

The Expanding Moral Circle as a Framework Towards Food Sustainability

NATALIE HERDOIZA*

ERNST WORRELL†

FLORIS VAN DEN BERG§

Utrecht University

Copernicus Institute of Sustainable Development

Vening Meinesz building, Princetonlaan 8a, 3584 CB Utrecht, The Netherlands

* Email: n.s.herdoizacastro@uu.nl

<https://orcid.org/0000-0002-9208-9780>

† Email: e.worrell@uu.nl

<https://orcid.org/0000-0002-0199-9755>

§ Email: f.vandenberg2@uu.nl

ABSTRACT

A shift towards more environmentally friendly and socially responsible food systems is a key step in the achievement of global sustainable development goals. To obtain significant results, however, it is essential to find participative ways to frame food sustainability objectives, so they can speak to a wide array of actors of change. This article addresses the promising potential of empowering actors across the food system to make a shift in their food choices, by facilitating the association of food sustainability values with contemporary moral issues. In this context, a conceptual framework for a transition towards food sustainability is proposed, based upon the concept of the moral circle. This approach transcends the human-centred methods enacted in traditional sustainable development agendas, offering an alternative with a more holistic perspective. It is expected that emphasising moral reflection around sustainability might encourage societal participation in the creation of sustainable, fair and healthier food systems.

KEYWORDS

Sustainable development goals, sustainability, food systems, values, moral circle

Environmental Values 31 (4), August 2022: 421–440

Submitted 23 February 2021; accepted 20 May 2021; fast track 10 September 2021

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INTRODUCTION

Shifting food towards sustainability

There is an extensive recognition amongst scholars warning that more environmentally¹ friendly and socially responsible² food practices need to be adopted to achieve key sustainability goals (Baroni et al. 2007; Marlow et al. 2009; Springmann et al. 2016). In the present, more than ever in human history, people can choose, at least up to some extent and predominately in affluent nations, a variety of food in their diets. Nonetheless, the scale seems to be moving in the wrong direction, as this freedom is also leading people towards unsustainable and unhealthy food patterns (Joyce et al. 2012). As income increases and urbanisation expands, traditional diets consisting mainly of minimally processed plant-based foods are being replaced by more refined, more processed and meat-heavy diets (Drewnowski and Popkin 2009; Tilman and Clark 2014). A similar pattern is observed in the amount of preventable food waste generated, which has been predicted to increase in the next 25 years due to economic and population growth, particularly in Asian countries (Chen et al. 2017).

Despite growing evidence suggesting the need to reorient current diets towards more nutritious and less processed plant-based alternatives for human health and sustainability (Pimentel and Pimentel 2003; Sabaté and Soret 2014; Willet et al. 2019), it is expected that meat production will double worldwide by 2050 unless demand falters (Steinfeld et al. 2006). Moreover, there is a global trend towards the overconsumption of calories;³ at the same time, many people around the world remain hungry (Ranganathan et al. 2016). Furthermore, the increasing consumption of highly processed and overpackaged foods is expected to add to the environmental impact of dietary choices because of the detrimental effects of industrial processing (Notarnicola et al. 2017) and the damaging effects on human health (Popkin 2006).

In this context, it seems reasonable to state that the transformative potential from current and future sustainability agendas, notably the United Nations Sustainable Development Goals (SDGs) for 2030, depends to a large extent on a change in patterns of food production and consumption.⁴ Hence, there is an urgent need for a reorientation towards more integrative approaches, promoting institutional and societal involvement throughout the whole food system.

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1. Measured against environmental indicators (e.g. climate change, pollution, desertification).
 2. Practices considered responsible based on societal standards (e.g. fairly traded, animal welfare, public health).
 3. Which generates a new set of issues in terms of human health such as diabetes, hypertension and higher risk of heart disease (WHO 2003).
 4. No less than nine of the UN (SDGs) have a direct relation with the management of food systems (FAO 2016); while food and agriculture may have some degree of effect on the achievement of at least 12 out of the 17 SDGs (UNEP 2016).

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The main challenge lies in understanding the mechanisms that might ignite such involvement, as well as the possible obstacles.

