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Christian Fuentes & Niklas Sörum

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Agencing ethical consumers: smartphone apps and the socio-material reconfiguration of everyday life

Christian Fuentes [a] and Niklas Sörum[b]

[a]Department of Service Management and Service Studies, Lund University, Lund, Sweden; [b]Centre for Consumer Research, University of Gothenburg, Gothenburg, Sweden

ABSTRACT

The aim of this paper is to describe and explain how smartphone apps, designed to assist consumers in making informed ethical choices and greening their everyday practices, enable and shape ethical consumption. Taking a socio-material approach and drawing on an ethnographic study of three ethical consumption apps – the Green guide, the Fair trade app and Shopgun – the paper shows that these digital devices are scripted to hybridize with consumers and facilitate key ethical consumer actions. When consumers follow the scripts of these apps, using them in everyday practices, the apps put pressure on consumers to act "ethically" by problematizing consumption in various ways while also, and simultaneously, endowing them with the agential capacities required to solve these problems. Consequently, these devices both motivate consumers and enable ethical consumption, producing, under the right conditions, capable and self-reflexive ethical consumer hybrids.

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Introduction

Consumers are increasingly being urged to "do their bit" and address a whole range of environmental, social, ethical and economic issues: climate change, unfair trade, animal cruelty and other future potential damage associated with consumption and product choice (Lewis and Potter 2011). Through processes of "responsibilization," individual consumers are made accountable and responsible for "solving" global and complex environmental problems (Soneryda and Uggla 2015). By being "ethical" and making minor and major changes to their everyday consumption, consumers are expected to counteract many of the unfair and unsustainable effects of contemporary consumer culture (Connolly and Prothero 2008).

Consumers are also answering this call and many are now purchasing ecological and Fairtrade-certified products, shopping second hand, monitoring their energy use, boycotting products, and trying to lower their overall consumption levels in an effort to address environmental problems, unfair labour issues and other problems associated with contemporary consumer culture (Cherrier and Murray 2002; Connolly and Prothero 2008; McDonald et al. 2012; Fuentes 2014b). Ethical consumption – here broadly defined as consumer acts during which consumers explicitly take into account the wellbeing of a distant or absent human and non-human "other"[1] – is becoming mainstream (Lewis and Potter 2011).

Nevertheless, being and becoming an ethical consumer remains a difficult endeavour. Ethical consumers have to deal with a variety of environmental and Fairtrade labels (Hjalmarson, Macquet,

CONTACT Christian Fuentes christian.fuentes@ism.lu.se; Department of Service Management and Service Studies, Lund University, PO Box 117, 221 00, Lund, Sweden

and Sjöström 2010; Alevizou, Oates, and McDonald 2015), be on the lookout for "green washing" (Peattie and Crane 2005), keep themselves informed of the latest environmental and social issues, and deal with uncertainties and contradictions (Halkier 1999; Connolly and Prothero 2008). Ethical consumption is difficult and demanding and individual consumers are often ill-equipped to deal with the problems that arise (Moisander 2007). Digitalization, some would argue, is changing all of this. It has been suggested that the advent of the Internet, the digitalization of information, and the popularization of various digital consumer tools might offer solutions to many of the sustainability problems consumers are facing today (Reisch 2001; Graham and Haarstad 2011). New digital tools such as interactive websites, QR-codes, social media sites, and smartphone applications bring new possibilities of accessing, organizing, producing and sharing information (Reisch 2001; Graham and Haarstad 2011; Atkinson 2013; Cochoy 2014; Sörum and Fuentes 2017). These digital devices offer consumers new ways of managing, calculating, communicating and evaluating environmental and ethical information. They have the potential to empower consumers and play an important role in the promotion of ethical consumption.

However, these devices are not only designed to enable consumption, they are also designed to shape consumers, to direct consumption by guiding consumers towards certain forms of ethical consumption (Sörum and Fuentes 2016). These digital devices can thus also be seen as a reinforcement of the individualization of responsibility that is prominent in many other policy efforts, environmental campaigns and marketing practices (Littler 2009). They can be seen as a new form of digitally mediated governance focusing on the reproduction of a specific and narrow subject position: "the ethical consumer." Or, conversely, they can potentially act as devices that promote more radical forms of consumer activism. What form(s) of ethical consumption do these digital devices promote? Moreover, how exactly do they work towards promoting ethical consumption?

These questions have received only scant attention in previous research. Ethical consumption studies, now a flourishing multi-disciplinary field (Lewis and Potter 2011), seldom examine the role that digital devices play in making this type of consumption possible. Consequently, while there is a growing body of work that investigates the role played by digital devices in enabling and shaping consumers' everyday lives (Beer and Burrows 2010; Magaudda 2011; Charitsis 2016), exactly how digital devices intervene and co-produce ethical consumption has not received the same attention (some exceptions are, Atkinson 2013; Hansson 2017; Sörum and Fuentes 2017).

Instead, previous research has focused mainly on ethical consumers and their psychographic and demographic profiles and cognitive processes. Much attention has been given to the decision-making processes of ethical consumers in efforts to determine what values or factors influence consumers when making ethical purchasing decisions (Schröder and McEachern 2004; Ozcaglar-Toulouse, Shiu, and Shaw 2006; Megicks, Memery, and Angell 2012). Other studies have focused on the values and attitudes of ethical consumers in efforts to discern "who" the ethical or green consumer is (Rowlands, Scott, and Parker 2003; Dickson 2005; Worcester and Dawkins 2005), or examined how "ethical" beliefs are shaped (Shaw and Clarke 1999). In these studies, the ethical consumer is narrowly conceptualized and represented as a rational individual, a cognitive machine and information processer, a version of the well-known figure of *homo economicus* (Barnett et al. 2005a), and a powerful actor capable of remaking markets by voting with his/her wallet (Micheletti, Follesdal, and Stolle 2004).

In contrast, sociological and culturally influenced research on ethical consumption presents a very different conceptualization of the ethical consumer. Here, nuancing and complicating the picture, the ethical consumer can be an identity constructor (Cherrier and Murray 2007; Connolly and Prothero 2008) and community builder (Moisander and Pesonen 2002). Ethical consumption can involve the re-enchantment of consumption (Thompson and Coskuner-Balli 2007), it can be partly driven by the search for meaningful alternative experiences (Soper 2007; Sassatelli and Davolio 2010), it can be a form of status competition (Elliott 2013), or it can connect with the formation of an "eco-habitus" (Carfagna et al. 2014). Here, the ethical consumer is not an isolated individual but a social and cultural being, and ethical consumption is something driven and shaped by various social mechanisms and processes. In this version, the ethical consumer is anchored within the

context where he or she operates; the ethical consumer is caught up in social processes and structures, with his or her agency being enabled and shaped by these discourses, processes and structures. In this research, the ethical consumer is either a hero capable of resisting or challenging capitalism, by constructing alternative identities, meanings and communities, or subordinated by neo-liberal discourse and technologies of responsibilization and made responsible for broad and complex problems he/she cannot possibly solve.

Although these two research streams have offered us significant insights into ethical consumption, they are also characterized by an important blind spot. While a consumer focus is understandable, and in some cases justified, it often leads to a neglecting of the ways in which materiality, technology and infrastructure shape ethical consumption at the expense of examining the "purely" human and the discursive (see also, Strengers, Nicholls, and Maller Forthcoming). Ethical consumption practices, e.g. greener shopping, recycling or boycotting, are enabled and limited by the socio-material landscape (Chatzidakis, Maclaran, and Bradshaw 2012; Fuentes 2014b). Ethical consumers are always, from a socio-material approach, hybrid and always equipped; both the agency of consumers and their "character" are shaped, at least partly, by the devices they use and the socio-material landscapes in which they operate. An understanding of ethical consumption can thus not be complete without taking into account the active role of these "missing masses" (to paraphrase Latour 2000b). Ethical consumption practices and agencies co-evolve with the socio-material landscape that enables them. This makes it important to understand how the digitalization of consumption is changing our possibilities of ethical consumption (Cochoy et al. 2017).

In this paper, we set out to understand how the digitalization of consumer culture is changing our possibilities of ethical consumption by focusing on one of the more widespread digital devices – the smartphone application. Ethical consumption apps – i.e. smartphone applications designed to assist consumers in their ethical consumer actions – are gaining momentum. In recent years, NGOs and corporations have launched a number of smartphone applications designed to assist consumers in their ethical consumption – i.e. the Buycott app, the Good Guide app, iRecycle and various Fairtrade apps. Consumers can now download apps that help them recycle, allow them to find Fairtrade cafés, support them in boycotting ethically problematic products/brands, and enable them to learn more about products available in stores using barcode scans. Furthermore, going beyond being conventional tools, these digital devices also attempt to make decisions for their users. Like other smart technologies, these devices are designed to take on some of the cognitive capacities of humans, improve on human agency, and guide and change our behaviour (Guthrie 2013). They are examples of "smart" and "persuasive" technology.

Against this backdrop, the aim is to describe and explain how smartphone apps work towards promoting and shaping ethical consumption. We want to know how these apps are organized, what actions they prescribe, how consumers use them, and what happens when they do. In doing so, our ambition is to contribute towards a better understanding of how the ongoing digitalization of consumption (Cochoy et al. 2017) is shaping our possibilities of ethical consumption.

Theoretically, we draw on market studies literature (e.g. Cochoy 2007) to conceptualize ethical consumption apps as socio-material consumption devices which enable and shape sets of practices. Acknowledging that artefacts "play an active part in the generation, stabilization, and reproduction of social order" (Preda 1999, 349), we set out to examine these digital objects, the actions they prescribe, and the ways in which they are framed and used by consumers. Empirically, our analysis builds on an ethnographic study of three ethical consumption apps launched in Sweden: the Green guide, the Fairtrade app and Shopgun.

Smartphones as consumption devices: a socio-material approach

In this paper, we make *consumption devices* our focal point. Drawing on the conceptual toolbox of market studies, and taking a socio-material approach, we set out to theorize the active role that smartphone applications can have in enabling and shaping ethical consumption actions. This

approach is not completely novel to consumption studies. Several scholars have accentuated, drawing on actor-network theory (ANT), the importance of taking a socio-material approach to consumption (Brembeck, Ekström, and Mörck 2007; Bajde 2013). More specifically, there are also a number of studies that explore the important role that devices such as shopping carts (Cochoy 2008), packages (Cochoy 2004; Hawkins 2011), bikes and trolleys (Hansson 2015), and, importantly to our case, smartphones (Cochoy 2014; Fuentes, Bäckström, and Svingstedt 2017) can play in shaping consumer practices, mobilities, calculative capacities and agency.

In these studies, things/artefacts are assigned an active role in the enacting and shaping of consumption and consumers. We take a similar tack as we set out to examine the role that smartphone apps can play in the enabling and shaping of ethical consumption. Our analysis is informed by a selection of socio-material concepts: i.e. devices, scripts, hybrids and distributed agency.

