

Limits of Sufficiency Strategies in Business Practices

Overcoming Business-Related Boundaries for a Transition Towards Sufficiency

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Abstract *This chapter discusses the limited effectiveness of sufficiency-promoting communications as a result of larger structural causes that prevent companies from implementing effective sufficiency approaches in their communications as well as in their overarching business strategies – namely, pro-consumption advertising and the growth-oriented economy.*

1. Introduction

A socio-ecological transformation towards sustainability requires structural changes in all areas of the society and economy; changes that simultaneously enable the pursuit of social justice and promote long-term individual and societal well-being within planetary boundaries. This implies an overall reduction in consumption and production in line with the concept of sufficiency.

Recent research indicates that interventions targeting individuals by providing information, increasing awareness and fostering personal responsibility have shown limited effectiveness in altering overall consumption patterns (Hirth et al. 2023). These approaches are often not successful enough to reach beyond a small sustainability-oriented niche segment of consumers. Apart from limited pro-environmental motivation, one reason is that individuals have limited capacity to absorb and process an overwhelming volume of information (Oehler/Wendt 2017). It is clear that in order to achieve real change towards sufficiency, we need to broaden the scope and look beyond individual decision-making to collective decision-making processes and the role of governments and businesses (e.g., Whitmarsh et al. 2021).

Moving beyond individuals, one approach that businesses could pursue to address the impacts of overconsumption is to advocate for sufficiency. Due to their strategic position in the supply chain, their decisions, orientations or activities influence both upstream production and downstream consumption towards a slower, local and socially just economy (Heikkurinen et al. 2019; Jungell-Michels-

son/Heikkurinen 2022). So far, research has identified two main approaches on how exactly this transformation might occur: the adoption of business models that prioritize the reduction of overall consumption (Niessen/Bocken 2021) and the use of marketing strategies that promote sufficiency-oriented consumption (Gossen et al. 2019) and elicit social action aimed at preventing and addressing the root causes of the unsustainable economy. Perhaps unsurprisingly, research also suggests that most of the strategies implemented to enable sufficiency-oriented consumption can be categorized as “shallow”, as they focus primarily on knowledge and support, such as communication campaigns (e.g., Gossen/Kropfeld 2022; Svenfelt et al. 2022). These strategies have been shown to be inadequate in influencing intentions and decisions towards sufficiency-oriented behaviors, for example in online environments, where they are overshadowed by frequent pro-consumption advertisements (e.g., Frick et al. 2021a; Tröger et al. 2021).

The reasons why current approaches often fail to effectively realize their potential to drive behavior change toward sufficiency are, we argue, both structural and self-inflicted: First, businesses are embedded in a growth-based economic system. The logic of capitalism means that profit-seeking firms and unsustainable demand from households are institutionalized through private ownership and capital accumulation (Gunderson et al. 2018). As a result of this path dependency, companies have limited capacity to change the underlying “structural forces” of exponential growth and excessive consumption (Beyeler/Jaeger-Erben 2022). This conflict of interest can create tensions within companies and discourage them from adopting sufficiency strategies (Gossen/Heinrich 2021). Second, despite their limited effectiveness in guiding consumer choices in the long term (Frick et al. 2021a; Tröger et al. 2021; Gossen et al. 2023), one of the most common strategies used by companies to promote sufficiency-oriented consumption are communication and information campaigns.

In what follows, we discuss the limitations of consumer-centered communication approaches that focus on individual behavior change and absolve other actors of their responsibilities. We then explain the challenges and limitations of sufficiency-promoting messaging, followed by an analysis of the main barriers that prevent companies from implementing effective sufficiency approaches in their communications as well as in their overarching business strategies. In analyzing the causes and interdependencies, it becomes clear that they are mutually reinforcing. We conclude by pointing to opportunities for political support that are essential for a profound transformation of the economy and society.

2. Limitations of consumer-centered approaches

In promoting sufficiency, companies often rely on marketing campaigns or communication efforts to encourage behavior change at the consumer level. However, such campaigns often fall short of their intended outcomes. One potential reason for this ineffectiveness is the intention-behavior gap. Prior research has extensively studied this gap, which suggests that even when individuals have strong intentions or a high willingness to change, these intentions do not always translate into actual behavior (Bamberg/Möser 2007). Everyone knows from their own experience how difficult it is to change a certain habit from one day to the next, such as giving up sweets or exercising for 10 minutes in the morning. This is of particular relevance in the context of environmental behavior, as many people have a high awareness of the problem and express the intention to behave in an environmentally friendly way but often do not succeed due to adverse circumstances (Bamberg/Möser 2007; ElHaffar et al. 2020). In the behavioral sciences and psychology, there are countless studies on bridging the gap between intention and behavior, often focusing on motivational processes (Sheeran/Webb 2016). Structural barriers are integrated in the form of social norms.