Food sustainability and participatory citizenship

According to Hajer et al. (2015), modern society is anything but passive; in fact, the authors refer to it as ‘energetic’ and composed of a large group of stakeholders willing to act and positively change. There are, however, citizens who are sceptical of the need for transformation. This lack of engagement is reinforced by the fact that global agendas for sustainability are built from an overly technical and top-down perspective, aimed at governments and inter-governmental organisations. Meanwhile, other likely actors, such as citizens, consumers and civil society are neither actively targeted nor called to take action (Hajer 2011). As a result, an important number of people and institutions remain disconnected from the transformative potential of their food choices, ignoring their responsibility in achieving sustainability goals. This lack of empowerment is reflected in disengaged and/or alienated stakeholders that often do not enact their own principles when dealing with decisions regarding food (Anthony 2012).

The achievement of societal participation in the process towards food sustainability is based on the premise that actors throughout the whole food system recognise their responsibility as key players in the achievement of such goals. Under this paradigm, sustainability goals are seen as a collective endeavour, rather than a matter to be enacted by a few organisations at the political level. Therefore, the active participation and commitment of the largest number of potentially relevant stakeholders might be one of the most important elements in the transition towards more sustainable food systems (Spaargaren et al. 2012; Vinnari and Vinnari 2014).

In line with a more participatory approach to sustainability, Gruen and Loo (2014) argue that as individuals and communities explore their responsibility in the creation of certain harms, they also have the opportunity and incentive to re-think the actions they can take to prevent or diminish these harms. Consequently, they have a chance to alter the causes and effects of complex social, political, and economic relations. The same could be said concerning the development of policies and governance instruments based on a diversity of perspectives, which might facilitate societal engagement, promoting the interests and concerns of the wider society. Thus, the objective should be to apply a more inclusive variety of considerations than those typically comprised in sustainability assessments, focusing on people, their values, motivations, participation and their realities (Werkheiser and Piso 2015).

The role of moral values in food sustainability

One of the main challenges for those striving towards sustainability goals is to understand how these can be presented in a way that comprehensibly speaks to the wider public, so there is an increased chance that people can relate to them with their values. Research shows that motives for dietary choice are varied, and may also vary widely depending, among other factors, on the population, group, age, gender, religion and social status (Lindeman and Väänänen 2000). Nonetheless, the occurrence of sustainable consumption patterns is also influenced by individual value priorities (Thøgersen and Ölander 2002).

In their study, de Boer et al. (2007) explain that most of the basic human values, such as benevolence, universalism, self-direction, stimulation and hedonism, have been related to the direction of food choice. However, endorsing universalistic values appears to be unique in its impact on sustainable food choices. For instance, universalistic values, such as the belief that people should care for social justice, non-human animals or nature, may cause an upsurge in the recognition of responsibilities regarding food choice. As a result, holding these type of views and values may also lead towards the selection of products and production processes that are considered more sustainable (de Boer et al. 2007).

Consequently, it seems that including a moral perspective, amongst other strategies, could guide people in a transition towards more sustainable food choices, by relating sustainability objectives with their values, aspirations and concerns (Early 2002; Manning et al. 2006). In this line, Meijboom and Brom (2012) argue that moral ideals can contribute to discussions on the content of sustainability. The idea is that if a person recognises an ideal, it is likely this person wants to live up to it; therefore, recognising that certain moral principles come with obligations could be morally action-guiding. Moreover, according to Rawles (2010), if we are to attain SDGs, food production cannot be just a question of efficiency. Since the food system plays a crucial role in sustainable development, it urgently needs to be reoriented along explicit ethical lines. Unfortunately, this issue is taken into consideration but scantily in the sustainability debate.

Hereby, a pragmatic conceptual model based upon some of the main moral dimensions related to food sustainability is offered. Using the concept of the expanding moral circle as a point of departure, a framework for societal participation towards sustainable food production and consumption is proposed. This model is meant to outline potential values related to food sustainability within four moral categories (1- individual health and wellbeing; 2 - social justice; 3 - non-human sentient animals; 4 - the environment). This approach expands from the anthropocentric, overly technical, and top-down tactics of traditional frameworks. The main purpose is to put forward a proposal based on a novel outlook for the interpretation of sustainability, exploring the potential of including a wider array of moral principles and values.

