

Climate Change & Consumption – An Inseparable Couple?

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Introduction

The focus of climate change mitigation approaches has long been on improving the efficiency of production processes and developing “greener products” through ecological modernization and technological innovation (e.g. DEFRA 2005; OECD 2002; UNEP 1999) in order to reduce the energy intensity of production and consumer lifestyles. However, while considerable efficiency improvements have been achieved over the last decades, final consumption has been increasing alongside a growing population and higher levels of affluence, so that efficiency improvements have actually been outweighed by mounting total consumption (Wenzlik et al. 2015). Accordingly, there has recently been increased scholarly and policy interest in issues of consumption and consumption patterns especially in industrialized countries are more and more recognised as an important pillar to meet the required reductions in greenhouse gas (GHG) emissions. The mitigation report of the Intergovernmental Panel on Climate Change (IPCC), for example, states that behaviors, lifestyle, and culture have a considerable influence on energy use and associated emissions and that stabilizing or lowering consumption, transitioning towards a sharing economy and adopting other behavioural changes have a high mitigation potential (Edenhofer et al. 2014).

The interest in the nexus between consumption and climate change has also been spurred by an increased diversity of actors involved in environmental policies, and is also reflected in various scientific disciplines, such as consumer behavior and policy, economic psychology, and ecological economics, to name just a few, which have placed the human response to climate change more centrally on their research agendas. These various fields have offered alternative theories and explanations for drivers and barriers of human choices and behaviors. Different disciplinary perspectives go along with distinct views on the individual consumer, the role of consumption, the drivers of choices and behaviors, and the respective roles of different agents, i.e. consumers, businesses, and governments.

A key focus of this article is to explore different views of individuals’ agency, or ability to act, and thus their role and contribution in mitigating climate impacts. The question on which role individuals play in solving environmental problems and how much responsibility they should bear is contentious not only among environmental sociologists and psychologists, but also among policymakers, NGOs, and governmental leaders. The article begins with a brief overview of the environmental impacts of household consumption in terms of the GHG emissions associated with the production and use of products and services. It highlights the environmental pressures associated with household consumption which contribute to more than 60% of global GHG emissions. We then turn to a discussion of major theoretical approaches that deal with sustainable consumption and discuss the weaknesses of the various approaches.

Impacts of Household Consumption

Various scientists have investigated the GHG emissions caused by the production, use, and disposal of products in final use. The first analysis of the carbon footprint of different nations which is identifying the role of households, public consumption, and investments is done by Edgar G Hertwich and Glen P Peters (2009). The carbon footprint considers direct as well as indirect GHG emissions. Direct emissions are emissions caused by the product or service itself, whereas indirect emissions designate emissions that arise during the production process. Those indirect emissions occur along the global supply chain and thus consider the life-cycle impact of goods and services consumed. Direct emissions of cars, for instance, refer to emissions caused by driving. By contrast, indirect emissions relate to the entire production process, and also include the life-cycle impact of resources required for consumption such as fuel.

In addition, Diana Ivanova et al. (2016) provide more comprehensive insights into the global environmental impacts of households by analyzing the GHG emissions associated with the production and use of products and services consumed by households across indicators, regions, and consumption categories. Based on these results, household expenditures in 2007 in the EU were responsible for 65 % of global GHG emissions. This extent is attributable to several household consumption contexts, including services (27%), shelter (25%), manufactured products (17%), mobility (17%), and food (13%). In sum, households were responsible for 22 gigatonnes (Gt) carbon dioxide equivalent (CO₂-eq) worldwide, while 4.9 Gt CO₂-eq were caused within the EU and the rest was outsourced to other countries. This analysis shows the highly significant impact of daily household expenditures on the environment, and emphasizes the ongoing and increasing relevance of consumer and consumption issues in terms of GHG emissions.

Alternative Roles for the Individual in Consumption

The significant degree at which individual household consumption contributes to GHG emissions and thus climate change, begs the question if and how individual consumers and households could take on responsibility and drive necessary changes in consumption and production systems. Whether individuals could and should be key agents of change is ultimately linked to the framework one employs to conceptualize the individual.

The Individual as a Sovereign Marketplace Actor

The conventional microeconomic view regards individuals as utility-maximizers who through cost-benefit calculation follow the course of action which brings them the most utility. This individualistic account of consumer behavior rests upon the assumptions that the consumer is a rational, sovereign and utility-maximizing agent and that behavior is the response to prices based on preferences and information. Thus, businesses and consumers act as key agents of change and the market is relied upon as the arena to negotiate prices and sort out efficiency problems. It is assumed that the consumer has a fixed and unlimited set of preferences and is unaffected by the choices of others (Becker 2013). From the consumer's perspective, market-based and voluntary instruments, such as information provision, environmental taxes and price signals should raise awareness, inform about the environmental impacts of individual actions and provide incentives to make the "right" pro-environmental choices (Southerton et al. 2011).