However, the focus on individuals leads to an individualization of societal problems and absolves other critical and influential actors, such as companies and governments, from their share of responsibility in driving large-scale change towards sufficiency and sustainability (Chater/Loewenstein 2022). Grunwald (2010) called this allocation of responsibility the privatization of sustainability, Akenji (2014) described it as consumer scapegoats. Both authors agree that focusing solely on consumers as agents of change can have detrimental effects: If sufficiency depends on consumer choice, then companies and legislators do not share this responsibility and may fail to take the necessary action. In other words, the focus on the individual legitimizes companies to follow the rules of the free market and pursue the goal of corporate growth and accumulation rather than sufficiency. This coincides with neoliberal thinking and the prevailing “dictatorship of consumption” (Lepenies 2022: 225), in which personal purchasing decisions are misunderstood as the exercise of subjective freedoms.

In summary, the embeddedness of human behavior or thinking in social systems is often underestimated and the responsibility of actors beyond individual consumers is not adequately addressed. The focus on the consumer has promoted the trend towards individualization and privatization of sustainability and sufficiency – a narrative that many companies have been happy to support – but which, as described in the next chapter, has led to limited results.

3. Limitations and obstacles of sufficiency-promoting communication

Current business strategies to promote sufficiency focus on product design and include, for example, developing durable, high-quality and repairable alternatives to conventional products, as well as extending the usual warranty period and offering repair services (Bocken et al. 2014; Bocken/Short 2016; Kropfeld/Reichel 2021). These strategies are often complemented by communication measures such as the use of anti-consumerist messages that aim to raise awareness of the impact of consumption on the environment and human well-being and to challenge the materialistic norms of consumer society. It seems that companies find it easier to implement sufficiency strategies at the level of marketing and customer communications than at the level of other business practices because these measures create less tension and require fewer changes in the design of business practices and models. However, their effectiveness has not yet been proven because it is not clear whether communications promoting sufficiency actually reduce consumption. The much-discussed case of Patagonia's 2011 Black Friday campaign "Don't buy this jacket" serves as a vivid example of this ambiguity. Although the provocative campaign aimed to critically reflect on consumption (Patagonia Inc. 2021), it ultimately led to an increase in sales for the outdoor brand.

Consequently, studies that use methods to directly measure the impact of sufficiency messaging on behavior yield less conclusive results. For example, Frick et al. (2021) conducted two experiments with sufficiency-promoting social media communications from companies aimed at reducing consumption and extending the lifetime of clothing. In their real-world social media intervention, both the experimental and control groups showed reduced clothing consumption over time. Thus, the intervention itself did not reduce clothing consumption. However, in their laboratory experiment, sufficiency-promoting social media communication led to stronger sufficiency behavior, as measured by choosing a coupon for a second-hand store or making a donation, compared to neutral and consumption-promoting communication. In a similar study, Gossen et al. (2023) examined the potentially positive effects of sufficiency messages based on dynamic norms on mobile phone usage intentions and purchasing decisions. Dynamic norms communicate a continuous shift in behavioral tendencies relevant to the target behavior – in this case, the growing interest of people in repairing and prolonging the life of mobile phones. The results showed that a sufficiency message emphasizing a dynamic norm had no particularly significant effects compared to the two other conditions. Furthermore, in a diary intervention study that aimed at increasing sufficiency orientation and consumption, it was shown that simply being part of the experiment increased participants' pro-sufficiency attitudes after a one-week diary intervention and remained at that level for four weeks thereafter (Tröger et al. 2021). These studies indicate that businesses, which decide to promote sufficiency to their customers

through advertising and communication efforts, might have only a limited impact on customer behavior.

From a methodological perspective, it is challenging to operationalize the concept of sufficiency and accurately measure sufficiency-oriented behavior change in real-world settings. These limitations affect the reliability and validity of the studies' results and contribute to their mixed results, which are still few in number. Furthermore, the design and practical implementation of interventions to promote sufficiency-oriented consumption play a crucial role. Habit formation requires repeated performance of desired actions in stable contexts, followed by a desirable reward. Therefore, sustained communication over time – as opposed to shallow, one-time information-based interventions – is required to have a meaningful impact (Nielsen et al. 2020).

4. Key barriers for business approaches promoting sufficiency-oriented lifestyles

Even if we know about the limitations of consumer-centered approaches and the effectiveness of sufficiency-promoting communication from businesses is uncertain, there is a need for more businesses to take up sufficiency strategies. This, however, is obstructed by the dominance of pro-consumption advertising and the growth paradigm in the current economic system that works against an overall sufficiency orientation in businesses.

