Food that Matters: Boundary Work and the Case for Vegan Food Practices

Steffen Hirth*

Abstract

Meat and, less so, dairy are contested for their significant ethical and social-ecological impacts. Abjuring animal products, veganism is conventionally treated as a dietary ideology related to consumer identities. Drawing upon practice and materialist turns, this article explores variations in the performance of veganism and how its boundaries are drawn. Yet, rather than an *eating* practice, I suggest to look at veganism more broadly and conceptualised as a *food* practice which also involves provisioning. By example of stockfree organic agriculture (SOA), a production-based, processual understanding is outlined by which plant foods are 'vegan' if animal by-products are not used as fertilisers in crop cultivation. Thereof, a conceptual case is made to shift the focus away from vegan*ism* as a consumer identity and towards performative *vegan food practices* (VFP) as a global responsibility to reduce the 'long shadow' of livestock and maintain Earth as a relatively safe operating space.

Key words

boundary work, food identity, material-discursive practices, stockfree organic agriculture, sustainability, veganism

Introduction

In sociological studies of food, veganism is usually conceptualised as an *eating* practice (Twine 2018). This context of eating entails a focus on vegan consumers and their dietary choices, identities and attitudes (e.g., Beardsworth and Keil 1992; Larsson *et al*. 2003; Wrenn 2017) as well as discourses on veganism (Cole and Morgan 2011). However, the practice as a whole exhausts itself neither in eating nor in individuals' identities. Disregarding relations of food supply beyond consumers neglects vitally important dimensions of Twine's call for 'materially constituting a sustainable food transition' (2018, p. 166). Sustainability-focused[1] arguments for vegan and vegetarian practices have also been neglected by academics concerned with alternative food networks (Morris and Kirwan 2006).

 DOI: 10.1111/soru.12317

By building on the turns towards practices, materiality, and nonhuman agencies, this article redefines veganism more broadly as a *food* practice which involves production as much as consumption. A case is made for acknowledging and accounting for *collective* patterns of production and consumption by shifting the conceptual focus away from vegan*ism* and towards performative *vegan food practices* (VFP), which matter in view of their potential for mitigating the social-ecological crises threatening the 'safe operating space' (Rockström *et al*. 2009) of our food systems.

In sociological debates on consumption and food, theories of practice suggest to take into account the routinised nature of eating (Warde 2016; for the specific context of veganism see also Twine 2017), but it is also acknowledged that people 'adapt, improvise and experiment' since practices 'also contain the seeds of constant change' (Warde 2005, p. 141; see also Evans 2019 for a recent discussion). By contrast, culturalist approaches tend to be preoccupied with how consuming shapes lifestyles and identities, looking only or mainly at the 'front end of consumption' (Hetherington 2004, p. 158). In *Globalizing Responsibility*, Barnett *et al*. (2011, p. 72) seek to overcome a strong binary between consumers and producers suggesting that 'provisioning and consumption are inextricably entwined', and that the analytical attention is thus in need to shift from consumers to 'practitioners'. In order to provide a corrective for the context of veganism, my production-focused approach undertakes a conceptual shift away from consumer identities and choices in moments of purchase towards the relationalities of provisioning for food practices.

The disciplinary boundary of sociology, traditionally designated to 'the social' and defined as an exclusively human domain, has itself become subject to boundary work of critical sociologists drawing upon animal studies to argue that social lives relate to and are made of a multiplicity of species (McFarlane 2013; Cudworth 2014). '[E]ven if the goal of sociology is to explain human behavior', as McFarlane (2013, p. 53) notes, 'this goal is not obtainable if the analysis is limited to humans'. Therefore, my corrective shift away from consumption and towards production is accompanied by a shift away from (1) putting humans at the centre of the analysis, (2) regarding them as the sole carriers of practices (practitioners), and (3) awarding them exclusive rights of belonging to the conceptual and ethical realm of 'the social'.

Next to practice turns, the research conducted also grounds on materialist turns and relational theory. Whilst resonating with Carolan and Stuart (2016), who illustrate their 'ecologically embedded relational realism' through the example of climate change in an agrifood context, this paper particularly draws upon Karen Barad's (2003, 2007) posthumanist and performative account of material-discursive practices. By saying that 'language has been granted too much power' and that discourse and culture have been receiving attention, whilst 'the only thing that does not seem to matter anymore is matter' (2003, p. 801), she makes an important point about the rampant anthropocentrism within social sciences. Conceptualised in resonance with Barad's approach of *Agential Realism*, practices can be understood as entangled human and nonhuman agencies that continuously reconfigure matter and meaning. Thus, what she calls *material-discursive practices* performs the boundary work necessary to put veganism and carnism in practice.

As my emphasis is on sustainability and social-ecological relations between human, domesticated, and wild animals as well as plants and the life that *is* soil,

Barad's posthumanist perspective on boundary-drawing practices is a welcome addendum to existing sociological approaches to boundary work (Lamont and Molnár 2002; Pachucki *et al.* 2007; Lamont 2012) which have been applied to food studies, for example, to examine vegetarians' boundary work (Yeh 2013, 2014). Sociologists have been engaging with veganism in the context of its historical emergence from the vegetarian movement, for example in England (Twigg 1981; Cole 2014), which includes the analysis of the constant boundary work done by its members to define the movement: 'The exclusion of veganism from vegetarianism in the 1940s is a good example of a more exclusive boundary of the new vegetarianism' (Yeh 2013, p. 305). A much more recent evidence of ongoing boundary work is the emergence of the term 'carnism' which denominates a dietary ideology complementary to veganism and vegetarianism that, unlike them, states that eating meat is normal, natural, and necessary (Joy 2010).

Speaking about VFP rather than about vegans is a conceptual move that acknowledges the perhaps surprisingly fuzzy boundaries of veganism, vegetarianism, and carnism, and it broadens the scope towards the ways in which not merely consumers but also producers engage in the boundary-drawing practices that materialise food relations. In acknowledgement of the materiality of social-ecological crises such as climate change (IPCC 2019) and the sixth mass extinction event (Ceballos *et al.* 2015), it is ultimately production, not (only) consumption, of animal-sourced foods that has to decrease. With the FAO's (2006) report 'Livestock's Long Shadow' at the latest, meat consumption has an increasingly bad reputation for its ecological footprint, but rarely are the 'biophysical variables' (Carolan and Stuart 2016) and reasons for it made explicit, let alone the logical conclusion that stockfree systems have, in turn, a *short* shadow. For exceptions, see Hirth (2019a) juxtaposing so-called 'plant-based' food with the even greater base of plants an animal metabolism requires for feed conversion as well as Kolasi's more general account of thermodynamic energy (in)efficiencies leading the physicist to suggest an 'ecologism' which involves 'the adoption of mass veganism among industrialized nations that no longer rely on animals for food production' (2018). The collective need to address the materialities by which diets cast longer or shorter 'shadows', however, is overshadowed by a dogmatic and fiercely-led debate obsessed with the internal authenticity of individuals' dietary identities. Spatially, the focus on identity entails that veganism tends to be discussed almost exclusively in urban contexts where most of the purchases and end consumption takes place. By acknowledging its agricultural dimensions an outlook on the biophysical and practical dimensions of what is vegan widens the scope of the phenomenon to land use and the cultural and biological diversity of rural foodscapes and livelihoods.

