Essi Vesterinen

# Sustainable consumption does not have to be altruistic

Subjective well-being as a self-benefit driver of change towards sustainable anti-consumption of clothing

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# Tiivistelmä

Vaateteollisuus on yksi ongelmallisimmista toimialoista ylikulutuksen ja ilmastonmuutoksen näkökulmasta. Ongelmien ratkaisemiseksi tuotannon ekotehokkuuden lisääminen ei riitä, vaan tarvitaan radikaalimpia toimia, kuten antikulutusta. Lisäksi nykyiset keinot suitsia kulutusta vetoamalla kuluttajien altruismiin ja moraaliin eivät ole riittäviä, sillä ihmiset ovat taipuvaisia tavoittelemaan omaa etuaan. Kolmen artikkelin kautta tämä väitöskirja tarkastelee, voidaanko kuluttajien subjektiivista hyvinvointia käyttää egoistisena motivaattorina kestävästä vaatteiden antikulutuksesta viestittäessä.

Ensimmäinen artikkeli tutkii vaatteiden kestävää antikulutusta (SACC) käsitteenä, joka yhdistää antikulutuksen ja kestävän vaatteiden kulutuksen. Systemaattisen kirjallisuuskatsauksen perusteella SACC:n määritellään rakentuvan hankinnan ja luopumisen vähentämisestä sekä käytön lisäämisestä ja pidentämisestä. Toinen artikkeli analysoi SACC:n ja kuluttajan subjektiivisen hyvinvoinnin (CSWB) välistä suhdetta. Havaintona on, että keskittyminen hankinnan vähentämiseen ei ole yhteydessä CSWB:hen, kun taas intensiivinen ja pitkäaikainen käyttö on positiivisesti yhteydessä siihen. Yhteyttä selitti osittain parantunut kehonkuva. Kolmas artikkeli tutkii, missä määrin subjektiivista hyvinvointia voidaan käyttää omaan etuun vetoavana motivaattorina viestittäessä vaatteiden antikulutuksesta. Kun huomioitiin koettu aiempi altistuminen tiedolle ja sitä kautta usko kulutuksen vaikutuksiin CSWB:hen, CSWB:hen vetoaminen osoittautui tehokkaammaksi kuin muut vaikutuskeinot, kuten ympäristövaikutuksiin tai mainehyötyihin vetoaminen.

Löydökset tuottavat uutta ymmärrystä kestävää vaatteiden kulutusta, antikulutusta, kuluttajien subjektiivista hyvinvointia sekä kestävän käyttäytymisen esteitä ja ajureita käsitteleviin tieteellisiin keskusteluihin. Tulokset nostavat esiin vaatteiden intensiivisen ja pitkäaikaisen käytön keskeisen merkityksen sekä subjektiivisen hyvinvoinnin vipuvoiman kestävistä vaatteiden kulutustottumuksista viestittäessä. Teoreettisen kontribuution lisäksi tulokset tarjoavat käytännön sovellutuksia paitsi kuluttajille myös lainsäätäjille, yrityksille ja järjestöille, jotka työskentelevät kohti kestävämpää tulevaisuutta.

Asiasanat: antikulutus, kestävä kulutus, sosiaalinen markkinointi, vaatteet, kulutuksen vaiheet, subjektiivinen hyvinvointi, kehonkuva

# Abstract

The clothing industry is one of the world's most problematic in terms of its contribution to overconsumption and climate change. Increasing industry eco-efficiency will not address those problems, and more radical initiatives, such as anti-consumption, will be needed. In addition, the current means of curbing consumption by appealing to consumers' altruism and morality do not work because humans generally prioritize their own interests. To address these challenges, this thesis investigates whether consumer subjective well-being can be used as a self-oriented driver for sustainable anti-consumption in the clothing industry.

This thesis consists of three articles. The first article explores the concept of sustainable anti-consumption of clothing (SACC) as a connector between anti-consumption and sustainable clothing consumption. Based on a systematic literature review, sustainable anti-consumption of clothing is conceptualized as consisting of anti-acquisition, pro-usage, and anti-disposal. The second article analyzes the relationship between SACC and consumer subjective well-being (CSWB). It was found that reducing acquisition is not linked to CSWB, whereas intensive and prolonged usage is positively linked with CSWB. The relationship was partially mediated by improved body image. The third article examines how subjective well-being can serve as an intrinsic self-benefit motivator to enhance sustainable anti-consumption of clothing. When perceived prior exposure to information and belief in the consequences of consumption to CSWB was taken into account, appealing to CSWB outperformed other types, such as environmental and reputational appeals.

The findings contribute to the literature on sustainable clothing consumption, anti-consumption, consumer subjective well-being, and drivers and barriers to sustainable behavior. By revealing the focal role of intensive and extended usage of clothing instead of frequent acquisition and disposal in sustainable anti-consumption of clothing, its link to improved subjective well-being, and the persuasive power of CSWB as a self-oriented appeal, this thesis does not offer only theoretical contributions but also practical implications for consumers, regulators, companies, and NGOs working toward a sustainable future.

Keywords: anti-consumption, sustainable consumption, sustainable marketing, clothing, phases of consumption, subjective well-being, body image, self-benefit, intrinsic

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Helsinki, June 2025

Essi Vesterinen

# Contents

## Figures



## Tables

## Essays

[1] Vesterinen, E., & Syrjälä, H. (2022). Sustainable Anti-Consumption of Clothing: A Systematic Literature Review [published]. *Cleaner and Responsible Consumption,* 5, 100061. https://doi.org/10.1016/j.clrc.2022.100061. This article is licensed by CC BY-NC-ND 4.0.

[2] Vesterinen, E., Lee, M. S. W., & Luomala, H. T. (2024). Wear Your Pants out and Be Happy! Clothing Consumption Curtailment and Consumer Subjective Well-Being [published]. *Journal of Macromarketing,* 02761467241269822. https://doi.org/10.1177/02761467241269822. This article is licensed by CC BY 4.0.

[3] Vesterinen, E., & Luomala, H. T. (202?). When Appealing to Selfishness Enhances Sustainability: Subjective Well-Being as an Intrinsic Self-Benefit Driver to Reduce Consumption [under review]. *Journal of Consumer Behaviour.* Reprinted with permission.

# 1 INTRODUCTION

Climate change and overconsumption of natural resources are wicked problems of our time, caused or intensified by humans. Last year, the Earth's annual resources were used up by the first of August (Global Footprint Network, 2025). One of the most carbon-heavy and polluting sectors is the clothing system, accounting for an estimated 2–8% share of global CO2 emissions (Howell, 2024; Quantis, 2018; Statista, 2024). Additionally, the excessive consumption of clothing leads to a major disposability issue, generating approximately 93 billion cubic meters of textile waste annually worldwide (Dissanayake & Pal, 2023; Ellen MacArthur Foundation, 2017; Ozdamar Ertekin & Atik, 2015).

Most initiatives address the sustainability problems of the industry by appealing to consumer altruism by spreading information on the devastating consequences to the environment of our consumption choices (Hur, 2020; Kopplin & Rösch, 2021; Perera et al., 2024; Tewari et al., 2022). Nevertheless, while sustainable clothing consumption, as it is currently understood, is often linked to altruism and ecological concerns (Hur, 2020; Kopplin & Rösch, 2021; Tewari et al., 2022), humans generally tend to prioritize self-interest (Griskevicius et al., 2012). Furthermore, the drivers motivating consumers to change their behavior are influenced by individual factors, such as values (Myers et al., 2012; Osburg et al., 2019). Consequently, providing information about the global impacts of over-consumption may resonate with those who already possess strong altruistic traits (Costa Pinto et al., 2019; Osburg et al., 2019). However, for many, campaigns are ineffective unless the benefits of the desired action are perceived to be immediate and personally advantageous (Rothschild, 1999). Indeed, many studies indicate that other-oriented appeals focusing on the well-being of others and the environment have minimal impact on consumption levels (Herziger et al., 2020; Suter et al., 2025).

Moreover, the idea of a "self-other trade-off" seems an essential aspect of the current discourse around sustainability and climate change (e.g., Gleim et al., 2013; Luchs & Kumar, 2017; Myers et al., 2012). In the case of clothing, the trade-off involves choosing between a better world for others and personal happiness derived from new clothes. Consequently, global issues like climate change and over-consumption may seem remote, leading Western consumers to feel that adopting a more sustainable lifestyle offers them little personal benefit. For some, the constant environmental discourse can even feel like preaching, threatening their self-identity and self-esteem (Johnstone & Tan, 2015) and fostering resistance towards green messages and "green consumers" who are not perceived as being normal and relatable (Tan et al., 2016).

Besides emphasizing altruism, considerable effort is directed toward promoting the acquisition of greener products (Bastos Rudolph et al., 2023; Chhabra et al., 2022; Rūtelionė & Bhutto, 2024). However, the carbon output of clothing consumption is more strongly determined by the volume of products bought than greener choices (Nielsen et al., 2022). Consequently, the industry's carbon emissions continue to rise due to shorter garment-use times and increased total fiber production (Ellen MacArthur Foundation, 2017; Peters et al., 2021). This 'greener products' approach appears ineffective because even if the products are more eco-efficient, the approach still operates within the current system that promotes constant acquisition and disposal (McNeill et al., 2024; Pedersen & Andersen, 2015).

Other initiatives have aimed at facilitating a transition from a linear to a circular economy (Hellström & Olsson, 2024; Jimenez-Fernandez et al., 2023) and from private ownership to sharing and collaboration (Albinsson & Perera, 2018; Amasawa et al., 2023; Ki et al., 2024). However, although prolonging the use of existing garments should be the basis of the circular textile economy (Kirchherr et al., 2017; Saha et al., 2024), most initiatives and research focus on sustainable acquisition and recycling, overlooking the primary issue driving clothing overconsumption: the desire for newness and variation (Atik & Ozdamar Ertekin, 2023). For example, the second-hand market gives users the impression they are engaging in guilt-free, sustainable shopping while also offering a way to clear out unwanted clothes to make space for new purchases (Netter, 2016; Vehmas et al., 2018). That impression can, however, result in compulsive buying (Seegebarth et al., 2016) and encourage the creation of additional waste (Van Doorn & Kurz, 2021).

Lifecycle assessments indicate that, rather than focusing on collaborative consumption or recycling, the most effective way to reduce the clothing industry's carbon emissions is by prolonging the use of existing garments and limiting the purchase of new items (Levänen et al., 2021). Therefore, radical measures such as anti-consumption are necessary to disrupt the cycle of constant acquisition and disposal (Millward-Hopkins et al., 2023; Mukendi et al., 2020).

The term anti-consumption encompasses the rejection of specific products, services, and companies or reducing consumption in general (Lee, 2022). Anti-consumption is not necessarily related to sustainability; for instance, avoiding sustainable brands that don't align with one's self-image is also a form of anti-consumption (Witkowski, 2021). As a sustainable consumption practice, however, it refers to rejecting, reduction, and reuse (Black & Cherrier, 2010).

In addition to environmental benefits, many studies suggest that anti-consumption benefits consumers' subjective well-being (Balderjahn et al., 2020; Oral & Thurner, 2019; Vollebregt et al., 2024). Subjective well-being refers to how individuals

personally assess their own well-being in contrast to objective well-being indicators such as health, education, or wealth. Particularly in the clothing context, anti-consumption behaviors such as minimalism and style consumption have been linked to improved subjective well-being in the forms of increased cognitive, affective, and financial well-being (Gwozdz et al., 2017; Malik & Ishaq, 2023; Shafqat et al., 2023).

Furthermore, rather than environmentalism, anti-consumption of clothing behaviors, such as minimalism and style consumption, are mostly motivated by self-oriented drivers, such as uniqueness, individual creativity, freedom, and long-term well-being (Armstrong & Lang, 2018; Bly et al., 2015; Vladimirova, 2021). Accordingly, in addition to questioning the accelerating fashion cycle, anti-consumption seems to provide an interesting new, self-oriented argument for more sustainable clothing consumption. To follow this path, building on the ideology of transformative consumer research (TCR), this thesis explores anti-consumption as a form of sustainable clothing consumption and its link to consumer subjective well-being and tests whether this link could be used as a driver of clothing consumption reduction instead of and together with the traditional altruistic drivers, both in social and commercial marketing.

In particular, this thesis fills several research gaps. First, although anti-consumption seems to offer a promising approach to achieving sustainability goals, its definition remains vague. In particular, its conceptual connection to sustainable clothing consumption is ambiguous. This thesis seeks to bring clarity to this concept. Second, while several studies have indicated that anti-consumption enhances subjective well-being (Armstrong & Lang, 2018; Balderjahn et al., 2020; Gupta et al., 2019; Martin-Woodhead, 2023; Oral & Thurner, 2019; Vladimirova, 2021; Vollebregt et al., 2024), the mechanisms explaining this connection remain unsearched. This thesis digs deeper into the connection by analyzing the role of different phases of consumption—anticipation, acquisition, and usage—in the relationship between clothing anti-consumption and consumer subjective well-being.

Third, although previous studies have tested the effects of different self- and other-benefit motivators on sustainable consumption, the majority of these studies focus on comparing extrinsic self-benefit appeals, leveraging, for example, financial and reputational benefits, to other-benefit appeals, leveraging for instance environmental and social benefits (Antinyan & Corazzini, 2025; Azarova et al., 2020; Bolderdijk et al., 2013; Edinger-Schons et al., 2018; Green & Peloza, 2014; Kim, 2024; Kramer & Petzoldt, 2023; D. Schwartz et al., 2015; Van Den Broek et al., 2017; Zhang et al., 2024). The well-being benefits of anticonsumption, in turn, appear to be a particularly promising driver for clothing anticonsumption because unlike external incentives, such as money, that are aimed at making an otherwise unattractive

behavior attractive (Bolderdijk & Steg, 2015), anti-consumption driven by its well-being benefits would be intrinsically motivated, that is, beneficial to the self as such. The self-concordance model suggests that individuals invest greater effort into intrinsically motivated activities (Sheldon & Elliot, 1999). Those behaviors are also more likely to persist (Ross, 2011) and may even extend to other sustainable practices (Thøgersen & Crompton, 2009). Therefore, this thesis contributes to the literature on self- versus other-benefit appeals by not only comparing these two types of appeals, as previous studies have done, but also by examining the role of intrinsic and extrinsic motivation.