4.1 Dominance of pro-consumption advertising as a barrier to sufficiency-promoting communication

Sufficiency-oriented communication is still a niche activity compared to conventional advertising that is disseminated online as well as in print media, on billboards, radio or TV. Accordingly, expenditure on advertising has steadily increased – while in 2000 more than \$300 billion was spent on advertising worldwide, by 2020 it was more than \$600 billion (Statista 2023a). In recent decades, online advertising in search engines, social media or on displays has become by far the most attractive form of advertising and the main driver of growth in advertising spending, with an annual growth rate of around 10 per cent worldwide (Statista 2023b). As a result, a German survey, for example, found that internet users see significantly more consumption-promoting advertising than sufficiency-oriented content (Frick et al. 2021b). This predominance of the traditional, consumption-promoting form of advertising has several adverse effects on sufficiency:

- Environmental impact of the advertising sector: Online advertising and the production of advertising and media campaigns have a significant impact on the environment, e.g., through resource and energy consumption or CO₂ emissions (Pärssinen et al. 2018; Hartmann et al. 2022).
- Misleading information for sufficiency-oriented consumption choices: Advertising can spread misinformation and greenwashing. Greenwashing can occur when the environmental benefits of products are overstated. It is widely used in online retail (Gossen et al. 2022a) and leads consumers to choose less sustainable products than intended. When greenwashing is exposed, it also reduces the trustworthiness of sustainable products (Hartmann et al. 2022). Further, online services based on advertising revenue disseminate misinformation on environmental topics such as climate change more intensively and quickly than scientifically-based information (Kingaby 2021; Vosoughi et al. 2018); this may counteract environmental concerns that motivate sufficiency-oriented behavior.
- Increased consumption levels: Advertising can increase the amount of goods and services consumed and, thus, the environmental impact in other sectors.

Especially this last aspect of increasing consumption levels poses a serious threat to sufficiency-oriented lifestyles and business practices. It remains a challenge for empirical studies to definitively prove whether advertising actually increases consumption and the mediated effect of advertising is still under investigation (Gossen et al. 2022b, Frick et al. 2021b). From a broader economic perspective, it is unclear whether advertising solely redistributes a fixed amount of consumption from one company or provider to another, or if it genuinely enhances overall consumption levels based on the success of advertising (Gossen et al. 2022b). Yet, studies from diverse disciplinary and methodological backgrounds suggest that advertising does contribute to increased consumption. On a macro-level, there is evidence of a correlation between advertising expenditure and economic growth or increased spending (e.g., Brulle/Young 2007; Molinari/Turino 2018). From a household perspective, regular exposure to media content is associated with higher product sales (e.g., Rubinson 2009) and increased material aspirations (e.g., Shrum et al. 2005). In the field of marketing research, numerous authors criticize the primary use of marketing to generate additional consumer demands, leading to unsustainable production and consumption escalation (e.g., Key et al. 2020). The advent of online marketing exacerbates the risks of overconsumption. For instance, Dinner et al. (2013) found that online advertising is even more effective than traditional advertising in increasing sales. Recent digital developments such as personalization, instant shopping or influencer marketing further contribute to this detrimental trend. Correspondingly, Kasser and Kanner (2004) explored how advertising stimulates consumption, fosters consumerist attitudes and influences overall well-being. Advertising often cultivates a desire for novelty, which has been shown to contribute to the shortened

lifespan of smartphones (Jaeger-Erben et al. 2021). Furthermore, advertising can lead to a rise in materialistic values, escalating levels of consumption and ecological burdens (Kasser 2020).

The dominance of pro-consumption advertising also has a structural cause, which is particularly visible in the digital markets. The internet is largely dependent on advertising as its main source of revenue (Kingaby 2021) and the most visited search engines, online news media and social media, are owned and designed by profit-driven platform companies whose financing models are based on advertising and the collection of personal data (Lewandowsky et al. 2020). They collect data from users to personalize information, services and advertising to their individual interests and sell advertising space to companies in real-time bidding.

All in all, not only the relationship between advertising and overconsumption, the ubiquity of commercial and pro-consumption content in the consumer environment but also the design and funding models of companies pose major obstacles to sufficiency strategies. As the next chapter shows, the obstacles described are symptoms of the current market system.

4.2 Growth-oriented economy and neoliberal market systems as barriers for sufficiency-oriented strategies in businesses

The current economic thinking is dominated by growth orientation and the optimization of economic indicators as the central goal rather than societal well-being (Raworth 2017). The relentless pursuit of economic growth is seen as essential for societal progress and prosperity. In this paradigm, with few exceptions, most businesses encourage individuals to continuously acquire and consume more goods and services as a means of achieving these goals. In such growth-oriented institutional settings, alternative businesses – businesses which are willing to operate at smaller organizational scales and pursue sufficiency rather than growth – struggle to thrive (Beyeler/Jaeger-Erben 2022; Lloveras et al. 2022) and may even refrain from pursuing strategies that support sufficiency, both in their own organizational operations and in their offerings to consumers as a result (Gossen/Heinrich 2021). Taken together, the dominant growth orientation of the current economic paradigm seems to prevent most organizations from adopting sufficiency strategies. Below, we highlight four aspects that we have identified as particularly important.

