



Can we rely on 'climate-friendly' consumption?

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Abstract

In policy and research on sustainable consumption in general, and climate-oriented consumption specifically, key questions centre around whether people are motivated and prompted to support such consumption. A common claim in the scholarly debate is that policy makers, in face of fundamental governance challenges, refrain from taking responsibility and instead invest unrealistic hopes in that consumers will solve pressing environmental problems through consumer choice. Although green consumption is challenging, specifically climate-friendly consumption is even more so, due to the particularly encompassing, complex and abstract sets of problems and since climate impact concerns the totality of one's consumption. Nevertheless, consumers are called to participate in the task to save the planet. This article draws on existing literature on climate-oriented consumption with the aim of contributing to a proper understanding of the relation between consumer action and climate mitigation. It provides a synthesis and presents key constraining mechanisms sorted under five themes: the value-action gap, individualisation of responsibility, knowledge gap, ethical fetishism and the rebound effect. This article concludes with a discussion of perspectives that endorse a socially embedded view of the citizen-consumer. The discussion indicates pathways for how to counteract the constraining mechanisms and open up room for climate-friendly citizen-consumers.

Keywords

Citizen, climate, consumer information, consumption, responsibility, value-action gap

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Introduction

In policy and research on sustainable consumption, key questions centre around whether people are motivated or in other ways prompted to engage in such consumption. Such questions have been a focus of green consumerism research for some decades. The following claim is common in the scholarly debate about green consumerism: In the face of fundamental governance challenges, policy makers refrain from taking responsibility. Instead, they invest unrealistic hope in that consumers will solve serious environmental problems through developing a culture of environmentally friendly shopping behaviour. There is certainly some validity to this claim. In addition, this article argues that there are different levels of challenges involved in various types of sustainable consumption. If the general phenomenon of green consumption is challenging to achieve, specifically climate-oriented improvements of consumption are faced with a particularly challenging combination of factors. First, there is the global and pervasive character of the problem, encompassing all countries and all segments of life. To be sure, certain other green consumption issues – such as chemical pollution and threats to biodiversity – share degrees of this character. Yet, climate change takes the pervasiveness to a different level. Second, although most environmental issues are abstract and rely on expert knowledge for their treatment, this is particularly the case concerning the climate. From an individual consumer's point of view, it is tough to assess the climate impact of the choice and usage of every product and service. To a greater extent than many other environmental problems, assessments of the climate impact of one's daily shopping demand multi-factor comparisons (e.g. comparisons of imported Brazilian meat from free-range cattle with meat from regional, industrial production). Third, climate impact concerns the totality of one's consumption. For the individual consumer, it is hard to delimit one particular activity as relevant for climate action. The climate benefits of taking the bike to the job can easily be outstripped by lots of other activities in our culture, such as eating a hamburger for lunch.

Despite these challenges, consumers are called to participate in saving the planet. The message in public campaigns, green advertisement and non-academic books about climate and daily life is that doing this is not so difficult, after all. Books such as those titled '5 Ways to Save the Planet' (Schwartz, 2011) or 'No Impact Man' (Beavan, 2010) seem to ignore or underestimate the complex situation that consumers face (Soneryd and Uggla, 2015). Also, in policy making and scholarship, there is regularly an overly individualised, simplified and optimistic view of the climate reducing potential in consumer action, sometimes framed according to the so-called attitudes–behaviour–choice (ABC) model (Shove, 2010a, 2010b).

This article draws on existing literature on green and climate-oriented consumption with the aim of contributing to a proper understanding of the relation between consumer action and climate mitigation. While there is a vast body of research on green or sustainable consumption in general, there is less of synthesis research on the particular issue of 'climate-friendly' consumer action. Drawing on and

synthesising previous research, the contribution of this article consists of illuminating the particular circumstances and difficulties surrounding such action. Our analysis presents key constraining mechanisms that prevent climate-friendly consumption. These mechanisms are sorted under five themes: value-action gap, individualisation of responsibility, knowledge gap, ethical fetishism and the rebound effect. It is important, we argue, to pay regular attention to such mechanisms to facilitate supportive structures and practices, something which contributes both to scholarship and policy. Such a focus also adds to a promising discussion of a socially embedded view of what has been called ‘the citizen-consumer’ (Johnston, 2008; Spaargaren and Oosterveer, 2010).

Our search, selection and review of the literature are guided by a reflective approach focusing on theorising and problematisation, rather than on gap spotting. Alvesson and Sandberg (2011) make this distinction: ‘[C]ompared to gap-spotting research, problematization efforts are less concerned with covering all possible studies within a field than uncritically reproducing the assumptions informing these studies’ (p. 256). Such an approach supports a reflective, scholarly attitude to the study object and relevant literature, with aspirations to formulate new theoretical insights and frameworks.