Sustainable clothing consumption—and more specifically, the sustainable anti-consumption of clothing—has been previously examined using both qualitative and quantitative methods (Mukendi et al., 2020). For instance, practice theory has been employed to describe the everyday practices and meanings associated with clothing consumption (Kettunen et al., 2025), while quantitative methods have been utilized to uncover relationships and causal links between behaviors, their antecedents, and consequences (Nielsen et al., 2023). In line with the principles of transformative consumer research, this study adopts a mixed-methods approach; however, it aligns more closely with the latter category and is situated within the broader discourse on consumer behavior. Below, the purpose, objectives, positioning, and intended contributions and implications of the thesis are defined in more detail.

## 1.1 Purpose and objectives of the thesis

This thesis investigates the phenomenon of anti-consumption. To be more precise, the purpose of the work is to investigate whether consumer subjective well-being can be used as a self-oriented driver for sustainable anti-consumption of clothing. This purpose will be met by achieving the following three objectives.

The first objective is to employ a systematic literature review to develop a conceptual framework that illustrates the concept of anti-consumption within the context of sustainable clothing consumption. The second objective is to employ qualitative and quantitative methods to empirically analyze the relationship between anti-consumption and consumers' subjective well-being in the context of sustainable clothing consumption. Finally, the third objective is to empirically analyze, using experimental methods, the extent to which subjective well-being can serve as an intrinsic self-benefit motivator to boost anti-consumption in the context of sustainable clothing consumption.

The purpose and objectives related to the thesis overview are depicted in Figure 1.

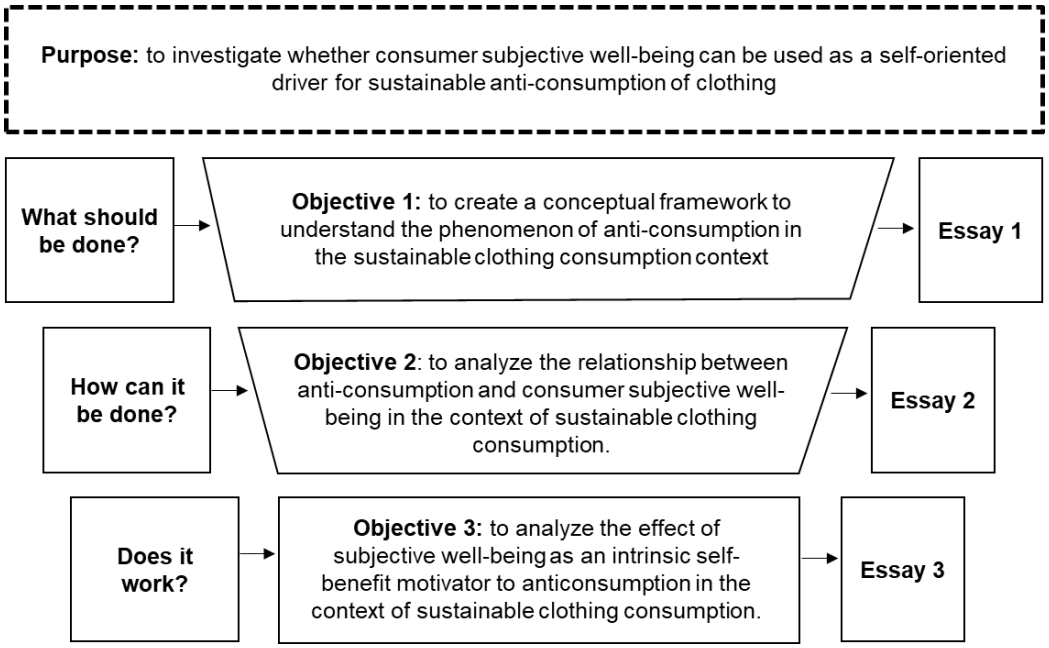


**Figure 1.** The overview of the research objectives of the thesis

In brief, the first objective aims to answer the question of what should be done to address the sustainability issues of the clothing industry. The second objective aims to answer the question of how it can be done, and the third objective aims to answer the question of if the approach works.

## 1.2 Positioning and intended academic contributions of the thesis

The overlapping theoretical foundations of the thesis are illustrated in Figure 2. The theoretical choices of this thesis are guided by the transformative consumer research (TCR) approach. Transformative consumer research focuses on practical research, providing stakeholders such as consumers, activists, policymakers, and businesses with tools to improve consumer well-being; however, regardless of pragmatic goals, TCR should be based on strong theory and methods (Mick et al., 2012:7-9). In fact, scrupulous application of theory and methods is essential to reach those goals (Mick, 2006).

Mick et al. (2012:12-14) recommend a four-step approach to making theoretical contributions through TCR. First, the primary research problem should be conceptualized at a higher theoretical level of abstraction to formulate theory-based research questions. Second, a multidisciplinary literature review will be needed to identify the theoretical constructs on which the new research questions are based

and to which they contribute. Third, hypotheses are built upon theory, and finally, the hypotheses must be tested.


**Figure 2.** Theoretical foundations of the thesis

The theoretical foundations of this work primarily stem from consumer psychology. Consumer psychology looks at the processes related to individuals or groups buying, using, or disposing of products, services, experiences, or even ideas (Solomon, 2004: 484). Consumer psychology applies various areas of psychology, but this thesis primarily draws upon cognitive psychology. Cognitive psychology, or cognitivism, while acknowledging the influential role of environmental and social stimuli, does not see an individual as a passive object of external factors but as an active subject processing information (Bray, 2008; Sampson, 1981). Accordingly, in this work, while it is acknowledged that clothing consumption is, to a great extent, a social practice affected by, for example, social norms, the phenomenon is studied from the perspective of an individual consumer, who is treated as an active subject making decisions.

The focus of cognitive psychologists is on the *organism* phase of the stimulus-organism-response model, specifically the mediating mental structures and

processes that lie between the stimulus and response (Bray, 2008). In particular, cognitive psychology examines processes such as thinking, emotion, learning, memory, motivation, and perception (Bray, 2008). This thesis focuses its analysis on the mental structures related to anti-consumption: the emotions resulting from it and the motivations fostering it.

Another theoretical premise of this work is social marketing, which aims to promote voluntary behavior that benefits society through offering benefits and removing barriers, alongside using persuasion, by combining tools from education, marketing, public health, and social issue behaviors (Rothschild, 1999). This thesis applies social marketing theories, such as the use of self-benefit (vs. other-benefit) drivers to promote anti-consumption behavior.

Figure 3 illustrates the positioning of the thesis within the relevant literature streams. Regarding research streams, this thesis builds upon and contributes to the literature on sustainable clothing consumption, anti-consumption, consumer subjective well-being, and the drivers and barriers of sustainable behavior. First, this thesis operates on the common ground between sustainable clothing consumption and anti-consumption. Sustainable clothing consumption refers to all the efforts to minimize the negative impacts of clothing consumption, such as purchasing higher-quality items, choosing ethically and/or ecologically produced garments, buying second-hand, mending clothes, and simply buying less (Diddi et al., 2019).

Anti-consumption, in turn, involves rejecting traditionally marketed products, which can include boycotting specific products or companies, but also resisting the market in general (Lee, 2022). Anti-consumption does not necessarily aim at sustainability. For instance, consumers might reject one brand in favor of another (Witkowski, 2021). However, recent studies have identified four types of anti-consumption rooted in sustainability: boycotting unsustainable companies; voluntary simplicity, which involves buying only that which is necessary; collaborative consumption, which includes sharing, borrowing, and renting; and debt-free living, which means purchasing only when it doesn't jeopardize financial security (Balderjahn et al., 2013; Hüttel et al., 2020).

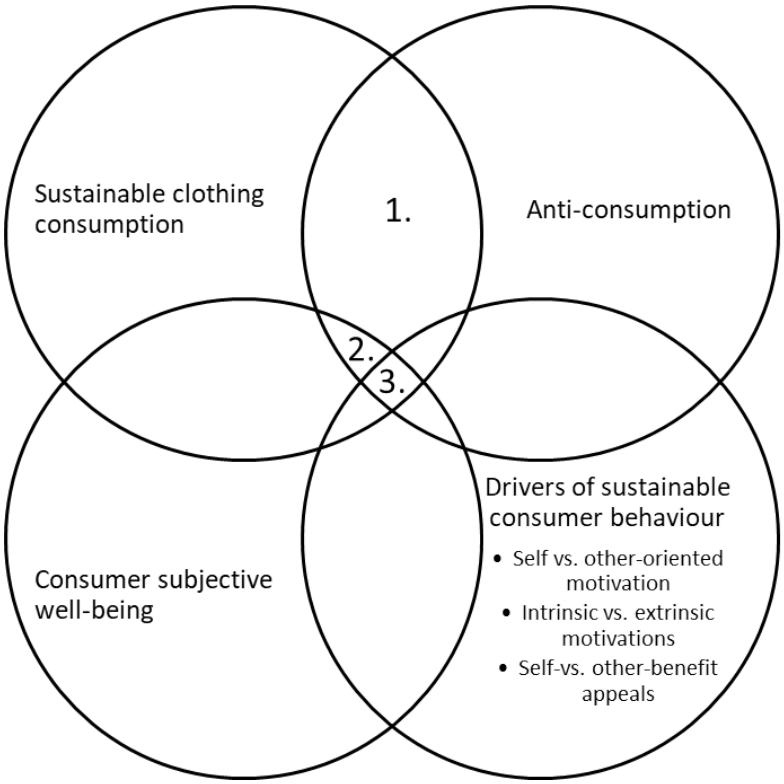


**Figure 3.** Positioning of the thesis and the contributions among literature streams

Regarding anti-consumption in the context of sustainable clothing consumption, the previous literature has focused separately on various phenomena, such as style consumption and minimalism (Armstrong & Lang, 2018; Gupta et al., 2019; Martin-Woodhead, 2022; Shafqat et al., 2023; Vladimirova, 2021). Furthermore, the concept of anti-consumption, viewed from a sustainability perspective, has been ambiguous regarding what people opposing consumption for sustainability reasons should oppose. This thesis provides a theoretical contribution by clarifying the concept of sustainable anti-consumption of clothing (SACC), using the definition of consumption – as comprising acquisition, usage, and disposal (e.g., Arnould et al., 2004:5-6; Bagozzi et al., 2002:1) —as its foundation.

Second, this thesis examines the relationships between consumer subjective well-being and anti-consumption in the context of sustainable clothing consumption. Subjective well-being is the personal assessment of well-being, as opposed to objective measures like wealth, health, or education (Forgeard et al., 2011). It is typically divided into two components: affective well-being, which pertains to feelings of happiness and how one feels, and cognitive well-being, which relates to life satisfaction and how a person perceives their overall life situation (see Diener et al., 2010; Iyer & Muncy, 2016). They can move in different directions (Diener et al.,

2009), but previous studies indicate that anti-consumption can positively influence both (Iyer & Muncy, 2016). This thesis contributes to the literature on consumer subjective well-being, anti-consumption, and sustainable clothing consumption by investigating the linking role of phases of consumption in the connection between anti-consumption and consumer subjective well-being in the context of sustainable clothing consumption.

Third, to investigate whether the link between sustainable anti-consumption of clothing and consumer subjective well-being could be harnessed as a driver to boost sustainable clothing consumption, this thesis draws upon literature on drivers of sustainable consumer behavior. In particular, the hypotheses and aimed contribution are built upon the literature on self- and other-benefit motivations and self- and other-benefit appeals. The literature suggests that self- and other-oriented values, as well as their connections to sustainable consumer behavior, are crucial building blocks. For instance, prior studies show that self-transcendence values, such as biospherism and altruism, are positively associated with sustainable consumption attitudes and behavior (Aviste & Niemiec, 2023; Becerra et al., 2023; Birkenbach & Egloff, 2024; Saboya De Aragão & Alfinito, 2021; Yu et al., 2019). In contrast, for self-enhancement values, such as hedonism and egoism, the connection to sustainable consumption behavior appears negative (Geiger & Keller, 2018; Iran & Geiger, 2018; Jacobs et al., 2018; Nogueira et al., 2023; Steg, Bolderdijk, et al., 2014; Steg, 2015).

Another building block is the motivation for sustainable consumption behavior. While some sustainable consumers are motivated by altruistic and environmental drivers, the motivation may also be self-oriented, such as financial benefits, health benefits, pure needs and wants, sense of accomplishment, self-esteem, identity building, creativity, or happiness (Johnson & Chattaraman, 2019; Lang & Joyner Armstrong, 2018; F. Liu et al., 2020; Lundblad & Davies, 2016; Martin-Woodhead, 2023; McNeill & Moore, 2015; Reimers et al., 2017). In addition to self-benefit versus other-benefit, motivations for sustainable behavior can be classified as extrinsic (e.g., wealth, image, and fame) or intrinsic (e.g., autonomy, growth, and health) (Deci, 1976; Touré-Tillery & Fishbach, 2018). For example, it is often assumed that sustainable consumption causes some degree of discomfort to consumers, and thus, some kind of external incentive, such as money, is required to make it attractive (Bolderdijk & Steg, 2015). If so, the behavior would be extrinsically motivated (Deci, 1976). However, sustainable behavior can also be driven by intrinsic motivation—where the behavior itself is perceived as inherently beneficial, without the need for any additional external rewards or outcomes. For individuals who value the environment, sustainable actions can be inherently rewarding. However, the intrinsic motivation can also be more self-oriented. For example, frugal consumption might be motivated by enjoyment and relaxation (Kropfeld, 2023), while sustainable clothing

consumption could be driven by self-expression and the enhancement of self-esteem (Lundblad & Davies, 2016).

Finally, the discussion about the values and motivations of consumers has inspired a research stream comparing the effects of self-benefit appeals against other-benefit appeals. The majority of these studies focus on comparing extrinsic self-benefit appeals, leveraging, for example, financial and reputational benefits, to other-benefit appeals, leveraging, for instance, environmental and social benefits (Antinyan & Corazzini, 2025; Azarova et al., 2020; Bolderdijk et al., 2013; Edinger-Schons et al., 2018; Green & Peloza, 2014; Kim, 2024; Kramer & Petzoldt, 2023; D. Schwartz et al., 2015; Van Den Broek et al., 2017; Zhang et al., 2024). This thesis contributes to the self versus other-benefit appeal literature by not only comparing self- and other-benefit appeals but also by considering the dimension of extrinsic and intrinsic motivation. To this end, this thesis compares the impacts of intrinsic self-benefit appeal (consume less to feel better), extrinsic self-benefit appeals (consume less to save money, consume less to improve your image), and intrinsic and extrinsic other-benefit appeals (consume less to save the environment and act according to your values, consume less to save the environment and be an example) in the context of clothing.