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The paper will proceed as follows: first, it presents a review based on a transdisciplinary content analysis of the theoretical and research evidence from the relevant literature about values and food sustainability. Next, it describes a conceptual model for food sustainability transition based on the notion of moral expansion, illustrating its applicability. Finally, a conclusion and discussion section offer a reflection, analysing the benefits and obstacles of including this type of approach as a key element in the conceptualisation and implementation of food sustainability goals.

VALUES AND FOOD SUSTAINABILITY

Values guide people towards specific goals, framing their attitudes and providing standards against which they can judge individual and collective behaviour (Leiserowitz et al. 2006). They also guide the selection and/or assessment of actions; hence, people decide what is good or bad, justified or illegitimate, and worth doing or avoiding based on the possible consequences for their prioritised values (Schwartz 2010). Once activated, values can affect prosocial behaviour, particularly through their influence in the direction of motivation. However, differences in the importance assigned to specific values may also influence which, if any, are activated in the first place (Schwartz 2007). According to Schwartz (1977), the more easily a value comes to someone's mind, the more likely it is to be activated; and because more important values are easier to access, they relate more to behaviour. This gives a general idea of how specific values can shape people's views, and how they might influence conduct when related to concrete goals that are action-guiding.

The value basis of environmental concern and pro-environmental behaviour has been studied widely (see, for example, Stern and Dietz 1994; De Groot and Steg 2007). According to the norm activation theory (Schwartz 1977), an important antecedent to pro-environmental behaviour is the activation of a personal moral norm. Nordlund and Garvill (2002) suggest this activation takes place when someone perceives environmental problems that threaten something that one values (e.g., nature, the well-being of fellow humans, one's own well-being). Also, personal responsibility, experienced as a moral obligation to act to protect whatever is threatened, is derived not only from individual but also from collectively cherished values (Hards 2011). For instance, a value might be perceived as important not only because it is part of a person's self-concept but also because of social norms or self-presentation motives, or as a justification strategy (Verplanken and Holland 2002).

Previous research has also confirmed the presence of common motivational roots based on values and identity as the cause for various pro-environmental behaviours (Bratanova et al. 2011). This approach may also apply to conduct towards food practices, as common human values have been found to be related

to the direction of food choice motives (de Boer and Aiking 2017). Hence, if there are some underlying mechanisms based on values that drive several behaviours and consumption patterns, it may be possible to facilitate a transition towards pro-environmental lifestyles, by building specific instruments that encourage people to move in the desired direction (Kashima et al. 2014).

Hajer (2011) proposes that people base their perceptions and values in relation to what they see and experience on structures of reference, or frames. Moreover, a frame can have a significant influence on people's ideas, thus offering a route for action; it not only determines their opinions of a problem but also, often sub-consciously, of the 'suitable' solution. Thus, a transition towards sustainability goals would be facilitated, if there were conscious efforts to provide knowledge; for instance, by building frames that include moral interpretations. The idea is to provide instruments that are in concordance with people's main motivations, allowing agents to act in recognition of sustainability challenges (Akenji 2014; van den Born et al. 2018).

The sustainability debate confronts us with the fundamental question of how it is possible to assign responsibilities to actions for which we are not able to oversee the consequences, and to answer such a question there is a need for moral reflection (Meijboom and Brom 2012). In the following sections, the concept of the moral circle is introduced and proposed as a tool for moral reflection in the context of food sustainability transition. Moreover, the potential role of moral expansion as a frame for societal engagement is explained in this context.

Expanding the moral circle

The expansion of the moral circle has been discussed in ethics, as an approach to understand how people develop their scope of moral concern, and which entities are included and excluded from it (Singer 1981). The moral circle indicates the scope of a person's moral view. Someone with a limited moral circle restricts his or her concern to those entities that are considered closer to him or her, such as direct family, friends and pets. A person with a wider circle, on the other hand, extends moral consideration beyond these boundaries to more distant entities, such as other sentient animals and nature. Nonetheless, moral expansiveness does not mean that people move uniformly along this continuum, and some individuals may give particularly high attention to some entities considered more distant, such as granting greater moral consideration to the environment than to human out-group members (Crimston et al. 2016). This allows for a wide range of possibilities in the extent of the moral circle of individuals, communities and societies.