This information-based approach put forth by economics has been criticized on various accounts. Environmental psychologists, for instance, point out that simply providing information and appealing to consumers' conscience – although needed – has been found an ineffective way to bring about behavioral change. For example, while awareness of environmental challenges such as climate change have increased, widespread changes in consumer behavior are still to be seen. This so-called “attitude-behavior” gap is often explained by “lock-in” mechanisms through, for example, habits, social norms or prevalent technologies and material infrastructures. Moreover, contrary to the notion of the rational and sovereign agent, psychological research argues that individual behaviors is less governed by consciousness and reflection and more so by automatic and unconscious processes (Ölander/Thøgersen 2014).

The Individual as an Irrational Consumer

To address the criticisms that have emerged around the concept of consumer sovereignty, a strand of economics has concerned itself with the bounded rationality of economic agents. Behavioral economics integrates findings from psychology and neuroscience with microeconomic theory to study the impact of cognitive, affective, and social factors on economic decision-making of individuals and institutions. The underlying tenet is that individuals are seen to employ a variety of mental shortcuts to simplify complex decision-making. The study of these heuristics has cumulated into the so-called nudge-concept (Thaler/Sunstein 2009) which proposes to nudge people into voluntarily behaving more sustainably by adjusting the given choice architecture and thus make it easier and more prevalent to make pro-environmental choices (Ölander/Thøgersen 2014).

The nudging approach has been adopted as a policy tool in various countries such as Australia, Canada, the United Kingdom and the USA. Its application contexts range from financial decision-making (Benartzi/Thaler 2004) over eating behavior (Rozin et al. 2011) to various forms of sustainable consumption (Lehner et al. 2015). It also has received substantial criticism, mainly relating to its implication for democratic processes (see Lehner et al. 2015).

The Individual as a Political Consumer-Citizen

Political consumerism is commonly understood as the “consumer choice of producers and products based on political or ethical considerations” (e.g. Stolle et al. 2005). It captures the various ways in which consumers use the market as an arena to express political concerns, most dominantly through the practices of boycotting (not buying or using the product or service of a specific company as a form of protest, i.e. “punishing a company” for not adhering to certain environmental or social norms) and buycotting (seeking out products and services from a particular company, i.e. “rewarding a company” for adhering to certain environmental or social norms) (Micheletti/Stolle 2010; Neilson 2010; Stolle et al. 2005). The overarching objective is to pressure and nudge corporations into changing their production practices.

Many scholars view the various forms of political consumerism as “publicly-spirited” (Schudson 2007) and an ultimately collective undertaking as individuals relate to an imagined community through common values and objectives (Dobernig/Stagl 2015; Haeflner et al. 2012; Micheletti 2010). Others have raised concerns that such individualistic accounts of political action might divert attention away from other actors, such as poli-

cy and business, whose engagements are seen crucial to tackle complex social problems (Johnston 2008; Maniates 2001).

Critical Appraisal of Individualistic Perspectives

What all three outlined perspectives have in common is a focus on the individual as the key agent driving a change in consumption patterns through its role as a marketplace actor. This approach has become a popular in science and policy over the course of the last decades. Many climate change mitigation efforts increasingly focus on individual consumer actions and envision the transformation to low-carbon societies via uncoordinated consumer choice that, in turn, is supposed to have the power to govern producers to produce less and differently. It is assumed that by fostering environmental consciousness among consumers and encouraging them to choose “greener products” from the market-place, environmental problems can be successfully tackled. Consumers must only be provided with the right information, education and competence to steer the system in another direction.

As such, this perspective has also been subject to substantial ideological, conceptual, and empirical critiques (Princen 2002), mainly because it is doubted that individuals are willing and/or able to make “smart choices” that will lead to market and thus societal transformation (Valor 2008). It constitutes that consumer choices are both intentional effective and moreover have the knowledge to make the “right” choices. In other words, that consumers intend through their consumption behavior to make a difference, that the choices do in fact reduce emissions. Moreover, it implies that they have the information and the competence to identify and implement the right practices and buy the correct products in the face of the current environmental problems (Grunwald 2010; Michael Maniates; 2014).

However, positioning individualized everyday action – switching from car to public transport, reducing food waste, or eating less meat – in relation to environmental problems, may ignore the struggles and contradictory concerns that consumers face when making consumption choices in everyday life (J. Lindsay, 2010). This “privatization of sustainability”, as Grunwald (2010) puts it, induces the risk of individualizing responsibilities for finding solutions to complex social problems (Evans 2011; Holm 2003) and thus making individual households and consumers accountable for a transition to sustainability while it actually belongs on the political agenda. From this perspective, the responsibility for solving global environmental problems which are highly complex in nature, is individualized. This, in turn, “leaves little room to ponder existing institutions, structures, systems and to question current distribution of power and influences in society” (Spash/Dobernig forthcoming).