We begin this review by defining ‘climate-friendly’ consumption, preceded by concrete arrangements aimed at facilitating climate-friendly consumption. An analysis follows of constraining mechanisms, sorted under the five themes mentioned above. In the final section of this article, we discuss a more socially embedded view of the citizen-consumer. This article concludes by indicating pathways for how to counteract the constraining mechanisms and open up room for climate-friendly citizen-consumers.

‘Climate-friendly’ consumption: A contradiction in terms?

Green consumption is close to an oxymoron, argues Peattie (2010). ‘Green’ implies the conservation of nature, whereas consumption involves the exploitation and often also the destruction of the same. Climate-friendly consumption appears even more so. It is hard to consume anything that has zero climate impact, although much advertising for products and services claim exactly this, such as an advertisement for consumer goods and services tied to carbon offsetting markets. The whole idea of this market is compensation, destroying something which afterwards is corrected by other measures. Yet, the consumption of the goods or services, when analysed in isolation, is highly likely to have a climate impact. Climate offsetting is subject to much debate, not just regarding actual climate impact but also regarding ethics in a more fundamental sense, or whether it is morally degrading (Sandel, 2013).

Even the limiting of an increase of average temperature to 2°C requires a drastic cut of annual CO₂ emissions per person in developed countries (see McKinnon, 2009). Accordingly, if the expression ‘climate-friendly consumption’ should mean something with substance, it will have to deviate extensively from a superficially

eco-polished status quo. Defined objectively (read: materially), it has to involve a reduction of such emissions (regardless of whether or not reduced climate impact is part of the consumer's motivation). Defined subjectively, it has to involve someone's intention, hope and belief that such reduction occurs via one's changed behaviour (regardless of whether this belief corresponds to actually reduced climate harm).

Furthermore, climate-friendly consumption has to be both a matter of volumes and alternatives. First, as a matter of volumes, climate-friendly consumption means reducing consumption on an entity's (individual, organisation and nation-state) aggregate level. At least, this would apply to developed nations, because many people in the developing world indeed need to increase their material standard of living. Framings of climate-friendly consumption have long accentuated this 'consume-less' dimension of green consumerism (Schor, 2008). Still, the dominant liberal or eco-modernist approach to green consumerism concerns alternatives, for example, organic food is about minimising the use of artificial chemicals in the products consumed rather than on reducing volumes of goods consumed or thrown in the waste bin (an approach criticised in Moisander et al., 2010).

Second, climate-friendly consumption is, indeed, also a matter of alternatives. Most debates and scholarly discussions on political and green consumerism concern issues about the relative impacts of alternatives. The analytical focus is typically on how consumers actively choose, or ought to choose, between products and services available in the marketplace. From this latter perspective, climate-friendly consumption is defined in relative terms: some goods and services are more climate-friendly than others. Tools, such as climate labels, generally rely on such a relative view. By definition, eco-labelling is reliant on symbolic differentiation (Boström and Klintman, 2008); labelled products and services are addressed as more environmentally friendly, sustainable and ethical than implicit equivalent goods and services. However, a label tends to imply – in misleading ways – that the labelled products and services are environmentally friendly, sustainable, climate-friendly or ethical in essentialist or absolute ways. This misleading equation of relative environmental impact with absolute impact becomes problematic as it concerns particular product types that can never be modified into anything near zero climate impact. For instance, beef is permitted to be climate labelled if the meat only has been produced in a slightly less energy-intensive way compared with equivalent meat products (Klintman and Boström, 2012). From a more progressive perspective, however, and using an absolute definition of climate friendliness, all consumption of beef should possibly be defined as climate unfriendly (cf. Nijdam et al., 2012).

If climate-friendly consumption is defined based on levels of climate emissions, people's intentions and choices preceded by climate-friendly ambitions towards climate mitigation might, at first sight, be irrelevant. However, the subjective dimension needs to be taken into account if scholars are interested in understanding the potential for conscious consumer action and explaining why consumer activities that actors understand as climate-friendly ones seem to exist in some areas, sectors and groups but not in others. Furthermore, the subjective dimension

is critical for the reason that views of consumers also constitute an important part of the public legitimacy potential for climate-oriented structural arrangements (Klintman and Boström, 2015).