Therefore, this paper is centred upon stockfree organic agriculture (SOA) which, in the national context of the UK, refers to food certified as 'vegan organic' (Schmutz and Foresi 2017). This can broadly be defined as an additional certification to the organic standard assuring that horticulture is free from animal by-products conventionally used to fertilise fields such as manure or bone meal.[2] Drawing upon SOA this paper makes two points about boundary work. Firstly, SOA entails extending the locus – and indeed the definition – of 'vegan' away from the common-sense boundary of veganism as a kind of consumer choice and identity towards the materiality and performance of food provisioned without derivatives of farm animals. Secondly, a

performance-based conception of 'vegan' may help to maintain a safe, social-ecological operating space for all life on Earth by extending the responsibility for 'acting veganly' beyond conventional boundaries distributed more evenly across food-related identities: In need to shorten the livestock sector's shadow, *performing* VFP predominantly becomes an undogmatic responsibility of ethical producers and consumers alike, regardless of their personal identities as vegans, vegetarians or 'meat eaters' (carnists).

Material-discursive boundary work and purity

How is veganism kept 'pure' as a discrete practice? Examining how the boundaries of food practices are drawn involves an understanding for the *impurity* of the processes by which boundaries are drawn. Tracing the exclusions and inclusions executed as part of specific practices unravels the 'ontological labour of purification' (Nimmo 2010, p. 155) that is put into and materialises practices.

The sociological literature on 'boundary work' (Lamont and Molnár 2002; Pachucki *et al.* 2007; Lamont 2012) has been applied by Yeh (2013, 2014) to examine how the boundaries of vegetarianism are drawn. Lamont and Molnár understand social boundaries as 'objectified forms of social differences' which are materialised in inequalities and symbolic boundaries as 'conceptual distinctions made by social actors to categorize objects, people, practices, and even time and space' (2002, p. 168). Those symbolic boundaries are equally used to 'enforce, maintain, normalize, or rationalize social boundaries' as they are to 'contest and reframe the meaning of social boundaries' (Lamont and Molnár, 2002, p. 186).

Although not explicitly connected, the literature on social and symbolic boundaries resonates with social theorist and theoretical physicist Karen Barad's (2007) notion of 'boundary-drawing practices'. Her approach gives the analysis of boundaries a post-humanist twist through which 'the social' is not confined to entanglements between humans. In critical acknowledgement of poststructuralist theorists such as Foucault (1980) and Butler (1993), Barad's (2007) *Agential Realism* is meant to rid discourse approaches from their human-centred elements by making a materialist turn. Her framework is used to examine how human and nonhuman agencies continuously work together as part of material-discursive practices that perform the boundary work necessary to put veganism or carnism in practice. In *Agential Realism*, boundaries are indeed *real* but they are enacted or become determinate through *agential* intra-action, the boundary work done by entangled agencies.

Moreover, these conceptions of boundary work resonate with Powell's (2013) suggestion to conceptualise relations as 'work'. Since work 'always changes something', he broadly defines it as 'the production of difference' (Powell, 2013, p. 196). This perspective 'immediately entails a bidirectional analysis, prompting us [firstly] to inquire what transformation produces and [secondly] what work, what relations, went into producing that relation' (Powell, 2013, p. 197). Importantly, work is no longer an exclusively human domain. In Barad's terms, the work that shifts boundaries is conducted by human and nonhuman agencies cooperating un/consciously and in/voluntarily in material-discursive practices. By way of inclusion or exclusion, material-discursive

practices normalise or problematise and, thereby, continuously (re)configure present configurations of practices. Similarly, Krüger and Strüver ask in their analysis of narratives of 'good food':

> 'Based on which interpretive patterns, values and spatial relationships do food identities, attributions of responsibilities and daily practices get normalized and hence stabilized or, on the contrary, politicized and challenged?' (2018, p. 217).

I understand food practices as a domain in which 'good' and 'bad' agricultural and culinary practices are negotiated and materialised through boundary-drawing practices. This intersects with debates and (intra-)actions in the context of sustainability. What passes as sustainable or unsustainable production and consumption practices is also negotiated and materialised through boundary work. Carnism, as Joy (2010) claims, is a largely *invisible* system of beliefs. Keeping it invisible – in order to maintain its status as a socially accepted practice – requires boundary work. The human-nonhuman boundary is emplaced by efforts of 'purifying the social', as Richie Nimmo puts it:

> 'our encounters and relations with nonhuman animal others, unless meticulously policed by networks of humanist discourse-practices, have the potential to induce destabilizing and transformative reflections upon our own 'nature' as humans' (2010, p. 6).

Boundary making – attempts at excluding and including – is always an imperfect process. As Alexis Shotwell (2016) argues in *Against Purity*, there is no perfectly sanitised state, place, or practice that we can (re)turn to in our hope for addressing colonialism, disease, pollution, and climate change. However, an acknowledgement of impurity is not to be misunderstood as an ethical free pass to indulge oneself arbitrarily in the imperfection of the practices one performs. Rather, it forces us to recognise 'that *individual* purity or actions aiming toward it are not going to solve the *collective*, complex problems in which we are differentially complicit' (Shotwell 2016, p. 202; italics added). Both phenomena, veganism and carnism, are 'the effect of boundary-drawing practices that make some identities or attributes intelligible (determinate) to the exclusion of others' (Barad 2007, p. 208), but in a world of multiplicity – a constantly changing spacetime manifold – none of them is able to retain total purity through the exclusions made.

By focusing on material-discursive difference patterns that mark the boundaries of food practices, this paper avoids analysing veganism and carnism in a predominantly ideational, identity-based way. Correctively, the materiality of agricultural production and provision is emphasised. This itself shifts attention from individual dietary purity to the collective sustainability of food systems. My conception of VFP outlined in the following sections broadens the boundaries of veganism, intended as a social-ecological intervention that prioritises the question of maximum permissible quantities of animal-sourced foods produced by a global collective over the mere ideological question whether or not individuals or groups think of eating animals as morally right.

Methods and data

The research conducted involved examining the often taken-for-granted practices by which the boundaries of veganism and carnism are drawn. In order to operationalise a material-discursive analysis in line with the theory drawn upon, the applied qualitative, interpretative methodology integrated discourse-analytic and ethnographic methods, focusing on agential *difference patterns*, rather than explaining why *particular* actors act as they do.

Methodologically this was inspired by Gibson-Graham's (2006) 'reading for difference rather than dominance', which Harris (2009) applies to the example of alternative food networks. They highlight that whenever researchers look at dominance only, the marginalisation of alternatives is at risk of being further increased. Thus, wherever power geometries are at play and change is at stake, reading for difference is what makes sure that all practices, even the emerging and quantitatively insignificant one's, are granted consideration and the possibility to thrive. The discussion will later touch on what this means for vegan organic agriculture as a marginal but emerging paradigm.