The expansion of the moral circle in time implies that throughout human history a larger number of entities in the world have been proved worthy of moral consideration, and as a result, have been included in the moral circle

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(Singer 1981). Over the past decades, the field of applied ethics has discussed the morality of practices, such as technology, agriculture and consumption, questioning their effects over the interest of entities beyond human beings. As a result, the scope of moral consideration has come to be wider, with authors pointing out issues concerning entities such as non-human animals⁵, the biotic community and the environment.⁶

The range of expansion in the moral circle might be a critical issue in the advancement towards more sustainable and fair societies, as moral decisions and the ethical treatment of others depend on the extent of people's moral boundaries (Pizarro et al. 2006). Social conditions, such as education, cultural limitations and indoctrination, play an important role in the scope of moral consideration of individuals and societies. As a result, entities outside the moral boundary are subjected to appalling treatment, with slight or no attention to their welfare. Therefore, if the objective is to protect their interests, the goal should be to broaden the circle to include a wider set of entities (van den Berg 2013).

Previous research suggests that individual differences in the set of beings included in people's moral circles are a dominant predictor of sustainable decision-making, which includes food choices (Laham 2009; Bratanova et al. 2011). The proposition is that the more entities people feel morally concerned about – for instance, other human beings, sentient animals, or nature – the more motivated they would be to engage in activities aimed at protecting those entities. In their study, Bratanova et al. (2011) found that persistently holding an expansive moral circle, which includes a greater number of natural entities, is positively associated with sustainable food consumption patterns, such as avoiding eating meat for environmental reasons and buying organic food. The authors conclude that an extensive moral circle is a previously unidentified significant basis of pro-environmental activities, and thus, it may be utilised to efficiently promote these activities individually and in the wider society.

Based on the above arguments, four main dimensions related to food sustainability have been defined. These dimensions allow the exploration of a holistic set of possible moral concerns around food, which are outlined in the moral circle (Figure 1). Starting with traditional anthropocentric sustainability perspectives focused on individualistic human flourishing and growth, the

5. Peter Singer (1990), made the argument of moral expansion beyond anthropocentrism towards sentientism. Under this paradigm, sentience rather than species membership should guide the decision as to whether individuals are to be included in the moral circle. If non-human animals are sentient, their welfare must be included along with the welfare of other sentient beings, humans and nonhumans alike.
6. Arguments in favour of moral expansion towards the biotic community and other environmental entities can be found in the work of Aldo Leopold (1949), who made a case for granting moral standing to the land community at large, including soils, waters, plants and animals. Leopold's work was later extended by J. Baird Callicott (1984), who advocated an enlarged vision of community transcending individualism and embracing a non-anthropocentric value theory for environmental ethics.

circle expands towards other less explored dimensions, which include entities that are generally absent or neglected from sustainability agendas. To justify the inclusion of these dimensions, the following section describes some examples of values related to each of the categories. These values have been repeatedly found in previous research to be significant predictors in the development of pro-environmental and ethical lifestyle choices, including food.

Health and wellbeing

Individual, or self-directed, value orientations have been related to food choice since ancient times. Human beings, by nature, have an interest in individual physical and psychological well-being and/or personal growth, generally extending this concern to close family members and friends. This approach is in line with an anthropocentric world view, where the environment and natural resources are to be protected and preserved because they are required for maintaining human well-being. In the present, common values amongst different populations can be increasingly related to individual development, including health, longevity, education and economic opportunity (Leiserowitz et al. 2006). Among these, health and wellbeing – including bodily, mental, social and spiritual – have been described as concerns for protecting the environment and might be important aspects in the involvement in sustainable practices, including food choice (Chen 2009; Graça et al. 2015).

