

**Individual Sustainable Consumption and the Circular Economy: Research challenges
and Opportunities**

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Introduction

Over the past decades, the concept of sustainable consumption has received a great deal of attention. Everyone from researchers and academic scholars, to environmental NGOs such as Green Peace, to Nobel Laureate Al Gore has argued that ‘our current level of consumption of natural resources, [and the current linear system of production and consumption], is unsustainable’ (Banburry et al, 2012, p. 497). In 1972, the UN Conference on the Human Environment coincided with the publication of *The Limits to Growth* (1972), a publication with the aim of promoting a shift away from economic growth in order to avoid collapse (Akenji, 2014, p. 14). The report states that for many resources ‘we still do not seem to agree on whether we need to change the way we consume, or consume less altogether’. There also remains disagreement on the impact of individual consumer behaviour on natural resource depletion, and the role of over-consumption in environmental degradation (Banburry et al, 2012, p. 498).

This paper is interested in the contributions of (interdisciplinary) research in understanding the involvement of the consumer in the Circular Economy (CE), and in how sustainable consumption research (SCR) fits into the micro-level of the CE. The term ‘Circular Economy’ has many definitions which have evolved over the years. This paper will define the term as follows: ‘In a circular economy the “value of products, materials and resources is maintained in the economy for as long as possible, and the generation of waste [is] minimised” (Ghisellini et al., 2016. p.12). In this context, “waste” should be seen as an end product; a product that can no longer be used, reused, repurposed or recycled. This leads to the belief that “if a product cannot be reused, recycled or composted, then the industry should not produce such a product and consumers should not buy it” (Ghisellini et al., 2016, p. 16). Recycling waste offers the opportunity to benefit from resources that are still usable and effectively reduce the quantity of waste that does not fit into this category, thus decreasing the environmental impact; however, it must be stressed that even though ‘the Circular Economy is often identified with the recycling principle’, this is not the most desired solution ‘compared to the other CE's principles (Reduction and Reuse) in terms of resource efficiency and profitability’ (Ghisellini et al, 2016, p. 16).

The Circular economy has been receiving lots of attention in academic circles, from different academic disciplines; however, the role consumers can play in the actualisation of the circular economy has been neglected. Terms such as sustainability, sustainable development, and Sustainable Consumption (SC) and Green Consumption (GC) are ‘ill-defined in political, economic and academic circles’ (Banburry et al, 2012, p. 497). Therefore, further research is needed in learning exactly how consumers view and approach these concepts, and how consumers can be stimulated to consume ‘sustainably’ and make sustainable lifestyle changes.

Lastly, this paper will contrast the concepts of Sustainable Consumption (SC) and Green Consumption (GC), and discuss what role each concept can play in the micro-level of the circular

economy. At its core this paper asks the following question: how can the relationship between the Circular Economy and Individual Sustainable Consumption be approached in research?

The concept of sustainable consumption can be traced back to the Rio Summit of the United Nations Conference on Environment and Development in 1992, where one of the 27 principles in the declaration called for “reduction of unsustainable Patterns of Production and Consumption” (Banburry et al, 2012, p. 497). However, to this day, the exact definition of sustainable consumption has not been agreed upon. The main confusion between the definitions seems to be whether we need to change the way we consume, or consume less altogether. Apart from the definitional issue, there is the disagreement on whether individual consumer choices, lifestyles and behaviour can lower resource utilization, or whether this effect is only minor (Banburry et al, 2012, p. 498).

Consumers often ‘fail to make the connection between elements of their consumption [behaviour] and elements of the sustainability agenda’, such as the association between consumption and environmental degradation through the ‘erosion of natural resources’ (Banburry et al, 2012, p. 498). Moreover, Banburry et al (2012) found that consumers who believed in the need to follow a sustainable lifestyle, were often unaware of the less-sustainable choices they made; ‘one study in the UK showed that consumers with the strongest pro-environment attitude were more likely to have travelled frequently by air thus contributing to more carbon emissions’ (p. 498). The invisibility of the carbon or water footprint of products, the invisibility of the amount of energy used to create the product, and the invisibility of the waste created in the making of this product all lead to ‘a general lack of awareness amongst consumers of the environmental impact of their consumer decisions’ (Davies et al, 2014). Similarly, the (unsustainable) requirements for recycling are not fully understood. If consumers were fully aware of the unsustainability of recycling, i.e. the amount of energy and water needed for recycling re-usable ‘waste’, this would also affect the way we would consume and the amounts we would recycle. The idea that recycling can reduce the environmental impact of our ever-growing consumption, has to change. The invisibility of (unsustainable) consumption and the environmental impact of recycling are therefore two big problems that need to be addressed and communicated.