More specifically, this meant examining how producers position themselves towards the possibility of achieving sustainable development through absolute reductions of animal agriculture; but also what role animal agriculture, on the one hand, and veganism, on the other, play in producer discourses on sustainable food production and consumption. Guided by these questions, I examined the ways in which stock-based and stockfree farms, retailers, and food-related advocacy networks determine the boundaries of veganism and carnism and, thereby, materialise vegan and carnist food practices.

Approved by the University Research Ethics Committee (UREC), data were collected between 2016 and 2017 from agricultural and retailing foodscapes in Greater Manchester, Derbyshire, and South West England, involving a mix of participant observation (including field notes and photography), in-depth interviews with stakeholders on site, and an interpretative examination of their sustainability-related websites and reports. Data collection and analysis involved three main steps.

Firstly, qualitative discourse analysis was applied to documents and images, mainly from websites and sustainability reports, of producers, retailers, and advocacy organisations. In this initial step most attention was given to one big British retailer as well as one single-branch co-operative grocery store which does not sell any meat, dairy, or other animal-sourced foods. Websites and documents were preserved by help of the archival software *Zotero* which not only functioned as a 'hub' for integrating different types of data (textual and visual), but also for interpretative coding of text passages and images.

A second tranche of data involved six in-depth interviews which, on average, lasted 2h 12m. The interview style can be described as both narrative and semi-structured as they began with open questions, for example, 'What is "good" or "bad" food?', and were guided by more specific questions towards the end. Usually arranged by email, the interviews were all conducted face-to-face, mostly on site, then recorded and transcribed. Interviewees[3] included a sustainability director of a big retailer, two members

of a co-operative grocery store, staff of a big dairy company, farmers of a former beef and dairy farm, and the founder of a vegan advocacy network.

Finally, in order to get insights into the materiality and regular practices of the sites, research involved ethnographic observation and participation. In the case of the retailers, this involved becoming a customer for daily grocery shopping. Engaging with a vegan advocacy network meant to participate in working group meetings and help out on vegan fairs. For other sites, observations took place in the context of the interviews, for example, on tours to see farm animals, a biogas plant, and a cheese dairy. This involved taking photos (N = 569), writing field notes, and drawing sketches of the sites.

Starting off by deliberately choosing two very different retailers – a big 'ordinary' and a small 'vegan' one – the rest of the 'organically' evolving data production was an exercise in tracing their suppliers (farms and growers), and further recruiting interviewees and generating data using the entanglement of the foodscapes. Where applicable, that also involved media coverage about interviewees or their companies which added to the material for interpretative analysis. While the research design does not allow conclusions representative of retailers and farmers in the UK, cases were chosen precisely for their peculiarity, i.e., the *difference* they make, which would have been lost focusing on *typical* cases only. Due to its conceptual focus, this paper does not present findings on the examined big retailer and the dairy company.[4] The sample of findings presented in this paper largely revolve around two cases about vegan organic agriculture which were chosen for their particular value in illustrating the case for vegan food practices.

Drawing the boundaries of veganism

In the UK, vegan organic production refers to an agricultural standard by the Vegan Organic Network (VON) optionally added on to the organic certification of the Soil Association. The difference to standard organic is that vegan organic rejects animal by-products for fertilising soils.

The following subsection showcases how vegan organic crop cultivation is *depoliticised* in media reactions by personalising the collectively-oriented reasons farmers gave for abandoning animal farming. It is also claimed that, partly due to the conventional boundary by which veganism is a mere consumer identity and eating practice, the media failed to convey what vegan organic methods mean. Another subsection is supposed to *repoliticise* vegan organic agriculture by outlining its material-discursive practices, before the next section goes on to discuss these findings in a conceptual sense.

A 'strictly personal' decision: abandoning animal agri-culture

Drawing on the case-study of Bradley Nook Farm, this subsection illustrates the farmers' reasons for abandoning animal agriculture in favour of vegan organic crop cultivation as well as media reactions to this decision. Tensions are showcased which arise from a journalistic failure to convey what 'vegan organic' means, coming along with conventional tendencies to regard the term 'vegan' exclusively as an eating – rather

than a farming – practice and to locate 'the ethical' within 'the consumer', resulting in a de-politicisation of the farmers' reasons for changing their practices as *ethical producers*.

Farmer Jay Wilde had been vegetarian for 25 years when he inherited his father's beef farm in 2011. With his wife Katja, they kept the farm going for some years, then transformed it from a beef into a dairy farm before deciding to give up animal agriculture altogether by cultivating food crops by a vegan organic standard. Sending around 100 animals to slaughter one last time could have earned them £40,000 to 50,000 but they decided to release most of the cattle at a 2,000 acre sanctuary in Norfolk and let about a dozen of them live out their lives on their own 170 acre farm.

In the interview I conducted with them, two reasons for their decision stood out, both expressing care for others. Firstly, bringing the cattle to the abattoir as farmers who 'looked after them as well as you could' entailed that 'you felt as if you are betraying them [...] because it must have been terrifying. I'm sure they could tell something really bad was happening as you unloaded them at the other end' (Interview, Bradley Nook Farm). Secondly, the farmers exhibited broader concerns about human rights, in particular the one to food, the local wildlife on the farm as well as current and future terrestrial life's ecological conditions for existence:

> 'We're hoping to produce more actual food, more calories, more protein, feed more people and produce [food] which is healthier, more sustainable, a lower carbon footprint because of the amount of water that successive generations of cattle consume, the amount of methane they burp and the ammonia that comes from the manure, all sort of bad greenhouse gases and pollutants'. (Interview, Bradley Nook Farm)

Considering the currently high salience of vegetarianism and veganism in public debates it is hardly surprising that their decision received attention by media formats such as *Countryfile*, a BBC programme on countryside life and farming practices. In his report, host Adam Henson introduces the situation at Bradley Nook Farm as follows:

> 'Farming is a business that's always changing. New technologies and environmental pressure means things are changing as fast as ever *but* the reasons for the change on this farm in Derbyshire are *strictly personal*'. (Countryfile 2017, 36m 36s; italics mine)

Whilst the case of Bradley Nook Farm is without a doubt about change, it is puzzling why Henson first addresses environmental pressure as a factor that generally-speaking does change farms nowadays, only to make a clear cut in the next step by saying that the drivers of change on this farm are of a different kind. More specifically, the 'environmental pressure' he mentions could involve droughts, floods, or other extreme weather conditions induced by anthropogenic, livestock-associated climate changes. However, the conjunction 'but' disassociates the reasons for the changes from large-scale, social-ecological concerns. The boundary drawn here reduces the decision to a personal compassion with farm animals and excludes it from the realm of public or collective concerns. Regarding compassion with farm animals as a 'strictly personal' choice sentimentalises the care for others (and anthropocentrically focuses on the sensitive human rather than the nonhuman addressees

of compassion). Implicitly, this blanks out an attitude in which cattle are part of social/public/collective concerns, rather than merely individual/private/personal ones. Another important consequence is that the *Countryfile* report does not address, and thus de-politicises, the social-ecological reasons for giving up animal agriculture that the farmers expressed in my own interview.