Arrangements connected to climate-friendly consumption

During the last couple of decades, a number of consumer-oriented arrangements have been developed and tested (Hoffmann, 2011). Arrangements include climate labelling, carbon offsetting for flight trips, smart energy monitoring, information disclosure or adaptations of infrastructure. Some arrangements are explicitly climate oriented, while others have a less direct focus on the climate although they may have significant climate gas-reducing potential (Klintman and Boström, 2015). As we shall see, despite a strong focus on ‘users’, ‘consumers’ and ‘the general public’, few – if any – of these arrangements are independent of structural factors. We here distinguish between (a) arrangements related to infrastructures, (b) arrangements connected to specific consumer practices (how consumers act) and (c) arrangements connected to specific products or services.

Arrangements connected to infrastructures

Among the infrastructural arrangements with the most climate-friendly potential are planning and investments of increased public transport and more convenient, safe and extensive bicycle and walking paths. However, infrastructure with less apparent relevance for people’s transportation patterns is the Internet, its technologies and cultural changes that it has entailed. This has been highlighted in analyses of what is called ‘peak car’, the apparent tendency, at least temporarily, towards halted levels of car ownership and car use in parts of the world (Metz, 2013). What could an increased Internet use have to do with levels of car use and ownership? First, there seems to be a practical, cultural component. Once people do substantively more of their communicating and socialising online and through mobile telephony, and sense that they can rely on the infrastructure of the Internet, there is less time to meet physically, which used to take place more by means of car-based travelling. Second, cities and towns have become denser, making car use more cumbersome, availability of goods and services more accessible, along with extended public transportation and bicycle lanes in many cities, to facilitate movement in denser urban areas (The Economist, 2012). There are few connections between purposeful and strategic climate objectives behind some of these arrangements, particularly not of Internet expansion. While the Internet is far from climate neutral, such measures may nonetheless have broad climate implication.

Arrangements connected to practices

The second category of arrangements refers to measures aimed at stimulating changes in practices. Arrangements include monitoring systems for energy use or

organising of climate dieting among social groups (Howell, 2012). These arrangements give feedback on performance. In some cases, they include rewards if the groups or individuals have reached the goals that were initially set. Other arrangements that are tied to practice have less focus on calculation and measuring. Some cooperatives and businesses based on the notion of 'sharing economies' are devoted to practices of borrowing, lending, leasing, renting, goods and services, practices with assumed, relative climate benefits. Still other arrangements establish ritualised changes in practices at a collective level. The Meatfree Mondays movement falls within this subcategory (Upton, 2009), as do schemes in some workplaces for replacing a specific part of fossil-fuel-based business trips with travel-free meetings, using Information and Communications Technology (ICT) (Voytenko and Abrahamsson Lindeblad, 2013). A common trait in all these practice-oriented arrangements is that there is a wide information gap regarding the core practices (household heating, travelling, eating, etc.) and the knowledge about their respective levels of climate-gas emissions. Alongside the voluntary and often ad hoc style of practice-oriented arrangements, there have been more extensive experiments with carbon reduction action groups (CRAGs) as well as with limited carbon allowances involving limited groups of people (Howell, 2012). It remains to be seen whether politicians and policy makers are willing to try such schemes on entire local areas or beyond. This would demand comprehensive dialogue and opinion efforts involving all realms of the areas at stake, initially using test periods, to obtain public legitimacy.

Arrangements connected to products or services

Finally, there are arrangements for informing about products or services and in some cases also to ask consumers to compensate for the purchases they are about to make. First, there are carbon labels. They are based on a logo stating that the product or service has been developed with special considerations and reductions of climate-gas emissions compared to unlabelled alternatives and compared to what is required by law. Second, there are climate declarations, which indicate relative emission levels between similar products, such as of a bacon hamburger (which may be calculated to be 1.7 kg CO₂e, compared with a vegetarian burger, which may end up around 0.2 kg CO₂e). Labels and declarations are similar in that they are intended to raise consumer awareness and action (Stolle and Micheletti, 2013). A third subcategory refers to carbon offsetting schemes used for a number of products or services, established either through a voluntary carbon market or the United Nations' Clean Development Mechanism (Lövsbrand and Stripple, 2011). These schemes are most well known for flight trips and are based on a request to travellers/users/consumers to pay an extra fee to support climate compensatory measures. Such compensatory measures include investments in renewable energy and in the planting of trees, often in the Global South.

Mechanisms that limit climate friendliness

As the previous section indicated, the empowerment of climate-friendly ‘citizen-consumers’ requires the development of facilitating social structures and cultural environments. The term ‘citizen-consumers’ refers to the hybrid role of all people in a society. Purchases are inseparable not just from global climate, social welfare, justice and so forth, issues traditionally categorised with the citizen role and less with the consumer role (Johnston, 2008). Our consumption is also inseparable from the physical, economic and social structures in which we live as citizens. Climate friendliness is not possible or likely given absence of these structures. We will return to the importance of facilitating structures and practices in our final section and focus here more directly on the consumer side and explore a set of constraining mechanisms closely connected to the consumer’s life world. Based on findings and arguments from the literature, and our reflective reading of it (cf. Alvesson and Sandberg, 2011), we find it instructive to organise our presentation into five themes: the value-action gap, individualisation of responsibility, knowledge gap, ethical fetishism and the rebound effect.