First, there is a lack of access to finance and investment for sufficiency-oriented businesses, especially compared to conventional businesses that promise higher returns to their investors. Organizations that need capital to start their sufficiency-oriented business rely on conventional financial investment as well as own savings, state subsidies or purpose-oriented financial investment strategies such as crowdfunding, impact investors or private donations (Bocken et al. 2022). And although control over financial investments and financial ownership seems to be essential for

sufficiency-oriented companies (Beyeler/Jaeger-Erben 2022), the limited access to funding capital at the same time is a disadvantage in the market. As long as most investors seek profit maximization and high financial returns, companies that find ways to create value that are independent of growth (Banerjee et al. 2021) or that turn away from the principle of profit maximization altogether (Nesterova 2020) are not attractive investments for them.

Second, the growth dependency inherent in the economic system de-incentivizes businesses from reducing production or encouraging customers to consume less. The current business environment – characterized by competitive conditions, demand effects and business ownership – reinforces the benefits of growth and scale (Gebauer et al. 2017). Furthermore, quantitative growth in business activity is typically accompanied by increased complexity in terms of financial obligations, competitive pressures and infrastructure. The result is a growth spiral in which increasing complexity and growth dependency drive each other (Froese et al. 2023). Existing companies are often caught in these dynamics, and it takes knowledge, capacity and a willingness to experiment – often with unpredictable consequences – to overcome these lock-ins and path dependencies. As an example, consider the Swedish second-hand clothing market, which is dominated by for-profit organizations that prevent non-profits from operating more sustainably (Persson/Hinton 2023).

Third, powerful actors shape demands and desires, pushing sufficiency to the periphery. The current economic system is stabilized by a variety of settings, including power constellations. In the current asymmetric market, a powerful consumer culture industry shapes desires and market-driven forces shape demand. As a result, sufficiency advocates are a minority in their institutions and sufficiency-oriented businesses are a niche phenomenon. At the same time, political decision-making continues to be constrained by the power of interest groups such as industrial lobby groups or multinational corporations, which reinforces the power imbalance in the current economic system. These power asymmetries need to be taken into account in order to realize the shift towards sufficiency in the economy (Fuchs et al. 2016; Avelino 2017).

Fourth, purpose-oriented businesses that value sufficiency and care over self-interest are at odds in the current extractivist, capitalist system. Values shape the behavior of actors in the economic system and influence decision-making in companies. A redefinition of business values would be moving from the primacy of shareholders to the primacy of purpose (Mayer 2020). So-called purpose-driven companies create both wealth and social well-being, are a source of social change and contribute to the common good (European Parliamentary Research Service 2023). An example could be companies which pursue a perspective of caring that prioritizes the well-being of all living beings, including humans, nonhumans and nature (Beyeler/Jaeger-Erben 2022; Jungell-Michelsson/Heikkurinen 2022; Lorek et

al. 2023). A care-centred perspective challenges the current paradigm of constant economic growth and competition and seeks a fair and equitable distribution of resources, the elimination of systems of oppression and the reduction of carbon emissions and resource consumption (Lorek et al. 2023). However, such alternative businesses are disadvantaged in the existing economic system. Because the time and financial costs of operating in a system that targets opposed values are often high, imitators are discouraged. Therefore, the question arises how we can create more favorable conditions for sufficiency-oriented businesses.

5. The time is ripe for systemic change in policy-making and business

Political institutions from the supranational (e.g., EU) to the local level must introduce policies that help sufficiency-oriented business succeed and at the same time abolish subsidies for unsustainable forms of production and consumption. Examples of policy support for sufficiency strategies can be found in legislation to facilitate repairs, such as in Sweden with a VAT reduction for repair services (Dalhammar et al. 2020) or in France, where repair scores have been made mandatory for certain electronic appliances (Ministère de la transition écologique 2021).

In order to introduce such policies, political actors often argue that broad public acceptance is required. Current research shows that such acceptance can be assumed at least to some degree. The majority of people want fair and equitable policies that secure the future of our planet and are willing to accept strong regulatory measures to this end (e.g., Fabre et al. 2023). Communicating the impact of such measures plays a crucial role in acceptance. According to Dütschke et al. (2023), people want to be informed about how policy measures affect themselves and society, and they also want to know that potential savings for the state, for example, are passed back to society. This is also true vice versa: if people are misinformed, there can be a lack of political support, which can prevent systemic changes that are urgently needed for the transition. So, when it comes to system change, including change in businesses, social acceptance is needed, but it also needs to be fostered through communication from key stakeholders.