A second media echo from an online article of the *Daily Express* sensationalises the case by observing 'viewers in melt-down as vegan farmer eats an egg', a headline based on reactions of the *Countryfile* audience on social media after seeing farmer Jay Wilde eating an egg:

> 'As fans of the show continued to share their bewilderment, the official [Twitter] account for Countryfile stepped in to clarify the mess'.
>
> 'He's vegetarian. He's turning the farm over to farm organic vegetables to sell on the vegan market', the BBC programme tweeted, before continuing to retweet another viewer with: 'The commentary was "over a vegetarian breakfast"'.
>
> The 59-year-old farmer decided to give away his cows – worth £50,000 – to an animal sanctuary in Norfolk after an enlightening visit from a member of the Vegan Society.' (Hughes 2017)

Although the sensationalism by which vegans are stereotypically depicted as not being capable of resisting the temptation of eating animal products (see also Cole and Morgan 2011) is used in the headline, the *Daily Express* article then elaborates on how *Countryfile* 'clarifies' by explaining that Jay Wilde is a vegetarian, not a vegan, and intends to 'farm organic vegetables to sell on the vegan market'. However, rather than clarifying, this separation of the cultivation (organic vegetables) from the distribution (vegan market) illustrates that *Countryfile* and *Daily Express* confuse (or omit to explain) what vegan organic agriculture actually means. As will be outlined in more detail in the next subsection, vegan organic characterises the *process* of vegan cultivation, one which forbids the use of animal manure or bone meal for fertilising fields and nourishing food crops. This specific material-discursive practice, which consistently excludes farm animals as nutrient providers of horticultural crop production, is significantly different from conventional conceptions of both vegan and organic. Within the common-sense boundaries of the term, 'vegan' is understood not as a process but as an attribute of a person, a product or, in this case also a market. That is, for example, a vegan person, a carrot, and a place or platform to purchase the former. Yet, the odd construct of a 'vegan market' is (wrongly) suggestive of (1) Bradley Nook Farm's crops being grown specifically *for* vegans or (2) at least sold on a market that is exclusively frequented by vegans, as if non-vegans were either not welcome to consume these grains and vegetables or not expected to be interested in eating them. Suggesting the farmers intended to grow '*organic* vegetables to sell on the *vegan* market' misleads the audience by not explaining the meaning and materiality of the coupled term 'vegan organic' as an organic standard of agriculture that excludes livestock.

Instead, the news value of the article, and the bewilderment it purports to alleviate, originate in an assumption and allegation of unauthentic behaviour. That the term veganism framing the news stories on this case occurred simultaneously with

the farmer's egg consumption resulted in the perception of a lack of authenticity, an alleged mismatch between values and actions of the farmer. That perception is precisely the one through which the conventional boundary of veganism becomes visible, one which is entirely focused on, if not obsessed with, the integrity of individuals and their diets. An individualised sense of food based on personal identity and authenticity creates an imperative to be oneself; that is, anything (legal) can be consumed without social punishment as long as it matches compellingly with ones (alleged) personal values, beliefs, or desires. *Countryfile* host Henson, for example, concludes his report with both admiration and incomprehension:

> 'I'm not sure I'd have made the same call as Jay. The £50,000 he could have achieved by selling his cattle would have come in handy [...] But you could say that makes his decision to switch from farming beef to veg even more courageous. Jay has recognised the opportunity the land and buildings on this farm offer him as an alternative to cattle farming. And whatever your views on veganism, you have to admire him for sticking to his principles'. (Countryfile 2017, 44m 24s)

The quote illustrates boundary work that renders the authenticity of one's ethical principles as vital, on the one hand, and depoliticises the very content of those principles, on the other. After all, Henson does not suggest that the viewer admires Jay *for* his principles but rather to admire him for *sticking* to them, as if sticking to principles would be legitimate whatever the principles.

It is on the grounds of these predispositions, that journalists, entrusted with the task of mediating the changes on this farm, failed to either understand or convey how the term 'vegan' was actually used by the farmers. Conventionally, 'vegan' is only understood as an *eating practice* and thus a personal identity closely connected to individual choice. Hidden through the creation of this horizon remained the farmers' plan to perform *food practices* by a vegan organic production standard which they deem necessary for reasons far from 'strictly personal' – next to their care for their cattle, they share collective concerns over the social-ecological crises associated with today's 'normal' food production. To be fair, one could well argue that the decision was 'personal' in the sense of 'peculiar' as few farmers subject their practices to a comparable ethics of care; yet this peculiarity does not justify to refrain from explaining the vital practical differences 'vegan organic' entails. As this subsection had a stronger emphasis on the *discursive* elements of material-discursive practices in order to outline conventional boundaries of 'vegan', the next section will also detail *material* elements constituting 'vegan organic' production to make up for their absence in representations of the media.

Vegan organic agriculture

As an agricultural practice, vegan organic cultivation aims at circulating nutrients sustainably while excluding any material input from domesticated animals. Different from conventional or organic agriculture, the vegan organic standard (as certified by the Vegan Organic Network and the Soil Association) fully excludes both synthetic fertilisers and animal derivatives such as manure or bone meal (see also Schmutz and Foresi 2017). As it does not rely on nutrients from fossil fuels or farm animals, this

standard draws on other practices, materialities and relationalities to maintain soils. After a brief outline of the 'more-than-human' (Whatmore 2006) agencies involved in this method of cultivation, the article addresses how this emerging paradigm challenges animal-dependent organic agriculture, on the one hand, and mainstream vegan culinary culture, on the other.

In order to illustrate the 'agential intra-actions' (Barad 2007) of vegan organic cultivation, I will elaborate on four material-discursive practices to maintain soil fertility without farm animal inputs. Firstly, humus soil matured over a period of a couple of years is regarded as a 'nutrient battery' that activates a mechanism which enables the plant to actively absorb an appropriate amount of nutrients through its roots, rather than passive (basically 'force-fed') nutrient intake by way of water-soluble chemical fertilisation (Anders and Eisenbach 2017). Secondly, nutrient cycles can be maintained by 'green manures' which are defined as 'plants that are grown specifically to benefit the soil, replacing nutrients, improving soil structure and increasing organic matter content' (Hall and Tolhurst 2015, p. 15). For example, clovers, beans and pulses are good for maintaining the nitrogen cycle (N), while deep-rooting green manures such as lucerne, red clover, lupins and chicory are able to bring phosphates (P) and potassium (K) up from the subsoil (2015, p. 35). These intra-acting agencies relieve stockfree growing from synthetic fertilisers or animal by-products which are regarded as unsustainable and thus unethical forms of fertilising.

The third and the fourth practice are, for various reasons, neither performed nor allowed in commercial growing, but they illustrate the social-ecological metabolism (Marx 1981 [1894], p. 195, 959; see also Foster 1999) that would be necessary to consistently close nutrient loops. Taking our human corporality seriously, the term 'humanure' implies an understanding that we – our bodies and their excrements – must become part of that nutrient cycle to make it sustainable (Burnett 2017). Finally, from a deeply ecological, posthumanist, and relational perspective, even seemingly passive and inactive things are actually endowed with 'vibrant agencies' (see Bennett 2010). Stones, for example, slowly break down and provide minerals to crops. Thus, consistently closed nutrient loops would also require the use of dead human bodies. After all, it can be seen as a sign of humanist privilege, hubris, and exceptionalism that, through the use of bone meal and blood as fertilisers, 'normal' agriculture makes dead farm animals a part of the nutrient cycle but not deceased members of our own species. In sum, vegan organic cultivation marks a set of exclusions and inclusions – some in practice, some in theory – that involve agential intra-actions and result in material-discursive practices fundamentally different from conventional and organic agriculture.