It has been observed that awareness about the negative effects of the so-called modern ‘western diets’ – characterised by an over-consumption of red

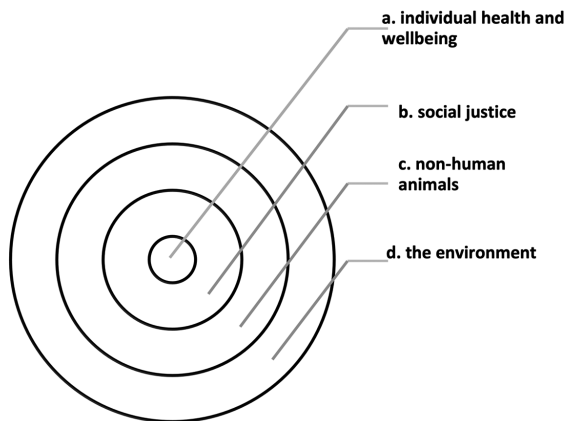


Figure 1. The moral dimensions of food sustainability in the context of the expanding moral circle: a) individual health and wellbeing (might include family and close friends); b) social justice (might include future generations); c) non-human sentient animals (might include farmed animals and wild animals affected by food production); d) the environment (might include living and/or non-living elements from the environment).

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meat, sugar, fat and highly processed food – may also function as a motivational force in the process of dietary change (Vainio et al. 2016). There is an increasing concern about the rise of non-infectious chronic diseases – including diabetes, hypertension, heart diseases and certain types of cancer – which can be directly related to the consumption of over-processed and animal-based diets (Tuso 2013; Joyce et al. 2012). Also, people are much more conscious of the effects of pesticides and herbicides on human health (Kim et al. 2017; Mostafalou and Abdollahi 2017). Another concern, appearing globally – and particularly important in westernised cultures – is weight control and body shape (Vainio et al. 2016). Individuals who give particular importance to these aspects are generally concerned about their wellness and safety and are motivated to make changes that might improve and/or maintain their health and quality of life (Michaelidou and Hassan 2008).

Social justice

Social altruistic behaviour stems from the premise that there is a level of concern about the welfare of other human beings (Stern et al. 1993). This might concern humans living in the present but could also expand towards future generations. At this level, the approach is still anthropocentric; however, the moral circle expands to include people who are not directly related to the moral agent. Accordingly, a focus on social development and justice has emerged in the last decades, emphasising the security and well-being of nation-states, regions and institutions, as well as social capital and community ties (Leiserowitz et al. 2006). In terms of food choice, when people expand their moral circle to include issues of social justice, they recognise that they ought to help other people to achieve the aspirations they have for themselves; for instance, the right of access to safe, affordable and nutritious food (Gussow 1999).

Environmental identity and striving for sustainability may also be related to concerns about the social world (Kashima et al. 2014). There is evidence to suggest that collective views, in terms of the extent to which individuals think of themselves as interdependent members of a larger community rather than isolated individuals (individualism), are associated with an environmental identity (Clayton, 2003). There are several key social justice concerns that are also considered to be essential issues in terms of sustainability; examples are: inter- and intra-generational equity, international responsibility, geographical equity and people treated openly and fairly (Hopwood et al. 2005).

Non-human animals

When the circle of morality expands beyond the human species to include sentient non-human animals, there is an acknowledgement that the interests of these beings ought to be of concern. At large, this process happens when they are recognised to be sentient, having lives that matter to them (Loughnan et al. 2014). Bratanova et al. (2011) note that people increasingly care about the

interests of non-human animals, even though moral concern is still limited for the capacity of animals, considered as food, to suffer. Although animal welfare has not been generally regarded as an aspect of sustainability, there is growing discussion about the acceptability of industrialised animal-raising practices (Broom et al. 2013). Consequently, when practices from the animal agriculture system are seen by the public as unacceptable, these practices cannot be considered viable and in line with sustainability aspirations; hence, it can be understood that they also become unsustainable (Broom 2010).

The inclusion of sentient non-human animals in the circle of moral concern is also often related to decisions regarding the composition of people's diet (i.e. the type of food consumed). Vegetarianism and veganism provide examples of such process of internalisation, where care for the interests of non-human animals results in a long-term commitment to meat-free or animal products-free diets (Rozin et al. 1997). Since reducing or avoiding the consumption of meat and other animal-derived products is also considered to be a sustainable option, these are examples of a moral win-win situation, as views and values related to animals and their welfare can also promote the development of sustainable food choices.