## 1.3 Intended managerial and societal implications of the thesis

As mentioned, this thesis follows the approach of transformative consumer research (TCR) with the primary aim of offering practical tools to enhance consumer well-being, not only in the form of insights to consumers but also by actively and effectively sharing this knowledge with all relevant stakeholders that could benefit from it (Mick et al., 2012: 8; Ozanne et al., 2011). Moreover, a key aim of TCR is to break barriers and to create cooperation between different actors, such as academic, corporate, and governmental research and NGOs, to reach the common goal of consumer well-being (Kernan, 1979).

This thesis aims to adhere to these key values and make academic contributions while also outlining managerial and societal implications. First, on the micromarketing level, this thesis aims to provide consumers with guidelines on how to consume sustainably and also provide insight into how to simultaneously improve personal well-being. For companies, the current research can unveil novel business models that support environmental and consumer well-being. It can also offer insights and practical tools to market those novel business models via well-being benefits. Next, on a macro-marketing level, this thesis provides insights and tools that aid systemic

transformation. A key objective is to support NGOs in their educational and advocacy efforts. Although increasing clothing utilization is at the core of the vision of the circular economy-based textiles economy (Ellen MacArthur Foundation, 2017), the focus is on sustainable acquisition and recycling (Kirchherr et al., 2017; Saha et al., 2024). This thesis aims to provide strategies and practices that businesses, designers, consumers, and decision-makers can apply and adopt to foster systemic change towards sufficient consumption levels.

The author of this dissertation collaborated closely with two NGOs, Pro Ethical Trade Finland and Youth Academy, to effectively disseminate the knowledge generated by this research. An example is the joint development of a pedagogical game related to sustainable clothing consumption and its benefits for both the environment and individual well-being. The game was introduced to schools and educational institutions. Additionally, results were disseminated through the blogs and social media channels of the aforementioned actors, who work closely with consumers, educators, decision-makers, and companies. Key results were also communicated through press releases.

# 2 THEORETICAL BACKGROUND

This chapter outlines the key theoretical premises and concepts, sustainable clothing consumption, anti-consumption, consumer subjective well-being, and drivers of sustainable consumer behavior.

## 2.1 Sustainable anti-consumption of clothing

Significant efforts are directed in the clothing industry to enhance the eco-efficiency of production and promote the acquisition of greener products to address sustainability challenges (Bastos Rudolph et al., 2023; Chhabra et al., 2022; Rūtelionė & Bhutto, 2024; Schiaroli et al., 2024). However, the industry's carbon emissions continue to rise due to reducing garment-use times and increasing total fiber production (Ellen MacArthur Foundation, 2017; Peters et al., 2021). The greener products approach is ineffective because, despite the eco-efficiency of the products, it functions within a system that promotes continuous acquisition and disposal (Pedersen & Andersen, 2015).

Other initiatives have promoted the transition from a linear to a circular economy (Hellström & Olsson, 2024; Jimenez-Fernandez et al., 2023) and from solid, ownership-based consumption to liquid, access-based consumption like sharing and collaboration (Albinsson & Perera, 2018; Amasawa et al., 2023; Ki et al., 2024; Rosenberg et al., 2023; Saravade et al., 2021). However, although a central premise of the circular textile economy should be prolonging clothing use time (Kirchherr et al., 2017; Saha et al., 2024), most initiatives and research focus on sustainable acquisition and recycling. That perspective overlooks the primary issue driving clothing overconsumption: the craving for variation and newness (Atik & Ozdamar Ertekin, 2023). For example, the second-hand market creates an illusion of eco-friendly, guilt-free shopping for consumers while also providing a method to dispose of unwanted clothing to make space for new purchases (Netter, 2016; Vehmas et al., 2018). This can encourage greater waste production (Van Doorn & Kurz, 2021) and even compulsive shopping behavior (Seegebarth et al., 2016).

Rather than focusing on recycling and sharing, lifecycle assessments suggest that the most effective way to reduce the clothing industry's carbon emissions is by curbing the purchase of new items and prolonging the use of existing garments (Levänen et al., 2021). Consequently, to disrupt the cycle of continuous acquisition and disposal, drastic measures such as anti-consumption are essential (Millward-Hopkins et al., 2023; Mukendi et al., 2020).

### 2.1.1 Anti-consumption in the field of sustainable consumption

Black and Cherrier (2010) assert that sustainable consumption can happen in three ways. The two most common and researched pathways are the acquisition and use of green products and sustainable disposal, which involves recycling. The third, less explored pathway is anti-consumption. In the clothing context, the sustainable acquisition approach would involve purchasing products that are environmentally friendly, locally sourced, socially responsible, and that use a transparent and traceable supply chain (Berberyan et al., 2021; Carey & Cervellon, 2014; Henninger et al., 2016; Joergens, 2006). The anti-consumption approach, in turn, would encompass ideologies and strategies focused on minimizing individual clothing consumption.

Nevertheless, the concept of anti-consumption, per se, does not necessarily refer to sustainability-oriented consumption or expedite sustainability (see, e.g., Garima et al., 2025). The concept encompasses any form of rejection of traditionally marketed products, including boycotting specific products or companies and resisting the market in general (Lee, 2022). Accordingly, consumers rejecting one brand in favor of another or even resisting sustainable brands that do not align with their self-image would be considered anti-consumption (Witkowski, 2021).

As a sustainable consumption practice, however, anti-consumption generally involves rejection, reduction, and reuse (Black & Cherrier, 2010). Moreover, recently, research has investigated four types of anti-consumption rooted in sustainability: boycotting unsustainable companies; voluntary simplicity, which involves purchasing only essential items; collaborative consumption, which includes borrowing, sharing, and renting; and debt-free living, involving purchasing only when doing so does not jeopardize financial stability (Balderjahn et al., 2023; Hüttel et al., 2020). That said, while anti-consumption may lead to positive sustainability outcomes, its antecedents can be more self-centered than those of green consumption (Martin-Woodhead, 2022; Zavestoski, 2002) and can include, for instance, financial stability and long-term emotional well-being (Wu et al., 2013; Zabkar & Hosta, 2013; Ziesemer et al., 2021).

Anti-consumption is considered the contrasting value structure to materialism (Lee & Ahn, 2016). However, it can refer to both values and practice (Lee & Ahn, 2016). A person can hold anti-consumerist values without practicing an anti-consumerist lifestyle, and vice versa; a person can follow an anti-consumerist lifestyle without holding anti-consumerist values (Peifer et al., 2020). Some researchers differentiate the level of values from practice by referring to the level of values as nonmaterialism and to the behavior as voluntary simplicity (Peifer et al., 2020). However, Lee and Ahn (2016) point out that non/anti-materialism and anti-consumption are distinct

value constructs, as non/anti-materialism emphasizes rejecting material possessions as a means to achieve happiness, whereas anti-consumption focuses on opposing consumption, not necessarily material possessions. Some research also links the term voluntary simplicity to both a belief system and lifestyle (Zavestoski, 2002).

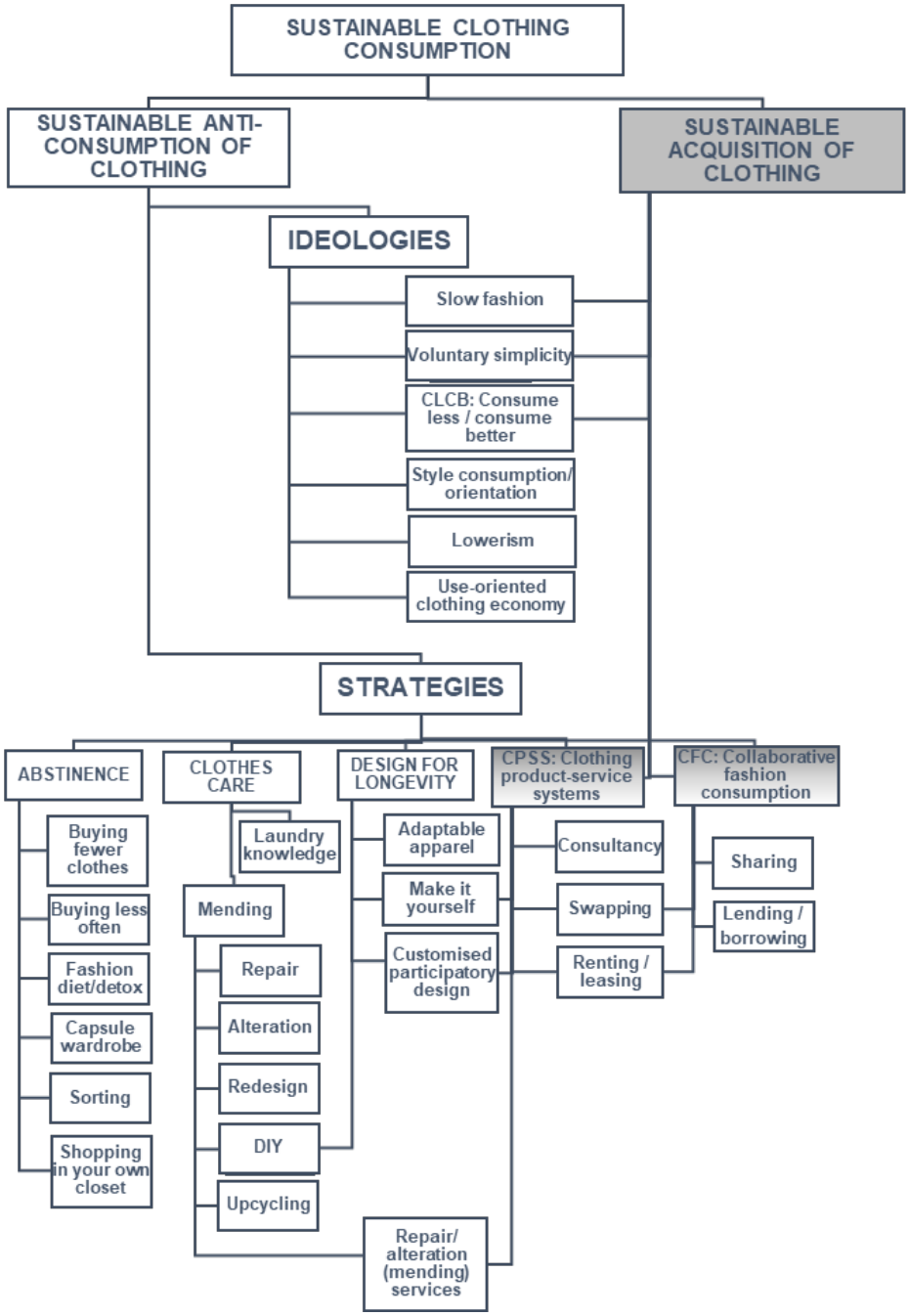


**Figure 4.** The framework of sustainable anti-consumption of clothing (Vesterinen & Syrjälä, 2022)

In the next section, the ideologies and strategies representing sustainable anti-consumption in the clothing context are discussed in greater detail. The ideologies and strategies are also presented in a relational framework that displays the concepts in relation to reduction of consumption, in relation to each other, and in relation to the level of abstraction (Figure 4).

### 2.1.2 Sustainable anti-consumption ideologies in the clothing context

Anti-consumption ideologies in the clothing context encompass various concepts, with some aligning more closely and some less closely with the principles of sustainable anti-consumption. First, the concept of slow fashion is sometimes used merely to describe fashion that is not subject to seasonal trends (Zarley Watson & Yan, 2013). However, in addition to involving durable products, it is generally conceptualized as challenging traditional hierarchical business models (Clark, 2008; Fletcher, 2007, 2010) by embracing distributed economies with minimal intermediation between producers and consumers, local resources, and transparency in production processes (Fletcher, 2007, 2010).

Jung and Jin (2014) extended the concept through five dimensions: equity, localism, authenticity, exclusivity, and functionality. Those dimensions encompass fairness and care for the well-being of producers and local communities, appreciation of craftsmanship, increasing diversity and individuality in fashion, and extending product lifespan. Accordingly, the concept of slow fashion integrates elements of both sustainable acquisition and sustainable anti-consumption. Furthermore, although the concept implicitly advocates for buying fewer but higher-quality garments (Magnuson et al., 2017; Sarokin & Bocken, 2024), commentary on it often fails to explicitly address reducing consumption from the consumer perspective (e.g., Van Gogh et al., 2025).

Another ideological concept with various definitions is voluntary simplicity. Wu et al. (2013) view voluntary simplicity solely as reducing material consumption, whereas Taljaard and Sonnenberg (2019) expand the notion to include choosing ethically and environmentally sustainable brands, local products, and unique handcrafted clothing. Their definition is similar to the concept of slow fashion, combining the acquisition of sustainable products with reduced consumption.

A group with similarities to voluntary simplifiers and slow fashion enthusiasts is the "consume less, consume better" (CLCB) one (Bly et al., 2015). Supporters aim to buy sustainable options when they shop but primarily focus on purchasing fewer, higher-quality items from small, reliable producers (Bly et al., 2015). Besides prioritizing quality, CLCB consumers blend the seemingly opposing ideas of sustainability and

fashion through their personal style. By cultivating a unique style that reflects their long-term identities rather than following trends (Cho et al., 2015; Gupta et al., 2019), they can wear their clothes for longer periods and decrease the frequency of their purchases. Using long-term style as a sustainable alternative to fashion consumption is the core idea of style consumption (Cho et al., 2015; Gupta et al., 2019; Nielsen et al., 2023). Lowerism, in contrast, advocates for buying fewer but higher-quality garments, thereby embracing a critical approach to consumption and prudence in clothing acquisition (Todeschini et al., 2017).

Minimalism, in turn, involves limiting the amount of clothing owned through strategic shopping focused on long-term wardrobe functionality and style, extending the use of existing apparel, and decluttering (Chamberlin & Callmer, 2021; Martin-Woodhead, 2022; Shafqat et al., 2023; Taylor et al., 2025). However, some literature on minimalism and decluttering refers to Marie Kondo's ideology, where items that no longer "spark joy" are to be discarded (Eike et al., 2022; Sandlin & Wallin, 2022). As the "decluttered" items are often rapidly replaced with new ones (Eike et al., 2022), these practices can encourage increased disposal rather than reducing the flow of products (Eike et al., 2022; Mellander & Petersson McIntyre, 2021; Sandlin & Wallin, 2022). The concepts are thus incompatible with sustainable anti-consumption. The ideological mismatch can also be explained through the difference between anti-materialism and anti-consumption, the first of which opposes material possessions to pursue happiness, and the latter, consumption, but not necessarily possessions (Lee & Ahn, 2016).

