101.
- Vanhonacker, F., Verbeke, W., Van Poucke, E., Buijs, S., & Tuytens, F. A. M. (2009). Societal concern related to stocking density, pen size and group size in farm animal production. *Livestock Science*, 123, 16–22.
- Vanhonacker, F., Verbeke, W., Van Poucke, E., & Tuytens, F. A. M. (2008). Do citizens and farmers interpret the concept of farm animal welfare differently? *Livestock Science*, 116, 126–136.
- Verbeke, W. (2005). Agriculture and the food industry in the information age. *European Review of Agricultural Economics*, 32, 347–368.
- Verbeke, W. (2009). Stakeholder, citizen and consumer interests in farm animal welfare. *Animal Welfare*, 18, 325–333.
- Verbeke, W., & Ward, R. W. (2001). A fresh meat almost ideal demand system incorporating negative TV press and advertising impact. *Agricultural Economics*, 25, 349–374.

- Verhoog, H. (2003). Naturalness and the genetic modification of animals. *Trends in Biotechnology*, 21(7), 294–297.
- Wathes, C. (2010). Lives worth living? *Veterinary Record*, 166(15), 468–469.
- Yeates, J. (2010). Breeding for pleasure: The value of pleasure and pain in evolution and animal welfare. *Animal Welfare*, 19(S), 29–38.
- Yeates, J. (2011). Is 'a life worth living' a concept worth having?'. *Animal Welfare*, 20, 397–406.
- Yeates, J. (2012). Quality time: Temporal and other aspects of ethical principles based on a life worth living. *Journal of Agricultural and Environmental Ethics*, 25(4), 607–624.
- Yeates, J. (2013). *Animal welfare in veterinary practice*. Oxford: UFAW/Wiley Blackwell.
- Yeates, J., & Main, D. C. J. (2008). Positive welfare: A review. *The Veterinary Journal*, 175, 293–300.
- Yeates, J., & Main, D. C. J. (2009). Assessment of companion animal QOL in research and practice. *Journal of Small Animal Practice*, 50(6), 274–281.