First comes the concept of the device. In the market studies literature, market devices are commonly defined as "material and discursive assemblages that intervene in the construction of markets" (Muniesa, Millo, and Callon 2007, 2). Following this, we define consumption devices broadly as material-discursive assemblages that enable and shape consumption (for a similar approach see, Cochoy 2014). Applying the concept of the consumption device in this context is useful in that it accentuates two important aspects of smartphone apps: i.e. their socio-material nature and their economic performativity. When talking about smartphone apps as consumption devices, we are accentuating their socio-material nature. Consisting of code (which in itself is material), users only experience apps in their materialized form as a part of a smartphone (or a tablet or other device). Smartphone applications are produced in/through socio-material networks; the apps themselves can only exist and be experienced as parts of material entities. Treating apps as immaterial would mean ignoring this important dimension.

In using the concept of the consumption device to talk about smartphone apps, we are also putting an emphasis on their economic performativity. Devices do things and consumption devices do things with consumption (to paraphrase Muniesa, Millo, and Callon 2007). The specific smartphone apps we examine in this paper are also market actors – they are designed for and also used in the enactment of market actions (specifically, various forms of consumption-related activities). The use of these apps can, at least potentially, contribute towards creating specific types of market actors and specific configurations of markets.

To understand how these devices can act and interact, we turn to the concepts of script, inscription, and de-scription (Akrich 2000). Scripts are plans of action that have been made material (Akrich 2000; see also Fuentes 2014a). A script is thus a "text" inscribed into an object together with instructions on how to use that object. A script defines who the user is and what actions to carry out, and how. Devices are thus prescriptive and encourage certain actions, while making others more difficult to perform (Latour 2002; Jelsma 2003; Hansson 2017; Sörum and Fuentes 2017). Scripts are not, however, deterministic. A script must always be translated by its users, it must be de-scribed (Latour 1991; Akrich 2000); as numerous studies have shown, during the process of de-scribing a script, something almost always intervenes, causing the performed act to diverge from what was prescribed (Ingram, Shove, and Watson 2007).

Lastly comes the question of what happens when consumers and smartphone applications successfully interact. A key concept within ANT is distributed agency. Agency is not to be found in individual entities but rather in socio-material assemblages – actor-networks – in which various elements are interconnected. Every element of the network is, then, an actant – an entity that acts in the sense that it contributes to the collective capacity of the network to act (Latour 2005). Agency – meaning here the capacity of an actant (human or non-human) to act – "emerges in relation to other actants and their interactions within an assemblage" (Strengers, Nicholls, and Maller Forthcoming, 5). An entity – such as a market agent – does not possess any inherent agency; instead, agency is acquired through various agencing process and constantly changing (Hagberg 2016). During processes of agencing, the capability to act can become concentrated around a specific actant, but it is never the possession of that actant. Agency can group around certain actants but remains distributed.

Thus, while some actants in the network can have more agency than others, the agency of an actant is always contingent upon its relations with the other actants in the assemblage. Devices thus contribute to and augment the agency of humans as a result of processes of agencing (Hagberg 2016; Stigzelius 2017). As others have clearly shown, devices augment human capabilities in various ways (Michael 2000; Cochoy 2008; Watson and Shove 2008), making it possible for us to transcend the limitations of human biology (Guthrie 2013). By making use of devices, humans not only equip themselves with useful tools, they also enter into a process of hybridization; they become part of a socio-material assemblage and acquire agency during the process.

Drawing on these concepts, we analyse the scripts of ethical consumption apps, as well as whether and how they intervene in the everyday lives of consumers. What "power" these consumption devices have to attract consumers and what kinds of ethical consumer actions they encourage and enable are not determined *a priori* but open to empirical investigation. As shown in previous studies, the effects of digital technology on consumer agency are always ambiguous and contradictory (Zwick and Dholakia 2004).

An ethnographic study of apps

This paper draws on an ethnographic study of three apps – the Green Guide, the Fairtrade app, and the Shopgun app. These apps were selected for three reasons. Firstly, we wanted variation as regards what kinds of issues these apps addressed. The Green Guide app deals with environmental information and the Fairtrade app with social justice and labour issues. Shopgun combines these two issues and adds health. We also sought variation as regards the apps' technical functions. As will be clear in our analysis, the apps offer consumers different functions – the Green Guide app is mainly about choice architecture and has an information database, the Fairtrade app has barcode scanning functions and an interactive map function, and the Shopgun app was designed almost exclusively with barcode scanning in mind. Finally, we wanted apps that were widely used and thus easier to study. At the time of the study, these three apps were among the most successful on the Swedish market (in terms of media and consumer attention).

Our ethnographic study of these apps is similar to most ethnographic studies in that it relies on a combination of observations and interviews, studying multiple sites and aiming to produce a rich and multifaceted picture of the phenomenon under study (Marcus 1995; Hannerz 2003). However, there are also some differences. To begin with, this study differs as regards what is in the picture ethnographically. This is an object-focused ethnography (Carrington 2012). The study is designed to understand how a specific set of digital devices. Additionally, in trying to accomplish this, the study takes a socio-material approach (following ANT), interrogating both people and objects and treating these symmetrically (Bruni 2005). This mode of ethnographic inquiry has become common within Science and Technology Studies (STS), and studies influenced by STS (Hess 2001; Bruni 2005). In these ethnographies, "culture" is understood as heterogeneous. Finally, this study is different from many other ethnographic studies in that it, in trying to understand how digital objects enable and shape everyday consumption practices, moves between on- and offline sites, treating these two realms symmetrically (Beneito-Montagut 2011).

Making these digital objects the focal point of the investigation, taking a socio-material analytical approach, and acknowledging the on-/offline existence of these digital objects, we used a combination of interviews and digital observations to examine (1) how these apps were inscribed by their "designers", (2) what kinds of action programmes the scripts of these digital objects enabled and encouraged and (3) how these digital objects were de-scribed by their intended users, i.e. consumers.

We conducted interviews with the programmers and other staff responsible for the development of the apps in order to understand how the apps were inscribed by their "designers" (i.e. the ideas behind the apps and how they were framed). A programmer responsible for developing the Shopgun app, a web director at Fairtrade Sweden, and the director of eco-labelling and green consumption at

the Swedish Nature Conservation Society were interviewed with regard to the development of these apps. The interviews covered questions regarding how they had started work on the apps within their respective organizations; what kinds of motives/expectations had been involved; what kinds of software, content and technical features had been chosen; how they had marketed the apps; and who the intended consumers/users had been. The interviews were conducted at the offices of the informants between May 2013 and January 2014. They lasted between 75 and 120 minutes and were recorded and transcribed in full. Digital observations of how these apps were marketed online were also conducted. We documented, using screenshots, how the organizations behind the apps had marketed them on Facebook, Instagram, Twitter, YouTube, Pinterest, company webpages and blogs, and iTunes, and on Google Play.

The second part of the study concentrated on the apps themselves and their prescription. To understand the apps' scripts, we carried out extensive digital observations, going through the apps systematically and taking screenshots and videos in order to document these observations. The objective was to observe what consumer actions these apps encouraged and enabled, and how they managed to do this (technical issues, but also discursive). The key assumption here, borrowed from STS and ANT, is that scripts – i.e. materialized plans of action – can be "read" by observers and thus also described and analysed (Akrich 2000). This technique produced hundreds of screenshots, and about 20 screen videos, which were then analysed by the authors.

Finally, to understand how the apps were and could be used, we conducted interviews with consumers. The criteria used to recruit informants were; that they self-identified as green consumers, that they were frequent smartphone users, and that they lived in the Gothenburg area. In total, 11 women and 7 men were recruited for testing these three apps. This means that, rather than trying to find users of these apps – which would be difficult and also less than ideal since it is unlikely that one single consumer would have tried all three apps – we used our personal networks and social media to get in touch with consumers who were willing to try the apps for a period of two weeks, to document their experiences using screenshots, and to be interviewed afterwards about their use of the apps.

This sampling strategy has some apparent drawbacks. It prompts consumers to use apps that they might not have used otherwise. It also means that these consumers (for the most part) have very limited experience of these apps. Finally, it also produced a somewhat skewed sample. While the sample contains informants of differing ages (between 20 and 50), the majority of these were in their 20s and although the sample contains informants with differing backgrounds, educational levels and occupations, many of the informants were university educated.[2] However, this strategy has also important benefits. Firstly, and most importantly, it solves the problem of acquiring first-hand data on the use of the apps and also allows a comparison between them, something that would otherwise have been very difficult. Secondly, it means that the experience of using the apps was still recent when the consumers were interviewed, thus making it easier to talk about. As studies of technology-in-use have so convincingly shown, once a technology becomes commonplace, and a part of everyday life, it also becomes taken for granted and very difficult to talk about.

The interviews were carried out at our office, lasting between 45 and 90 minutes and were recorded and transcribed in full. The interviews were organized into two phases. During the first phase, we asked about the informants' consumption practices in general, and how they related to sustainability. The second phase dealt with the apps under study, and the informants' use of them. To get the detailed information we wanted, we arranged "digital walkthroughs" – i.e. we went through the apps with the informants on a large screen, talking about the informants' use, knowledge, and opinions of the apps, and their various functions.

Finally, to complement the consumer interviews, we also conducted digital observations of consumers online. This final part of the study focused on consumers' online comments about the three apps under study. We examined and documented, using screenshots, how and what consumers publically wrote about these apps on Instagram, Facebook, YouTube, and Pinterest, and what they wrote on blogs and at the Apple store and Google Play.

Analysis was carried out collectively by the authors and was ongoing throughout the process of data collection and writing. The analytical categories were developed by closely reading the various materials using both common coding techniques and the constant comparative method (Charmaz 2006). Led by our theoretical framework and the aim of the paper, two sets of questions guided our analysis. The first was more concrete and dealt with the specific inscription/prescription/description of the apps: What kinds of consumer actions do these apps enable and encourage? The second, more abstract, question concerned what happened when these apps were put to use in consumers' everyday lives: in what way(s) does the use of these change consumers' everyday lives?

Smartphone apps and ethical consumer actions

As mentioned above, the three apps studied differ. The Green Guide app, launched by the Swedish Society for Nature Conservation (SSNC), addresses predominantly environmental issues, the Fairtrade app focuses on social justice/fairness issues and the Shopgun app provides environmental, social justice and health information. These apps are also different regarding their technical design. The Green Guide app functions as a database containing useful information about consuming sustainably and how to make environmentally conscious decisions; Shopgun is primarily a barcode scanning app; the Fairtrade app is a combination of both a database and a barcode scanning app, with the addition of geo-localization functions.

However, in spite of these differences, the apps are similar in that they are designed to promote ethical consumption by encouraging and enabling a set of ethical consumer actions. More to the point, drawing on our socio-material approach, we argue that the apps we studied were scripted in order to enlist consumers in performing four key ethical consumer actions: i.e. getting informed, scanning the barcode, pledging green and sharing your commitment, and navigating the ethical landscape. Inscribed into these apps are specific ideas regarding whom the ethical consumers are and how ethical consumption could and should be performed. Below we discuss how they apps worked to encourage and enable consumers to perform these ethical consumer actions. This first and more empirical step will form the basis for the next part of the analysis which discusses the process by with these apps reconfigure consumers everyday lives.