Geels et al (2015) have investigated how our views and understandings of Sustainable Consumption and Production (SCP) differ on the basis of what research has been conducted. Firstly, the traditional view of the ‘reformist’ SCP-position ‘emphasises eco-efficiency and “win-win” outcomes in which environmental and economic benefits are produced simultaneously’ (p. 3). The revolutionary SCP-position, on the other hand, ‘advocates the comprehensive transformation of societal deep structures that shape production and consumption’ (p. 4). From this position, environmental problems reflect deeper sociocultural and political economic problems of today’s western society, particularly through the emphasis on economic growth and the practice of over-consumption (Geels et al, 2015, p. 4). In order to achieve sustainability, revolutionary change is therefore needed (p.4).

Another approach would be to replace the emphasis on growth with ‘de-growth’ (Kallis, 2011). This shift would place more emphasis on the third sector, and initiate a shift towards a ‘sharing economy’; a circular economy where products and commodities are recycled, re-used, or borrowed (Geels et al, 2015, p. 4). This approach highlights the contribution individuals can have on a circular economy and sustainable society. It requires individuals to re-think their consumer behaviour, and the choices they make on a daily basis. Emphasis lies on frugality and simplicity in order to tackle over-consumption of goods, and initiate a shift towards a consumption of ‘meaningful [cultural and communitarian] activities (Geels et al, 2015, p. 4-5). The last position, the ‘reconfiguration position’, holds the middle between the two previously discussed approaches that focus on either ‘macro-contexts (the nature of capitalism, nature-society interactions, modernity) or on individuals (choices, attitudes, motivations)’ (p.5).

The strength of Sustainable Consumption and Production research lies in its joined consideration of production and consumption activities on climate change and environmental sustainability. Research in these two areas has intensified because of the realisation that both consumption and production need to change simultaneously, in order to achieve environmental sustainability and tackle climate change (Geels et al, 2015, p. 1-2). Furthermore, research on Sustainable Consumption and Production does not merely focus on pollution, but instead re-focuses attention on modern society’s un-sustainable dependence on resources (Geels et al, 2015, p. 1). The SCP agenda therefore holds a holistic view towards sustainable consumption; both micro- and macro-perspectives on sustainable consumption and production should be considered for its impact on the micro-level of the Circular Economy to be fully understood (Geels et al, 2015, p. 2-3).

The Circular Economy (CE) is designed to overcome the so-called ‘take-make-dispose’ linear pattern of production and consumption, and instead it proposes ‘a circular system in which the value of products, materials and resources is maintained in the economy as long as possible’ (Merli et al, 2017, p.702; Ellen MacArthur Foundation, 2013). The concept of the circular economy (CE) is trending both among scholars and practitioners. This is shown by the rapid growth of peer-reviewed articles on CE; more than 100 articles were published on the topic in 2016, compared to only about 30 articles in 2014 (Kircherr et al, 2017, p. 221). The concept is of great interest to both scholars and practitioners ‘because it is viewed as an operationalization for businesses to implement the much-discussed concept of sustainable development’ (Kircherr et al, 2017, p. 221-222).

Thus far, most of the research conducted into the design of the Circular Economy has been focused on the processes of production and distribution; however, the process of consumption, and the role the consumer can play in the Circular economy, has been neglected. Plenty of research has been done into consumer behaviour and consumer culture, but only some has focused on the ethical implications of consumer behaviour, and very little has been written on the role of the consumer in the Circular Economy (Featherstone, 1990; Helgeson, 1984; Qu et al, 2015; Micheletti & Stolle, 2007; Geiger et al, 2018). This negligence of the consumer in CE definitions may be reflective of a research

gap regarding the consumers' perspective on CE. Furthermore, Borrello et al (2017) state that 'little is known about consumers' willingness to participate in [a CE]' (p.1). Lastly, Ghisellini et al. (2016) note that 'the promotion of consumer responsibility is crucial [for the Circular Economy]' (p. 19).