The value-action gap

Let us start with the positive side. Many consumers, particularly in a North-European context, have a positive attitude towards sustainability issues in general and express willingness to incorporate ethical and environmental concerns in consumption decisions (Gallestegui, 2002; Klintman et al., 2008; Pedersen and Neergaard, 2006). Political consumerism in the form of boycotting has been rather stable the recent decades, while buycotting, the act of consciously choosing a product or a service instead of another for political or ethical reasons is growing (Stolle and Micheletti, 2013). Studies show that a bit more than half of the large and heterogeneous social category of European consumer is willing to consider climate change in their consumption, although less so in comparison with, for example, organic products (Eurobarometer, 2011, 372: 21; Gadema and Oglethorpe, 2011; Vancley et al., 2011). A recent study of climate action and awareness among citizens reveals increasing concerns (Roser-Renouf et al., 2016). This survey shows that a third of the respondents had rewarded a company for acting to mitigate global warming at least once the last year and that a quarter had boycotted a company that opposes mitigation (Roser-Renouf et al., 2016: 4771). In some countries, there is room, it seems, to take the positive motivations into account when designing for climate-friendly consumption and practices.

However, a current scholarly discussion in green consumerism literature centres on the value-action gap or attitude-behaviour gap. Why are people not acting at the same climate-oriented level as they express through their climate-conscious attitudes? Studies discuss various mechanisms explaining the gap (see, for example,

Halkier, 2009; Klintman et al., 2008; Martinsson and Lundqvist, 2010; Moisander, 2007; Peattie, 2010; Pedersen and Neergaard, 2006):

- Reported bias linked to the acceptability of pro-environmental responses;
- Lack of willingness to pay a price premium for green products;
- Social dilemmas ('why should I pay a more for green products if most other consumers don't');
- Motivational complexities (individuals have competing values and priorities);
- Lack of trust and perceived efficiency of the available 'green' options;
- Absence of practical arrangements that facilitate climate-friendly choices.

Taking the pervasive issue of carbon footprints into account, the value-action gap will likely even increase. Climate concerns are connected to abstract and distant issues. Compared with organic food purchases, shopping in a climate-friendly way can less easily be translated into private concerns such as health and taste (Röös and Tjärnemo, 2011). Carbon labels cannot easily appeal to such win-win concerns but must rely on the willingness of individuals to contribute to public goods, the citizen side of the citizen-consumer hybrid.

Individualisation of responsibility

A common topic in the literature has been the problem of individualised responsibility presupposed in the notion of climate-friendly consumption. Citizens are increasingly addressed as responsible consumers (Soneryd and Ugglå, 2015). There are a number of critical perspectives emphasising how unfair it is to allocate so much responsibility to the individual end-consumer, while ignoring structural factors. Such factors include unequal income distribution among consumers, the roles and responsibilities of more powerful business and government actors as well as the constraining structural conditions that limit the capabilities of consumers to engage in green consumption (Akenji, 2014).

Others argue that individualisation of responsibility is not just unfair but may have more profound negative effects, such as cynicism, narrow views and loss of political imagination. Maniates (2001) argues that environmental non-governmental organisations (NGOs) that embody a liberal mainstream environmentalism have been key actors in this development. They do so by a strongly individual-focused framing of problems and solutions, such as '5 ways to save the planet'. The messages are that people can do good and feel good by performing easy, individual tasks such as planting trees (carbon offsetting), switching off the light, recycle and take the bike to the work. Public campaigns appeal to the motivation of the moral and responsible consumer to 'do their own bit' (Soneryd and Ugglå, 2015). According to this message, global threats are serious, to be sure, while it is fully doable, and even fun, to change lifestyles in a climate-friendly way.

An individualisation of responsibility that over time does not produce any tangible result on the aggregate level is likely to lead to a deepening alienation from

traditional understandings of active citizenship. It ‘insulates people from the empowering experiences and political lessons of collective struggle for social change and reinforces corrosive myths about the difficulties of public life’ (Maniates, 2001: 44). Still, it would be an oversimplification to portray individual consumer engagement in reducing climate harm in sharp contrast to collective political struggle. There is some evidence that green consumption and political action proper go together (Kennedy et al., 2016; Stolle and Micheletti, 2013; Willis and Schor, 2012).