The environment

The expansion of moral consideration towards the natural environment, regardless of its utility, is known as an ecocentric view. At this level, people attribute moral values to nature, in which all living beings, including humans, have needs for survival and well-being (Imran et al. 2014). Holding this type of environmental identity has been described as a motivator of multiple domains of pro-environmental practices, including food choice (Kashima et al. 2014). In contrast to anthropocentric concerns, which are related to the need to sustain the environment for human flourishing and well-being, ecocentric concerns are directed to the belief that nature has an intrinsic value, and this in itself is a reason to protect it (Buijs 2009).

Proponents within this paradigm claim that we have an ethical responsibility to sustain the integrity and health of ecosystems (Purser et al. 1995). In practice, it means living a life respecting and avoiding harm to nature and all the life forms that make part of it, which includes ethical borders of naturalness and integrity that should be respected (Gjerris et al. 2011). According to Gilg et al. (2005), this provides further evidence that those more heavily engaged in sustainable consumption are more likely to hold ecocentric values.

A CONCEPTUAL FRAMEWORK FOR FOOD SUSTAINABILITY TRANSITION

Hereafter, we outline a conceptual framework, which includes the proposed four moral dimensions of food sustainability presented previously. The model (Table 1) explains a process of association between potential values within each of the four categories, and their relationship with specific food sustainability goals. The chosen categories in the proposed moral circle are based on the previously presented literature discussing moral values and food choice.

The first step of the process is an analysis of the scope of moral concern. This concept is facilitated by referring to the dimensions drawn in the moral circle as a point of reference. Once the dimensions are recognised, the idea is to outline a set of views, values, and aspirations considered important – if any – concerning each of the moral categories. This also allows navigation through each of the dimensions of the circle either separately or continuously. After the values are outlined, the final step is to relate them to specific food sustainability goals that might be associated with each dimension.

Based on the evidence outlined in the previous section, once this connection is made, it is probable that actors will more likely acknowledge specific practices and behaviours related to food that might cause harm to the entities included in their moral circle. In the same line, it will become easier to recognise the importance of embracing sustainability goals that offer an opportunity to avoid such harm. The ultimate objective here is to illustrate the relationship between values, goals and actions; and, through this process, to facilitate engagement in reflection and discussion about responsibility in the transition towards food sustainability.

By including the principle of the expanding moral circle and applying it in the way suggested by this model, it is possible to put forward as many values as are considered relevant within each of the suggested moral categories. As discussed previously, these values will be highly variable and complex depending on the social characteristics of the actors involved in the analysis. Therefore, the idea would be to encourage participants to outline as many values as possible, while investigating each of the dimensions of the circle. This showcases the advantage of focusing on a perspective that embraces value-expansion rather than limiting the scope within the predominant anthropocentric paradigm.

The following section explains the practical applicability of the framework. Hence, it illustrates the potential positive impact of including one of the proposed levels in the moral circle in the conceptualisation and interpretation of food sustainability goals. The example of values related to non-human animals is used in the analysis.

Table 1. Values corresponding to each of the moral dimensions of food sustainability in the framework and how they can be related to different food sustainability goals.

	Moral dimensions	Examples of values	Examples of food sustainability goals¹
Anthropocentrism (Individualism)	1. Individual health, lifestyle, and wellbeing	-Maintain good health and wellbeing -Manage weight and shape -Improve personal economic status	-Support healthy lifestyles and human wellbeing -Eliminate nutrition-induced diseases -Promote access to affordable, sustainable-healthy food
Anthropocentrism (Collective view)	2. Social justice	-Food security of nation-states should be promoted. -Unfair treatment of people in food harvesting and production is unacceptable. -Future generations have the right of access to food resources.	-End hunger and malnutrition -End human exploitation in agriculture -Achieve global food security and sovereignty -Preserve nature, land, and food resources for future generations
Sentientism	3. Non-human sentient animals' welfare	- Animals are worthy of care and respect. -Animal suffering ought to be reduced/eliminated. - Animals have basic rights, violated by the infliction of avoidable suffering. - Animals deserve safe habitats to survive and thrive.	-Increase animal welfare and decrease suffering in food production - Transition away from large-scale animal raising operations -Improve animal raising, handling and transportation conditions - Eliminate practices that destroy animal habitats
Ecocentrism	4. Nature, planet, and non-sentient life forms	-People should respect and protect nature. -Nature should receive a moral consideration. -Nature elements are worthy of care and respect. -Disrupting the natural order should be avoided as much as possible.	-Stop agriculture practices that reduce biodiversity and promote ecosystem loss -Promote small scale agriculture -Support lifestyles that have a low impact on nature - Preserve life in land and water