Proponents regard SOA – whether it is referred to as vegan organic or veganic or biocyclic-vegan – as a paradigm shift in two ways. Firstly, as part of a broader 'paradigm shift taking place in our societies' with consumers who increasingly 'want to buy products that have been produced in a responsible manner with regard to the environment, animal ethics, health and social welfare' (Anders and Eisenbach 2017, p. 32). Secondly, as an agricultural paradigm shift that, through stockfree ways of maintaining soil fertility, is fundamentally different from current standards. Thus, from a perspective of 'reading for difference rather than dominance' (Gibson-Graham 2006; see also Harris 2009), it is a paradigm shift not for a dominance becoming apparent

(in absolute terms it is a marginally practised method), but for the material-discursive differences it entails.

The very being and meaning of stockfree vegan production leads to an alternative account of how the boundaries around veganism are drawn. This can be illustrated with the case of a 'vegan' grocery store which, although they refrain from marketing themselves as such, are vegan *by food regulations*. That is, they are a value-driven business, firstly, for not selling any animal-sourced foods – no meat, dairy, eggs, fish, etc. – and, secondly, for their organic range of fruit and vegetables. Importantly, they seek out organic standards such as Demeter[5] which quality-wise is considered even better than the EU organic standard:

> 'We search out the Demeter standard here as much as we can, and we switch suppliers to be able to have the Demeter products over and above the standard organic [...] it's very much on the radar of the veg buying teams to do that. [...] but for our customers, I don't think that's in their minds at all really. I think, there are very few. But for most people it's just organic'. (Interview, co-operative grocery)

However, from the perspective of SOA standards, Demeter – or any other organic mode of production that involves animal husbandry – is not 'vegan' at all, as an advocate of SOA explains:

> 'Apart from the fact that they [Demeter] are heavily into animal husbandry, in order to maintain soil fertility [...] you [...] grind up cow horn and you put it in a bucket, and at a certain phase of the moon, you stir it in a particular fashion [...] To me they are another organisation with these strange religious aspects to them [...] Much of their emphasis, is on killing cows, killing animals. I simply don't go along with it. [...] I mean, okay, that is how the main culture operates anyhow, and [Rudolf] Steiner [whose ideas inspired Demeter], he was a man of his times [...] It's easy to look back and criticise people. You have to see people in the context of their own time.' (Interview, VON)

Veganism is materially bound to organic and non-organic horticulture through practices such as fertilising with horn or bone meal, but it is particularly through the material-discursive practices of SOA that this becomes visible as conflicting. To be fair, far from being hypocritical, most 'vegan' retailers as yet simply have no alternative to offering plant foods nourished by animal derivatives. Indeed, people and practices have to be seen in the context of their own time. Theoretically, however, the example illustrates that conventional understandings do not tie veganism to agricultural process. Similarly, as Schneider argues for the case of Germany,

> 'A certification as "vegan" or "vegetarian", as issued by the Vegetarierbund [equivalent to the *Vegetarian/Vegan Society*], exclusively refers to food legislation but does not cover the production'. (2017; my translation from the German original)

Simply put, conventional food regulations treat plant foods such as a carrot as vegan *per se*. This taken-for-granted assumption is challenged by the practical integration of vegan *and* organic. SOA challenges animal-dependent organic agriculture by referring to it as the 'conventional organic'. The challenge to the established vegan culinary culture is that from now on it depends on the process of production *whether or not* a carrot is 'vegan'. As an SOA advocate explains, currently 'vegans are – many

I think unconsciously – making a compromise [...] Most of the food I eat will be "organic" but there is a very good chance it will be grown with animal manure. So, to me, being vegan is food that does not contain any animal by-products whatsoever'. The rather trivial identity through which vegans commit to eating plants, while the plants themselves are implicitly perceived as inherently vegan, obscures the dominant role of livestock in the material practices of most horticulture. SOA redraws where veganism begins.

Discussion: towards vegan food practices

The fundamental question posed by the Vegan Organic Network, 'Where does being vegan begin?', translates to the sociological question how boundary work in form of material-discursive practices shapes veganism. It requires further discussion on how a processual understanding redraws mainstream conceptions of veganism. On that basis, I suggest a conceptual shift from *eating* practices towards *food* practices in general, and towards VFP in particular. This involves to sketch the differences between representational and identity-based conceptions of veganism, on the one hand, and a relational understanding of it as a performative practice, on the other. I contend that reconceptualising veganism towards a performative practice, rather than confining it to a dietary ideology, grants some space for reconciliation within a rather fierce and entrenched public and academic debate on veganism and animal husbandry.

As I suggest, vegan organic agriculture implicitly conceives the very being of veganism as a process. This process is materialised by human and nonhuman agencies – sunlight, water, soil, plants, mushrooms, stones, human growers and eaters, machines, and more – intra-acting within the room for manoeuvre of routinised, yet mutable, food practices. Other agencies such as fossil fuels and animal by-products are deliberately avoided. Put differently, the newly emerging emphasis is on accounting for the relational practices people involved in food provisioning find themselves in, rather than mere consumer identities and choices; it is about *acting veganly* rather than being vegan *per se*. The conventional boundaries of both 'organic' and 'vegan' are redrawn. Involving animal agriculture, 'organic' is rendered as the 'conventional organic', while 'vegan' is now conceived as a performative process – a relation rippling through spacetime – rather than a symbolic, seemingly timeless, and thus metaphysical representation, property, or identity held by a person or a product. Being vegan is no longer the *essential* property of a carrot (and a person consuming it). Rather, it is a property *acquired* through specific food production and consumption practices.

In the case of Bradley Nook Farm's media reception, it was shown how that sense of relationality and materiality implicit to vegan organic agriculture was 'tamed' through the boundary work of mainstream perspectives on veganism and agriculture. Treated as a 'strictly personal' affair, veganism and the collectively-oriented reasons for performing it are continuously dematerialised and depoliticised by the established order which, thereby, normalises carnist agricultural and culinary practices. Thus, I understand food practices as iteratively and intra-actively performed agri- and culinary culture, whereas an eating practice confines the view more narrowly to the agency and identity of the human consumer. The more veganism (or any other food choice) is

framed as something related to individual (consumer) identities, the less room there is to account for the materiality of collective production and consumption, which is particularly dramatic considering the role of specific food production practices in climate breakdown and mass extinction (Ceballos *et al*. 2015; IPCC 2019). In sum, vegan organic agriculture's processual, relational approach has a higher potential to deliver awareness of social-ecological entanglements than a representational one which is superficial in that it is largely confined to eating and the 'front end of consumption' (Hetherington 2004, p. 158).