Get informed

All three apps are scripted to encourage and enable consumers to get informed. The apps provide consumers with databases containing sustainability information aimed at assisting them in making their everyday consumption more sustainable. The basic idea framing the prescribed action is that ethical consumers have to be knowledgeable. The individualization, or personalization (Giesler and Veresiu 2014), of broad social and environmental responsibilities is assumed here and the focus is on solving the problem that ensues from this assumed responsibility. Sustainability issues are complex; making informed choices in today's complex consumer society is (too) demanding for the individual consumer (on complexity and sustainable consumption see, Moisander 2007). Taking this into consideration, these apps are designed to assist consumers by providing them with the information they need, when they need it. Information is selected and organized so as to be easily accessible and relevant to the consumer using the apps.

The Green Guide, for example, provides environmental information and encourages consumers to browse the app to get informed; its script pushes users to browse through the various pieces of "green advice" that it contains. However, the information the app provides is not abstract, as it is in many of the information campaigns commonly used to promote ethical consumption (Macnaghten 2003), instead being practically oriented and easy to understand. In the Green Guide, the advice is arranged into consumption themes – home, food, children, travel, clothes, work and garden – and formulated as imperatives; "Detox the kitchen!", "Watch out for plastic toys!", "Switch to ecological milk!", "Eat less meat!", "Recycle" and "Fly less!". This consumption device teaches and

enables consumers to break down the multiple practices constituting their complex everyday lives into separate, more manageable areas. Consumers are then shown various steps they can take to green their practices within these areas of practice:

> … the fact that you can choose one thing at a time. / … "I start off with cleaning stuff." Or "I start with the kitchen". … this is very, very useful … and easy. (Kristina, consumer interview)

> I though it [the advice] was interesting. Much of it I had already thought about. But vacuuming behind the refrigerator is a good one! I had no idea about that. / there was also this thing about … I had never through about that … airing out your home quickly. Because if you do it slowly you cool down the furniture which in turn cools down the apartment and more energy is consumed to heat it up again. That is also a good one … / I also though it was good that they put stars on the extra important ones. Because sometimes you feel that you dońt have the energy to do it all. So it's good to know what the most important things are … eat less meat … what else … skip the jumbo shrimps, switch to ecological milk … .(Lisa, consumer interview)

Here, the app works to mobilize consumers, it pushes consumers to go from obligations to action by providing the practical means of "doing" ethical consumption (Barnett et al. 2005b). We can also see how everyday practices, e.g. shopping or washing, are politicized, and linked to broad environmental and social issues offering consumers a new pathway to or arena for political engagement and ethical action (Barnett et al. 2005a). Information is never just information and the interview extract above shows that these apps also shape how consumers come to understand and approach ethical consumption.

A dominant consumer model in these apps is that of the "ethical chooser." In line with the neoliberal discourse, it is through buying the "right" products that issues such as environmental pollution, poverty and unfair labour conditions are addressed (Littler 2009; Soneryda and Uggla 2015). Following this model, the focus is on purchase choices. The Green Guide even has a function called "the chooser." The green app has "fish chooser," "label chooser" and "recycler." Under these labels, consumers are provided with additional information intended to make their choices easier. The fish chooser, for example, alphabetically organizes information about which fish or seafood is acceptable to buy from an environmental standpoint, and which is to be avoided. Similarly, both the Fairtrade app and the Shopgun app work in accordance with the notion of the ethical chooser. Following these scripts, consumers would talk about the apps as choice facilitators, as devices that allowed them to be better informed. Here, we see how consumers perceive the apps to be empowering; they are both fun and informative and they allow her to make active decisions:

> It's interesting as it's … more informative. And that's really something I see as more fun, reading up and then forming my own opinion and developing my own skills. And then being able to make an active decision in the food store … . (Jenny, consumer interview)

However, although influential, the chooser is not the only consumer model inscribed into the apps. In the Green Guide, one can see a much broader conception of the ethical consumer in play. Beyond purchasing information, the Green Guide also provides information and advice regarding how to green everyday household practices, e.g. washing, cleaning, cooking, gardening and recycling. The idea is to promote "green living" by providing consumers with the know-how needed to green their practices. Inscribed into the app is the notion that ethical consumers have to move beyond boycott and buycott issues, and to rethink a host of everyday practices. Following a consumer conception similar to the one used in practice theory influenced sustainable consumption research (Röpke 2009; Spaargaren 2011), the ethical consumer is thought of here as a sustainable everyday practitioner. Consumers are urged to "detox" their kitchens, to use the vacuum cleaner only if they really have to, to take shorter showers, to use less detergent when washing clothes, to avoid keeping electric appliances on standby, and to recycle. Consumers are also instructed to avoid taking the car, to car-pool when possible, to avoid flying, to cycle to work, to re-design their clothes, and to give away or donate clothes they do not use. Through these and numerous other pieces of "green advice," the Green Guide app encourages and supports the re-configuration of consumers' everyday

practices. The basic idea is to promote a more sustainable lifestyle through small but incremental changes to consumers' everyday practices and routines.

This app provides not only neutral information, but also a specific type of green morality (Fuentes 2014a), built into the socio-material script of this digital consumption device. The app not only informs about different ways of being an ethical/sustainable consumer, it also prescribes consumers making green purchasing choices, greening their everyday practices, and becoming active in the environmental movement.

Scan the barcode

In addition to providing information, the apps studied are also scripted to encourage and enable consumers to seek out information on their own. The Shopgun and Fairtrade apps, for example, go beyond providing information by also enabling and encouraging consumers to scan barcodes in order to obtain more information when shopping. The problems being addressed here concern complexity and transparency, problems that are supposedly created by contemporary commodity chains. As Barnett et al. (2005b) explain, there is an assumption that distance is a problem for issues concerning ethics and consumption. Spatial distance "can be thought of in terms of a barrier, beyond which the reach of responsibility becomes problematic" (Barnett et al. 2005b). It is a problem both for empirical knowledge (it is difficult to know anything about the manufacture of products in far away countries, for example) and for causality (the complexity that arises from long commodity chains makes it difficult to estimate the result of one's consumer actions), in turn leading to a problem for the caring ethical subject. Shopgun and similar apps offer a solution to these problems by endowing consumers with the ability to go "behind" the label and trace products along the commodity chains, thus uncovering the consequences of the production, distribution and consumption of goods.

Once again, we find the notion of the ethical consumer as a chooser inscribed into the app. A consumer is equipped with a smartphone and this app can scan a barcode and access product facts and a consumer guide. By introducing this app, the organization behind Shopgun aims to create better-informed consumers and to promote more "ethical" products on sale in supermarkets:

> We show what's behind the barcode and, in doing so, we enable informed consumer choice. We hope that, with time, this will lead to more green products on shelves, says Ola Thorsen, Chair of the board of Consumentor. (www.shopgun.se)

The Shopgun app connects product information with consumption advice from trusted "advisors." The recommendations of a variety of environmental organizations, consumer advocacy organizations and research experts (e.g. KRAV, Fairtrade, the Swedish Consumer Association, the Swedish Food Administration, and the Swedish Board of Agriculture) are connected to product information that is available via the EAN database – e.g. brand, producer, ingredients, etc. – thus constituting a searchable information system for ethical shopping. The Shopgun database contains around 60,000 products. Approximately 40,000 of these are associated with advice and information texts. Over 3200 pieces of consumer advice are stored in the app. Based on this extensive database, the app produces product-specific information and recommendations. More specifically, scanning a product generates information-packed images.

The Shopgun app shows an image of the product and its EAN code (Figure 1). The pie chart shows weighted advice. Below this are the different pieces of consumer advice, colour-coded: green signifies "go," amber signifies "be cautious," and red signifies "avoid." Consumers can also interact with the app. They can, for example, click on the recommendations to obtain further information about the product, the producer or the "advising" organization.

In addition, consumers can also, and are encouraged to, configure the app. They can assign importance to the various recommendations. The more importance a recommendation is given by consumers, the more space it is assigned in the pie chart. They can also personalize their app

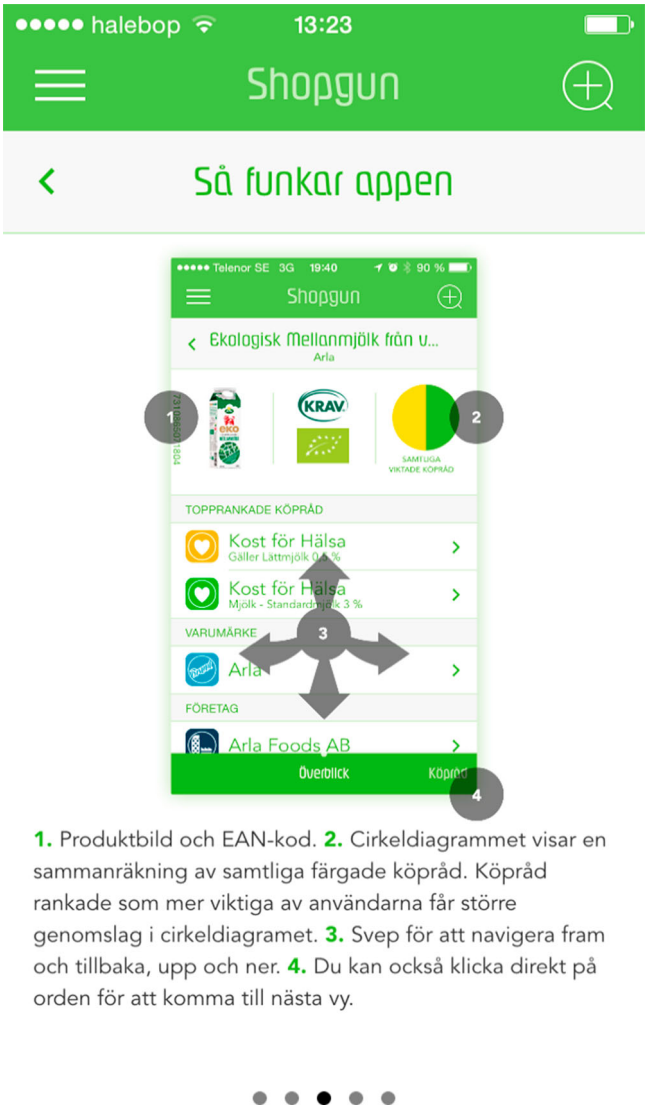

Figure 1. An overview explaining the information provided by the Shopgun app.

by choosing what issues to focus on. Consumers select environmental, ethical and/or health – thus personalizing the app (Figure 2). A consumer interested only in "ethical" and environmental matters can then choose to exclude health issues, and vice versa.