Beyond Individualistic Accounts

Various scholars have pointed to the limited potential of individualistic accounts to bring about the necessary systemic transformations demanded by climate change and have suggested alternative intellectual perspectives. Elizabeth Shove (2010), for example, advocates to “go beyond the ABC of climate change policy” (i.e. attitudes, behavior and choice) and suggests other social theories, such as transition management or practice theory, as alternative frameworks to analyze processes of societal transformation.

Social practice theory ultimately aims to overcome the long-standing debate in the social sciences of whether structure or agency is more dominant in shaping behavior and society. It sees the structure of social systems as both enabling and constraining agency; what should become the basic domain of the study of the social sciences are “social practices ordered across space and time” (Giddens 1984). The focus is not on individual attitudes, behaviors or choices but on social practices, conceptualized as daily “doings and sayings” in which people are engaged in (Reckwitz 2002; Røpke 2009). Understanding social change is then tightly linked to understanding how social practices (such as eating, washing, driving, etc.) evolve, diffuse, transform and disappear (Shove et al. 2012; Warde 2005).

In recent years, the social practice perspective has been introduced into the study of low carbon-intensive consumption (e.g. Halkier et al. 2011; Hargreaves 2011; Røpke 2009; Spaargaren 2011; Warde 2005) and applied to various consumption contexts, such as stand-by consumption (Gram-Hanssen 2010), food waste (Lorenzo Domaneschi 2012; Evans 2011), heating (Doyle/Davies 2013), and energy impacts of ICT (Røpke et al. 2010). Thereby, consumption of resources and materials is seen as contained in a variety of different practices; people are not aware that they consume as they carry a practice (Warde 2005).

Other scholars argue that to tackle complex problems such as climate change, what is needed are fundamental changes in the deeper structures of society, a turning away from economic growth and over-consumption, and the establishment of alternative systems of production and consumption. Specific examples manifesting these positions are manifold, and include concepts such as “de-growth” (Schneider et al. 2010), the “sharing economy” (Heinrichs 2013), and “grassroots innovations” (Seyfang/Smith 2007), to name just a few. What they have in common is the view that environmental challenges such as climate change are deeply engrained in the socio-political logic of neo-liberal, consumerist societies and that, consequently, what is needed is fundamental systemic change (Geels et al. 2015).

Critics of these “revolutionary perspectives” regard them as too abstract and too distant from the living worlds of actual consumers and producers. Moreover, it is not clear how niche initiatives (such as transition town movements or small-scale alternative agro-food networks) can be up-scaled and diffused to the scale required. What goes along with these points is that the policy-impact of these perspectives is so far still marginal (Geels et al. 2015).

Conclusion

The recognition that efficiency improvements along the supply chain are not sufficient to trigger significant reductions in GHG emissions and meet ambitious climate targets, have sparked the interest in programs and measures that focus on individual consumers and households to reduce the impacts of consumption on climate change. However, while there is a growing consensus that an alteration of consumption patterns could make a significant difference in mitigation efforts, the concrete role and potential of individual behavior change is discussed controversially. Social scientists have started to analyze the social and individual factors that shape prevailing consumption patterns to effectively motivate action and encourage shifts to more climate friendly consumption patterns.

Some research suggests that the decisions and practices of individuals and households could be steered by policy measures in favor of low carbon products and behaviors to reduce GHG emissions considerably (Dietz et al. 2009; Vandenbergh et al. 2008). This

theoretical framework puts full responsibility over environmental issues on individuals; thereby, it fails to recognize that consumers are bound by the social context that drives consumption behavior. It overrates the importance of individuals' ability to make informed decisions and overestimates their power to trigger mitigation efforts along the supply chain through their purchasing power. In contrast, sociology and anthropology situate individuals within the structure of social systems that can both constrain and enable consumption patterns and practices.

Moving beyond the dominant focus on greening supply chains and widening attention to the patterns of consumption of everyday lives is crucial. While we agree that there is a considerable potential of low-impact consumer practices to reduce climate impacts, consumers face major difficulties to know, care and act towards the environment (Hobson 2002). Thus, leveraging that potential requires recognizing that individuals are embedded within larger social, socio-technical and sociocultural contexts. The slow pace of mitigation efforts coming from businesses and as national and international policy debates, as well as the various mechanisms in place that preserve dominant systems of production and consumption create framework conditions in which current practices of consumers are maintained and retained.

We argue that few if any voluntary actions and shifts in daily practices can be realized at the required scale if they are not accompanied by fundamental changes in social, political and economic structures. More stringent signals from governments that guide daily practices in the right direction paired with systemic reconfigurations are therefore of utmost importance. In addition, we argue that what is often neglected within consumer research is the opportunity of individuals to challenge the structures that shape unsustainable behaviors by their involvement in communal groups and formal political work through voting, volunteering, involvement in local political parties and campaigns. While the ability of individuals to effect change through their role as consumers may be limited, their participation in civic activities may increase awareness, as well as reshape social norms and structures that affect both consumption and production practices.

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