Dogmatic debates are often tedious for vegans and carnists alike. In this research, I have deliberately not focused on animal rights and the question whether using non-human animals for food is morally right. On the one hand, this moral trench could be deepened if SOA is interpreted as redrawing an even 'purer' boundary of what vegan is, with carrots being vegan only when they are certified by vegan agricultural standards. On the other, a conceptual shift away from identities and ideologies towards performative practices holds potential for vegans and carnists to set aside dogmatic debates and somehow 'meet halfway'. Performativity implies that veganism is not a property of prefixed subjects. Instead, vegan subjects and objects – persons and foods, producers and consumers – emerge from relations, or in Barad's (2007) terms agential intra-actions. Thus, the whole food supply network matters. The attribute 'vegan' emerges from the 'purity' of the productive process as a result of material-discursive practices, rather than from the 'purity' of vegans as a result of an authentic identity.

Accepting individual dietary impurities may also pave the way towards a sustainable food transition. It entails that not only vegans, but also carnists and vegetarians, can *perform* VFP – simply, for example, when self-identified 'meat eaters' or ovo-lacto vegetarians have a meal free of animal input; most consistently when those foods are grown by SOA.

Analysing boundary-drawing practices has revealed that the boundaries of veganism and carnism are neither self-evident nor fixed. With Shotwell's (2016) *Against Purity* in mind, this impurity of diets is in a way welcome, or at least we can learn from it. The impurity of diets brings to mind that vegans constantly, and either unconsciously or involuntarily, make ethical compromises as their food is being nourished by animal derivatives. In turn, there are hardly any carnists who *purely* eat meat (neither do they need to nor would they want to), although, in the heat of the argument, it may sometimes appear so. In an otherwise deeply entrenched debate, an awareness of the impurity of all diets would be a common ground more of which is needed to acknowledge that, ultimately, everybody depends on intact ecosystems as a pre-condition for all food practices. The emergence of flexitarians, who consciously reduce animal-sourced foods, already suggests a trend towards a more performance-based, undogmatic application of VFP.

However, a majority of 'meat-eaters' in the Global North maintains a lifestyle that requires animal husbandry to be highly productive. Identity-focused framings still strongly encourage individuals to merely deliberate on whether or not they find eating animal-sourced foods morally right. This creates a binary trench between vegans and the mainly carnist but also ovo-lacto vegetarian rest of society. The vital (or lethal)

differences materialised through *rates* of consumption and, particularly, production of animal-sourced foods tend to be blanked out easily.

By contrast, a performative framing pays attention to the consistencies of processes, not identities. Put differently, what matters is the *amount* of animal-sourced foods produced and consumed by humanity as a *collective*, not by individuals, a perspective which is more adequate to address social-ecological crises. Barad's (2007) work is a critique of approaches anthropocentrically equating discourse with language or human concerns while ignoring matter's role in the configuration of practices. Correspondingly, the conventional obsession with consumer identities – e.g., being a 'meat eater' or a vegan – prevents a real emphasis on the materiality of food practices. If veganism, in the frame of a consumer identity, usually seems to happen in the cafes and restaurants mushrooming in the capitals of the world, a practice-based account of it is an opportunity to highlight how rural foodscapes contribute to, are shaped by, and may help mitigating the crises of our food systems.

Conclusion

Are carrots vegan? On first sight, this question sounds as tautological as asking whether vegans are vegan. Both questions, however, are valid in the context this article has unfolded against the background of a public and academic outlook that conventionally regards veganism as a mere eating practice and thus a consumer affair. Although the acknowledgement of practice theoretical approaches (Twine 2017, 2018) is paralleled by calls for increased consideration of provisioning (Hetherington 2004; Barnett *et al*. 2011), social scientific research on veganism largely remains confined to vegan consumers, their lifestyles and identities. In recognition of the necessity to go beyond a consumer focus, I suggest to reconceptualise eating practices as food practices which comprise consumption *and* production.

The emergence of SOA, which forbids the use of animal by-products to fertilise food crops, renders visible tensions along two boundaries of veganism. Firstly, it opens veganism up as a producer issue. Secondly, it challenges the conventional boundaries of the term 'vegan' as either a personal identity or an essential property of any plant food. The insight that a carrot is no longer vegan *per se*, marks a paradigm shift. Whilst tying what vegan is to whether that carrot was nourished by animal derivatives or not can be interpreted as an even stricter, purist boundary, I prefer to emphasise that it is also a shift away from a representational, identity-based, and essentialist towards a relational, performative, and materialist account of what, therefore, I call vegan food *practices* (VFP) rather than vegan*ism*.

Today, an increased number of ethical producers want to break out of the perceived cruelty of animal farming[6] as well as what Ward (1993) called the productivist 'treadmill'. Through a practical focus on VFP, rather than an ideological one, conventional and animal-based organic production could learn from SOA. With a deep understanding of humus soil, green manures, mulching, and other methods, SOA tackles the prominent defence of animal agriculture about difficulties of maintaining soil fertility without livestock. While more long-term assessment is needed, initial comparative experiments found stockfree methods to be more productive than

conventional ones (Eisenbach *et al.* 2019). Moreover, the high thermodynamic efficiency (see Kolasi 2018; Hirth 2019a) of low-livestock or stockfree operations is an opportunity to degrow animal agriculture and, thereby, provide *sufficient* amounts of quality food while freeing up land available for biodiversity protection or restoration, rather than just producing ever more food.

A sustainable food transition is not reducible to changes in eating behaviour. Currently, behaviouristic approaches trying to nudge people into 'better' consumption overly focus on spaces where most of the purchases and end consumption takes place. This is not to deny that, next to eating, vegan practices already involve political struggles of social movements, but even most activism is usually centred upon promoting vegan eating practices. Taking a material-discursive practice approach to what is vegan thus also aims at highlighting relations beyond local urban contexts and social-ecological citizenship beyond the (vegan) *ethical consumer*. Firstly, this involves rural foodscapes and livelihoods. *Ethical producers* need regulative support in enabling ethical provisioning networks and nonconsumption (see also Goodman *et al.* 2010). Following Morris and Kirwan (2006, p. 208), future research on SOA may shed further light on the governance and 'the ongoing cognitive praxis of vegetarianism [incl. veganism], its place within the alternative food economy [particularly the organic movement] and its potential to contribute to rural development'. Secondly, I suggest that the ethical minimum of food practices is to sustain Earth as a relatively safe operating space (see Willett *et al.* 2019). The Covid-19 crisis highlights that we are already losing that safe operating space, with zoonotic pandemics not only being related to wild animal meat, but also becoming more likely through both livestock's disproportionate land use narrowing nonhuman habitats and pathogens spread through animal by-products (Fornace *et al.* 2013). Based on the benefits of SOA's short shadow, performing VFP *predominantly* – not necessarily exclusively – becomes a global responsibility of vegans, vegetarians, and 'meat eaters' (or, then, flexitarians) as well as consumers and producers alike.