Knowledge gap

Another crucial theme regarding climate-friendly consumption is consumers’ (lack of) knowledge on complex environmental issues such as climate change. We discuss this broad theme from three angles. The first angle concerns the challenge of *making sense of abstract information*. In our role as consumers, it is futile to try to acquire any full knowledge about all social and ecological consequences of production. This is particularly evident with regard to abstract climate change issues. What is a low carbon diet? How should I interpret ‘18 kg CO₂e per kg beef or 5 kg CO₂e per kg pork’? ‘What am I expected to do with this information?’

As described in the section on practical arrangements, climate labels are one possible information type. The increased public attention to the climate issue has created a renewed interest in eco-labelling as a tool to deal with climate change (Horne, 2009). A key idea with eco-labels is that they can close the information asymmetry between the producer and consumer regarding sustainability impact of products and services (cf. Gallestegui, 2002). Labels can then be seen as a substitute for knowledge about intricate sustainability matters. They are based on frameworks of principles and criteria that must be fulfilled if a product or service can be labelled as ‘environmentally friendly’ (Boström and Klintman, 2008). These principles and criteria are the results of negotiations founded on a variety of stakeholder values and knowledge claims. The negotiations reflect an often inseparable interplay of science and politics, as well as of nature and culture. Green consumers may develop awareness about these principles and criteria, and they may see the links to underlying values and knowledge claims. However, low transparencies in the management of the labelling schemes prevent such learning (Brenton et al., 2009; Klintman and Boström, 2008). Furthermore, studies show that while consumers may recognise eco-labels a large share lack knowledge regarding the actual content and functional aspects of the schemes (Pedersen and Neergard, 2006). Misunderstanding can pave the way for legitimacy-seeking businesses to adopt light forms of green certification or even greenwashing, by making illegitimate claims about environmental friendliness of their products and services (Klintman, 2015). Empirical research that specifically focuses on climate labels find evidence of such knowledge challenges and uncertainties that confront the consumer (Gadema and Oglethorpe, 2011; Hornibrook et al., 2013).

Second, adding to the problem of sense making, *there is the risk of misleading climate information*. How to create credible information tools is a key topic in the green consumption literature in general (Boström and Klintman, 2008) and is no less key concerning the more specific topic of climate-friendly consumption. Intuitively appealing frames such as ‘low food miles’ and ‘buy local’ – if they are used in marketing or informational devices – can be considerably misleading, from a climate perspective, because they ignore the complexity of carbon emissions (Brenton et al., 2009). The geographical location alone is a poor proxy for overall emissions, as favourable production conditions in the exporting country may significantly offset a disadvantage in transport. In a study of carbon accounting, McKinnon (2009) shows that the calculation and validation of CO₂ emissions are extremely difficult and costly procedures. There are several methodological challenges connected to this task, and a few of them are summarised here:

- What is the scope? Should calculation be based on only product ingredients or also include all service activities connected with the production, transport, distribution and sale of the product?
- Which ought to be the starting and ending points in climate impact assessments of the commodity chain? Are usage and waste to be included, and if so, how should they be measured, given the extreme variability in how products can be used, how long they can be used and whether they can be reused?
- How could carbon accounting be conducted, in a practical way for products with considerable product complexity? For instance, manufactured goods such as cars and computers may comprise thousands of separate components. These may be sourced and assembled in many different locations and channelled through dense and global supply networks.
- How can the non-static character of supply chains be taken into account in calculations of climate impact? Buyers may change suppliers, meaning that carbon accounting would require regular and frequent revision, which, in turn, would be very costly.

Given these and other challenges, McKinnon (2009) argues that large-scale product-level supply chain carbon auditing could cause ‘paralysis by analysis’ and delay the implementation of carbon reduction programmes. Imperfections in the information tools are unavoidable. The implication is that consumers are misled if they are uninformed about the fact that such uncertainties, simplifications and trade-offs are necessary ingredients in the schemes (cf. Boström and Klintman, 2008).

A third aspect of knowledge gap concern *ignorance and anti-reflexivity*. In debates about knowledge-related challenges of green consumerism, it is important to stress that non-knowledge as such does not have to be a problem, which a discussion around the concept of ignorance reveals. Gross (2010) understands ignorance not as just the absence of knowledge but rather as awareness about

the limits of knowing in a particular area. In essence, labelling schemes and other green consumerist tools assume ignorance in this latter sense. The schemes implicitly ask the consumer to recognise her limited knowledge of sustainability consequences connected to a commodity and service, while the schemes invite her to place trust in the label as a substitute for that knowledge. Ignorance can be further divided into non-knowledge and negative knowledge (Gross, 2010). Non-knowledge is knowledge about what is not known but which is to be taken into account in future planning. Negative knowledge is knowledge about what is not known but which is considered irrelevant or dangerous to learn more about (one might not want to know about one's genetically predisposed diseases). Consumers may orient to eco- and climate labels in both these ways.