Finally, an industry perspective can involve promoting sustainable anti-consumption alongside producing durable and unique garments (Freudenreich & Schaltegger, 2020) by shifting attention from production to usage. This approach—referred to as the use-oriented clothing economy—involves supplementing and replacing products with services, for instance (Armstrong et al., 2016). While the ideology of the use-oriented clothing economy aligns well with the principles of sustainable anti-consumption, the strategies for implementing it do not always achieve the desired outcomes.

### 2.1.3 Sustainable anti-consumption strategies in the clothing context

A range of strategies are available to implement the sustainable anti-consumption of clothing ideology. The simplest strategy is *abstinence*. That might involve buying fewer clothes or purchasing clothes less frequently (e.g., Diddi et al., 2019; Joanes, 2019) or committing to a *fashion diet or fashion detox* (Joyner Armstrong et al., 2016; Ruppert-Stroescu et al., 2015; Wu et al., 2013). These concepts refer to abstaining from routine apparel purchases for a specified period (Joyner Armstrong et al., 2016;

Ruppert-Stroescu et al., 2015; Wu et al., 2013). A related concept to the fashion diet is building a *capsule wardrobe*, which involves committing to own and use a limited number of clothes for a set duration (e.g., a season or a year) (Todeschini et al., 2017).

While abstaining from acquiring new items, the urge to consume and the desire for novelty can be channeled into sorting, which refers to organizing and browsing through the consumer's existing wardrobe (Twigger Holroyd, 2016). That is sometimes referred to as "*shopping in your own closet*," referring to an individual rediscovering and recombining pieces they already own (Bly et al., 2015). Studies indicate that reducing clothing acquisition can enhance creativity, interest in, awareness of, and confidence in personal style (Bly et al., 2015; Ruppert-Stroescu et al., 2015). However, when sorting is viewed as selecting items for disposal or second-hand sale to make room for new purchases (Twigger Holroyd, 2016), it clearly catalyzes rather than dampens consumption (Laitala, 2014) and should not be considered sustainable anti-consumption.

Acquiring and disposing of clothing can also be resisted by extending the life of garments through *sustainable clothing use*, which refers to sustainable wear, care, and repair (Dao & Joyner Martinez, 2024; Martinez et al., 2024; Norum, 2013). Sustainable clothing use includes, for instance, laundry knowledge, such as appropriate water temperatures, detergents, washing frequency, and line drying, as well as protecting clothing by wearing house clothes or an apron (Dao & Joyner Martinez, 2024; Kettunen et al., 2025; Norum, 2013). Another way of taking care of clothing is through *Mending*, which can involve repairing a seam, replacing buttons or a zipper, resizing a garment, or revamping old clothing in other ways. It can be done privately in homes or in workshops that provide space, tutoring, materials, and a social dimension to promote mending skills (Dao & Joyner Martinez, 2024; Diddi et al., 2019; Diddi & Yan, 2019; Durrani, 2018; Janigo & Wu, 2017; Laitala & Klepp, 2018; Lang et al., 2016; Lapolla & Sanders, 2015; Middleton, 2015; Norum, 2013; Pal, 2016; Twigger Holroyd, 2016). It can even be offered as a service, included in the product's price, or as a supplementary service (Durrani, 2018; Freudenreich & Schaltegger, 2020). According to Laitala and Klepp (2018), mending not only prolongs the lifecycle of garments but also helps consumers understand quality when acquiring new products and appreciate garments more.

Simplistic or frugal consumption behavior often prompts *DIY behavior* (Bly et al., 2015; Laitala & Klepp, 2018; Twigger Holroyd, 2016). People making their own clothes can be a way to resist the market, but its impact on consumption levels depends on the consumer and the fabrics used. Creating new garments from new fabrics requires the same amount of material to be produced as ready-made clothes and is, thus, comparable to purchasing new clothing. That said, people might value

clothes they have made more than ones they have bought, so they might retain them for longer than they would industrially produced garments (Niinimäki & Armstrong, 2013). In addition, if new items are crafted from old ones, the behavior resembles *upcycling*, where old items are repurposed and remade (Bhatt et al., 2019), embodying sustainable anti-consumption of clothing.

When applied to an industrial context, longevity thinking is called *design for longevity*. This concept involves designing products to enhance person-product attachment and extend the product lifecycle through simplicity, modularity, or incremental improvements to existing items (Niinimäki & Armstrong, 2013; Pal & Gander, 2018; Zhang, 2024). Adaptability can also foster attachment and longevity (Becker-Leifhold & Iran, 2018; Cao et al., 2014). *Adaptable apparel* items, while often environmentally friendly, target changeability in terms of style, fit, and function (Becker-Leifhold & Iran, 2018; Cao et al., 2014). However, the effectiveness of these design strategies in prolonging garment lifecycles and reducing consumption depends heavily on consumer preferences and behavior.

Other concepts within the design for longevity concept include *Make it Yourself toolkits*, which contain materials and tools for creating and personalizing garments, and *customized, participatory design*, where individuals select clothing components or collaborate with a designer to create a unique piece (Armstrong et al., 2015). These approaches can also be classified as *product-service systems* (PSS) (C. M. Armstrong et al., 2015, 2016; Dethier et al., 2025; Lang & Armstrong, 2018; Pal, 2016, 2017; Pal & Gander, 2018; Stål & Jansson, 2017; Strähle & Erhardt, 2017). By integrating products with services, PSS aim to enhance the value of products to consumers, extend garment lifespans, and reduce consumption (Armstrong et al., 2015).

Three categories of PSS business models can be identified: 1. *use-oriented service systems*, including clothing swaps, renting, and consultancy 2. *product-oriented systems*, including repair, redesign, customized or participatory design, and take-back, and 3. result-oriented services that provide a complete look (Armstrong et al., 2015). Services like *repair and alteration, renting, swapping*, and *style consultancy* (Adam et al., 2018; Armstrong et al., 2015, 2016; Lang, 2018; Lang et al., 2016; Lang & Armstrong, 2018; Rathinamoorthy et al., 2019) embody the ideology of sustainable anti-consumption by reducing the need for new clothing acquisitions. *Style consultancy* offers guidance on wearing existing garments and creating new looks with them (Armstrong et al., 2015). However, strategies like *take-back* services that exchange used clothing for vouchers reducing the price of new acquisitions, and selling redesigned garments made from old items (Armstrong et al., 2015) only change the product, not the number of items acquired and disposed of, thus do not represent sustainable anti-consumption.

Some forms of PSS can also be considered forms of *collaborative fashion consumption* (CFC) (Becker-Leifhold & Iran, 2018; Iran & Schrader, 2017; Johnson et al., 2016; Lang & Joyner Armstrong, 2018; Pal, 2017; Pal & Gander, 2018; H. Park & Armstrong, 2017; Pedersen & Netter, 2015; Strähle & Erhardt, 2017; Zamani et al., 2017). In CFC, garments that might otherwise be discarded due to poor fit, insufficient storage, or boredom are passed on to other users to increase the number of uses per garment and satisfy consumption needs with fewer items (Iran & Schrader, 2017). The process might involve obtaining individual ownership through second-hand purchases, swapping or gifting, and gaining temporary access to items owned by others through renting, lending, leasing, or sharing (Iran & Schrader, 2017). Collaborative fashion consumption can be organized through peer-to-peer arrangements—either independently or with the support of a facilitating company—or through business-to-customer models(Becker-Leifhold & Iran, 2018; Henninger et al., 2019; Iran & Schrader, 2017). A classic example of peer-to-peer sharing is receiving hand-me-downs from older siblings (Klepp & Laitala, 2018).

However, CFC is a borderline case from the perspective of sustainable anti-consumption. For instance, *inheriting or gifting* are merely alternative methods of acquisition and disposal, similar to buying and selling second-hand items, and do not reduce personal consumption, whether second-hand or new. The same applies to *circular garments/clothing*, referring to garments made from recycled textiles or that are reused (Pretner et al., 2021; Vehmas et al., 2018). While these strategies may reduce the use of raw materials consumed in production, they do not reduce the number of products consumed by individual consumers. In contrast, genuine collaborative consumption, such as *lending, renting, swapping*, and *sharing*, shifts the consumption paradigm from acquiring and disposing to collaborative use. In swapping, for instance, the number of items a person can bring to an event is typically limited, and quality is emphasized over quantity. The participants exchange items on a one-for-one basis, keeping the consumption loop closed and preventing an increase in the amount of clothing.

### 2.1.4 Phases of consumption in the concepts of sustainable anti-consumption

The concepts described in the two previous sections can be further analyzed in relation to the consumption cycle to clarify what sustainable anti-consumption of clothing opposes (e.g., Arnould et al., 2004: 5-6; Bagozzi et al., 2002). We should inquire whether each form of anti-consumption behavior increases or decreases the acquisition, use, and disposal of garments. The common feature of all the concepts is that they aim to diminish new acquisitions by increasing product use and extending the life cycle, and also by acquiring services and strategic acquisition. Furthermore,

while opposing acquisition, sustainable anti-consumption of clothing involves active usage. Indeed, Craig-Lees and Hill (2002) note that anti-consumers appear to own more things than non-anti-consumers or at least display these items more actively. Accordingly, even though anti-consumers do not acquire and dispose of items as frequently as others, they still consume their clothing in various ways.

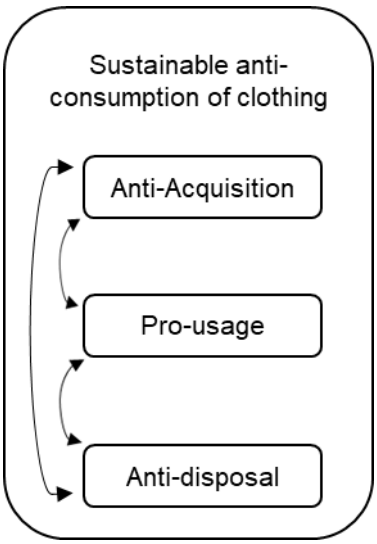


**Figure 5.** Sustainable anti-consumption of clothing conceptualized as anti-acquisition, pro-usage, and anti-disposal

This prompts us to consider whether anti-consumption is the best term to describe this behavior or if it would be more accurately described as anti-acquisition, pro-usage, and anti-disposal. Emphasizing anti-acquisition, pro-usage, and anti-disposal would provide clearer guidance for consumers on adjusting their habits. The approach would also aid companies devising business models to support a use-oriented clothing economy. By opposing acquisition and disposal, the usage phase of the consumption cycle could be freed from the negative connotations associated with consumption. An increasing number of often barely worn garments are discarded (Ellen MacArthur Foundation, 2017; Ozdamar Ertekin & Atik, 2015), so the issue is not excessive use but excessive acquisition. The connecting role of phases of the consumption cycle between sustainable consumption and anti-consumption is illustrated in Figure 5. The figure shows how behaviors in one phase affect other phases, with anti-acquisition enhancing and/or extending usage, ultimately reducing disposal, and vice versa.

## 2.2 Influencing consumer behavior for sustainability

### 2.2.1 The "green" gap

To date, the attempts to foster sustainable behavior have been largely based on the theories of planned behavior (TPB) and reasoned action (TRA), according to which beliefs precede attitudes, which precede intentions, which precede planning, which leads to behavior (Figure 6, see, Ajzen, 1985, 1991). Accordingly, the focus has been on distributing knowledge of the issue, such as over-consumption, to affect the beliefs and, thus, eventually, the behavior (Terlau & Hirsch, 2015).

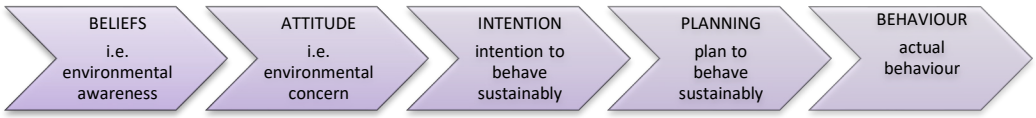


**Figure 6.** Path to sustainable behavior (Based on Ajzen 1985, 1991)

However, it has been known for decades that attitudes to sustainable behavior predict sustainable behavior poorly, if at all (e.g., (Bickman, 1972; Finger, 1994; Geller, 1981; Geller et al., 1983; McKenzie-Mohr, 2000; Terlau & Hirsch, 2015). Early examples of this so-called green gap between attitudes and behavior are, for instance, Beckman's (1972: 324) study, where despite claiming that "picking up litter is everyone's responsibility" (94%), only 2 % actually picked up rubbish placed outside the interview location. In Geller's (1981) study, in turn, despite a significant increase in knowledge and attitude after participating in a workshop on energy conservation, the behavior of homeowners in relation to energy efficiency did not change at all. The connection between intention and behavior is not much bigger. Depending on the study setting, only around 27 to 48 % of the differences in behavior are linked to differences in intention (Hassan et al., 2016). Furthermore, although Hassan et al. found that the link from intention to behavior is fully mediated by planning, even adding planning to the model does not raise its explanatory power significantly (Hassan et al., 2016).

One argument used to explain the green gap is that despite consumers' strong intentions, market conditions such as imperfect information or shortage of options hinder the behavior (Hassan et al., 2016). Consumers, when asked, claim that the biggest barrier is price and lack of expertise (Gleim et al., 2013). However, even if consumers have information about, for instance, production conditions, this information often does not affect buying decisions (Vehmas et al., 2018). Instead,

many individual, social, and situational factors have been found to influence the path from beliefs to sustainable behavior. Whether knowledge turns into beliefs, beliefs into attitudes, attitudes into intentions, intentions into plans, and plans into behavior depends, for example, on personal values and norms, motivation, and individual needs and wants (Terlau & Hirsch, 2015).