The Shopgun app encourages and enables consumers to scan barcodes, to get informed, and to make ethical shopping choices in two ways. Firstly, it is designed to unlock "hidden" information about the products consumers purchase. Through scanning, the barcode function information that is otherwise invisible to consumers is unpacked and made available:

> Right, this I thought was really good [shows picture on her phone of a scan she performed the previous week]. You see, this kind of advice I got when I scanned these lentils; "choose ecological leguminous plants, this is especially important when you're buying soya beans." "Avoid fresh imported beans." … and this stuff about "you might want to substitute a few portions of meat during the week for leguminous plants." Here you have simple tips and advice. (Lisa, consumer interview)

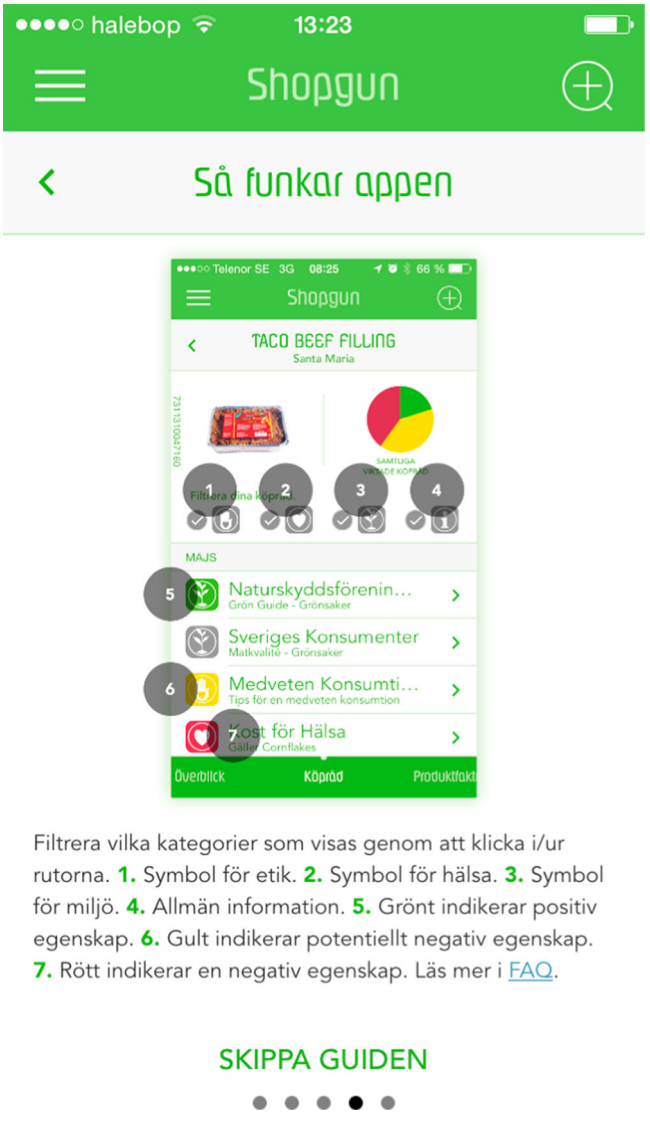

Figure 2. Example of the information that a Shopgun scan provides.

However, for this to work according to the script, it has to be incorporated into consumers' shopping practices. These are often highly routinized and thus difficult to impact. Even in this study, in which students had explicitly been asked to test the apps, it was difficult to break everyday routine:

> I had this phone for a week. I was in the store many times and forgot to pick it up. I even went to the store, put it in my pocket set on testing the app and then came home and just "o my God, I forgot!" So, there is the issue of remembering to actually use it. For when you get to the grocery store other parts of the brain are activated. (Lisa, consumer interview)

More than difficulties of breaking routine the apps also had to fit into and work with the existing socio-material landscape of the stores.

> I have never actively, before this study I mean, used the apps in the store. Partly because of practical reasons, it is inconvenient to pick up your phone in the store, "where is it? And my bag and … " I haveńt really seen a reason

> to do it. Because what I want to know in the store is on the signs, either on the packaging or on the shelf. But it is also because I also know … I know what Fairtrade is, what products are Fairtrade, what fishes not to eat. (Jenny, consumer interview)

Here we see that the apps can be both cumbersome to use and, when used, fail to add new information the shopping situation. Other artefacts, such as packages and signs, are already in place and provide the same information that the apps are intended to provide. Previous studies have shown that consumers who are sceptical of company claims are more willing to use their smartphones and scan QR codes for additional sustainable information (Atkinson 2013). In this case, when used, the smartphone becomes a tool for critical consumption. Apps like Shopgun enable consumers to add a layer of information and to reconfigure the informationscape of stores (Fuentes, Bäckström, and Svingstedt 2017). If the apps are able to become part of the shopping routines of consumers, these apps allow consumers to construct transparency, to check company claims and then to subject these to scrutiny by seeking advice from independent sources.

Secondly, these consumption devices also assist consumers in managing the information overflow that results from barcode scanning. As discussed above, Shopgun gives consumers purchasing advice based on barcode scanning. It strives towards simplifying the information using the traffic light system. Vast amounts of information and multiple issues to be taken into consideration are then translated into a simple system displaying green-amber-red.

Pledge green and share your commitment

The apps also encourage and enable consumers to construct and communicate ethical consumer identities. In the design of these apps, the notion of the ethical consumer as an information processer and a decision-maker is combined with a very different understanding of the consumer: i.e. the consumer as socio-cultural being. From this perspective, ethical consumption is not about information and rational decision-making, it is a social and cultural practice (Connolly and Prothero 2003). Ethical consumers are driven either by identity making (Cherrier and Murray 2007; Connolly and Prothero 2008), the longing to be a part of a consumption community (Thompson and Coskuner-Balli 2007) and/or by status (Elliott 2013). Based on this notion of the ethical consumer, the app prescribes actions that draw on the socio-cultural mechanisms of identity construction, community marking, and status competition.

For example, users of the Green Guide app are encouraged to select certain actions (e.g. "detox the kitchen" or "love vintage") and to then "pledge" to carry these out later. Pledges are recorded in the individual user's status profiles according to his/her levels of commitment to the "green cause," as suggested by the Green Guide system. You can earn points and become a "green choice hero." The app grades you according to the number of pledges you make. You can go from "eco-rookie" via "eco-fighter" to "planet-saver" (with numerous positions in between). The app both evaluates and gives value to consumers' green practices. It assigns labels to consumer achievements, supporting ethical consumers' identity projects.

Furthermore, when you pledge to perform certain environmentally friendly practices, you receive positive feedback from the app. For instance, when pledging to buy ecological food (one of the environmentally friendly activities prioritized by the Swedish Society for Nature Conservation), you get a message saying "Congratulations, you're now an eco-nerd! You're contributing to a healthier planet, consuming fewer pesticides and, in addition, eating tastier food." Here, consumers are given a label corresponding to their commitment (eco-nerd) and reminded of the positive consequences, for both consumers and the planet, of purchasing and consuming ecological foods.

The app prescribes that users share their pledges and scores with others via Facebook and Twitter. When consumers press the pledge button for certain prioritized actions, or when they achieve a new level, they see the option "boast to your friends" as well as two buttons, one for Twitter and one for

Facebook. When clicking on a button, the user's private actions and environmental position switch from private to public.

Most of the consumers we talked to do not see the necessity of "bragging" about the small, but important, changes they make in order to become more sustainable. What's more, they seem to see this form of boasting as socially unacceptable. However, although our informants did not see any value in this function, our online observations show that there are those that do. On Instagram, consumers have posted a number of images under hashtags like "grönguide" [greenguide], "miljövänligt" [environmentallyfriendly], and "naturskyddsföreningen" [swedishsocietyfornatureconservation], communicating their own green levels and showing their followers the green changes they are making to their everyday consumption practices using the Green Guide app (Figure 3).

In the above cases, these acts of "bragging" generated considerably positive feedback for the consumers posting the images, contributing to their green identity construction. Many of the consumers posting under #grönguide [greenguide] profiled themselves as green consumers on Instagram, employing usernames such as "ecofamily" and "ihearteco." For these consumers, the #grönguide [greenguide] posts were just one group of many concerning sustainable consumption. These consumers also frame their sustainable consumption practices as part of an ongoing process of becoming a more ethical consumer (see also, Cherrier and Murray 2007).

The pledging and green profile function, we suggest, works towards promoting ethical consumption in different ways. Firstly, it can promote ethical consumption by enabling a form of "ethical accountability" through which users can keep a score of their progress and development as ethical consumers. This can also be seen as a form of self-tracking, through which consumers can quantify

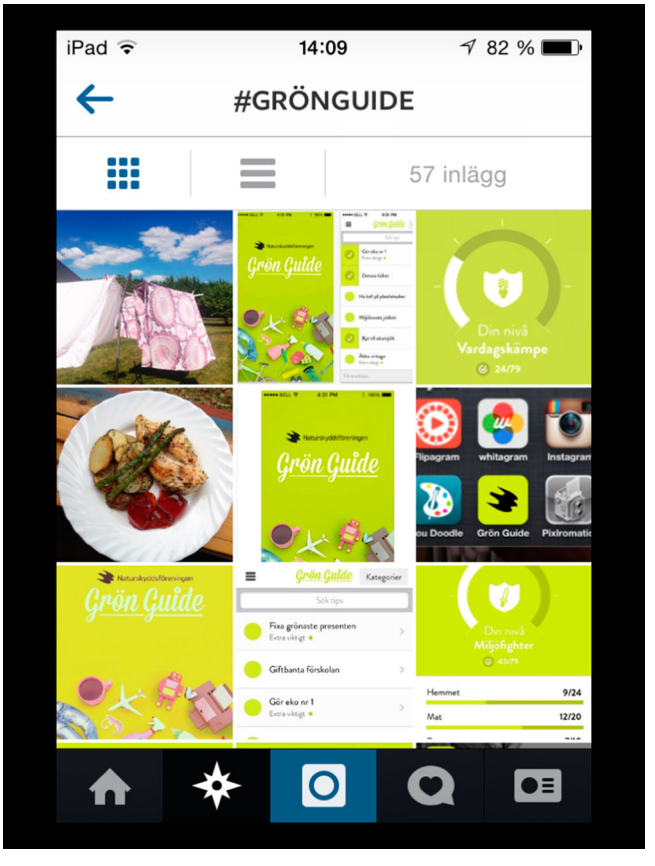

Figure 3. Instagram search of public posts with the hashtag #grönguide.

their ethical selves (Charitsis 2016). The app allows them to know themselves in a certain way, to quantify their ethicality, and also communicate this to others. Consumers talked about the usefulness and satisfaction of going through the app and "tick off" the activities that they had already engaged in. This kind of self-auditing produced a sense of satisfaction, a positive feedback in itself. It can also be seen as a clear example of a "technology of the self" in which consumers take it upon themselves to monitor and self-implement the ethical consumer ethos (Darier 1996; Giesler and Veresiu 2014), as articulated by these apps.

In addition, through the design of the green profile system, with its scoreboards and hierarchical labels, gaming elements are introduced (Deterding et al. 2011). Users are encouraged, through the functionality of the app, not only to track their progress but also to engage in a "green game" whereby the winner is the consumer that accepts and completes as many "green challenges" as possible (see also, Fuentes 2017). The idea is to encourage engagement with the app and to promote green consumption. While this might make ethical consumer actions more meaningful and fun for consumers, the incorporation of gaming elements also turns ethical consumption into a competitive activity, one that risks reproducing many of the problematic mechanisms of consumer culture, e.g. status consumption and identity making (Fuentes 2017). Here, ethical consumption becomes a field for the creation of distinction.

Finally, pledging can also work towards promoting ethical consumption by enhancing the communication of ethical consumers' identities. It assigns a label to consumers' commitment levels and allows them, easily and effortlessly, to communicate this label via social media. Through this function, consumers can make the private public, turning "everyday material practices into practices of public involvement" (Marres 2009, 118). These apps allow consumers to conduct and communicate their own "green living experiments" in which they, assisted by these apps, intervene in their own lives, changing an aspect of it, documenting it and then making this public (Sörum and Fuentes 2017). Using these apps, consumers can turn domestic previously private practices and sites into engaging public practices and sites for ethical consumption. They work to show others that ethical consumption is "doable" while simultaneously offering consumers the opportunity to work on their ethical selves and to, potentially, shame other consumers into ethical consumer actions (for a similar argument see, Barnett et al. 2005b).