A potentially positive role of labelling schemes is that they can encourage learning, which may, in turn, help to increase consumer insight and reflection about sustainability matters (Boström and Klintman, 2008). Inclusive debates around labelling principles and criteria could encourage such paths taken. In this way, non-knowledge can be transformed into extended or new knowledge. Negative knowledge is not necessarily 'negative' from a normative viewpoint. Rather, to a significant extent labelling relies on negative knowledge, the green consumer may deliberately choose not trying to learn more, because learning requires investment in time and resources, as she instead chooses to trust the label as a substitute for knowledge. However, a problem emerges when the labelling schemes demand acceptance of negative knowledge on behalf of the consumer: 'Don't worry, trust the information!' this request contends. This demand for negative knowledge can be called anti-reflexivity.

The demand for negative knowledge – anti-reflexivity – implies a blind or simple trust instead of reflective trust in the consumer tool, which, in turn, can have various consequences (see also Boström and Klintman, 2008; Klintman and Boström, 2008). One negative consequence is that simple, blind trust may lead to cynicism if the consumer is confronted with negative, surprising information regarding the label and its certified practices. The consumer expects nothing less than 'absolute climate friendliness', rather than the more plausible 'friendlier than' (in a relative sense), although the consumer is likely to – sooner or later – be confronted by information indicating something that the seemingly perfect turned out to be less than perfect. Organic food production may have a negative climate impact, biomass for household heating also has its climate downsides, local food may require more energy than imported and so on. Second, the information providers' appeal to negative knowledge can easily lead to the kind of misunderstandings that consumers often have about green consumerism tools as discussed above. In contrast to blind or simple trust, reflective trust is defined as a more provisional and conditioned trust. The consumer who holds reflective trust in an information tool is likely to be less predisposed to allow new information about imperfections to lead to categorical rejections of entire eco-labelling schemes.

Ethical fetishism

Some 'green consumers' – and we are most likely to find them among white and middle-class high cultural capital consumers (see Carfagna et al., 2014) – may naively celebrate their own green identities and seemingly good deeds. At the same time, they may remain ignorant and anti-reflective concerning their continuing unsustainable practices. As Autio et al. (2009) suggest, green consumerism can fill individuals' propensity to be altruistic and good, sensed as a 'warm glow'. A concept that captures this theme is ethical fetishism. Julie Guthman (2009), who draws on the Marxist concept of commodity fetishism in her discussion of ethical labels, has initiated a discussion on this. Commodity fetishism is the (false) belief that a commodity has an objectively intrinsic value, unrelated to the production circumstances behind the commodity. This belief ignores, or conceals, the (exploitive) social relations under which the commodities were produced.

Ethical labelling can be seen as an attempt at unmasking this masking (Guthman, 2009). To defetishise a commodity is to make clear how the value of that commodity was created, including the social and environmental exploitation that the product involves during its entire chain. Applied to eco-labelling, one could also say that defetishising would imply making visible the negative social and environmental impacts of a commodity or service or, more precisely, the negative impacts of those commodities and services that are not labelled. An eco-labelled product could thus be seen as defetishisation in so far as it helps to reveal that this product has been produced under more socially and environmentally sustainable conditions than equivalent products. Thus, eco-labelling is to reveal the true value of the commodity and to make exploitive, unsustainable or sustainable relations of production more transparent and politicised.

However, if ignorance in the form of anti-reflexivity is operating, it is possible to argue that a double fetish rather than defetishisation appears. If negative social and environmental impacts in the production relations still occur, but under a false flag (an ethical label), green consumers are fooled in a double sense. Ethical values are then created as if they were objective and intrinsic, while these labels ignore or conceal the severely unsustainable conditions that may persist under such labels.

Public campaigns for green, ethical and climate-oriented certification schemes using slogans such as 'You control climate change' and 'Goodbye, poverty' can encourage such kind of ethical fetishism (Sandel, 2013; cf. Soneryd and Uggla, 2015). The message is that large-scale problems can be easily handled in everyday actions. Again, the individualisation of responsibility, including the appeal to the informed individual's free will and morality, can spur this. Consumers can further construct and cement their self-image as environmentally responsible actors. The stereotyped other, such as the 'irresponsible other', to which the individual can compare herself, is a useful tool for such identification (Soneryd and Uggla, 2015). Framings such as 'climate smartness' indicate that the individual is a rational climate actor, deeply motivated and empowered to act to minimise her carbon footprints. Local fetishism is another possibility (cf. Brenton et al. 2009).