Consumption as a Social Practice

To demonstrate the strong link between Individual Consumption and environmental sustainability, we need to consider why and how consumers choices are being made. Warde (2005) defines consumption as follows:

'Consumption is a process whereby agents engage in appropriation and appreciation, whether for utilitarian, expressive or contemplative purposes, of goods, services, performances, information or ambience, whether purchased or not, over which the agent has some degree of discretion' (p. 137).

The nature and process of consumption cannot be explained from individual decisions but rather from an individual's engagement in a practice. This view stresses the routine, collective and conventional nature of much consumption and emphasises that 'practices are internally differentiated and dynamic' (Warde, 2005, p. 137-138). Consumption is therefore a moment in almost every practice, and consumer wants, desires, therefore emerge from practices (Warde, 2005, p. 137-138).

Consumption is ultimately a social process, in that in societies much of the function and motivation for consumption is instigated by social communication. The motivation for consumption is therefore rarely just to meet our primary needs but rather, through consumption we 'create our culture and the quality of social connection' (Schor, 2002, p. 4). This is an important point to stress; dominant views and perspectives on consumption still come from neoclassical economics, and emphasise the non-social needs over the inter-personal function of consumption (Schor, 2002, p. 4). Moreover, Consumption continues to be structured by socio-economic distinctions such as social class; residential location, as an indication of income level, predicts consumption patterns and desires.

The average consumption per person is increasing each year, and 'the exponential growth curve of resource consumption is driven by both the positive feedback loops of population growth and of capital growth' (Meadows, 1972, p. 55). As a result, over-consumption greatly impacts our environment. Moreover, over-consumption causes depletion and degradation of ecological resources (Meadows, 1972, p. 55). This cycle of endless, resource intensive consumption continues to have a serious environmental impact and structural change is therefore needed. Over the last decades, demands for technological solutions to stop the depletion and degradation of ecological resources, and to replace toxic production methods with a cleaner alternative, have increased. One reason for the appeal of technological advances is that they are apolitical (Schor, 2005a, p. 310). However, technological advancements do not 'challenge the macrostructures of production and consumption', nor do they bring forth the aforementioned 'revolutionary change'; they can *supplement* current climate change policies (Schor, 2005a, p. 310). It is these societal, macrostructures that need to change in order to achieve sustainability through production and consumption. This requires more

research into the role of the individual consumer in the global Sustainable Consumption and Production system.

The Problem with 'Green Consumerism'

At the Rio Summit of the United Nations Conference on Environment and Development in 1992, one of the 27 principles in the declaration called for “reduction of unsustainable Patterns of Production and Consumption” (Banburry et al, 2012, p. 497). However, to this day, the multitude of definitions of ‘sustainable consumption’ still do not agree on whether we need to change the way we consume, or consume less altogether. Apart from the definitional issue, there is the disagreement on whether individual consumer choices, lifestyles and behaviour can lower resource utilization, or whether this effect is only minor (Banburry et al, 2012, p. 498).

Though the difference initially might seem just semantic, ‘green consumerism’ and ‘sustainable consumption’ are two very different concepts; from the historical development, the role of the consumer in the production-consumption system, and the adopted approaches to achieve the desired ‘sustainability’ (Akenji, 2014, p. 13-14). In order to promote the need for sustainable development among the public, the terms Sustainable Consumption (SC) and green consumption (GC) need to be differentiated for the consumer to understand exactly what is expected of them.

Sustainable consumption policy is shaped with a micro perspective. Consumers are expected to understand the environmental consequences of their consumption patterns, and motivated to put pressure on retailers and manufacturers through their consumer choices. If more manufacturers are pressured into more sustainable ways of production, the pressure on the environment will be lessened (Akenji, 2014, p. 13). As a result, the consumption of ‘green’, ‘eco-friendly’ and sustainable products is being promoted. Green consumerism lays the responsibility for what is assumedly ‘sustainable consumption’ with the consumer, while the continued consumption maintains the economic growth. Worth pointing out is that this means that we change what we consume, but not *how much* we consume. Green consumerism refers to ‘the production, promotion, and preferential consumption of goods and services on the basis of their pro-environmental claims’ (Akenji, 2013, p. 13). Green consumerism is being promoted in many different ways, from eco-labelling practices for products, certifications for ‘eco-friendly’ products, recycling activities, waste management etc. It is widely promoted by governments, on macro and micro level, and offers different opportunities for private businesses and start-ups (Akenji, 2013, p. 13-14).