We have shown that companies aiming to drive sustainability and sufficiency prefer consumer-oriented communication interventions, probably because they do not require a profound change in management or production processes, which would often be considered costly and effortful. Garcia-Ortega et al. (2023) introduced the term “anti-consumerist washing” to describe the phenomenon that companies only symbolically engage in sufficiency-promoting communication to give the appearance of social responsibility. Instead, they use misleading advertising to create an overly positive image, gain legitimacy and maintain “business as usual”. But for sufficiency to become a common practice, a deep transition of

management is needed. Some companies have already started to experiment with sufficiency-oriented business models (e.g., Niessen/Bocken 2021; Bocken et al. 2022). Changes at the business level may include, for example, changing the form of organization to a cooperative. Due to their organizational form, cooperatives are characterized by the commoditization of ownership and property as well as the co-determination and self-determination of their members and can thus largely escape the growth pressure of the economic market (e.g., Lautermann/Pfriem 2018). Moreover, equivalent to the consumption corridor that determines sufficient consumption as a level at which planetary boundaries are respected and human needs are met, a “production corridor” (Bärnthaler/Gough 2023) needs to be defined for businesses. It exists in a sphere between essential production to meet basic needs within planetary boundaries and excess production that is detrimental to the environment and does not contribute to need satisfaction.

Ultimately, sufficiency should not be regarded as a mystical standard to be attained within the economy and society but a way of aligning resources to meet the needs of both humans and non-humans alike.

References

- Akenji, Lewis (2014): “Consumer scapegoatism and limits to green consumerism.” In: *Journal of Cleaner Production* 63, pp. 13–23. <https://doi.org/10.1016/j.jclepro.2013.05.022>.
- Avelino, Flor (2017): “Power in Sustainability Transitions: Analysing power and (dis)empowerment in transformative change towards sustainability.” In: *Environmental Policy and Governance* 27/6, pp. 505–520. <https://doi.org/10.1002/etl.1777>.
- Bamberg, Sebastian/Möser, Guido (2007): “Twenty years after Hines, Hungerford, and Tomera: A new meta-analysis of psycho-social determinants of pro-environmental behaviour.” In: *Journal of Environmental Psychology* 27/1, pp. 14–25. <https://doi.org/10.1016/j.jenvp.2006.12.002>.
- Banerjee, Subhabrata Bobby/Jermier, John M./Peredo, Ana Maria/Perey, Robert/Reichel, André (2021): “Theoretical Perspectives on Organizations and Organizing in a Post-Growth Era.” In: *Organization* 28/3, pp. 337–357. <https://doi.org/10.1177/1350508420973629>.
- Bärnthaler, Richard/Gough, Ian (2023): “Provisioning for sufficiency: envisaging production corridors.” In: *Sustainability: Science, Practice and Policy* 19/1. <https://doi.org/10.1080/15487733.2023.2218690>.
- Beyeler, Laura/Jaeger-Erben, Melanie (2022): “How to Make More of Less: Characteristics of Sufficiency in Business Practices.” In: *Frontiers in Sustainability* 3, 949710. <https://doi.org/10.3389/frsus.2022.949710>.

- Bocken, Nancy/Short, Samuel William (2016): "Towards a Sufficiency-Driven Business Model: Experiences and Opportunities." In: *Environmental Innovation and Societal Transitions* 18, pp. 41–61. <https://doi.org/10.1016/j.eist.2015.07.010>.
- Bocken, Nancy/Short, Samuel William/Rana, Padmakshi/Evans, Steve (2014): "A Literature and Practice Review to Develop Sustainable Business Model Archetypes." In: *Journal of Cleaner Production* 65, pp. 42–56. <https://doi.org/10.1016/j.jclepro.2013.11.039>.
- Brulle, Robert. J./Young, Lindsay E. (2007): "Advertising, individual consumption levels, and the natural environment, 1900–2000." In: *Sociological Inquiry* 77/4, pp. 522–542. <https://doi.org/10.1111/j.1475-682X.2007.00208.x>.
- Chater, Nick/Loewenstein, George (2022): "The i-frame and the s-frame: How focusing on individual-level solutions has led behavioral public policy astray." In: *Behavioral and Brain Sciences*, pp. 1–60. <https://doi.org/10.1017/S0140525X22002023>.
- Dalhammar, Cornelia (eds.)/Richter, Jessika Luth (eds.)/Almén, Josefina/Anehagen, Maja/Engström, Emma/Hartman, Cornelia/Jonsson, Clara/Lindbladh, Frida/Ohlsson, Jonna (2020): "Promoting the Repair Sector in Sweden." *International Institute for Industrial Environmental Economics, Lund University, Lund, Sweden*.
- Dinner, Isaac M./Van Heerde, Harald J./Neslin, Scott A. (2013): "Driving Online and Offline Sales: The Cross-Channel Effects of Traditional, Online Display, and Paid Search Advertising." In: *Journal of Marketing Research* 51/5, pp. 527–545. <https://doi.org/10.1509/jmr.11.0466>.
- Dütschke, Elisabeth/Preuß, Sabine/Brunzema, Iska/Piria, Raffaele (2023): "Using the revenues from carbon pricing – Insights into the acceptance and perceptions of particularly burdened groups." In: *Energy Policy* 175, 113468. <https://doi.org/10.1016/j.enpol.2023.113468>.
- ElHaffar, Ghina/Durif, Fabien/Dubé, Laurette (2020): "Towards closing the attitude-intention-behavior gap in green consumption: A narrative review of the literature and an overview of future research directions." In: *Journal of Cleaner Production* 275, 122556. <https://doi.org/10.1016/j.jclepro.2020.122556>.
- European Parliamentary Research Service (2023): "Beyond Growth: Pathways towards Sustainable Prosperity in the EU." Brussels.
- Fabre, Adrien/Douenne, Thomas/Mattauch, Linus (2023): "International attitudes toward global policies." In: *Social Science Research Network*. <https://doi.org/10.2139/ssrn.4448523>.
- Frick, Vivian/Gossen, Maike/Santarius, Tilman/Geiger, Sonja (2021a): "When Your Shop Says #lessismore. A Field and Laboratory Intervention on Online Communication for Clothing Sufficiency." In: *Journal of Environmental Psychology* 75, 101595. <https://doi.org/10.1016/j.jenvp.2021.101595>.