Navigating the ethical landscape

One final ethical consumption action prescribed and enabled by the apps can be found in the Fairtrade app. This app encourages and enables consumers to use and contribute to the Fairtrade map: i.e. a virtual map included in the app that lists restaurants, cafés, filling stations and other establishments selling Fairtrade coffee (and other products). This app is designed to address a widespread problem of ethical consumption: i.e. finding ethical products (Moisander 2007) in a commercial landscape designed and organized according to other guiding principles. Against this backdrop, this function is an attempt to assist consumers in re-configuring this "unethical" landscape, and to go against its script (Jelsma 2003). The app's script is clear: consumers on the lookout for coffee click on this function on the Fairtrade app, and the app then uses the phone's GPS function to generate a map indicating, using a red pin, the closest restaurants, cafés, and other establishments selling Fairtrade coffee (Figure 4).

Interested consumers can also click on the pin and read more about that café/restaurant and consumer reviews, if available. Consumers can read what others think of that café (for example), and how many stars it has received (Figure 5). Consumers are also encouraged to contribute to the map. The app allows consumers to post their positions, add descriptive information about the cafés location and its Fairtrade products, and even add a picture of the location. The idea is to make consumers the co-producers of the map, to invite them to take part in the collective project of constructing a Fairtrade map. This app then encourages consumers to take part in a form of

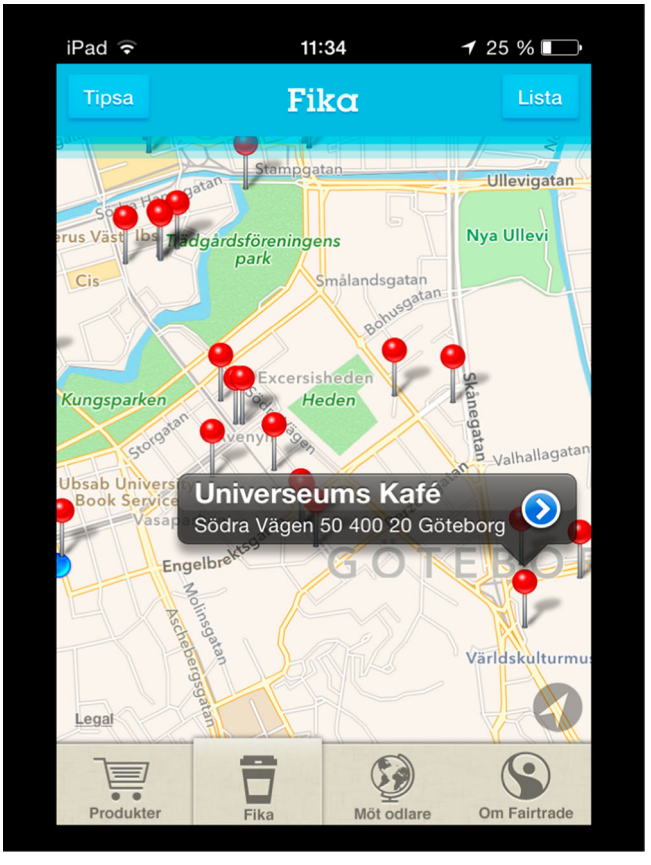

Figure 4. A map that shows the location of nearby cafés were consumers can purchase Fairtrade products.

networked consumer activism (Graham and Haarstad 2011), in which they add information to the map, changing the ethical landscape during the process.

Many of the consumers we talked to had never tried the Fairtrade map function, and none of our informants had contributed to the map by writing reviews. Those that had tried it were predominantly favourably inclined towards it, framing it as a practical tool allowing ethical consumers to orient themselves in unknown commercial landscapes:

> … their coffee map or coffee function is actually very handy and especially if you're … somewhere new it can be, yes it's quite a neat way of finding out where to have a fairtrade coffee. (Emma)

This "ethical map" is scripted to work in two ways. Firstly, the map produces a route for the consumer to take in order to act as an ethically informed consumer. It is an effort to promote ethical consumption by altering the cognitive map of the consumer (see also, Barnett et al. 2005b). The map allows users to travel through the urban environment equipped with a digital "moral compass" that shapes their movements, guiding them in and through a commercial landscape towards Fairtrade destinations. The map provides a moral "nudge" (Guthrie 2013); in a situation where the consumer is attempting to make an ethically informed product choice, the software calculates, using his/her position, a number of choices regarding places (stores/cafés) where he/she can go to get the Fairtrade-certified product closest to his/her location by excluding all other outlets and thus reducing the number of choices available. In doing so, the app brings opportunities for ethical consumption; it expands the spaces of ethical consumption. This is important because, as we are reminded by Barnett et al. (2005a), ethical consumption is not only about having the right attitudes and values, it is just as

Figure 5. Consumer reviews of cafés.

much about having access and the opportunities to exercise choice. But, of course, this is only possible because these Fairtrade stores and cafés exist in the first place. Being pushed into being ethical would be meaningless, or even a source of frustration for consumers, if there was no ethical retailscape in place to make this possible.

Secondly, the Fairtrade map is also scripted to enlist consumers in community building. This simple function allows consumers to contribute to an imaginary community of Fairtrade coffee drinkers. By adding locations and information to the ethical Fairtrade coffee map, consumers construct themselves as ethical consumers within a community. It invites consumers to engage in a new modality of value creation, to become prosumers (Beer and Burrows 2010; Charitsis 2016), and to get involved in the technology-mediated production of consumer-generated value (Arvidsson 2013).

Enabling and shaping ethical consumption

So far, we have argued that the "ethical" smartphone apps we have studied encourage and enable four types of ethical consumer actions. Each of these actions was intended to address a certain problem, and was connected to a specific notion of the ethical consumer. What, then, does the enabling of these ethical consumer actions lead to? How does this promote ethical consumption?

To answer this, we have to think about how these apps change consumers' everyday lives. As we have touched upon above, the apps were not always used and even when used did not always performed as expected. However, in the cases that the apps were put to use and performed at least partly as inscribed, they worked to reconfigure its users' everyday activities of shopping, cooking, cleaning,

travelling, etc. More specifically, we argue that using these apps reconfigures consumers' everyday lives in two important ways. Firstly, using "ethical" smartphone apps leads to the problematization of everyday life. That is, as these smartphone apps are put to use in the everyday lives of consumers, they end up reproducing the problems they are intended to solve. In using these apps and seeking to address a number of consumption problems, consumers end up problematizing everyday life.

Secondly, in using these apps, the agency of the consumer also changes. As consumers are enlisted into the four ethical consumer actions discussed above – getting informed, scanning the barcode, pledging and communicating green, and navigating the ethical landscape – they acquire new agential capacities. Ethical consumer hybrids emerge that are capable of managing the problems associated with consuming ethically.

Like other kinds of ethical consumption technologies, these apps simultaneously "interpellate individuals as subjects of obligations" and provide "the practical means of realising this obligation" (Barnett et al. 2005b, 32). More specifically, these apps enlist consumers into using a set of ethical consumer actions enacting during the process a problematic situation (how it is), communicating an ideal state of affairs (how it should be), and enabling consumers to move from the problematic situation to the ideal state of affairs by providing them with the necessary agential capacities. This, as we will discuss below, also means configuring what ethical consumption is or should be.

Although problematizing, agencing, and configuring happens simultaneously, we will, for the sake of clarity, discuss them separately. We begin in this section by discussing the issue of problematization.

Problematizing everyday life

Firstly, and perhaps most importantly, the use of these apps makes everyday life problematic due to the process of *ethicalization*. As others have made clear, consumption is inherently moral as it always draws on and reproduces notions of how society should be organized, and what counts as the good life (Wilk 2001; Slater 2006). More than that, ordinary consumption is, thus, already being shaped by values such as caring for others as we go about our daily lives trying to be "a good parent, a caring partner or a good friend" (Barnett et al. 2005a, 46). The ethical dimension of consumption, however, is not always made explicitly and brought to the fore. By ethicalization, we thus refer to the process by which the ethical is actualized as choices and actions are framed as ethical. Through ethicalization, consumption is "rendered ethical by being constructed as a realm in which closely held political beliefs are put into routine, everyday practice" (Barnett et al. 2005b, 40). This process, some would argue, is behind the emergence and growth of ethical consumption as a phenomenon (Barnett et al. 2005b). It is thus not a matter of people definitely becoming more ethical, but rather the re-articulation of everyday, practical moral disposition carried out by marketers, NGOs, and policymakers.

The apps analysed in this paper ethicalize consumption in various ways and by drawing on various "ethics." The Fairtrade app, for example, ethicalizes the retailscape of the city (among other things). Its map qualifies some coffee shops and restaurants as ethical and others as unethical. As the app is used, it imposes its ethicality, functioning as a specific ethical filter that invites and allows consumers to see and navigate through a certain reality. Being ethical in this case is narrowed down to the purchasing of Fairtrade products.

The Shopgun app takes a broader approach, combining various ethics and framing almost every shopping activity as an ethical issue. Through barcode scanning, each shopping choice becomes not only an ethical situation, but also an ethical dilemma. Consumers often have to choose between environmental sustainability and labour issues or fairness. Multiple distant others are enacted, in this case constructing a more complex ethical situation. In line with the prevailing construct of the choosing ethical consumer, the app leaves the final decision to the consumer.

The Green Guide app moves beyond shopping and ethicalizes many of the more mundane aspects of everyday life, e.g. washing, cleaning, gardening and other households practices, by framing them

as sites of environmental action (see also, Hobson 2006). In this case, too, consumers are encouraged to conduct certain ethicalized consumer actions, but not forced to; the Green Guide script is "open" (Jelsma 2003). Here, being ethical means taking the environment into account as a distant "other."

In sum, the use of these devices problematizes everyday practices by actualizing the ethical dimension of consumption. By using these apps and performing the ethical consumer actions prescribed, consumer choices, actions and projects are ethicalized. This in turn leads to the reproduction of a number of common ethical consumption problems. These apps urge consumers to be ethical while simultaneously showing them that (almost) every consumption action can be an ethical situation, that what is ethical is not always clear, and that trying to be an ethical consumer will unavoidably lead to ethical dilemmas. Consumers' everyday lives, the apps show us, are full of dilemmas and ambivalences and involve hundreds of possible problematic consumer choices.

In addition, doing the "right" thing might be in contrast to ideas regarding the good life. Previous research has shown us that the types of ethical dilemmas that emerge as a result of this can seldom be resolved to the satisfaction of consumers, something commonly causing ambiguity and anxiety in consumers trying to consume ethically (see, for example, Connolly and Prothero 2008). These apps contribute to this uncertainty through the ethicalization of everyday life. They tap into everyday anxieties (Jackson and Everts 2010) and cultivate them as a means of promoting ethical consumption actions. The apps thus promise a solution to ethical problems while simultaneously articulating and perhaps also amplifying these problems.