Increasing the collective human performance of VFP and calling for absolute reductions of animal agriculture (see Fuchs *et al.* 2016) involves undogmatic, yet effective, systemic changes. Whilst post-colonialist interventions of telling people in the Global South not to diversify their diets with animal-sourced foods should be avoided, a controlled, farmer-friendly degrowth of intensive farming is required. On the one hand, by making horticultural operations more viable, independent from synthetic and – at least less dependent on – animal-based fertilisers. On the other, by significantly reducing the current overproduction of animal-sourced foods for both the Global North and the middle and upper classes in the Global South. Such a transition may benefit from stockfree practices to maintain soil fertility and a material-discursive dimension of 'vegan' bound to its short shadow, not consumers' identities.

Funding information

This research was supported by the University of Manchester's Sustainable Consumption Institute (SCI).

Conflict of interest disclosure

I certify that I have no affiliations with or involvement in any organisation or entity with any financial interest (such as honoraria; educational grants; participation in speakers' bureaus; membership, employment, consultancies, stock ownership, or other equity interest; and expert testimony or patent-licensing arrangements), or non-financial interest (such as personal or professional relationships, affiliations, knowledge or beliefs) in the subject matter or materials discussed in this manuscript.

Ethics approval statement

The research was approved by the University of Manchester's Research Ethics Committee (UREC).

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Notes

*Corresponding author.

[1] Here, I broadly understand 'sustainable' as the long-term quality of reproductive practices not to entail social-ecological crises such as global heating, extreme inequalities, mass extinction or other forms of existential threats to the relatively safe operating space Earth's inhabitants have found on it. Theoretically drawing upon Barad (2007), the article also acknowledges that human and nonhuman agencies negotiate meaning and matter of 'sustainable' through material-discursive practices.

[2] In this article, I use stockfree organic agriculture (SOA) as a broader term for the agricultural initiatives which consciously exclude animal by-products from cultivating crops while applying agroecological methods (yet not necessarily officially certified as organic). Vegan organic agriculture is one such standard provided by the Vegan Organic Network (VON) who have also coined the term 'stockfree' as a normative alternative to the more commonly used term 'stockless' which traditionally denotes farmers who merely happen to have no livestock. By contrast, stockfree agriculture is value-driven, and whilst it could in principle also denote non-organic farms, the initiatives I am aware of consciously exclude the use of synthetic pesticides and fertilisers as well as genetically modified organisms. My use of the term vegan food practices (VFP), in turn, is broader encompassing both consumption and production as well as organic and non-organic foods and practices.

[3] Where applicable, specific consent has been given by interviewees for non-anonymity. This applied mostly to interviewees who anyway receive public attention. Other interviewees remain anonymous.

[4] The conventional retailers and farms, which have business models based on carnist food practices, were analysed to see the ways in which the social-ecological footprint of animal-sourced foods features in their sustainability claims and efforts, but also how they position veganism or vegetarianism within sustainability debates. This was to ensure the inclusion of boundary work beyond the vegan movement. Largely centred upon the actors' efforts to *improve* practices within animal agriculture as part of an efficiency and consumer choice paradigm, those results cannot be detailed here (see Hirth 2019b).

[5] Drawing upon Rudolf Steiner's theories, Demeter International is an organisation certifying foods produced organically by means of biodynamic agriculture which is explicitly based on livestock integration.

[6] After seeing the BBC Countryfile episode examined in this paper, the decision at Bradley Nook Farm directly prompted a Co. Cork dairy farmer to send some of her stock to the same sanctuary (Allen 2017). Another farmer in Devon, said to be too upset by slaughter, gave his lambs to a sanctuary (BBC 2019).

Acknowledgement

I am grateful to Professor Alan Warde, who supervised my PhD, and to my friend and colleague Dr Harald Wieser, both working at the Sustainable Consumption Institute, as well as the editor and anonymous reviewers for their very helpful comments on earlier drafts of this article.

References

Allen, C. (2017) Co. Cork dairy farmer sends second lot of stock to UK animal sanctuary. Available online at http://www.agriland.ie/farming-news/co-cork-dairy-farmer-sends-second-lot-of-stock-to-uk-animal-sanctuary/ Accessed 30 May 2020

Anders, A. and J. Eisenbach (2017) Biocyclic-vegan agriculture. *Growing Green International* 39 (Summer/Autumn) pp. 32–34

Barad, K. (2003) Posthumanist performativity: toward an understanding of how matter comes to matter. *Signs: Journal of Women in Culture and Society* 28 (3) pp. 801–831

Barad, K. (2007) Meeting the universe halfway: quantum physics and the entanglement of matter and meaning (Durham, London: Duke University Press)

Barnett, C., P. Cloke, N. Clarke *et al.* (2011) Globalizing responsibility: the political rationalities of ethical consumption (Chichester: Wiley-Blackwell)

BBC (2019) Devon farmer 'too upset' by slaughter gives lambs to Kidderminster sanctuary. Available online at https://www.bbc.com/news/uk-england-47026123 Accessed 30 May 2020

Beardsworth, A. and T. Keil (1992) The vegetarian option: varieties, conversions, motives and careers. *The Sociological Review* 40 (2) pp. 253–293

Bennett, J. (2010) Vibrant matter: a political ecology of things (Durham: Duke University Press)

Burnett, G. (2017) On humanure and vegan organic growing systems. *Growing Green International* 38 (Winter/Spring) pp. 14–15

Butler, J. (1993) Bodies that matter: on the discursive limits of 'sex' (New York: Routledge)

Carolan, M. and D. Stuart (2016) Get real: climate change and all that 'it' entails. *Sociologia Ruralis* 56 (1) pp. 74–95

Ceballos, G., P.R. Ehrlich, A.D. Barnosky *et al.* (2015) Accelerated modern human–induced species losses: entering the sixth mass extinction. *Science Advances* 1 (5) pp. e1400253

Cole, M. (2014) 'The greatest cause on earth': The historical formation of veganism as an ethical practice. Pp. 203–224in N. Taylor, R. Twine eds, The rise of critical animal studies: from the margins to the centre (London: Taylor & Francis Group)

Cole, M. and K. Morgan (2011) Vegaphobia: derogatory discourses of veganism and the reproduction of speciesism in UK national newspapers. *The British Journal of Sociology* 62 (1) pp. 134–153

Countryfile (2017) Worcestershire. Available online at https://www.bbc.co.uk/programmes/b08xhdrl Accessed 15 October 2019

Cudworth, E. (2014) Beyond speciesism: intersectionality, critical sociology and the human domination of other animals. Pp. 19–35 in N. Taylor, R. Twine eds, The rise of critical animal studies: from the margins to the centre (London: Taylor & Francis Group)