An impression that carbon certificates, declarations and calculations are highly precise and that they have been developed through ‘pure science’ can also give rise to such fetishism.

McKinnon argues that apparently precise product-level carbon auditing, calculations and labelling can function as a ‘wasteful distraction’, given the severity of the environmental crisis facing the planet. McKinnon instead suggests that a traffic light system would be more honest as an information device to the consumers as such a system would not give a false impression of purity and exactness. It is a relevant remark. However, from another angle, a traffic light system can be problematic, as a green light symbolises ‘go ahead’. To avoid ethical fetishism, consumers must nevertheless be informed that also the green light is provisional. Just as green traffic light does not mean ‘drive as fast as you wish’, a green consumption light should also signal that also green consumer goods and services have an environmental and social impact and that it should not be limitless.

The rebound effect

The rebound effect is a challenge that has been given particular attention concerning climate impacts surrounding green consumerism. Akenji (2014) argues that green consumerism, in general, fails to address the root problems. Sustainable consumption requires reduced consumption, whereas global market economic system needs constantly increased consumption. Green consumerism falls between these two poles. Some critical perspectives discussed earlier – individualisation of responsibility, ignorance as anti-reflexivity and ethical fetishism – demonstrate mechanisms that can contribute to the phenomena known as the rebound effect. This effect implies that green consumerism can encourage more efficient use of natural resources and energy while such savings per unit mean that people can buy even more in absolute terms, thereby outperforming the efficiency gains. Climate-friendly consumers may engage in low carbon consumption in some areas of their everyday lives, while their total carbon footprint may remain constant or even increasing. There are studies indicating that ‘in some cases the presence of eco-labels can stimulate additional consumption, which negates any environmental benefits from greener choices’ (Peattie, 2010: 215). There is also always the risk that some reduced or removed climate-harmful practices are replaced by other climate-harmful practices. This risk is particularly critical as a consequence of climate-friendly practices where money is saved (energy-efficient cars or heating), which releases economic resources that might be used on, for instance, extra flight trips (Sorrell and Dimitropoulos, 2008).

To be sure, an individual’s total income could be allocated to consumption with less climate impact. A larger amount of consumption of immaterial services, unless these services require extensive energy use, could prevent a rebound effect. Sometimes, however, ‘immaterial services’ are erroneously seen and labelled as ‘climate neutral’ or the like (compare section on knowledge gap). For example, the use of ICT can be marketed in this way, which in fact is dubious. For instance,

the energy supply for data storage in the Cloud is an area where particular climate challenges are pointed out (Walsh, 2014).

Situating the climate-friendly citizen-consumer: Facilitating structures and learning of social practices

Our review of constraining mechanisms – under the themes of *value-action gap*, *individualisation of responsibility*, *knowledge gap*, *ethical fetishism* and *the rebound effect* – leads to a general conclusion that individually independent and reliant solutions to climate problems are not where society should place its hopes. The issue of climate mitigation presents a particularly complex and challenging combination of factors. Precisely because the climate case involves (mass)consumption to such a pervasive extent, it cannot be reduced to an issue of consumption and individual decision-making. The concept of citizen-consumer signals the importance of not reducing solutions to consumer acts but to recognise a wider, hybrid and nested spectrum of citizen roles and responsibilities (Groszlik, 2016; Johnston, 2008; Kennedy et al., 2018; Spaargaren and Oosterveer, 2010).

In this final section, we discuss promising perspectives for capturing a socially embedded view of the citizen-consumer. These perspectives indicate pathways for the counteracting of the constraining mechanisms and for opening up room for climate-friendly citizen-consumers. Indeed, a concern raised in the literature on green- and climate-oriented consumption is that the public discourse on green consumerism assumes a simplified rational choice model. According to this model, the green consumer has pre-given and a consistent set of preferences, possesses relevant and clear-cut information and is isolated from wider social and cultural influences. This rational choice view is reflected in the excessive focus in the public and certain academic debates on knowledge, attitudes and purchases, rather than on the use and post-use of products (Peattie, 2010). In reality, consumers face multifaceted everyday life situations. Few of the more mundane decisions are made according to this linear process. Environmentally conscious consumers face a situation of huge uncertainties, ambivalence among values and practical intricacies (Moisander, 2007). Socio-material and cultural circumstances may hinder consumers to act consistently. People are embedded in social relationships. These relationships – which involve issues of status, identities, belonging, comparisons and so on – shape how people orient to their consumption, including ‘green consumption’ (Klintman, 2012) and how they develop an ‘eco habitus’ (Carfagna et al., 2014). Public debates and campaigns do not match the tangled and shifting everyday realities the individual face.