Secondly, the apps also problematize everyday life by adding complexity. As discussed previously, the apps encourage consumers to read up and get informed, and to also use barcode scanners to acquire additional information about products. They encourage consumers to educate themselves regarding sustainability issues and provide information regarding all types of consumer consequences. This adds complexity to everyday consumption. Choosing what tea to purchase, what kind of fish to eat, or what clothes to buy becomes a knowledge-intensive action that may require consumers to learn about what types of farming techniques are sustainable, how fishing quotas are determined, how Fairtrade associations work, and much more. As consumers follow links in the apps leading to additional information concerning labelling systems, environmental certificates, chemicals in products and materials, labour conditions in the supply chain, how different farming techniques affect global warming, the living conditions of chickens and how this is connected to the Brazilian rainforest, one more layer of complexity is added to what once was a much more straightforward action. Similarly, these apps show consumers that being more sustainable and ethical in everyday life requires knowledge – how to wash and dry your clothes, plan holidays, organize your home, or clean up around the house are all actions requiring new knowledge if they are to be done in a sustainable manner. Taken-for-granted actions are problematized as new information is added, complicating consumers' everyday lives in various ways.

Finally, engaging with these apps and performing the ethical consumer actions described in the previous section problematizes everyday life by connecting consumption with identity making and status. The consumers enlisted are encouraged, by these apps, to construct themselves as ethical consumers. This was particularly clear when consumers engaged in the ethical consumer action of pledging and communicating green. The ethical self was in focus as consumers were given labels to enable identity making and also the means of communicating these ethical selves to others through, for example, social media. Here, mundane everyday actions are not only ethicalized and made complex, they are also shown to be a means of constructing and communicating consumer identity. This not only encompasses more conspicuous forms of consumption, like travelling and fashion consumption, but also more mundane and less symbolic practices, like household cleaning or drying clothes (Shove 2003), are linked to identity making. The use of these apps results in promoting the field of consumption as "one of the key sites of ethical self-formation" (Barnett et al. 2005b, 30) where consumers can compete for status. Everyday mundane activities become sites for both identity-making resources and status competition. By inviting consumers to turn private

consumption acts into public communication, these apps are also inviting social distinction and status competition.

Agencing consumers to act ethically

Consequently, the use of these apps leads to the problematization of everyday practices. As consumers use these apps to get informed, scan barcodes, pledge and communicate green, or navigate the ethical landscape, everyday consumption acts become ethicalized, complex, and linked to the issue of identity and status.

However, as mentioned at the beginning of this section, the apps do more than problematize everyday life and put pressure on consumers to be ethical, to manage information problems, and to construct their ethical selves. They do more than present consumers with the opportunity and the possibility to act ethically. The apps examined simultaneously work towards making ethical consumption possible by "agencing consumers" (Cochoy, Trompette, and Araujo 2016; Hagberg 2016; Stigzelius 2017). The same functions and socio-material scripts that lead to the problematization of everyday life also work towards making that everyday life manageable by endowing consumers with the capacities they need to act ethically, in various ways and in multiple situations. Thus, through the use of smartphone apps, and the performance of these ethical consumer actions, consumers are becoming a new type of economic actor with the agential capabilities required to operate in the ethicalized landscape of everyday consumption.

Firstly, the apps studied are all designed to work as moral compasses that can guide consumers and partly assume the arduous and anxiety-inducing task of ethical reasoning. Using these apps, consumers can instead delegate much of this ethical work to the apps themselves. If we, as Guthrie (2013) suggests, "take morality to mean simply the prescription of acceptable behaviors in a social context" (325), then it will become obvious that these apps come with a ready-made morality built-in. As we have shown above, these apps prescribe actions; they push consumers towards certain actions in line with a specific materialized morality (see also, e.g. Latour 2000a, 2000b). This does not entail, however, ethical reasoning or choice being taken out of the picture; rather, the apps work towards facilitating ethical reasoning, in order to assist consumers in their choices. For consumers, this often means ethical simplicity. Committing to using an app such as Green Guide facilitates ethical reasoning, but does not render it unnecessary. Similarly, Shopgun has clearly brought ethical dilemmas to the fore but has also offered consumers assistance in resolving these. The traffic light system, for example, facilitates ethical reasoning. Consumers also have the option of simplifying the ethical dimension even more by choosing to show only information about "environment" or "health," for example. The apps also offer fairly coherent "ethics" for application to consumption acts. The Green Guide app's ethical approach is about saving the environment, Fairtrade equates things ethical with addressing labour and social issues for farmers who produce, while Shopgun provides consumers with multiple, yet fairly coherent, ethics. The apps thus encourage ethical reasoning by ethicalizing everyday consumption acts in various ways, but they also provide a framework that guides consumers toward the "right" actions. They enable users to act ethically when consuming. Specifically, they enable consumers to take more ethical situations into account, to be more consistent in their ethical choices/actions, and to make ethical choices/actions more easily. What emerges, then, as these apps are put to use in the context of consumers' everyday lives, is a more capable ethical consumer hybrid with agential capabilities which unequipped consumers lack.

Secondly, as the apps are put to use, they also endow consumers with a set of capacities allowing them to manage the complexities of everyday life better. The apps tell the consumers that being ethical is complex, urging them to become knowing ethical consumers and then enabling them to accomplish this by offering them the required resources. The ethical apps we studied are scripted to function as complexity managers, aiming to assist consumers in becoming the "knowledgeable ethical consumers" they are required to be. All three apps provide information and are sometimes used as portable databases that can be consulted on ethical consumption matters. Furthermore,

all three apps are scripted to reduce complexity, for example by only including easily read straightforward advice in well-organized user-friendly themes (Green guide), or by reducing complex issues into simple buy/don't buy messages (Fairtrade app and Shopgun). Here, consumers can delegate the task of staying informed to the apps. They can also delegate some of the complex information processing that is associated with trying to consume "ethically" (Moisander 2007; Fuentes 2014b). The apps, however, are also used as educational devices. Consumers use them to educate themselves and then, when they are satisfied with their newly acquired competence, they stop using the apps. These are two different ways of getting informed. In the former, the consumer needs continuous access to the app to manage complexity problems. In the latter, the competence is internalized and embodied, making the app unnecessary. Knowledge and know-how delegated to the app is instead translated into embodied knowledge. In both cases, the use of the apps means that consumers acquire new capacities allowing them to be more proficient complexity managers. Importantly, while the apps are certainly information-focused, they do not draw attention to "abstract" and complex environmental and social problems, as many traditional marketing and information campaigns do (Macnaghten 2003; Sahakian and Wilhite 2014), instead centring on everyday practice and specific problems and offering pragmatic solutions, activating consumers, and enabling the "doing" of ethical consumption through a process of agencing.

Thirdly, as the apps are used, they endow consumers with a set of capacities allowing them to better construct and communicate ethical consumer identities and meanings. Unlike many other efforts to promote ethical consumption, they do not treat knowledge as the sole motivating factor (Barnett et al. 2005b). These applications work towards encouraging and promoting the knowing of ethical subjects that engage in identity construction and community building. More specifically, the apps we studied work as social tools that allow consumers to both communicate identity and to connect with, and be a part of, imaginary ethical consumption communities. By making available ready-made ethical consumer identities – in the Green Guide for example – and enabling consumers to share these digitally, these apps show consumers that ethical consumption is a way of constructing identity and achieving status, agencing them to accomplish these symbolic and communicative tasks. The apps enabled consumers to document their progress, encouraging consumers to frame ethical consumption as a process of self-development containing the clear stages and identity positions that can be achieved, very much in line with how research has described and conceptualized ethical consumers' identity construction (Cherrier and Murray 2007).

In sum, equipped consumers are able to accomplish tasks that unequipped consumers are not. When the apps work, the ideals of their designers are transformed into socio-material scripts which, when de-scribed by consumers while using the apps, result in making more-than-human ethical consumers capable of being competent ethical subjects, complexity managers, and social meaning-makers and communicators.

Configuring ethical consumption

Of course, problematizing everyday life and agencing consumers to act ethically does not merely promote ethical consumption, it also shapes this specific form of consumption. The questions then arise: what kind of ethical consumption is prescribed by these apps? Are these ethical devices a new technology of responsibilization? Are they merely a new way of "governing through free will," as governmentality scholars would argue (Soneryda and Uggla 2015, 2)?

In a way they are. Following a neo-liberal logic, these smartphone applications are designed to encourage consumers to self-govern, to take responsibility for broad environmental and social problems, and to try to solve these through their consumption acts (Giesler and Veresiu 2014). More than that, they enable consumers to take on these responsibilities, to internalize them, by endowing them with the capacities needed to perform the subject position of the responsible consumer. Like other ethical devices, they both encourage and enable the governing of the consuming self (see also, Barnett et al. 2005b; Giesler and Veresiu 2014). This study can thus be read in terms of contributing

to and supporting the thesis of responsibilization. In relation to that field, it offers an account that goes beyond the discursive, assigns materiality a more active role, and also shows what happens when these technologies of the self are actually put to work by consumers (all issues in need of more research, see Soneryda and Uggla 2015).

However, this study also shows something else. It shows that, during the process of agencing ethical consumers, these apps do not just promote individualized ethical choosers. When examining these apps, and what they prescribe, no hegemonic ethical consumer discourse could be found. Instead, in trying to configure ethical consumers, these apps draw on various models of that consumer. In contrast to what a lot of previous research has shown, the figure of the ethical consumer was not delimited here to the rational utilitarian information processor that can change the world via purchasing decisions (Barnett et al. 2005a). While this narrower version of the ethical consumer was clearly visible, and in some cases also central, these apps promoted a broad range of actions drawing on multiple notions of the ethical consumer, including but not limited to the figure of the ethical consumer as an alternative identity maker, a co-producer of ethical products, a community builder, and an activist. This suggests that these digital devices do not merely promote individualized and de-politicized consumption. The apps prescribe ethical consumer actions by drawing on a heterogeneous repertoire and endowing consumers with agencies that go beyond the traditional individualized ethical purchaser model.

For example, as was discussed above, the apps worked towards enabling social and communicative versions of ethical consumption through which individual actions were made public, then serving as good examples. Furthermore, although much attention is paid to shopping in these apps, they also prescribe consumers consuming less, using products in energy-efficient ways, and even engaging in forms of collective activism. There are at least three forms of activism, as Barnett et al. (2005a) remind us: i.e. individual activism – which includes buying products for political reasons – contact activism – which involves contacting people in authority, e.g. the media, organizations or politicians – and collective activism – which involves participating in activism together with other people (demonstrations, political meetings, strikes). The apps studied here encourage consumers to engage in all three, albeit not to the same extent. While the primary focus was on individual activism, these apps also encouraged consumers to contact their schools or workplaces to promote green practices and ethical products, or to join environmental organizations. That is, while the apps did work towards individualizing responsibilities, they also, at times, framed ethical consumption as a collective and political effort. One can also point out that there is no single version of things ethical at work here. We can observe, materialized in these apps and enacted by consumers, multiple rationalities for ethical action (Barnett et al. 2005a). Consumers can be ethical and "act-at-a-distance" (Barnett et al. 2005b) by taking into account the labour conditions of distant others producing the foods they purchase, as is the case with Fairtrade consumption. Or they can be ethical by taking into account the environment and future generations when reducing their energy usage by means of implementing eco-laundry routines. Being ethical means something different in almost all of the actions prescribed by the apps.