- Frick, Vivian/Matthies, Ellen/Thøgersen, John/Santarius, Tilman (2021b): “Do online environments promote sufficiency or overconsumption? Online advertisement and social media effects on clothing, digital devices, and air travel consumption.” In: *Journal of Consumer Behaviour* 20/2, pp. 288–308. <https://doi.org/10.1002/cb.1855>
- Froese, Tobias/Richter, Markus/Hofmann, Florian/Lüdeke-Freund, Florian (2023): “Degrowth-Oriented Organisational Value Creation: A Systematic Literature Review of Case Studies.” In: *Ecological Economics* 207, 107765. <https://doi.org/10.1016/j.ecolecon.2023.107765>.
- Fuchs, Doris/Di Giulio, Antonietta/Glaab, Katharina/Lorek, Sylvia/Maniates, Michael/Princen, Thomas/Röpke, Inge (2016): “Power: The Missing Element in Sustainable Consumption and Absolute Reductions Research and Action.” In: *Journal of Cleaner Production* 132, pp. 298–307. <https://doi.org/10.1016/j.jclepro.2015.02.006>.
- Garcia-Ortega, Beatriz/Galan-Cubillo, Javier/Llorens-Montes, F. Javier/De-Miguel-Molina, Blanca (2023): “Sufficient consumption as a missing link toward sustainability: The case of fast fashion.” In: *Journal of Cleaner Production* 399, 136678. <https://doi.org/10.1016/j.jclepro.2023.136678>
- Gebauer, Jana/Lange, Steffen/Posse, Dirk (2017): “Wirtschaftspolitik für Postwachstum auf Unternehmensebene. Drei Ansätze zur Gestaltung.” In: Frank Adler/Ulrich Schachtschneider (eds.), *Postwachstumspolitiken. Wege zur wachstumsunabhängigen Gesellschaft*, München: oekom, pp. 239–252.
- Gossen, Maike/Heinrich, Anneli (2021): “Encouraging Consumption Reduction: Findings of a Qualitative Study with Clothing Companies on Sufficiency-Promoting Communication.” In: *Cleaner and Responsible Consumption* 3, 100028. <https://doi.org/10.1016/j.clrc.2021.100028>.
- Gossen, Maike/Kropfeld, Maren Ingrid (2022): “‘Choose Nature. Buy Less.’ Exploring Sufficiency-Oriented Marketing and Consumption Practices in the Outdoor Industry.” In: *Sustainable Production and Consumption* 30, pp. 720–736. <https://doi.org/10.1016/j.spc.2022.01.005>.
- Gossen, Maike/Ziesemer, Florence/Schrader, Ulf (2019): “Why and How Commercial Marketing Should Promote Sufficient Consumption: A Systematic Literature Review.” In: *Journal of Macromarketing* 39/3, pp. 252–269. <https://doi.org/10.1177/0276146719866238>.
- Gossen, Maike/Tröger, Josephine/Veneny, Marek/Eichhorn, Henriette/Bergener, Jens (2023): “Do people make sufficiency-oriented mobile phone choices based on dynamic norms? The perception and effectiveness of sufficiency-promoting messages in online media.” In: *Frontiers in Sustainability*, 4. <https://doi.org/10.3389/frsus.2023.1145243>
- Gossen, Maike/Jäger, Sebastian/Hoffmann, Marja Lena/Bießmann, Felix/Korenke, Ruben/Santarius, Tilman (2022a): “Nudging Sustainable Consumption: A