Within private businesses and large corporations, it has become increasingly more important to commit towards achieving sustainability through so-called ‘corporate social responsibility’ (CSR). The social responsibility of corporations has been a prominent topic in social scientific literature since the 1960s and 1970s, resulting in an increase in interest for formal Corporate Social Responsibility (CSR) programs and reporting mechanisms (Mueller et al, 2012, p. 1186). CSR addresses ‘the core behaviour of companies and their responsibilities for their impact on society; these responsibilities relate to environmental, social and economic aims such as waste and pollution control, ensuring fairness and equality, and even on a local level, emphasis lies on benefiting communities and

neighbourhoods (Mueller et al, 2012, p. 1187). Marsden (2001) emphasises that CSR is not an act of philanthropy. Instead, corporations are focused on running a profitable business while acknowledging their social responsibilities with regards to the environment, the economy and society. The focus therefore lies on achieving profits, while not ignoring or 'outsourcing' the negative environmental effects that come with the production and consumption of goods. However, even if goods are being produced 'ethically', there are always negative externalities that need to be accounted for.

The emphasis on the consumer in Green Consumerism, can be beneficial as long as consumers are critical, and well-informed. Only then will there be a demand for sustainably produced products over un-sustainably produced products as it is a matter of demand and supply. Eco-labelling of products is, however, always aimed at economic gain; consumers, on the other hand, will simply believe in the marketing of these 'ecological' products while they are in fact completely distanced from understanding the actual ecological consequences of the products they consume. Furthermore, the aim of Green Consumerism is not to change the system but simply change the products that are being made and consumed. Sustainable Consumption, however, is about preventative intervention which requires structural change (Akenji, 2014, p. 15). Whereas Green Consumerism frames individuals as consumers, governmental policies and instruments have merely placed the role of consumers to 'end-users and intermediaries', failing to recognise the important role of consumers in the sustainable consumption-production debate (Akenji, 2014, p. 15). While many of these sustainable, green initiatives seem promising, research shows that we are far from having achieved social, economic and environmental sustainability: natural resources are being depleted, inequality is still growing, and illnesses related to unsustainable lifestyles are surging. Furthermore, despite the declining energy requirements of these green consumer products, CO₂ emissions from fossil fuels have increased by 80% since 1970, and our current emissions are again 40% higher than measured in 1990 (Akenji, 2014, p. 14-15). These numbers show that while green production initiatives seem useful, they alone cannot reduce the environmental problems we have created over the past decades.

The promotion of green consumerism does not address the amount we consume; if anything, it has told us over and over again that material consumption is sustainable as long as its production was less resource-intensive. Sustainable consumption needs people to consume less, in order to reduce the pressures on natural resources that are used as raw materials and to lower wastes resulting from production and consumption. Paradoxically, 'the most visible change [in green consumerism] is a paradoxical trend of increasing consumption' (Akenji, 2014, p. 14).

Research Gaps & Opportunities for Progress

As previously discussed in this paper, though plenty of research has been done into consumerism, little research has been done on ‘the attitudes of consumers with respect to social and ethical issues’, and the role of the consumer in the Circular Economy (Auger et al, 2007, 301). This is a significant gap in the academic literature, which allows for a contribution. Thungren and Zenouz’s (2017) research into consumer behaviour has ‘a particular focus on consumer attitudes towards recycling and reuse of used mobile phones in the context of a Circular Economy’ (p. 1). Their research shows that ‘convenience of recycling was the strongest predictor of recycling behaviour, whilst reuse behaviour was strongly linked to the quality and price of the already used mobile phone’ (p.1). Despite the fact that this paper just focuses on motivations for recycling, which is only one element of sustainable consumption, it is of great contribution to the body of literature on the Circular Economy; the research focuses not just on consumer culture, but particularly on the ethical considerations that influence individual consumer behaviour.