¹ Sustainability goals are collected and adapted from: Broom 2010; Anthony 2012; FAO 2017.

Expanding the moral circle to include non-human animals for food sustainability

Based on the evidence presented in the second section, it can be concluded that there is an increasing number of individuals concerned about the wellbeing of non-human animals raised for feeding purposes. In the same line, the preservation and protection of non-human animal species in the wild may appeal to those that care about their intrinsic value, as well as to those that cherish the

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conservation of biodiversity. The greatest impact by far that humans have over the interest of non-human animals is through the practices of intensive agriculture and aquaculture for feeding purposes (Sørensen et al. 2001; Browman et al. 2019). But there is also an increasing effect on the welfare of individuals and communities in the wild by the destruction of their habitat through agricultural expansion (Fraser 2010). Nevertheless, these practices are widespread and rising worldwide, as the human population grows and societies seek economic development.

By applying the analysis described in the proposed framework, values and concerns related to non-human animal interests are recognised and placed in the moral circle. It is expected that this will enable actors to make a connection between their values and those practices and conducts around food that are in misalignment with the latter. Consequently, the recognition of moral ideals through this process of association (Figure 2) might facilitate the acknowledgement of responsibility in the development and/or implementation of food sustainability goals that are in alignment with the concerns of actors in relation to non-human animals.

After navigating through the framework, the importance of achieving suitability goals that consider the interest of non-human animals should become evident. How the process of implementation would look in practice is an important point to be developed in further steps, and with the active participation of stakeholders. In the same line, to increase the likelihood of obtaining changes that will align with these goals, concrete actions need to be taken at the political and governance levels, directly considering this largely neglected moral dimension. Nonetheless, as presented at the beginning of this paper, it can be anticipated that transitioning towards dietary patterns that replace animal-based food with plant-based alternatives; avoiding food produced in large scale industrialised animal-raising operations; considering food alternatives that reduce animal suffering; and reducing food waste are well-researched shifts that can have positive impacts. Therefore, if actors throughout the food system acknowledge their responsibility in making a shift towards these practices, it could be considered a move in the right direction.

CONCLUSION AND DISCUSSION

If sustainable development goals are to be achieved, particularly those directly related to food and agriculture, there is a need for different perspectives in the conceptualisation of sustainability. This new interpretation should include a broader set of moral values and concerns from potential actors of change in the food system. Under this outlook, sustainability agendas ought to move from the notion of mainly anthropocentric, overly technical and top-down perspectives to include a more holistic, inclusive and participative approach. The

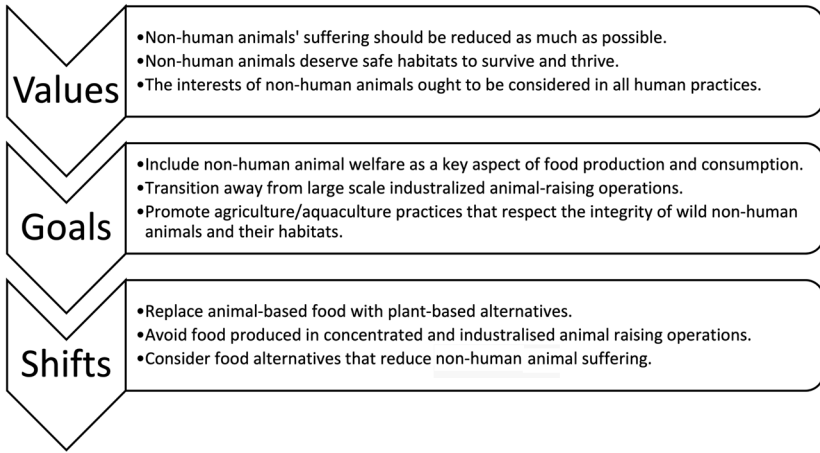


Figure 2. Process of association between moral values, food sustainability goals and possible shifts, when analysing the framework for food sustainability transition at the dimension of non-human animals.