- Large-Scale Data Analysis of Sustainability Labels for Fashion in German Online Retail." In: *Frontiers in Sustainability*, 3. <https://doi.org/10.3389/frsus.2022.922984>.
- Gossen, Maike/Frick, Vivian/Kettner, Sara Elisa (2022b): "Digitale Vermarktungsstrategien – Relevanz und Einfluss auf nachhaltigen Konsum." *UBA-Texte* 41/2022.
- Grunwald, Armin (2010): "Wider die Privatisierung der Nachhaltigkeit – Warum ökologisch korrekter Konsum die Umwelt nicht retten kann." In: *GAIA – Ecological Perspectives for Science and Society* 19/3, pp. 178–182. <https://doi.org/10.14512/gaia.19.3.6>.
- Gunderson, Ryan/Stuart, Diana/Petersen, Diana/Yun, Sun-Jin (2018): "Social Conditions to Better Realize the Environmental Gains of Alternative Energy: Degrowth and Collective Ownership." In: *Futures* 99, pp. 36–44. <https://doi.org/10.1016/j.futures.2018.03.016>.
- Hartmann, Patrick/Marcos, Aitor/Castro, Juana/Apaolaza, Vanessa (2022): "Perspectives: Advertising and climate change – Part of the problem or part of the solution?" In: *International Journal of Advertising* 42/2, pp. 430–457. <https://doi.org/10.1080/02650487.2022.2140963>.
- Heikkurinen, Pasi/Young, C. William/Morgan, Elizabeth (2019): "Business for Sustainable Change: Extending Eco-Efficiency and Eco-Sufficiency Strategies to Consumers." In: *Journal of Cleaner Production* 218, pp. 656–664. <https://doi.org/10.1016/j.jclepro.2019.02.053>.
- Hirth, Steffen/Kreinin, Halliki/Fuchs, Doris/Blossey, Nils/Mamut, Pia/Philipp, Jeremy/Radovan, Isabelle (2023): "Barriers and Enablers of 1.5° Lifestyles: Shallow and Deep Structural Factors Shaping the Potential for Sustainable Consumption." In: *Frontiers in Sustainability* 4, 1014662. <https://doi.org/10.3389/frsus.2023.1014662>.
- Jaeger-Erben, Melanie/Frick, Vivian/Hipp, Tamina (2021): "Why do users (not) repair their devices? A study of the predictors of repair practices." In: *Journal of Cleaner Production* 286, 125382. <https://doi.org/10.1016/j.jclepro.2020.125382>.
- Jungell-Michelsson, Jessica/Heikkurinen, Pasi (2022): "Sufficiency: A Systematic Literature Review." In: *Ecological Economics* 195, 107380. <https://doi.org/10.1016/j.ecolecon.2022.107380>.
- Kasser, Tim. E./Kanner, Allen D. (2004): *Psychology and consumer culture: The struggle for a good life in a materialistic world*, Washington, D. C.: American Psychological Association.
- Kasser, Tim (2020): "Advertising's role in climate and ecological degradation." 8.12.2023 (<https://static1.squarespace.com/static/5ebd00802338e863d04911b51t/55fbfcb1408845d09248d4e6e/1606404891491/Advertising%E2%80%99s+role+in+climate+and+ecological+degradation.pdf>).

- Key, Thomas M./Clark, Terry/Ferrell, O. C./Stewart, David W./Pitt, Leyland (2020): “Marketing’s theoretical and conceptual value proposition: Opportunities to address marketing’s influence.” In: *AMS Review* 10/3–4, pp. 151–167. <https://doi.org/10.1007/s13162-020-00176-7>.
- Kingaby, Harriet (2021): “Promises and environmental risks of digital advertising.” In: *Ökologisches Wirtschaften* 36/1, pp. 15–19. <https://doi.org/10.14512/oewo360115>.
- Kropfeld, Maren I./Reichel, André (2021): “The Business Model of Enough: Value Creation for Sufficiency-Oriented Businesses.” In: Annabeth Aagaard/Florian Lüdeke-Freund/Peter Wells (eds.), *Business Models for Sustainability Transitions*, Springer eBooks: pp. 163–189. https://doi.org/10.1007/978-3-030-77580-3_6.
- Lautermann, Christian/Pfriem, Reinhard (2018): „Transformationspotenziale von Energiegenossenschaften.“ In: Christian Lautermann (eds.), *Die Energiewende der Bürger stärken*, Metropolis: pp. 65–99.
- Lepenies, Philipp (2022): *Verbot und Verzicht: Politik aus dem Geiste des Unterlassens*, Berlin: Suhrkamp Verlag.
- Lewandowsky, Stephan/Smillie, Laura/Garcia, David/Hertwig, Ralph/Weatherall, Jim/Egidy, Stefanie/Robertson, Ronald E./O’Connor, Cailin/Kozyreva, Anastasia/Lorenz-Spreen, Philipp/Blaschke, Yannic/Leiser, Mark (2020): “Technology and democracy: Understanding the influence of online technologies on political behaviour and decision-making.” Publications Office of the European Union, Luxembourg. <https://doi.org/10.2760/709177>.
- Lloveras, Javier/Marshall, Adam P./Vandeventer, James S./Pansera, Mario (2022): “Sustainability Marketing beyond Sustainable Development: Towards a Degrowth Agenda.” In: *Journal of Marketing Management* 38/17–18, pp. 2055–2077. <https://doi.org/10.1080/0267257X.2022.2084443>.
- Lorek, Sylvia/Power, Kate/Parker, Natasha (2023): “Economies that Dare to Care – Achieving social justice and preventing ecological breakdown by putting care at the heart of our societies.” Hot or Cool Institute, Berlin., Germany.
- Mayer, Colin (2020): “The Future of the Corporation and the Economics of Purpose.” In: *Journal of Management Studies* 58/3, pp. 887–901. <https://doi.org/10.1111/joms.12660>.
- Ministère de la transition écologique (2021): “Indice de réparabilité,” 28.6.2023 (<http://www.ecologie.gouv.fr/indice-reparabilite>).
- Molinari, Benedetto/Turino, Francesco (2018): “Advertising and Aggregate Consumption: A Bayesian DSGE Assessment.” In: *The Economic Journal* 128/613, pp. 2106–2130. <https://doi.org/10.1111/eoj.12514>.
- Nesterova, Iana (2020): “Degrowth Business Framework: Implications for Sustainable Development.” In: *Journal of Cleaner Production* 262, 121382. <https://doi.org/10.1016/j.jclepro.2020.121382>.