In addition, an important part of understanding how these digital devices shape ethical consumption is also acknowledging and discussing the limits to what they can shape. However persuasive these digital devices may seem, they do not determine what consumers will do, or how they will enact their ethical consumption selves. As others have argued, "being addressed in a particular way does not mean that one automatically accepts the role and identity of a green, responsible consumer" (Soneryda and Uggla 2015, 12). Studies of governmentality that move beyond the discourse of governmentality and examine how consumers react to these discourses inevitably show that subjects are shaped but not predetermined by discourses (Giesler and Veresiu 2014). The same goes for technology and, more specifically, digital devices.

More importantly, staying true to the socio-material approach taken here one can point out that there are very clear limits regarding what the apps, and other digital technologies, can accomplish given the surrounding socio-material landscape. Digital technology enthusiasts have a tendency to

overlook the fact that these apps exist as part of a broader socio-material landscape, shaping what can and cannot be accomplished, a landscape that is already inscribed with multiple moralities which may or may not be in synch with these apps (Jelsma 2003). In order for these apps to produce information on ethical products, ethical products have to be available in stores. For consumers to be able to buy second hand, or donate clothes, the infrastructure making this possible has to be in place. In short, in order for ethical consumption – in its various forms – to be possible, a number of material resources are needed. As Jelsma (2003) explains, a strategy that "relies on moral appeal to consumers to behave in sustainable ways in the consumption of goods and services" (Jelsma 2003, 104), while not taking into account the fact that these consumers operate in a material landscape that constantly encourages them to behave unsustainably, is bound to be unsuccessful. While the spaces of ethical consumption (Barnett et al. 2005b) can expand with the use of smartphone apps, these digital devices rely on a supportive, at least partly, socio-material landscape in order to be effective.

Conclusions

This paper has shown that the devising of devices certainly changes the socio-material landscape of ethical consumption. More specifically, taking a socio-material approach and drawing on an ethnographic study of three ethical consumption apps – the Green guide, the Fair trade app and Shopgun – we have shown that these digital devices are scripted to hybridize with consumers and facilitate key ethical consumer actions. When consumers follow the scripts of these apps, using them in everyday practices, the apps put pressure on consumers to act "ethically" by problematizing consumption in various ways while also, and simultaneously, endowing them with the agential capacities required to solve these problems. Consequently, these devices both motivate consumers and enable ethical consumption, producing, under the right conditions, capable and self-reflexive ethical consumer hybrids. In the process, these digital devices also come to shape the way ethical consumption is articulated.

In relation to previous research, this paper offers a nuanced socio-material analysis of a specific type of digital consumption device – ethical consumption apps – showing that these devices are not merely promoters of ethical consumerism, as critics would argue, nor radical consumption tools, as some proponents seem to argue. Instead, their impact on consumers and consumption is both more varied and more delimited than often assumed. They can indeed shape ethical consumption, but do so in different ways and with varying degrees of success. How and to what extent digital devices can be used to promote ethical consumption is dependent on both the specific socio-material script of the device, the set of practices in which they are employed, and, importantly, the socio-material landscape in which these digital consumption devices operate.

The challenge ahead of us lies in analysing the ever-expanding array of digital devices being developed, acknowledging their complexity, taking into account their materiality, treating the political potential of these devices as an open empirical question and not to assume that they are either empowering or exploitative a priori. This paper has attempted to show a way of doing this, both theoretically and methodologically. It has been an effort to put the spotlight on these digital devices, but also, more broadly, to contribute to our understanding of the materialities involved in ethical consumption.

Notes

1. For a similar definition, and more elaborate discussion of what counts as ethical consumption, see Barnett et al. (2005b).
2. This is not, of course, intended to be a representative sample but rather a sample that allows us to begin to explore how these are, and can be, used by consumers in their everyday lives, and how these apps enable and shape the way consumers perform ethical consumption. It would have been interesting, however, to also study and test how these apps were used/received by consumers not interested in ethical consumption.

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Notes on contributors

Dr Christian Fuentes is an Associate Professor at the Department of Service Management and Service Studies, Lund University and a Senior Researcher the Center for Consumer Research, University of Gothenburg. He undertakes research in the fields of Ethical consumption, Green Marketing, Alternative Markets, Sustainable Retail, Mobile Shopping, and Digitalization and Consumer Culture. He is currently involved in several research projects exploring how digital devices enable and shape consumption and marketing practices. His publications include articles in Journal of Marketing Management, Business Strategy and the Environment, International Journal of Consumer Studies, and International Journal of Retail & Distribution Management.

Dr Niklas Sörum is a senior researcher at the Center for Consumer Research at the University of Gothenburg and a lecturer in Marketing at University College of Borås, Sweden. He does research on digitalization of consumption, second-hand markets, ethical- and sustainable consumption, and the marketization of cultural heritage. He is currently involved in research projects exploring how digital devices shape consumption and consumer culture. His research has been published in Consumption, Markets & Culture, Journal of Consumer Policy and International Journal of Heritage Studies. Recent books are published on Routledge and Ashgate Publishing.

ORCID

Christian Fuentes https://orcid.org/0000-0001-6687-274X

References

Akrich, M. 2000. "The De-scription of Technical Objects." In *Shaping Technology/Building Society – Studies in Sociotechnical Change*, edited by W. E. Bijker and J. Law, 205–224. London: The MIT Press.

Alevizou, P. J., C. J. Oates, and S. McDonald. 2015. "The Well(s) of Knowledge: The Decoding of Sustainability Claims in the UK and in Greece." *Sustainability* 7: 8729–8747.

Arvidsson, A. 2013. "The Potential of Consumer Publics." *Ephemera: Theory and Politics in Organization* 13 (2): 367–391.

Atkinson, L. 2013. "Smart Shoppers? Using QR Codes and 'Green' Smartphone Apps to Mobilize Sustainable Consumption in the Retail Environment." *International Journal of Consumer Studies* 37 (4): 387–393.

Bajde, D. 2013. "Consumer Culture Theory (re)Visits Actor–Network Theory: Flattening Consumption Studies." *Marketing Theory* 13 (2): 227–242.

Barnett, C., N. Clarke, P. Cloke, and A. Malpass. 2005a. "The Political Ethics of Consumerism." *Consumer Policy Review* 15 (2): 45–51.

Barnett, C., P. Cloke, N. Clarke, and A. Malpass. 2005b. "Consuming Ethics: Articulating the Subjects and Spaces of Ethical Consumption." *Antipode* 37 (1): 23–45.

Beer, D., and R. Burrows. 2010. "Consumption, Prosumption and Participatory Web Cultures: An Introduction." *Journal of Consumer Culture* 10 (3): 3–12.

Beneito-Montagut, R. 2011. "Ethnography Goes Online: Towards a User-centred Methodology to Research Interpersonal Communication on the Internet." *Qualitative Research* 11 (6): 716–735.

Brembeck, H., K. M. Ekström, and M. Mörck. 2007. "*Little Monsters – (De)Coupling Assemblages of Consumption*. Berlin: Lit.

Bruni, A. 2005. "Shadowing Software and Clinical Records: On the Ethnography of Non-humans and Heterogeneous Contexts." *Organization* 12 (3): 357–378.

Carfagna, L. B., E. A. Dubois, C. Fitzmaurice, M. Y. Ouimette, J. B. Schor, M. Willis, and T. Laidley. 2014. "An Emerging Eco-habitus: The Reconfiguration of High Cultural Capital Practices among Ethical Consumers." *Journal of Consumer Culture* 14 (2): 158–178.

Carrington, V. 2012. "There's No Going Back. Roxie's Iphone: An Object Ethnography." *Language and Literacy* 14 (2): 27–40.

Charitsis, V. 2016. "Prosuming (the) Self." *Ephemera: Theory and Politics in Organization* 16 (3): 37–59.
Charmaz, K. 2006. *Constructing Grounded Theory – A Practical Guide Through Qualitative Analysis*. Los Angeles, CA: Sage.
Chatzidakis, A., P. Maclaran, and A. Bradshaw. 2012. "Heterotopian Space and the Utopics of Ethical and Green Consumption." *Journal of Marketing Management* 28 (3–4): 494–515.
Cherrier, H., and J. B. Murray. 2002. "Drifting Away From Excessive Consumption: A New Social Movement Based on Identity Construction." *Advances in Consumer Research* 29: 245–247.
Cherrier, H., and J. B. Murray. 2007. "Reflexive Dispossession and the Self: Constructing a Processual Theory of Identity." *Consumption, Markets and Culture* 10 (1): 1–29.
Cochoy, F. 2004. "Is the Modern Consumer a Buridańs Donkey? Product Packaging and Consumer Choice." In *Elusive Consumption*, edited by K. M. Ekström and H. Brembeck, 205–227. New York: Berg.
Cochoy, F. 2007. "A Sociology of Market-things: On Tending the Garden of Choices in Mass Retailing." *The Sociological Review* 55: 109–129.
Cochoy, F. 2008. "Calculation, Qualculation, Calqulation: Shopping Cart Arithmetic, Equipped Cognition and the Clustered Consumer." *Marketing Theory* 8 (1): 15–44.
Cochoy, F. 2014. "Consumers at Work, or Curiosity at Play? Revisiting the Prosumption/Value Cocreation Debate with Smartphones and Two-dimensional bar Codes." *Marketing Theory* 15 (2): 133–153.
Cochoy, F., J. Hagberg, M. P. McIntyre, and N. Sörum. 2017. *Digitalizing Consumption: how Devices Shape Consumer Culture*. London: Routledge.
Cochoy, F., P. Trompette, and L. Araujo. 2016. 'From Market Agencements to Market Agencing: An Introduction.' *Consumption, Markets and Culture* 19 (1): 3–16.
Connolly, J., and A. Prothero. 2003. "Sustainable Consumption: Consumption, Consumers and the Commodity Discourse." *Consumption, Markets and Culture* 6 (4): 275–291.
Connolly, J., and A. Prothero. 2008. "Green Consumption – Life-politics, Risk and Contradictions." *Journal of Consumer Culture* 8 (1): 117–145.
Darier, É. 1996. "Environmental Governmentality: The Case of Canada's Green Plan." *Environmental Politics* 5 (4): 585–606.
Deterding, S., D. Dixon, R. Khaled, and L. Nacke. 2011. "From Game Design Elements to Gamefulness: Defining 'Gamification.'" MindTrek'11, September 28–30, 2011, Tampere, Finland.
Dickson, M. A. 2005. "Identifying and Profiling Apparel Label User." In *The Ethical Consumer*, edited by R. Harrison, T. Newholm, and D. Shaw, 155–171. London: Sage.
Elliott, R. 2013. "The Taste for Green: The Possibilities and Dynamics of Status Differentiation Through 'Green' Consumption." *Poetics* 41: 294–322.
Fuentes, C. 2014a. "Green Materialities: Marketing and the Socio-material Construction of Green Products." *Business Strategy and the Environment* 23 (2): 105–116.
Fuentes, C. 2014b. "Managing Green Complexities: ConsumerśStrategies and Techniques for Greener Shopping." *International Journal of Consumer Studies* 38 (5): 485–492.
Fuentes, C. 2017. "Play a Game, Save the Planet: Gamification as a way to Promote Green Consumption. In Dymek, M & Zackariasson, P (Eds.) The Business of Gamification: A Critical Analysis. Routledge." In *The Business of Gamification: A Critical Analysis*, edited by M. Dymek and P. Zackariasson, 144–160. London: Routledge.
Fuentes, C., K. Bäckström, and A. Svingstedt. 2017. "Smartphones and the Reconfiguration of Retailscapes: Stores, Shopping, and Digitalization." *Journal of Retailing and Consumer Services* 39 (4): 270–278.
Giesler, M., and E. Veresiu. 2014. "Creating the Responsible Consumer: Moralistic Governance Regimes and Consumer Subjectivity." *Journal of Consumer Research* 41 (3): 840–857.
Graham, M., and H. Haarstad. 2011. "Transparency and Development: Ethical Consumption Through Web 2.0 and the Internet of Things." *Information Technologies & International Development* 7 (1): 1–14.
Guthrie, C. 2013. "Smart Technology and the Moral Life." *Ethics & Behavior* 23 (4): 324–337.
Hagberg, J. 2016. "Agencing Practices: A Historical Exploration of Shopping Bags." *Consumption, Markets and Culture* 19 (1): 111–132.
Halkier, B. 1999. "Consequences of the Politicization of Consumption: The Example of Environmental Friendly Consumption Practices." *Journal of Environmental Policy & Planning* 1 (1): 25–41.
Hannerz, U. 2003. "Being There … and There … and There! Reflections on Multi-sited Ethnography." *Ethnography* 4 (2): 201–216.
Hansson, N. 2015. "'Mobility-things' and Consumption: Conceptualizing Differently Mobile Families on the Move with Recent Purchases in Urban Space." *Consumption, Markets and Culture* 18 (1): 72–91.
Hansson, L. 2017. "Promoting Ethical Consumption: The Construction of Smartphone Apps as 'Ethical' Choice Prescribers." In *Digitalizing Consumption: Tracing how Devices Shape Consumer Culture*, edited by F. Cochoy, J. Hagberg, M. P. McIntyre, and N. Sörum, 103–121. London: Routledge.
Hawkins, G. 2011. "Packaging Water: Plastic Bottles as Market and Public Devices." *Economy and Society* 40 (4): 534–552.