### 2.2.2 Egoistic versus altruistic values and motivations

As to the factors explaining the green gap, one major research stream is focusing on values; many studies have demonstrated that self-transcendence values, such as altruism and biospherism, are positively linked to sustainable consumption attitudes and behavior (Aviste & Niemiec, 2023; Becerra et al., 2023; Birkenbach & Egloff, 2024; Saboya De Aragão & Alfinito, 2021; Yu et al., 2019). These values have been associated with the purchase of green and products and products with eco-friendly packaging (Onel, 2023; Osburg et al., 2019; Peiró Signes et al., 2023; Perera et al., 2022; Prakash et al., 2019; Schuitema & De Groot, 2015), water and electricity consumption (Bruderer Enzler et al., 2019, Costa Pinto et al., 2019), attitudes to and the acquisition of sustainable clothing (Campos et al., 2023; Geiger & Keller, 2018; Jacobs et al., 2018; Lundblad & Davies, 2016; Reimers et al., 2017; Tewari et al., 2022), collaborative clothing consumption (Iran & Geiger, 2018), and car-sharing (Say et al., 2021). Conversely, self-enhancement values, such as egoism and hedonism, tend to lead to less sustainable consumption behaviors (Geiger & Keller, 2018; Güner, 2025; Iran & Geiger, 2018; Jacobs et al., 2018; Nogueira et al., 2023; Steg, Bolderdijk, et al., 2014; Steg, 2015). Therefore, researchers suggest that fostering altruistic and biospheric values could enhance consumer engagement in sustainable behaviors (e.g., Brown & Cameron, 2000; Say et al., 2021).

However, even self-oriented motivation can spur sustainable behavior. For instance, financial benefits may drive water and or energy conservation, and the purchase of preowned goods (McNeill & Moore, 2015), health concerns can encourage eating sustainable food (Birch et al., 2018), and pure needs and wants can drive nonmonetary freecycling, that is, donating and receiving secondhand items for free (Liu et al., 2020). Additionally, a sense of accomplishment, enhanced self-esteem, health, and value for money can encourage people to buy sustainable fashion (Lundblad & Davies, 2016). Creativity, identity building, or happiness can drive frugal clothing consumption, clothing renting, swapping, and secondhand shopping (Johnson & Chattaraman, 2019; Lang & Joyner Armstrong, 2018; Martin-Woodhead, 2023; McNeill & Moore, 2015; Reimers et al., 2017). In fact, Griskevicius et al. (2012) argue that a "propensity for self-interest" is an inherent human characteristic shaped by evolutionary history and should be leveraged rather than opposed when designing

influence strategies. In other words, to bridge the green gap, desired behaviors should be perceived as beneficial to oneself (ElHaffar et al., 2020).

### 2.2.3 Intrinsic versus extrinsic motivations

In addition to being egoistic or altruistic, motivations for sustainable behavior can be categorized as extrinsic (e.g., wealth, image, and fame) or intrinsic (e.g., health, growth, and autonomy) (Deci, 1976; Touré-Tillery & Fishbach, 2018) (Table 1).

**Table 1.** Motives of sustainable behavior in relation to self-other-orientation

| | SELF-ORIENTED | OTHER-ORIENTED |
|---|---|---|
| **EXTRINSIC** | e.g., saving money | e.g., managing image |
| **INTRINSIC** | e.g., improving well-being | e.g., protecting the environment |

It is often assumed that sustainable consumption inconveniences consumers, thus requiring some external incentives, such as financial ones, to make it appealing (Bolderdijk & Steg, 2015), which means the behavior is extrinsically motivated (Deci, 1976). Nevertheless, sustainable behavior can be intrinsically motivated and offer inherent benefits. Sustainable actions can be intrinsically rewarding for people who value the environment. However, intrinsic motivation might also be self-oriented; for example, frugal consumption may be perceived as enjoyable and relaxing (Kropfeld, 2023) and voluntary simplicity can be a way to save time, build identity and enhance well-being (Riefler et al., 2024; Soares et al., 2025). Sustainable clothing consumption can enhance self-esteem and foster self-expression (Lundblad & Davies, 2016). The self-concordance model holds that individuals invest more effort into intrinsically motivated activities (Sheldon & Elliot, 1999). Additionally, external incentives may reduce the long-term attractiveness of a product or behavior (Azarova et al., 2020; Folkes, 1988), whereas intrinsically motivated behavior is more likely to persist (Ross, 2011) and even extend to other sustainable actions (Thøgersen & Crompton, 2009).

### 2.2.4 Self-benefit versus other-benefit appeals

The discussion about the values and motivations of sustainable consumers is reflected in the social marketing research promoting environmentally friendly behavior through combining tools from different fields (Rothschild, 1999). This tool kit includes marketing communication, and environmental communication, a multidisciplinary research field seeking to communicate environmental issues

efficiently (Comfort & Park, 2018). An essential part of environmental communication is the persuasive appeal, which aims to influence attitudes and behavior among message recipients (Stiff & Mongeau, 2003).

Research on the diverse motivations and values of sustainable consumers has generated a stream of environmental communication studying the effects on sustainable consumption behaviors of self-benefit appeals versus other-benefit appeals and their combinations. Self-benefit appeals focus on underlining the benefits of the desired action to the message recipient. In contrast, other-benefit appeals focus on the benefits of the desired action to others or the environment. Most of the relevant studies compare extrinsic self-benefit appeals leveraging, for instance, financial and reputational benefits, with other-benefit appeals leveraging, for instance, environmental and social benefits (Antinyan & Corazzini, 2025; Azarova et al., 2020; Bolderdijk et al., 2013; Edinger-Schons et al., 2018; Green & Peloza, 2014; Kim, 2024; Kramer & Petzoldt, 2023; D. Schwartz et al., 2015; Van Den Broek et al., 2017; Zhang et al., 2024). The results of these studies are mixed. While some reported that extrinsic self-benefit appeals are more effective than other-benefit appeals in, for example, reducing electricity consumption and the prevalence of single-use plastic bags (Antinyan & Corazzini, 2025; Azarova et al., 2020), other studies have found these appeals to be less effective than other-benefit appeals in, for instance, promoting the intention to purchase sustainable products, taking a tire-change coupon, willingness to enroll in an energy-saving program, and intent to adopt eco-driving behavior (Bolderdijk et al., 2013; Edinger-Schons et al., 2018; Kramer & Petzoldt, 2023; Schwartz et al., 2015).

The findings on intrinsic self-benefit appeals are more consistent. Only one study found that an intrinsic self-benefit appeal was less effective than an other-benefit appeal (Kareklas et al., 2014). However, in this case, the self-benefit appeal included both health benefits and the taste of a new organic meat product, potentially reducing its credibility. Other studies have consistently shown intrinsic self-benefit appeals, primarily centered on objective well-being, to be either more effective (Birkenbach & Egloff, 2024; Chen et al., 2024; Herziger et al., 2020) or equally effective (Bolderdijk et al., 2013; Muralidharan et al., 2024; Sleboda et al., 2024) as other-benefit appeals. Notably, one pioneering study (Bolderdijk et al., 2013) compared an appeal that focused on safety benefits related to timely tire changes to an appeal emphasizing financial. The study concluded that the former, which can be characterized as intrinsic self-benefit appeal, was more effective than the latter, extrinsic self-benefit one. Therefore, previous research suggests that intrinsic self-benefit appeals are either more effective or as effective as other-benefit appeals and tend to be more effective than extrinsic self-benefit appeals.

While the distinction between intrinsic and extrinsic self-appeals has rarely been explored, the discussion regarding the intrinsic versus extrinsic nature of other-oriented appeals is virtually absent. Most previous research on appeals does not address whether the other-benefit appeals are intrinsic or extrinsic. In the few studies that do consider this aspect, other-benefit environmental appeals are consistently defined as intrinsic (Edinger-Schons et al., 2018; Kramer & Petzoldt, 2023; Schwartz et al., 2015; Van Den Broek et al., 2017). However, whether an act is extrinsic or intrinsic depends on individual personal goals (Sheldon & Elliot, 1999). Accordingly, an environmental appeal may be intrinsic for those with strong environmental values but extrinsic for consumers who view pro-environmental behavior primarily as a way of securing reputational benefits (Griskevicius et al., 2010).

If a propensity for self-interest is indeed a fundamental human trait, and only a minority hold biospheric and altruistic values (Griskevicius et al., 2012), environmental appeals might actually be extrinsic for most people. This theory is supported by previous studies showing that other-benefit appeals are more effective in public settings where reputational benefits can be leveraged (Green & Peloza, 2014; White & Peloza, 2009). Therefore, if environmental appeals were framed as intrinsic, emphasizing behavior aligned with personal values, or extrinsic, highlighting the reputational benefits of pro-environmental behavior, the latter might be more effective.

Finally, several studies have examined the effects of combining different self- and other-benefit appeals. Specifically, some research has explored the combination of other-benefit appeals with extrinsic self-benefit appeals, emphasizing both environmental and individual monetary benefits of sustainable behaviors (Edinger-Schons et al., 2018; D. Schwartz et al., 2015; Van Den Broek et al., 2017). These combined appeals were more effective than individual appeals only among consumers with low involvement in sustainable consumption (Edinger-Schons et al., 2018). For other consumers, individual appeals proved more effective than combined ones (Edinger-Schons et al., 2018; Feiler et al., 2012; Van Den Broek et al., 2017). It appears that combining other-benefit appeals with extrinsic self-benefit appeals may raise doubts about the appeal's genuineness (Edinger-Schons et al., 2018) and alert consumers that they are being targeted for persuasion, leading to psychological reactance (Feiler et al., 2012).

Nevertheless, intrinsic self-benefit appeals have been studied in combination with other-benefit appeals in the context of sustainable food attitudes and choices, by emphasizing health and environmental benefits (Chen et al., 2024; Kareklas et al., 2014; Sleboda et al., 2024). Those studies report that the combined appeals have been

at least as effective as the individual appeals. It seems that when the self-benefit appeal combined with the other-benefit appeal is intrinsic, as when related to health, it does not raise suspicions that the appeal is not genuine or alert people to persuasion. That is in contrast to occasions when other-benefit appeals are combined with extrinsic self-benefit appeals, such as money or status (Edinger-Schons et al., 2018; Feiler et al., 2012).

### 2.2.5 The roles of values, belief and prior exposure to information

Moreover, as previously mentioned, individuals invest more effort into actions that align with their personal values and goals (Sheldon & Elliot, 1999). Consequently, the effectiveness of self-benefit versus other-benefit appeals appears to depend on the consumers' values. For example, Peifer et al. (2020) found a positive relationship between altruism and voluntary simplicity only when the connection between consumption and other-benefit consequences was highlighted. Otherwise, the relationship was negative (Peifer et al., 2020). In Birkenbach and Egloff's (2024) study, other-benefit appeals were effective only for participants with pronounced self-transcendent values. Conversely, Sarpong et al. (2021) framed the acquisition of water-saving appliances as financially beneficial and reported a strengthened connection between egoistic values and purchase intention. Ryoo et al. (2020) found that highly materialistic consumers were more responsive to self-benefit appeals than their less materialistic counterparts when encouraging support for a campaign, promoting electronic word-of-mouth on social media, and purchasing Fair Trade jeans. Egoistic values also amplified the impact of extrinsic self-benefit appeal on willingness to sign a paper-saving petition (Van Den Broek et al., 2017). In conclusion, it appears that consumers with low altruistic values are more easily persuaded by self-benefit appeals, whereas those with high altruistic values are more responsive to other-benefit appeals.

Furthermore, given values determine whether an act and, consequently, an appeal is extrinsic or intrinsic (Sheldon & Elliot, 1999). An appeal emphasizing environmental other-benefits may be intrinsic for someone with pronounced environmental values but extrinsic for consumers who value pro-environmental actions primarily for reputational reasons. Accordingly, an intrinsically framed environmental appeal should be more persuasive for consumers with pronounced altruistic values. In contrast, an extrinsically framed appeal should be more persuasive for those with less pronounced altruistic values.

Regardless of whether appeals are self- or other-benefits, or intrinsic or extrinsic, they typically require repeated exposure to change attitudes and behaviors. (Betts et al., 2019; Keating & Totzkay, 2024). Additionally, social affirmation or reinforcement

from multiple sources is necessary (Centola & Macy, 2007). Repeated exposure increases the ease of processing and the believability of new information by fostering a sense of familiarity (Pennycook et al., 2018; Smelter & Calvillo, 2020; Unkelbach et al., 2019). In the context of sustainable behavior, Rizzi et al. (2020) discovered that perceived prior exposure to information influenced consumers' intentions to adopt energy-saving technology following exposure to self-benefit, specifically financial appeals. Previous self-other appeal studies have not taken this aspect into consideration. However, most social marketing related to sustainable consumption has historically emphasized the environmental impacts of overconsumption. In contrast, the well-being effects of reduced consumption have received less attention and may therefore be less familiar to consumers. Consequently, differences in repeated exposure, belief in, and perceived prior exposure to information about the consequences of consumption, whether self- or other-oriented, may moderate the effectiveness of the appeals.

### 2.2.6 Why the green gap is and is not the real issue

After reviewing the current knowledge on the self-benefit and other-benefit drivers of sustainable consumption behavior, the relevance of the green gap discussion can be called into question. First, as mentioned, the discussion on the green gap supposes that increasing green attitudes is the only path through which we can solve the immense sustainability problems. However, as mentioned, green attitudes rarely predict actual behavior, and, on the other hand, sustainable behavior is often motivated by completely other motivations than those related to sustainability, mainly self-oriented motivations, such as well-being, status, or financial benefits. Moreover, it appears that long-term, consistent behavior change is possible only if the motivators are intrinsic, that is, if the action is undertaken for its own sake and not for some instrumental goal, such as status or financial gain.

To illustrate the point, consumers can be categorized based on their exposure to information about sustainability issues, their level of belief in that information, and whether they act accordingly. These categories are summarized in Table 2 and discussed in more detail below.