Furthermore, thus far, much of the research done into sustainable consumption has focused on the side of the seller, with relatively few studies considering or focusing primarily on the perspective of the consumer and the ethical considerations that come with this (Muncy & Vitell, 1992, p. 297-298). Hence, further research needs to be done into the attitudes and social, environmental and ethical considerations of consumers, in order to gain knowledge on how to create ‘better alignment between business operations, NGO influence and governmental policy, both locally and globally’ (Auger et al, 2007, p. 308).

Peighambari et al (2016) state that the future growth of the field of consumer behaviour depends on the ‘systematic analysis of the knowledge development status’, which refers to any discipline and topic on which the literature is diverse and extensive. Furthermore, the number of contributions to the body of research on consumer behaviour is ever-growing (p. 1). Content analysis of previously conducted research will illustrate the ‘discipline’s intellectual history’, which will help scholars in the field of consumer behaviour understand how the field is progressing (Peighambari, 2016, p. 2). By identifying and highlighting crucial data gaps in the literature on consumer behaviour, other researchers and practitioners will be provided with a starting point for future research.

With regards to conducting research into the link between consumer behaviour and sustainable consumption, there are different methodologies that can be used. Banbury et al (2012) have used the method of introspection to approach their research question. With regards to this research, this means that Banbury, Stinrock and Subrahmanyam are simultaneously both researcher and informant. This method enables the researcher to focus ‘attention on practices, at a level of heightened consciousness, and to probe those aspects of lived experience that might not otherwise be accessible’ (p. 498). Qu et al (2015) applied Q methodology to their research ‘to classify Chinese consumers based on Q sample design and data collection and analysis’ (p. 14211). ‘Respondents

[were] asked to express a preference for or agreement with one description over another on a scale from “strongly disagree” to “strongly agree”, and were organised in three groups based on these answers, ‘namely: sustainable, potential sustainable and unsustainable consumers’ (p. 14219-14220). The traits of each group were then analysed in detail and comparison ‘to compare the common and differentiating factors among the three groups’ (p. 14218).

These are just two potential methodologies that can be used for further research in the field, and to gain insight of ethical consumer behaviour. Regardless of which methodology the researcher adopts, the focus should lie on making greater efforts to better understand how individual consumers make consumer choices, and whether consumers fully understand the implications of their (unsustainable) behaviour. This information can then be used by governments to ‘more effectively influence people’s [behaviour]’ in order to motivate people towards more sustainable lifestyles (Qu et al, 2015, p. 14224). A bottom-up approach can be very fruitful for the realisation of a sustainable economy.

Discussion & Conclusion

The field of consumer behaviour has long received attention from researchers, academic scholars, third sector practitioners, and the private sector; however, the link between ethical considerations and consumer behaviour has been neglected in research. Furthermore, this paper has argued that the role of the consumer on the micro-level of the Circular Economy needs primary attention in future research. The human psyche has ‘the tendency to imbue material things with social and psychological meanings. This question deserves a deeper exploration in our search for solutions’ (Jackson, 2016, p. 69). Behavioural change has strong potential to mitigate the impacts of individual consumption on the environment, but more effort needs to go into understanding *how* individuals consume, and how people can be motivated to make more sustainable consumer choices.

To conclude, while green production initiatives seem useful, and may be a good contribution to lessening the impact of consumption on our environment, they alone cannot reduce the environmental pressure we have created over the past decades. To link this back to economist Juliet Schor (2005b): we are on an ‘excessively consumption-intensive and nature-resource-intensive path’, and while green consumerism addresses the resource-intensity of our consumer products, it does not promote a reduction of the amount we consume. It has in fact *increased* the amounts we are consuming (p. 39). If we are serious about addressing environmental issues and sustainability, our focus should lie on minimising our consumption rather than merely ‘greening’ it. The invisibility of (unsustainable) consumption and the environmental impact of recycling are big problems that need to be addressed and communicated. Sustainable Consumption initiatives have the potential of addressing problems of environmental unsustainability better than Green Consumption initiatives through the emphasis on consumption reduction. However, for Sustainable Consumption and Production initiatives to have the desired effect, more research has to be done into the role of the consumer in these practices.

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