alternative offered here is the inclusion of an expanded set of moral values so that the concept of food sustainability can speak to a wider array of potential actors of change.

Using a pragmatic conceptual method based on moral expansion, a framework for a transition towards sustainable food consumption and production has been described. The model illustrates and supports the arguments proposed in previous work (see, for example, Crimston et.al. 2018; Anthis and Paez 2021), suggesting that the implementation of an integrative approach that includes a moral expansion perspective might be an effective strategy for understanding the nature of moral progress, as well as its implications in the decision-making process. What is offered here is thus a novel interpretation of food sustainability, including a scarcely-explored set of moral dimensions, ranging from individualistic to collective, sentientistic and ecocentric perspectives.

The proposed conceptual framework could be used by governments, non-governmental organisations and educational institutions looking to promote a transition towards sustainable food practices. The model could facilitate the process of societal participation and engagement, acting like a compass in efforts to develop more effective strategies for sustainability promotion and participation. For instance, it could act as a guide in campaigns to reduce the amount of meat consumed, promoting healthier eating patterns, less processed diets and the prevention of food waste. Therefore, it might also help in the development of more practical strategies directed to mobilise and motivate individual citizens and communities to shift their choices. In addition, it could be a useful tool for different key sectors (e.g., food producers, regional

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governments, research institutes and universities) in the process of defining their values, analysing their scope of moral consideration, and aligning their practices with food sustainability goals.

It should nevertheless be acknowledged that this type of model is not without limitations. It is important to consider that the value systems underlying the proposed moral dimension of the framework are significantly more complex than illustrated in the proposed model. As discussed in previous sections, value systems are highly variable amongst individuals and between social groups. Also, most values do not stand alone, as they are interlinked and interdependent with other psychosocial perspectives and interests, such as age, gender, culture, political inclination, economic status and religion. Furthermore, when it comes to sustainable consumption, the responsibility of individuals depends on their capacity to undertake sustainable practices in the first place; and this is of course highly context-dependent (Middlemiss 2010).

All the above-mentioned aspects might lead some people to limit their moral circle or to be resistant to expand it towards certain entities; for instance, non-human animals. This highlights the importance of studying the depth of the moral circle, identifying the different barriers that affect moral consideration and understanding the circumstances that promote moral expansion. For instance, even though pro-environmental values have been shown to predict certain pro-environmentalism behaviours (Whitmarsh and O'Neill 2010), it has been noted that pro-social, and even self-enhancing values, might also be predictors of climate change mitigation and nature preservation (Howel and Allen 2017). Hence, understanding the differences and parallels in the extension of moral concern of different actors can help to determine how these can translate into action-guiding goals, regardless of the level grasped in the moral circle. This article demonstrates how this process can also be applicable in the case of food sustainability.

All in all, the objective has been to demonstrate, through the development of a moral-based framework for food sustainability transition, an opportunity to transcend the dominant paradigm, showcasing the role of including moral interpretations in the advancement towards sustainable development goals. This does not ensure that all actors will respond positively to such an approach, nor that societal participation will unswervingly follow the application of the proposed framework. It does suggest that the likelihood of more a participatory citizenship willing to make significant changes might increase when actors of change acknowledge the relation between sustainable food choices and the extent of their moral circle. Hence, the greater the scope of food-related values people can grasp through this process, and the more they seek consistency between values and actions, the more likely it is that the compelling choice will align with positive changes towards sustainable, fair and healthier food systems.

ACKNOWLEDGEMENTS

English Language editing support provided by Margarita Castro Wright.

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