**Table 2.** Categories of consumers in relation to exposure to information, belief and behavior relative to sustainability

<table>
<tr><td></td><td></td><td colspan="3">BEHAVIOUR</td><td></td><td></td></tr>
<tr><td></td><td></td><td>NO</td><td colspan="2">YES</td><td></td><td></td></tr>
<tr><td rowspan="3">BELIEF</td><td rowspan="2">YES</td><td rowspan="2">ACCEPTS BUT DOES NOT BEHAVE<br><br>“Green gap”<br><br>UNREACHABLE WITH GREEN NARRATIVE</td><td colspan="2">ACCEPTS AND BEHAVES<br><br>“Green Consumer”</td><td rowspan="3">YES</td><td rowspan="3">EXPOSURE</td></tr>
<tr><td>INSIDE THE DSP<br><br>“Status-seeker”<br><br>REACHABLE BUT NOT SUSTAINABLE</td><td>OUTSIDE THE DSP<br><br>“Green anti-consumer”<br><br>REACHABLE BUT BEHAVES ALREADY</td></tr>
<tr><td>NO</td><td>DOES NOT ACCEPT, DOES NOT BEHAVE<br><br>“The deniers”<br><br>UNREACHABLE WITH GREEN NARRATIVE</td><td colspan="2">DOES NOT ACCEPT BUT STILL BEHAVES<br><br>“The self-motivated green consumer”<br><br>BEHAVES SUSTAINABLY WITHOUT “GREEN” INTENTIONS</td></tr>
<tr><td></td><td></td><td>NO EXPOSURE, DOES NOT BEHAVE<br><br>“The uninformed”<br><br>MAY BE REACHABLE WITH THE GREEN NARRATIVE</td><td colspan="2">NO EXPOSURE, BUT STILL BEHAVES<br><br>“The self-motivated green consumer”<br><br>BEHAVES SUSTAINABLY WITHOUT “GREEN” INTENTIONS</td><td>NO</td><td></td></tr>
</table>

First, at the top left of the table are those who have been exposed to information and believe it but do not behave accordingly. That group personifies the green gap phenomenon and is resistant to the green narrative. Then there ae those who possess knowledge but do not accept it; they are known as *deniers*. The green narrative will also not influence that group. Next are those who possess knowledge, accept it, and behave accordingly; the group can be labeled green consumers. While these consumers are also not a particularly productive target for the green narrative, as they already acknowledge and accept it, they can be further divided into those who consume within the dominant social paradigm (DSP) and those who consume outside it. Those inside the DSP, the status seekers, do follow green marketing but primarily use green consumption to signal their identity through sustainably branded products

and services (Holt, 2014). Their actions are largely ineffective in terms of genuine sustainability impacts, whereas those outside the DSP, the green anti-consumers, genuinely reduce their consumption and have a tangible impact on sustainability.

Fourth, some consumers may have been exposed to information but do not accept it, yet still behave sustainably in the absence of green intentions. Their motivation may be, for instance, financial or health-related. That group can be referred to as the self-motivated green consumers. Finally, two remaining groups have not been exposed to information related to sustainability. The first has not been exposed to the information but behaves sustainably without green motivations. This group, which is also part of the self-motivated green consumers, is not a relevant target for the green narrative, as they already behave in an environmentally sustainable manner. The last group, those who have not been exposed to the information and do not behave in an environmentally sustainable manner, is the only group that the green narrative could reach, if the members hold suitable values. If around one-third of people have prosocial-biospheric values, there should still be individuals who do not yet engage in sustainable behaviors, but that could be motivated by other-oriented appeals (Brown & Cameron, 2000).

This categorization leaves two options for instilling long-lasting behavioral changes to advance sustainable consumption: 1. intrinsic, other-oriented motivators, such as an inner appreciation of the environment or other people, and 2. intrinsic, self-oriented motivators, such as identity building, well-being, or creativity. If the aim is to spread sustainable anti-consumption behavior "beyond deeply committed environmentalists to mainstream consumers" (Armstrong Soule & Sekhon, 2022), the latter seems more promising.

## 2.3 Anti-consumption and subjective well-being

Several studies suggest that anti-consumption improves subjective well-being (Balderjahn et al., 2020; Oral & Thurner, 2019; Vollebregt et al., 2024). Subjective well-being refers to individuals' evaluations of their own well-being, contrasting with objective measures like health, wealth, and education (Forgeard et al., 2011). It is typically divided into two components: cognitive well-being and affective well-being (Busseri, 2024). Cognitive well-being refers to evaluations of how you think you are doing in life, whereas affective well-being addresses whether you are feeling happy (see Diener et al., 2010; Iyer & Muncy, 2016). These measures do not necessarily go hand in hand (Diener et al., 2009), but anti-consumption can have a positive impact on both (Iyer & Muncy, 2016).

For instance, adopting voluntary simplicity in acquisitions leads to fewer product possessions and less impulsive purchasing while also enhancing psychosocial and subjective well-being (Balderjahn et al., 2020; Lloyd & Pennington, 2020; Seegebarth et al., 2016). Additionally, it enhances life satisfaction, both directly and indirectly, by lowering indebtedness (Balderjahn et al., 2020; Nepomuceno & Laroche, 2015; Seegebarth et al., 2016). Similarly, collaborative consumption, which reduces product possessions and indebtedness, also increases subjective well-being (Seegebarth et al., 2016). In the context of clothing, style consumption is associated with reduced negative affect and increased positive general affect and cognitive well-being (Gwozdz, Steensen Nielsen, Gupta et al., 2017). Furthermore, minimalism has been linked to enhanced financial well-being, greater life satisfaction, happiness, and flourishing, as well as reduced depression (Bardey et al., 2022; Malik & Ishaq, 2023; Shafqat et al., 2023).

### 2.3.1 The roles of acquisition and usage in the clothing anti-consumption-consumer subjective well-being connection

What explains the linkage between anti-consumption and consumer subjective well-being (CSWB)? Rich et al. (2017) have sought the answer from psychological need satisfaction. According to Deci and Ryan's (2000) self-determination theory, psychological well-being relies on satisfying three essential psychological needs: autonomy, competence, and relatedness. Moreover, the theory posits that the satisfaction of these needs is reinforced by intrinsic motivation, referring to voluntary behavior performed without external rewards (Deci & Ryan, 1985: 34; Niemiec et al., 2009). While meeting basic needs such as food and shelter is a global predictor of subjective well-being (Tay & Diener, 2011), the connection is pronounced for psychological needs rather than for material ones such as wealth (Kasser, 2004). Therefore, Rich et al. (2017) suggest that shifting focus away from material consumption facilitates the satisfaction of needs for competence, autonomy, and relatedness, leading to enhanced life satisfaction.

However, owning items, particularly clothes, does not solely address material needs; possessions also help express and shape our identity, fulfilling psychological needs like competence and relatedness (Aydin, 2010; Michaelidou & Dibb, 2006). This drive to achieve goals through belonging is influenced by prevailing social and ethical standards (Aydin, 2010; Boström, 2020), resulting in comparisons with cultural norms and ideals (Dittmar, 2011). Social comparison involves looking for or noticing similarities or differences between oneself and others (Festinger, 1954; Gerber et al., 2018; Wood, 1996). The comparisons can be upward or downward, leading to assimilation or contrast (Gerber et al., 2018). In an upward comparison, the benchmark is considered to be better off than the comparer, and in a downward

comparison, to be worse off (Gerber et al., 2018). Moreover, in assimilation, the comparer's self-evaluation improves after an upward comparison and weakens after a downward comparison. In contrast, the self-evaluation weakens after an upward comparison and improves after a downward comparison (Gerber et al., 2018).

In the fashion context, upward comparisons leading to contrast are common. As the rapidly changing material standards and beauty norms are often elusive, they create a perceived gap between the present and ideal self, resulting in feelings of dissatisfaction and anxiety (Dittmar & Halliwell, 2011; Johnson & Attmann, 2009; Shehzala et al., 2024). Indeed, fashion orientation, which emphasizes keeping up with the latest trends, is linked to not only higher shopping frequency and materialism but also lower subjective well-being (Gupta et al., 2019; Nielsen et al., 2023) than style consumption, which embraces long-term individual styles rather than rapidly changing fashions (Gupta et al., 2019; Gwozdz, Steensen Nielsen, Gupta, et al., 2017). Style consumption appears to lead to less social comparison and perceived self-image disparity than fashion consumption, therefore satisfying psychological needs more effectively and contributing to CSWB. However, a question arises as to whether this effect stems from decreased acquisition or if prolonged usage also plays a role.

Materialism can be defined as the tendency to gauge success and happiness by material possessions and to prioritize them in life (Richins & Dawson, 1992). It is often seen as the opposite of anti-consumption values (Lee & Ahn, 2016). Richins (2013) notes that materialists focus more on acquisition, experiencing pleasure even before purchasing, as they expect possessions to fulfill psychological needs. However, this pre-acquisition pleasure quickly fades due to hedonic adaptation, resulting in a hedonic treadmill where continuous acquisition is needed to sustain temporary pleasure (Burroughs et al., 2013). In contrast, less materialistic individuals, who use possessions primarily to meet functional needs, derive more sustained pleasure mainly during the post-acquisition phase of need fulfillment, as they focus more on the usage phase. (Inglehart, 1990: 66; Richins, 2013).

Additionally, Hsee et al. (2009) suggest that acquisition experiences are relative, whereas usage experiences can generate absolute value, making them less prone to hedonic adaptation. By reducing social comparisons, focusing on favorite possessions can even alleviate the impact of income inequality on CSWB (Liu et al., 2023). Clothing anti-consumers report that concentrating on existing items fosters a unique attachment and relationship with clothes, centered on care and joy rather than social comparisons and the desire for novelty (Mellander & Petersson McIntyre, 2021). Conversely, acquiring new garments triggers boredom, increasing the likelihood of discarding old items (Kwon et al., 2020).

The current literature suggests that reducing clothing acquisition is positively associated with CSWB, as is utilizing existing clothing for longer periods and more frequently. Furthermore, the hedonic treadmill theory proposes that the anticipation phase may also influence the connection between consumption curtailment (CCC) and CSWB (Burroughs et al., 2013). When anti-consumers reduce the anticipation of unnecessary acquisitions and limit social comparisons and, thereby, perceived self-image discrepancies, they conserve time and energy (Dittmar & Halliwell, 2011). The time and energy saved can then be directed to meeting psychological needs and enhancing self-esteem, thereby contributing to long-term subjective well-being. For instance, spending time with family and friends or engaging in hobbies for self-actualization (Rich et al., 2017).

### 2.3.2 The role of body image in the clothing anti-consumption-consumer subjective well-being connection

Along with serving as a symbolic means of identity construction (O'Cass, 2004), the consumption experience of clothing is unique because it depends on how well a garment fits the wearer's body (Rieke et al., 2016). Accordingly, clothing induces social comparisons that affect not just your overall self-image but specifically your body image (Manchiraju & Damhorst, 2020). Indeed, consumers who have cut back on their clothing consumption have reported feeling more confident and having a better body image. (Bly et al., 2015; Joyner Armstrong et al., 2016). Body image, as a concept, encompasses an individual's attitudes and perceptions toward the shape, size, and appearance of their body (Greene, 2011). Although it is generally stable, body image can vary over time and is influenced by different situations (Cash et al., 2002). Above all, a negative body image can undermine consumer subjective well-being (Lee et al., 2014; Nayir et al., 2016; Swami et al., 2015). Current literature, thus, suggests that body image could mediate the effect between clothing anti-consumption and well-being.

Furthermore, fashion advertising often features unrealistic or unattainable beauty standards (Argo & Dahl, 2018), promoting appearance comparisons that lead to feelings of inadequacy and diminished body image (Argo & Dahl, 2018; Manchiraju & Damhorst, 2020). Similarly, following beauty and fashion influencers who set contemporary online social standards has been linked to self-discrepancy and negative body image (Shehzala et al., 2024). Standardized designs and sizes of ready-to-wear clothes, which seldom fit diverse body shapes well, add yet another factor encouraging appearance comparison (Brownbridge et al., 2018). This struggle to find a perfect fit that matches the appearance in advertisements can cause frustration and body dissatisfaction (Apeagyei, 2008).

If clothing anti-consumers focus on wearing items they already own and choose new garments thoughtfully to maximize usage and avoid regret, they are likely to own and wear clothes that fit well, thereby enhancing their body image. By prioritizing usage over acquisition, they would pay more attention to their own body rather than the bodies in advertisements, fostering self-knowledge and body satisfaction. Indeed, Ruppert-Stroescu et al. (2015) discovered that clothing anti-consumers who prioritized their existing wardrobe experienced improvements in body image.

## 2.4 Development of the conceptual framework

The previous chapters have discussed the concept of sustainable anti-consumption of clothing, its antecedents, the potential consequence of consumer subjective well-being, and the potential mediating role of improved body image between sustainable anti-consumption of clothing and consumer subjective well-being. That discussion makes it possible to build a theoretical model illustrating the structures and connections investigated in this thesis (Figure 7).

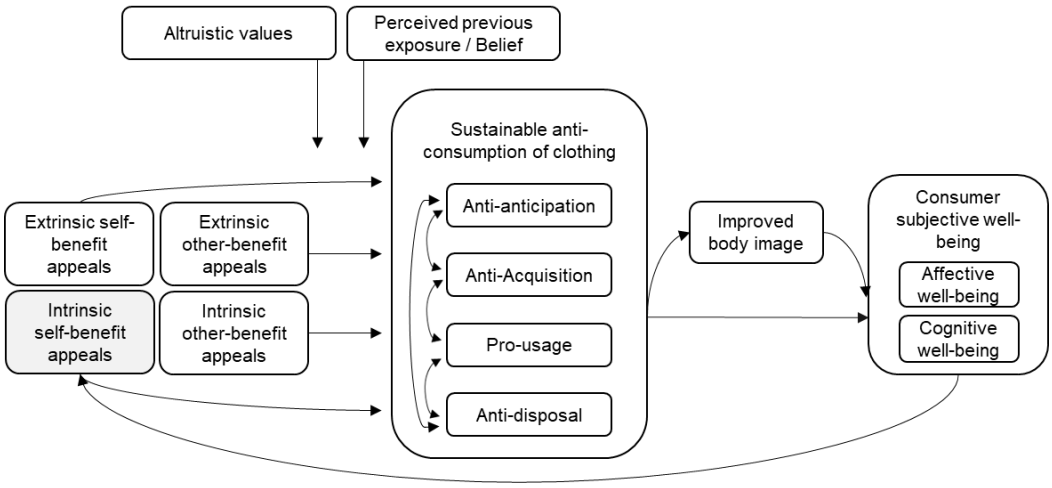


**Figure 7.** The theoretical framework for the thesis

At the center of the model is the concept of sustainable anti-consumption of clothing, comprising anti-anticipation, anti-acquisition, pro-usage, and anti-disposal. The figure illustrates the interconnectedness of the phases in the consumption cycle, demonstrating how actions in one phase impact other phases. Specifically, extended usage behaviors can reduce the need for acquisition and disposal and vice versa. The concept of sustainable anti-consumption of clothing is further investigated in Essays 1 and 2.