Hess, D. 2001. "Ethnography and the Development of Science and Technology Studies." In *Handbook of Ethnography*, edited by P. Atkinson, A. Coffey, S. Delamont, J. Lofland, and L. Lofland, 234–245. London: Sage.
Hjalmarson, H., M. Macquet, and E. Sjöström. 2010. "Marketing to Consumers in Different Shades of Green: The Case of Chiquita Bananas/Rainforest Alliance." In *Corporate Social Responsibility: Challanges and Practices*, edited by P. Dobers, 121–146. Stockholm: Santérus Academic Press.
Hobson, K. 2006. "Bins, Bulbs, and Shower Timers: On the 'Techno-Ethics' of Sustainable Living." *Ethics, Place and Environment: A Journal of Philosophy & Geography* 9 (3): 317–336.
Ingram, J., E. Shove, and M. Watson. 2007. "Products and Practices: Selected Concepts from Science and Technology Studies and from Social Theories of Consumption and Practice." *Design Issues* 23 (2): 3–16.
Jackson, P., and J. Everts. 2010. "Anxiety as Social Practice." *Environment and Planning A* 42: 2791–2806.
Jelsma, J. 2003. "Innovating for Sustainability: Involving Users, Politics and Technology." *Innovation* 16 (2): 103–116.
Latour, B. 1991. "Technology Is Society Made Durable." In *A Sociology of Monsters: Essays on Power, Technology and Domination*, edited by J. Law, 103–131. London: Routledge.
Latour, B. 2000a. "When Things Strike Back: A Possible Contribution of 'Science Studies' to the Social Sciences." *British Journal of Sociology* 51 (1): 107–123.
Latour, B. 2000b. "Where Are the Missing Masses? The Sociology of a few Mundane Artifacts." In *Shaping Technology/Building Society – Studies in Sociotechnical Change*, edited by W. E. Bijker and John Law, 225–258. Cambridge, MA: The MIT Press.
Latour, B. 2002. "Morality and Technology." *Theory, Culture and Society* 19 (5): 247–260.
Latour, B. 2005. *Reassembling the Social – An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
Lewis, T., and E. Potter. 2011. *Ethical Consumption: A Critical Introduction*. London: Routledge.
Littler, J. 2009. *Radical Consumption: Shopping for Change in Contemporary Culture*. Berkshire: McGraw-Hill.
Macnaghten, P. 2003. "Embodying the Environment in Everyday Life Practices." *The Sociological Review* 51 (1): 63–84.
Magaudda, P. 2011. "When Materiality 'Bites Back': Digital Music Consumption Practices in the age of Dematerialization." *Journal of Consumer Culture* 11 (1): 15–36.
Marcus, G. E. 1995. "Ethnography in/of the World System: The Emergence of Multi-Sited Ethnography." *Annual Review of Anthropology* 24: 95–117.
Marres, N. 2009. "Testing Powers of Engagement Green Living Experiments, the Ontological Turn and the Undoability of Involvement." *European Journal of Social Theory* 12 (1): 117–133.
McDonald, S., C. J. Oates, P. J. Alevizou, C. W. Young, and K. Hwang. 2012. "Individual Strategies for Sustainable Consumption." *Journal of Marketing Management* 28 (3–4): 445–468.
Megicks, P., J. Memery, and R. J. Angell. 2012. "Understanding Local Food Shopping: Unpaking the Ethical Dimension." *Journal of Marketing Management* 28 (3–4): 264–289.
Michael, M. 2000. "These Boots Are Made for Walking … : Mundane Technology, the Body and Human-Environment Relations." *Body & Society* 6 (3–4): 107–126.
Micheletti, M., A. Follesdal, and D. Stolle. 2004. *Politics, Products and Markets*. New Brunswick: Transactions Publishers.
Moisander, J. 2007. "Motivational Complexity of Green Consumerism." *International Journal of Consumer Studies* 31: 404–409.
Moisander, J., and S. Pesonen. 2002. "Narratives of Sustainable Ways of Living: Constructing the Self and the Other as a Green Consumer." *Management Decision* 40 (4): 329–342.
Muniesa, F., Y. Millo, and M. Callon. 2007. "An Introduction to Market Devices." In *Market Devices*, edited by M. Callon, Y. Millo, and F. Muniesa, 1–12. Oxford: Blackwell.
Ozcaglar-Toulouse, N., E. Shiu, and D. Shaw. 2006. "In the Search of Fair Trade: Ethical Consumer Decision Making in France." *International Journal of Consumer Studies* 30 (5): 502–514.
Peattie, K., and A. Crane. 2005. "Green Marketing: Legend, Myth, Farce or Prophesy?" *Qualitative Market Research: An International Journal* 8 (4): 357–370.
Preda, A. 1999. "The Turn to Things: Arguments for a Sociological Theory of Things." *The Sociological Quarterly* 40 (2): 347–366.
Reisch, L. 2001. "The Internet and Sustainable Consumption: Perspectives on a Janus Face." *Journal of Consumer Policy* 24 (3): 251–286.
Rowlands, I. H., D. Scott, and P. Parker. 2003. "Consumers and Green Electricity: Profiling Potential Purchasers." *Business Strategy and the Environment* 12: 36–48.
Röpke, I. 2009. "Theories of Practice – New Inspiration for Ecological Economic Studies on Consumption." *Ecological Economics* 68: 2490–2497.
Sahakian, M., and H. Wilhite. 2014. "Making Practice Theory Practicable: Towards More Sustainable Forms of Consumption." *Journal of Consumer Culture* 14 (1): 25–44.
Sassatelli, R., and F. Davolio. 2010. "Consumption, Pleasure and Politics: Slow Food and the Politico-aesthetic Problematizations of Food." *Journal of Consumer Culture* 10 (2): 202–232.
Schröder, M. J. A., and M. G. McEachern. 2004. "Consumer Value Conflicts Surrounding Ethical Food Purchase Decisions: A Focus on Animal Welfare." *International Journal of Consumer Studies* 28 (2): 168–177.

Shaw, D., and I. Clarke. 1999. "Belief Formation in Ethical Consumer Groups: An Exploratory Study." *Marketing Intelligence & Planning* 17 (2): 109–119.
Shove, E. 2003. *Comfort, Cleanliness and Convenience – The Social Organization of Normality*. Oxford: Berg.
Slater, D. 2006. *Consumer Culture & Modernity*. Cambridge: Polity Press.
Soneryda, L., and Y. Uggla. 2015. "Green Governmentality and Responsibilization: New Forms of Governance and Responses to 'Consumer Responsibility.' *Environmental Politics* 24 (6): 913–931.
Soper, K. 2007. "Re-thinking the 'Good Life' – The Citizenship Dimension of Consumer Disaffection with Consumerism." *Journal of Consumer Culture* 7 (2): 205–229.
Sörum, N., and C. Fuentes. 2016. "Materialiserad Moral: Smartphone, applikationer och etisk konsumtion." *Kulturella perspektiv* 25 (2): 6–15.
Sörum, N., and C. Fuentes. 2017. "'Write Something': The Shaping of Ethical Consumption on Facebook." In *Digitalizing Consumption: Tracing How Devices Shape Consumer Culture*, edited by F. Cochoy, J. Hagberg, M. P. McIntyre, and N. Sörum, 144–166. London: Routledge.
Spaargaren, G. 2011. "Theories of Practices: Agency, Technology, and Culture – Exploring the Relevance of Practice Theories for the Governance of Sustainable Consumption Practices in the New World-order." *Global Environmental Change* 21 (3): 813–822.
Stigzelius, I. 2017. *Producing Green Consumers: Agencing and Concerning Consumers to Do Green in Everyday Food Practices*. Stockholm: Stockholm School of Economics.
Strengers, Y., L. Nicholls, and C. Maller. 2016. "Curious Energy Consumers: Humans and Nonhumans in Assemblages of Household Practice." *Journal of Consumer Culture* 16 (3): 761–780.
Thompson, C. J., and G. Coskuner-Balli. 2007. "Enchanting Ethical Consumerism – The Case of Community Supported Agriculture." *Journal of Consumer Culture* 7 (3): 275–303.
Watson, M., and E. Shove. 2008. "Product, Competence, Project and Practice: DIY and the Dynamics of Craft Consumption." *Journal of Consumer Culture* 8 (1): 69–89.
Wilk, R. 2001. "Consuming Morality." *Journal of Consumer Culture* 1 (2): 245–260.
Worcester, R., and J. Dawkins. 2005. "Surveying Ethical and Environmental Attitudes." In *The Ethical Consumer*, edited by R. Harrison, T. Newholm, and D. Shaw, 189–203. London: Sage.
Zwick, D., and N. Dholakia. 2004. "Consumer Subjectivity in the Age of Internet: the Radical Concept of Marketing Control Through Customer Relationship Management." *Information and Organization* 14 (3): 211–236.