Eisenbach, L.D., A. Folina, C. Zisi *et al.* (2019) Effect of biocyclic humus soil on yield and quality parameters of processing tomato (Lycopersicon esculentum Mill.). *Bulletin of UASVM Horticulture* 76 (1) pp. 47–52
Evans, D.M. (2019) What is consumption, where has it been going, and does it still matter? *The Sociological Review* 67 (3) pp. 499–517
FAO (2006) Livestock's long shadow: environmental issues and options (Rome: Food and Agriculture Organization of the United Nations)
Foster, J.B. (1999) Marx's theory of metabolic rift: classical foundations for environmental sociology. *American Journal of Sociology* 105 (2) pp. 366–405
Fornace, K., M. Liverani, J. Rushton*et al.* (2013) Effects of land-use changes and agricultural practices on the emergence and reemergence of human viral diseases. Pp. 133–149 in S.K. Singh ed., Viral infections and global change (Hoboken, NJ: John Wiley & Sons)
Foucault, M. (1980) Power/knowledge: selected interviews and other writings, 1972–1977 (New York: Pantheon Books)
Fuchs, D., A. Di Giulio, K. Glaab *et al.* (2016) Power: the missing element in sustainable consumption and absolute reductions research and action. *Journal of Cleaner Production* 132 pp. 298–307
Gibson-Graham, J.K. (2006) A postcapitalist politics (Minneapolis, MI: University of Minnesota Press)
Goodman, M.K., D. Maye and L. Holloway (2010) Ethical foodscapes?: Premises, promises, and possibilities. *Environment and Planning A* 42 (8) pp. 1782–1796
Hall, J. and I. Tolhurst (2015) Growing green: organic techniques for a sustainable future (Manchester: The Vegan Organic Network)
Harris, E. (2009) Neoliberal subjectivities or a politics of the possible? Reading for difference in alternative food networks. *Area* 41 (1) pp. 55–63
Hetherington, K. (2004) Secondhandedness: consumption, disposal, and absent presence. *Environment and Planning D: Society and Space* 22 (1) pp. 157–173
Hirth, S. (2019a) All food is 'plant-based' – particularly meat and dairy. *Discover Society* 71. Available online at https://discoversociety.org/2019/08/07/all-food-is-plant-based-particularly-meat-and-dairy/ Accessed 17 October 2019
Hirth, S. (2019b) Food that matters: sustainability and the material-discursive boundaries of carnist and vegan food practices (Manchester: The University of Manchester) Available online at https://www.research.manchester.ac.uk/portal/files/122884960/FULL_TEXT.PDF Accessed 8 June 2020
Hughes, R. (2017) Countryfile HITS BACK as viewers have MELTDOWN over 'vegan' farmer eating an EGG. Available online at https://www.express.co.uk/showbiz/tv-radio/823906/Countryfile-Adam-Henson-Matt-Baker Accessed 15 October 2019
IPCC (2019) Climate change and land. Available online at https://www.ipcc.ch/report/srccl/ Accessed 30 September 2019
Joy, M. (2010) Why we love dogs, eat pigs, and wear cows: an introduction to carnism (San Francisco, CA: Conari Press)
Kolasi, E. (2018) The physics of capitalism. *Monthly Review* 70 (1). Available online at https://monthlyreview.org/2018/05/01/the-physics-of-capitalism/ Accessed 18 December 2019
Krüger, T. and A. Strüver (2018) Narratives of 'good food': consumer identities and the appropriation of sustainability discourses. *Zeitschrift für Wirtschaftsgeographie* 62 (3–4) pp. 217–232
Lamont, M. (2012) Toward a comparative sociology of valuation and evaluation. *Annual Review of Sociology* 38 (1) pp. 201–221
Lamont, M. and V. Molnár (2002) The study of boundaries in the social sciences. *Annual Review of Sociology* 28 (1) pp. 167–195
Larsson, C.L., U. Rönnlund, G. Johansson and L. Dahlgren (2003) Veganism as status passage: the process of becoming a vegan among youths in Sweden. *Appetite* 41 (1) pp. 61–67
Marx, K. (1981 [1894]) Capital. Vol. 3 (New York: Vintage)

McFarlane, C. (2013) Relational sociology, theoretical inhumanism, and the problem of the non-human. Pp. 45–66 in C. Powell and F. Dépelteau eds, Conceptualizing relational sociology – ontological and theoretical issues (New York: Palgrave Macmillan)
Morris, C. and J. Kirwan (2006) Vegetarians: uninvited, uncomfortable or special guests at the table of the alternative food economy? *Sociologia Ruralis* 46 (3) pp. 192–213
Nimmo, R. (2010) Milk, modernity and the making of the human: purifying the social (London, New York: Routledge)
Pachucki, M.A., S. Pendergrass and M. Lamont (2007) Boundary processes: recent theoretical developments and new contributions. *Poetics* 35 (6) pp. 331–351
Powell, C. (2013) Radical relationism: a proposal. Pp. 187–208 in C. Powell and F. Dépelteau eds, Conceptualizing relational sociology – ontological and theoretical issues (New York: Palgrave Macmillan)
Rockström, J., W. Steffen, K. Noone *et al*. (2009) A safe operating space for humanity. *Nature* 461 pp. 472–475
Schmutz, U. and L. Foresi (2017) Vegan organic horticulture – standards, challenges, socio-economics and impact on global food security. *Acta horticulturae* 1164 pp. 475–484
Schneider, D. (2017) Landwirtschaft ohne Tiere?. Available online at http://www.sueddeutsche.de/wissen/ernaehrung-landwirtschaft-ohne-tiere-1.3730360?utm_source=Maileon Accessed 16 October 2019
Shotwell, A. (2016) Against purity: living ethically in compromised times (Minneapolis, MI: University of Minnesota Press)
Twigg, J. (1981) The vegetarian movement in England 1847–1981: a study in the structure of its ideology (London: University of London) Available online at https://ivu.org/history/thesis/index.html Accessed 15 April 2018
Twine, R. (2017) A practice theory framework for understanding vegan transition. *Animal Studies Journal* 6 (2) pp. 192–224
Twine, R. (2018) Materially constituting a sustainable food transition: the case of vegan eating practice. *Sociology* 52 (1) pp. 166–181
Ward, N. (1993) The agricultural treadmill and the rural environment in the post-productivist era. *Sociologia Ruralis* 33 (3–4) pp. 348–364
Warde, A. (2005) Consumption and theories of practice. *Journal of Consumer Culture* 5 (2) pp. 131–153
Warde, A. (2016) The practice of eating (Cambridge: Polity Press)
Whatmore, S. (2006) Materialist returns: practising cultural geography in and for a more-than-human world. *Cultural Geographies* 13 (4) pp. 600–609
Willett, W., J. Rockström, B. Loken *et al*. (2019) Food in the Anthropocene: the EAT–Lancet commission on healthy diets from sustainable food systems. *The Lancet* 393 (10170) pp. 447–492. https://doi.org/10.1016/S0140-6736(18)31788-4
Wrenn, C.L. (2017) Trump veganism: a political survey of American vegans in the era of identity politics. *Societies* 7 (4) pp. 32
Yeh, H.-Y. (2013) Boundaries, entities, and modern vegetarianism: examining the emergence of the first vegetarian organization. *Qualitative Inquiry* 19 (4) pp. 298–309
Yeh, H.-Y. (2014) Voice with every bite: dietary identity and vegetarians' 'the-second-best' boundary work. *Food, Culture & Society* 17 (4) pp. 591–613

Steffen Hirth*
Sustainable Consumption Institute (SCI), Alliance Manchester Business School (AMBS)
The University of Manchester
Booth St W
Manchester
M15 6PB
United Kingdom

Regional Centre of Expertise Graz-Styria (RCE)
University of Graz
Heinrichstraße 18, 3. Stock
Graz
8010
Austria
steffen.hirth@manchester.ac.uk