- Nielsen, Kristian S./van der Linden, Sander/Stern, Paul C. (2020): "How Behavioral Interventions Can Reduce the Climate Impact of Energy Use." In: *Joule* 4/8, pp. 1613–1616. <https://doi.org/10.1016/j.joule.2020.07.008>.
- Niessen, Laura/Bocken, Nancy M. P. (2021): "How Can Businesses Drive Sufficiency? The Business for Sufficiency Framework." In: *Sustainable Production and Consumption* 28/6, pp. 1090–1103. <https://doi.org/10.1016/j.spc.2021.07.030>.
- Oehler, Andreas/Wendt, Stefan (2017): "Good Consumer Information: The Information Paradigm at Its (Dead) End?" In: *Journal of Consumer Policy* 40/2, pp. 179–191. <https://doi.org/10.1007/s10603-016-9337-5>.
- Patagonia Inc. (2021): "Don't Buy This Jacket, Black Friday and the New York Times." 8.12.2023 (<https://www.patagonia.com/stories/dont-buy-this-jacket-black-friday-and-the-new-york-times/story-18615.html>).
- Pärssinen, Matti/Kotila, Mikko/Cuevas, Ruben/Phansalkar, Amit/Manner, Jukka (2018): "Environmental impact assessment of online advertising." In: *Environmental Impact Assessment Review* 73, pp. 177–200. <https://doi.org/10.1016/j.eiar.2018.08.004>.
- Persson, Ola/Hinton, Jennifer B. (2023): "Second-hand clothing markets and a just circular economy? Exploring the role of business forms and profit." In: *Journal of Cleaner Production*, 390, 136139. <https://doi.org/10.1016/j.jclepro.2023.136139>.
- Raworth, Kate (2017): *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*, London: Random House Business Books.
- Rubinson, Joel (2009): "Empirical evidence of TV advertising effectiveness." In: *Journal of Advertising Research* 49/2, pp. 220–226. <https://doi.org/10.2501/s0021849909090321>.
- Sheeran, Paschal/Webb, Thomas L. (2016): "The intention-behavior gap." In: *Social and Personality Psychology Compass* 10/9, pp. 503–518. <https://doi.org/10.1111/spc3.12265>.
- Shrum, L. J./Burroughs, James E./Rindfleisch, Aric (2005): "Television's cultivation of material values." In: *Journal of Consumer Research* 32/3, pp. 473–479. <https://doi.org/10.1086/497559>.
- Statista (2023a): "Prognose der Werbeausgaben weltweit," 28.6.2023 (<https://de.statista.com/statistik/daten/studie/74622/umfrage/prognose-der-werbeausgaben-weltweit/>).
- Statista (2023b): "Digital Advertising – Worldwide," 28.6.2023 (<https://www.statista.com/outlook/dmo/digital-advertising/worldwide>).
- Svenfelt, Åsa/Engström, Eskil/Eggestrand Vaughan, Hanna/Gerdin Emma (2022): "62 Ways of Enabling Sustainable Consumption. A Collection of Examples from Research in Mistra Sustainable Consumption." Mistra Sustainable Consumption/Stockholm KTH, Stockholm, Sweden.

- Tröger, Josephine/Wullenkord, Marlis C./Barthels, Clara/Steller, Rubina (2021): “Can Reflective Diary-Writing Increase Sufficiency-Oriented Consumption? A Longitudinal Intervention Addressing the Role of Basic Psychological Needs, Subjective Well-Being, and Time Affluence.” In: *Sustainability* 13/9, 4885. <https://doi.org/10.3390/su13094885>.
- Vosoughi, Soroush/Roy, Deb/Aral, Sinan (2018): “The spread of true and false news online.” In: *Science* 359/6380, pp. 1146–1151. <https://doi.org/10.1126/science.aap9559>.
- Whitmarsh, Lorraine/Poortinga, Wouter/Capstick, Stuart (2021): “Behaviour Change to Address Climate Change.” In: *Current Opinion in Psychology* 42, pp. 76–81. <https://doi.org/10.1016/j.copsyc.2021.04.002>.