On the right, the proposed connection between sustainable anti-consumption of clothing and consumer subjective well-being is illustrated, with consumer subjective

well-being comprising both affective and cognitive well-being. It is hypothesized that the shift in focus from anticipation and acquisition to usage explains the connection between sustainable anti-consumption of clothing and consumer subjective well-being. Another hypothesis is that improved body image partially mediates this relationship. The relationship between sustainable anti-consumption of clothing and consumer subjective well-being is further studied in Essay 2.

Finally, on the left, the potential antecedents of sustainable anti-consumption of clothing are illustrated. The potential antecedents are classified into four different types of appeals: extrinsic self-benefit appeals, extrinsic other-benefit appeals, intrinsic self-benefit appeals, and intrinsic other-benefit appeals. In the model, consumer subjective well-being serves as an intrinsic self-benefit appeal, and it is hypothesized to be more effective than the other types of appeals tested. Furthermore, the effectiveness of the different appeals is expected to be moderated by altruistic values and perceived previous exposure to information on and belief in the impacts of sustainable anti-consumption of clothing. The effects of the different appeals and the moderators are investigated in Essay 3.

# 3 METHODOLOGY

This chapter presents the methodological choices of the thesis as guided by the principles of transformative consumer research (TCR). These choices are synthesized in Figure 8, which illustrates the positioning of this thesis along various epistemological and ontological continuums. With respect to ontology, the adopted stance is pragmatism. In terms of epistemology or research paradigm, the approach aligns with critical realism. Methodologically, the study employs a mixed-methods design. Regarding theory development, an abductive approach has been adopted. The specific methods used include a literature review, survey, content analysis, and experiment.

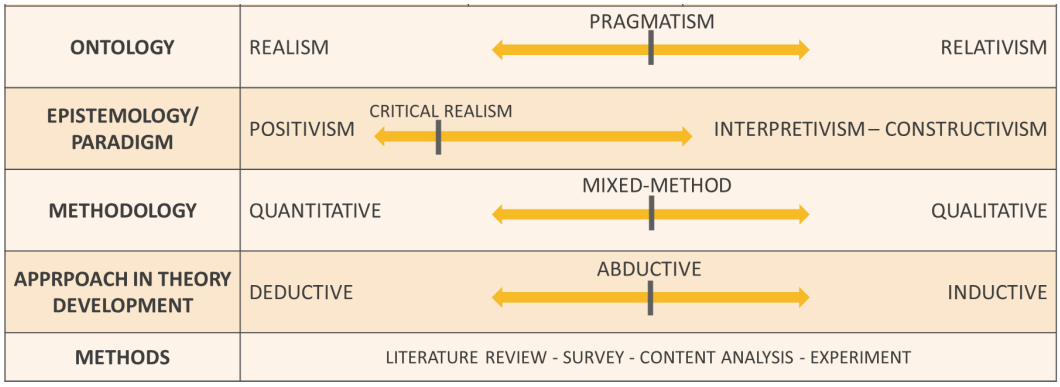


**Figure 8.** The methodological choices

The methodological choices are presented and justified in more detail below. The discussion begins with the ontological and epistemological assumptions, followed by a more detailed account of the data collection and analysis methods employed in the study.

## 3.1 Assumptions of the philosophy of science

In terms of research philosophy, TCR is a very open approach, as the focus is on results. Accordingly, this research does not completely represent the positivistic end of the paradigmatic/epistemological continuum, where reality is considered objective, tangible, and single in nature; where there are causalities; and where knowledge exists independently of context and time. Nor does it represent the interpretive end, where reality is considered socially constructed, multiple, and holistic in nature, and where the knowledge is idiographic and always related to time and context and where the connections between phenomena and actions are multifaceted and simultaneously shaping (Hudson & Ozanne, 1988:509). In practice, this research does not clearly represent the interpretive and constructivist

approaches like consumer culture theory (CCT) (Arnould & Thompson, 2005), nor does it unequivocally represent the purely positivistic approaches that mainly utilize experimental research designs, which often concentrate on details of consumer behavior primarily relevant to marketers.

While TCR investigates well-being issues in their sociocultural context, the research does not necessarily have to be sociological or anthropological (Mick et al., 2012: 7-8) but can also be done by using quantitative hypothesis testing (Mick et al., 2012: 12). Indeed, looking at the methodologies of this work (systematic literature review with a conceptual focus, content analysis on qualitative data, structural equation modeling on a quantitative survey data, and experimental research design) it is clearly situated more in the positivistic end of the epistemological continuum (Hudson & Ozanne, 1988:509). However, instead of choosing one of the endpoints of the positivism-interpretivism epistemological continuum and the realistic-relativistic ontological continuum, this research is positioned somewhere in between (Guba & Lincoln, 1994). In this case, the ontological premises of the work can be best described as pragmatism, and the epistemological stance as critical realism.

In pragmatism, the focus is on "what works" and, moreover, "how to" and "why to" do research, the methods and theoretical approach being subsidiary to this focus (Morgan, 2014). In other words, the focus is on solving problems with whichever methods appear suitable in each situation (Morgan, 2014). Pragmatism is often associated with mixed-method research, but it is not a methodology but a theory of truth (Morgan, 2014). However, the focus of pragmatism is not on whether reality is constructed in human minds or not but on the consequences and meanings of actions in social situations (Morgan, 2014).

As an epistemology, critical realism acknowledges that measuring the complex and fluid social reality results in only partial illustrations of it (Guba & Lincoln, 1994). Approaching from the relativist end of the continuum instead of a completely relativist or constructivist approach, where knowledge is continuously socially constructed in minds (Riegler, 2012). Critical relativism recognizes that knowledge production in the social sciences always occurs in a broader cultural milieu and can therefore be affected as much by sociological factors as by purely cognitive or empirical ones (Anderson, 1986). Moreover, critical relativism emphasizes that cognitive and social factors do not necessarily take science in opposite directions but are inseparably intertwined in social science and all other forms of science because science is always a human and cultural activity (Anderson, 1986).

As is often the case in transformative and pragmatist research, positivistic and descriptive standpoints are combined in this work using mixed methods. Moreover, the chosen mixed method approach is an exploratory sequential design, which begins

with the collection and analysis of qualitative data, after which a research model and a new measure are built based on the qualitative analysis and tested with quantitative methods (Creswell & Plano Clark, 2017: 66-67). To be more precise, the design can be described as ABC or ABACC according to the Hurmerinta-Peltomäki and Nummela (2006) framework, where A means that qualitative data is analyzed with qualitative methods, B means that qualitative data is analyzed with quantitative methods, and C means that quantitative data is analyzed with quantitative methods. The methodology is synthesized in Table 3.

**Table 3.** The methods applied in the essays

| Essay | Method | Data | Data analysis method |
|---|---|---|---|
| **Essay 1** | Systematic literature review | 58 peer-reviewed articles | Qualitative content analysis |
| **Essay 2** | Content analysis | qualitative, 140 blog posts from 25 clothing detox bloggers | Qualitative content analysis |
| **Essay 2** | Survey | quantitative, representative, n=661 | Structural equation modelling, statistical tests |
| **Essay 3** | Experiment | quantitative, 1) marketing students, n= 119, 2) representative, n=546 | Statistical tests |

Finally, research traditions can be described based on whether they are primarily based on inductive or deductive methods. In general, inductive methods are applied in constructive traditions, such as CCT, allowing vivid and descriptive qualitative data to inform the theories. The deductive approach, in contrast, is typically adopted by more positivistic research traditions, where meticulously prepared hypotheses are developed based on previous literature and tested in empirical research settings. However, when it comes to the "midway" research traditions, such as pragmatism and critical realism, which are applied in this thesis, a purely deductive or inductive approach is often not necessary; instead, an abductive approach is more suitable. Accordingly, this work reflects an abductive approach adopted to create and test explanatory hypotheses to introduce and/or validate a new theory, idea, or concept (Fischer, 2001). The methodology is described in more detail in the next section.

## 3.2 Data collection

In this section, the methods for data collection are justified and described.

### 3.2.1 Systematic literature review: data collection

A systematic literature review (SLR) method was used to elucidate the concept of sustainable anti-consumption of clothing. This approach involved a thorough and comprehensive examination of all pertinent research related to a chosen topic, with detailed descriptions and justifications of the process to ensure reproducibility (Fink, 2020:16). Systematic reviews can be conducted many ways, depending on whether the focus is on a certain theory (e.g., Gilal et al., 2019; Hassan et al., 2016), a theme (e.g., Hao et al., 2019; Jamali & Karam, 2018; Kahiya, 2018; Lim, 2016; Rosado-Serrano et al., 2018), synthesizing knowledge with an organizing framework (e.g., Khamitov et al., 2020; Paul & Benito, 2018), or with theory-context-characteristics-framework (TCCM) (e.g., Canabal & White, 2008; Paul & Rosado-Serrano, 2019), or building a framework and developing theory (e.g., Pansari & Kumar, 2017; Paul & Mas, 2020). A traditional narrative review aims to comprehensively, critically, and objectively narrate the current knowledge on a topic (e.g., Dabić et al., 2020), while bibliometric analysis is often a computer-assisted review methodology used to identify core research or authors, as well as their relationship, by covering all the publications related to a given topic or field (e.g., Randhawa et al., 2016; Ruggeri et al., 2019). Meta-analysis targets combining and synthesizing findings from multiple quantitative studies (e.g., Khamitov et al., 2019; Knoll & Matthes, 2017), while morphological analysis aims at identifying and investigating elements of a system (or a concept) in order to present a holistic conceptual system (Majer, 1985) (e.g., Sunder et al., 2018, 2019).

In this case, the review focused on not only narrating the current knowledge but also creating a framework and thereby building theory. To this end, the SLR procedure adhered to the guidelines of Fink (2020), which can be summarized into three phases: 1. planning, 2. searching and screening, and 3. collecting data and synthesizing the results.

The aims and research questions were established during the planning phase (Fink, 2020:20–21). Those questions then directed the choice of bibliographic databases and keywords for the online literature search. The aim and research questions were as follows:

AIM: To clarify the meaning of the concept of sustainable anti-consumption of clothing from the environmental perspective.

RQ1: What concepts are used in the literature to describe sustainable anti-consumption of clothing?

RQ2: What is meant by consumption in these concepts of sustainable anti-consumption of clothing?

Given that research on clothing consumption and sustainable consumption is published in many outlets, multiple major databases were utilized to ensure comprehensive coverage and to offset each other's limitations (Mohamed Shaffril et al., 2021). Consequently, ABI/INFORM Collection, Academic Search Elite, Business Source Premier, Science Direct, and Google Scholar were searched for all relevant articles available up to June 2020. Articles were chosen if the search terms appeared in the topic section, the keywords, title or abstract of the article. The following search terms were used:

consum* OR behavio* OR lifestyle* OR shopping OR purchas* OR buy*

AND

sustain* OR green* OR ecolog* OR environment* OR ethic* OR natur*

AND

sufficien* OR reduc* OR conscious* OR mindful* OR frugal* OR anti*consum* OR slow* OR simpli* OR down*shift* OR ethical OR responsible

AND

cloth* OR garment* OR fashion OR textile* OR apparel

As is often the case, initial searches revealed new keywords, especially since the topic was novel and the terminology and concepts were used inconsistently and not always in the headings of the articles (Fink, 2020:28). At this point, the terms such as adaptable apparel, circular clothing, circular garment, clothes swapping, collaborative consumption, decluttering, disposal, mending, minimalism product-service systems, reuse and second-hand were added to the search terms.

After identifying all relevant articles, an initial screening was conducted based on their titles and abstracts (Fink, 2020:53). The review was restricted to peer-reviewed journal articles and book chapters from reputable publishers (e.g., Routledge, Springer) in English, encompassing both empirical and conceptual articles. Chapters from universities' own publication series, dissertations, and grey literature were excluded. Books were also excluded to ensure a systematic approach and

reproducibility (Fink, 2020:84). No timeframe criterion was necessary due to the limited amount of literature.

Next, the articles underwent a content screening following the inclusion criteria summarized in Table 4 and detailed below.

1. The criteria were based on Lee et al.'s (2011) definition of anti-consumption, which is described as the intentional rejection, restriction, or reclamation of specific products or consumption in general. Consequently, literature approaching anti-consumption as unintentional or involuntary (e.g., practiced in poverty and not entirely by choice [Leipämaa-Leskinen et al., 2016]) was excluded.

2. Given the focus on anti-consumption as a means of environmentally sustainable consumption, the more detailed classification by Makri et al. (2020) was utilized to refine the criteria. Only studies categorized under Green/sustainable consumption, ethical/moral consumption, alternative consumption, or voluntary simplicity were included, as these behaviors aim at sustainable consumption. Another category excluded was that where the opposition targets specific brands or products due to their symbolic meanings but does not aim to reduce personal consumption per se. Accordingly, work categorized under consumer resistance, boycotts/consumer activism, symbolic consumption, or brand/product avoidance were excluded.

3. It was important that articles addressed concepts aimed at reducing personal consumption levels. Consequently, papers describing anti-consumption merely as choosing "greener" product options were excluded, as they align more with other forms of sustainable consumption. Here, consumption refers to the individual consumer's perspective. From this viewpoint, a distinction can be made between 1. consuming greener products, where the global raw material consumption might decrease, but the number of products consumed by the individual remains the same; 2. circular consumption, where raw material consumption might be reduced, but the number of products going through the individual's personal consumption loop remains unchanged; and 3. sustainable anti-consumption, where the number of products going through the individual consumption loop is actually reduced.

4. Studies had to examine anti-consumption from a consumer viewpoint or an industrial perspective endorsing anti-consumption as sustainable consumer behavior. Therefore, studies focused on how businesses could prevent or counteract anti-consumption were excluded. Publications on anti-consumerist communication were also excluded.