However, individual action does not have to become isolated and fragmented. It can go together with a collective frame, either through a collective sense making of individual actions or by (social movement) concerted efforts among individuals (Autio et al., 2009; Groszlik, 2017; Halkier, 2004; Holzer, 2006; Kennedy et al., 2018; Micheletti, 2003). Scholars stress that people need to sense that their consumption and actions have meanings, make a difference and involve a larger group.

Being part of imagined or concrete collectives is crucial for this to happen. On the macro level, beyond the scope of the actor-oriented approach to policy, citizen-consumers can provide support and legitimacy of more structural and progressive climate politics and planning (Klintman and Boström, 2015). There is a wide area of potential research accordingly on the interrelations between such individual and collective dimensions.

A growing and promising stream of research uses the social practice perspective. It seeks to avoid an individualist focus by directing the attention to practices (showering, cycling, washing, commuting, cooking and how to ‘eco-drive’ one’s car), as the most relevant primary unit of analysis (Butler et al., 2016; Halkier, 2009; Spaargaren, 2011; Warde, 2005). Seeing the individual as embedded in practices encourages new questions to be asked: How does air-conditioning become normal? (Shove, 2010a). It entails studying consumers as embedded in socio-material infrastructures, cultures, communities, groups, economies, technologies and so on. This perspective holds that it is more relevant to focus on the ecological footprints of practices than the ecological footprints of individuals. It attempts to overcome the split between structural and actor-oriented approaches. It allows for taking into account both climate-friendly intentions and other intentions in the search and experimentation of relatively climate-friendly consumer practices (Klintman and Boström, 2015).

The social practice approach could fruitfully be transferred to public debates so that the mismatch between public campaigns and people’s everyday realities may be countered, away from cultural tendencies of anti-reflexivity, cynicism and ethical fetishism. Moreover, this approach could be effective for describing the socio-material and cultural lock-ins that people face in their daily lives. To only mention one example: Commuting by bicycle instead of by car is in several urban regions technically possible. However, even if the infrastructures were in place so that cyclists could avoid competing with cars on the physical surface (thus avoiding male-dominated traffic violence; Balkmar, 2012), the social convention of sweat avoidance, combined with an absence of showering facilities or time allocated for bikers to comply with this convention, may constitute sufficient obstacles to a wider transition into bicycle-based commuting. The convention of the middle-class suburban lifestyle is a related case, which limits people to a system of practices (car use, large spaces to heat, a lawn to maintain and a freezer to store food) which each has a significant climate impact.

At the same time, while the social practices approach is fruitful for studying daily, often mundane practices, it needs to be supplemented by other approaches (e.g. theories on social innovations, transitions, social movements and social learning) to more fully elucidate pathways for climate-friendly consumption.

The issue of learning is worth particular emphasis, given the complex epistemological problem of climate change (cf. section ‘Knowledge gap’). When actor-oriented policy approaches are in the spotlight, the intricate nature of the climate issue, as well as the risk of dubious climate friendliness, speaks in favour of a learning-oriented approach to consumption. Reaching consumers through information, including tools such as labels or climate declarations, fits well the modern

liberal society with its doctrine of free consumer choice (cf. Soneryd and Uggla, 2015). However, as our analysis in this article suggests, many public discourses are overly optimistic about the potential to provide comprehensive and credible information as well as to reach consumers widely and deeply, even in such a complex and abstract issue as climate mitigation. Calculation-dense and technically detailed auditing runs the risk of hindering rather than facilitating climate literacy. An approach that focuses on stimulating learning rather than providing exact information has more to offer, as it can activate the reflexive potential among citizens (cf. Boström and Klintman, 2009). Steps could be taken to educate citizens on low and high carbon consumption on the generic level, information that consumers then can use as heuristic devices in everyday life. To be effective, such information also has to connect with aspects that have relevance to consumers' lives (Peattie, 2010: 206–207). To seriously involve consumers would require more fundamental learning processes, including self-learning on unsustainable consumption practices that are currently considered normal and socially supported. For an individual in an affluent society, what first and foremost surround a person's daily life are all reflections of one's current habits and desires, as well as on how one can navigate within given structural and cultural conditions. 'Which are the structures and norms that shape my life and wishes, and which of them can I break?' 'Which dimensions of our lifestyles are we not asked to alter, to scrutinise, and learn more about?' While reflection and learning alone do not lead to climate mitigation, it is a necessary element, alongside the potential for consumers to have an impact in their role as citizens, in NGOs or other activities influencing policies and businesses at large.

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