5. Studies had to focus on sustainable anti-consumption, specifically within the realm of clothing consumption.

**Table 4.** Criteria for sample inclusion and exclusion (Vesterinen & Syrjälä, 2022)

| Criteria | Include | Exclude |
|---|---|---|
| **1. Definition of sustainable anti-consumption 1** | Studies that concern action that intentionally and voluntarily reduces consumption | Studies that concern unintentional or non-voluntary anti-consumption |
| **2. Definition of sustainable anti-consumption 2** | Studies that concern:<br>- Green/sustainable consumption<br>- Ethical/moral consumption<br>- Alternative consumption<br>- Voluntary simplicity | Studies that concern:<br>- Consumer resistance in general<br>- Symbolic consumption<br>- Brand/product avoidance |
| **3. Definition of sustainable anti-consumption 3** | Studies that concern the reduction of personal consumption | Studies that concern choosing "greener" products |
| **4. Angle of the study** | Studies that look at consumption from a consumer or industry perspective but in a form that supports anti-consumption as sustainable consumer behavior | Studies looking at how businesses can avoid or fight anti-consumption |
| **5. Context** | Papers looking at the context of clothing | Other context or anti-consumption in general |
| **Type of literature** | Peer-reviewed journal articles and book chapters | Grey literature, dissertations, chapters in universities' own publications, books |
| **Language of the literature** | English | Other languages |
| **Study type** | Conceptual work and empirical studies | Other |
| **Timeframe** | No timeframe needed | |

During the content screening phase, concepts such as circular garment and clothing, second-hand clothing, decluttering, and minimalism were excluded from the analysis. At the time of the search, the literature used these concepts in ways that did not meet the established inclusion criteria. While purchasing second-hand clothing and circular garments/clothing, which refer to reused garments or those made from recycled textiles (Pretner et al., 2021; Vehmas et al., 2018), may reduce the raw materials used in production, they do not decrease the volume of products consumed from an individual consumer perspective.

Regarding the concepts of decluttering and minimalism, at the time of the review, literature on consumption referred to Marie Kondo's ideology, where items that no longer "spark joy" are disposed of (Eike et al., 2022; Sandlin & Wallin, 2022). Hence, these concepts appeared to promote increased disposal rather than reducing the product flow (Eike et al., 2022; Mellander & Petersson McIntyre, 2021; Sandlin & Wallin, 2022) and did not meet the inclusion criteria.

Eike et al. (2022) note that these "decluttered" items are often rapidly replaced with new ones, highlighting the mismatch of these concepts with the set criteria. The exclusion of these concepts is further justified by the distinction between anti-materialism and anti-consumption. While anti-materialism involves rejecting material possessions to pursue happiness, anti-consumption opposes consumption itself, not necessarily possessions (Lee & Ahn, 2016). Other studies on minimalism addressed minimalistic design and aesthetics without mentioning consumption behavior (e.g., Eladwi & Kotb, 2015; S.-J. Park & Yim, 2013).

Finally, "pearl-growing" and "bread-crumbing" techniques were employed to identify additional relevant publications. This involved examining the reference lists of the most pertinent papers and the papers that had cited them (Fink, 2020: 29). This iterative process of discovering new publications and keywords continued until no further relevant articles or keywords were found. At this point, the preliminary sample underwent a final screening, where the full texts were meticulously checked against the content criteria. The final sample comprised 58 articles (see Essay 1).

Although the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021) are now often considered a standard for conducting and reporting systematic literature reviews, they were not utilized in this study. PRISMA does not inherently guarantee reliability and rigor in the review process; conversely, reliability and rigor can be demonstrated through other means (Teixeira Da Silva & Daly, 2024). Moreover, as PRISMA was originally developed for the medical sciences, it is better suited to reviews of quantitative studies and to research questions grounded in well-established theory and deductive coding frameworks.

Given the exploratory and qualitative nature of this review, the lack of a strong theoretical foundation, and the iterative process of identifying relevant publications and keywords, the guidelines proposed by Fink (2020) and Mohamed Shaffril et al. (2021) were deemed appropriate for ensuring reliability and reproducibility in this context. In practice, the review procedure was carefully described and justified (Fink, 2020: 16; Mohamed Shaffril et al., 2021). Ultimately, the only notable difference of the chosen approach, when compared to PRISMA, is the absence of a flow diagram. However, due to the nature of the current study—with its multiple rounds of

searching, iterative refinements, and the use of "pearl-growing" and "breadcrumbing" techniques to identify additional relevant publications—such a diagram would have been overly complex and of limited practical value.

### 3.2.2 Collection of blog posts

The first study of Essay 2 examines the various components—reduced anticipation, reduced acquisition, and intensive and extended usage—of clothing consumption curtailment (CCC) behavior and how they may be linked to consumer subjective well-being (CSWB). Instead of the different ideologies and strategies of sustainable anti-consumption of clothing, this essay focuses particularly on slowing the consumption cycle through reduced acquisition and increased and extended usage. Therefore, the concept of CCC was used in place of sustainable anti-consumption clothing. The first study served as an initial exploration of the model and a means to refine the measurement items for the three components of CCC, which were conceptualized based on previous literature. To this end, posts were collected from Finnish bloggers who had voluntarily abstained from acquiring clothing for at least three months. The chosen approach resembled that of Ruppert-Stroescu et al. (2015) and Armstrong et al. (2016), differing in that their data was prompted while the current data comprised real blog posts.

Blogs offer a low-cost, instantaneous tool for data collection (Hookway, 2008). Blogs are a convenient source of qualitative data as they are easy to access, and the collection, unlike observation or interviews, does not require mutual availability of the interviewee(s) and the interviewer (Jones & Alony, 2008). Compared to traditional data collection methods, which are not only time-consuming but also require time and resources to codify the raw data, blogs are already in written form and codified, and sometimes even conveniently organized under topics or tags (Jones & Alony, 2008).

Blogs are particularly useful for investigating the dynamics of everyday life from an unadulterated first-person perspective (Hookway, 2008). While traditional techniques such as interviews rely on participants' willingness to talk candidly about their experiences to an outsider and, thus, risk there being a gap between informants' socially situated subjectivities and their actual practice, blogs are produced on bloggers' own terms (Hookway, 2008). Blogs also offer a certain richness and depth compared to, for example, interviews, as the bloggers' writings are underpinned by free will and interest (Jones & Alony, 2008). In addition, as blogs are often tools for introspection, they are usually genuine and offer windows to individuals' minds (Jones & Alony, 2008).

Most importantly, blogs are not subject to the influence or interference of the researcher (Jones & Alony, 2008). In interviews or surveys, there is always the problem of how to formulate questions and contextualize them in ways that tap into the things that they are meant to do but remain neutral (Hookway, 2008). Methods that rely on memory also carry a risk of memory impairment and retrospective reconstruction, while blogs often resemble diaries, which report thoughts and life events contemporaneously (Hookway, 2008).

Nevertheless, there are drawbacks to using blogs as research resources. First, the data sample available through blogs may be biased, as it only represents individuals who are drawn not only to writing but, in particular, to writing publicly (Jones & Alony, 2008). Second, despite blogs being considered representations of private thoughts, they are not immune to the need for social endorsement (Jones & Alony, 2008). Bloggers often cater to their readers' opinions and rely on them liking posts, so they may tend to produce content to please them, albeit unconsciously, and thereby lean towards socially acceptable opinions (Jones & Alony, 2008). However, this factor is not only a limitation but also makes blogs a useful source of data from a macromarketing perspective, as they represent individual opinions but also offer a type of social commentary.

In this study, the blogs were identified via an online search using Blogit.fi (an open Finnish blog directory) and Google, with search words such as "shopping OR clothes shopping OR fashion shopping OR fashion OR clothing AND detox OR boycott OR strike OR fast" (translated verbatim from Finnish to English). Some blogs were discovered through mentions in other blogs. Each blogger was contacted for permission to use their content. The inclusion criteria were as follows: 1) the blog was written in the Finnish language, 2) it documented a clothing detox experience, 3) the detox lasted a minimum of three months, 4) the blog included at least one initial and one follow-up post or provided a sufficiently detailed account of the detox experience, and 5) the blogger consented to the use of their content for research. No specific timeframe was required, as all the posts identified, written between 2014 and 2020, were considered relevant. In total, 140 posts from 25 blogs, amounting to approximately 73,200 words, met these criteria. Only textual content was included in the dataset, meaning that images were excluded.

### 3.2.3 Collecting data with a survey

Study 2 of Essay 2 aimed at quantitatively examining the relationships between the components of clothing consumption curtailment and subjective well-being. To this end, an online survey was conducted in Finland in June 2021. The survey sampled 661 Finnish participants aged 18–65, representative of the Finnish population in

terms of sex, age, and place of residence. The data collection was carried out by an external service provider using quota sampling. Participants earned points redeemable for vouchers by completing the survey.

Groves et al. (2011: 2) define a survey as "a systematic method for gathering information from (a sample of) entities for the purposes of constructing quantitative descriptors of the attributes of the larger population of which the entities are members." A survey aims to produce statistics that quantitatively or numerically describe some aspects of the study population (Fowler, 2014). A survey is typically conducted among a sample of a population, rather than the entire population. An online survey is a cost-effective and relatively fast method of collecting large volumes of data (Jamsen & Corley, 2007), especially when a study focuses on sensitive topics, such as well-being (Alessi & Martin, 2010). However, no surveys, online or otherwise, can be guaranteed error-free. They require careful planning in relation to sampling, question design, and data collection if the resulting data is to accurately describe what they are intended to (Fowler, 2014).

Question design consists of two parallel processes: measurements of constructs and measurement of population attributes (Groves et al., 2011: 41). The survey applied established, tested measurements wherever possible. Two established scales were used to assess CSWB: one for cognitive well-being (CCWB) and one for affective well-being (CAWB). CCWB was measured with the satisfaction with life scale (SWLS) of Diener et al. (1985) and CAWB with a Finnish translation of the WHO-5 scale (Psychiatric Research Unit, WHO Collaborating Center for Mental Health, 1996). The extended version of the SWLS by Margolis et al. (2019) was utilized to ensure maximal construct coverage and minimize the potential for bias. Positive (negative) body image was assessed using the Finnish version (Finne et al., 2012) of the six-item body image states scale (BISS) by Cash et al. (2002).

A new measure was developed for CCC based on Essay 1 and Study 1 of Essay 2. For reduced anticipation, the operationalization included three items: 1) I often plan and/or daydream about my next clothing purchases (-), 2) I go around clothing stores or browse online stores often (-), and 3) I read newsletters from online clothing stores and/ or follow clothing influencers or clothing brands/stores on social media (-). Regarding reduced acquisition, although Essay 1 proposed that acquiring second-hand items should not be classified as CCC, in Study 1 of Essay 2, some informants included it in their CCC practices. Therefore, separate items were created relating to avoiding the purchase of new clothing and the purchase of both new and secondhand clothing. Additionally, as noted in Essay 1 and supported by Study 1 of Essay 2, CCC also involves strategic acquisition. To capture this behavior, the item "I avoid clothing purchases that I would regret later" was crafted. Finally, intensive and extended

usage was operationalized based on the theorization of Essay 1 with two items: 1) I wear the clothes I own as often as possible, and 2) I use the clothes I buy for as long as possible.

The survey began with the WHO-5 measure asking the participants to reflect on their well-being during the past two weeks, followed by questions on their overall life satisfaction (SWLS). Next, they were asked about their perceived body image, followed by questions on their clothing consumption behavior. Finally, control questions on gender, age, income, education, and area of residence were asked. The WHO-5 scale (CAWB) was scored using a 6-point bipolar scale ranging from "no time" to "all of the time." All other items were measured on 7-point Likert scales, with the body image measure ranging from "extremely satisfied" to "extremely dissatisfied" and the remaining items spanning from "totally disagree" to "totally agree."

The guidelines of Podsakoff et al. (2003) were applied to reduce the risk of common method bias (CMB), which can affect cross-sectional studies. First, responses were collected anonymously, the order of questions was counterbalanced, and the questionnaire was pretested with 20 individuals of varying ages, genders, and social backgrounds to ensure clarity. Second, to mitigate social desirability bias and demand characteristics, the study's purpose was described only in general terms ("a study on wellbeing, values, and consumer habits"), and a control question was included: "What kind of things do you think this study is intended to analyze in more detail?".

### 3.2.4 Experimental research procedures

An experimental research design was employed to investigate the effect of subjective well-being on the adoption and willingness to adopt clothing anti-consumption behaviors. When establishing causation, experiments are considered "the gold standard" (Kardes & Herr, 2019: 4) and are commonly used to test the effects of different measures of social marketing on consumer behavior (Azarova et al., 2020; Bolderdijk et al., 2013; Klein et al., 2022; Kramer & Petzoldt, 2023; Rizzi et al., 2020; Van Den Broek et al., 2017). Experimental research tests hypotheses by manipulating the independent variable (IV) and measuring its impact on the dependent variable (DV) (Kirk, 2013). Mediation and moderation can be tested in addition to the main effect (Viglia et al., 2021). Mediation happens when the IV impacts a variable, a mediator, which then impacts the DV (Viglia et al., 2021). A mediator thus explains the mechanism of the main effect. Moderation happens when a moderator variable weakens or strengthens a relationship between IV and DV or between a mediator and IV or DV (Viglia et al., 2021).

Essentially, participants are randomly assigned to experimental conditions (Kardes & Herr, 2019; Viglia et al., 2021). Randomization should ensure that the changes in the dependent variable (DV) between experimental conditions do not depend on any factor other than the change in the independent variable (IV), the mediator(s), or the moderator(s). The randomization, thus, controls the interference of extraneous variables (e.g., individual difference variables) without the need to measure them (Kardes & Herr, 2019). However, manipulation checks are sometimes used to verify that the operationalization of the IV manipulates what it is supposed to and that a change in the hypothesized variable explains the measured effect (Stoner et al., 2023). Nevertheless, if well-established manipulations are used or the IV aligns closely with its operationalization (e.g., if the effect of different font colors is to be tested and the operationalization is two identical messages except for the font color), or the manipulation is otherwise common sense and no valid alternative explanation for the effect exists, manipulation checks or not needed (Stoner et al., 2023). It might still be reasonable to ask participants to name the color of the font, but not as a manipulation check, only as a means to check if they pay attention to stimuli (Stoner et al., 2023).

The research was informed by two experiments: one online and one laboratory experiment. The first experiment took place over Zoom in the fall of 2023 and involved first-year marketing students from the University of Vaasa. The flow of Study 1 is illustrated in Figure 9. Participation was voluntary, and students were informed that all collected data would remain anonymous and that they could withdraw at any time. Written consent was obtained from volunteers, after which they were randomly assigned to one of four breakout rooms, each representing a different condition: 1) intrinsic self-benefit, 2) other-benefit, 3) combined, and 4) control. The initial phase of the study was presented as a test of gamified teaching and invited participants to play a digital educational game in groups of three to four.

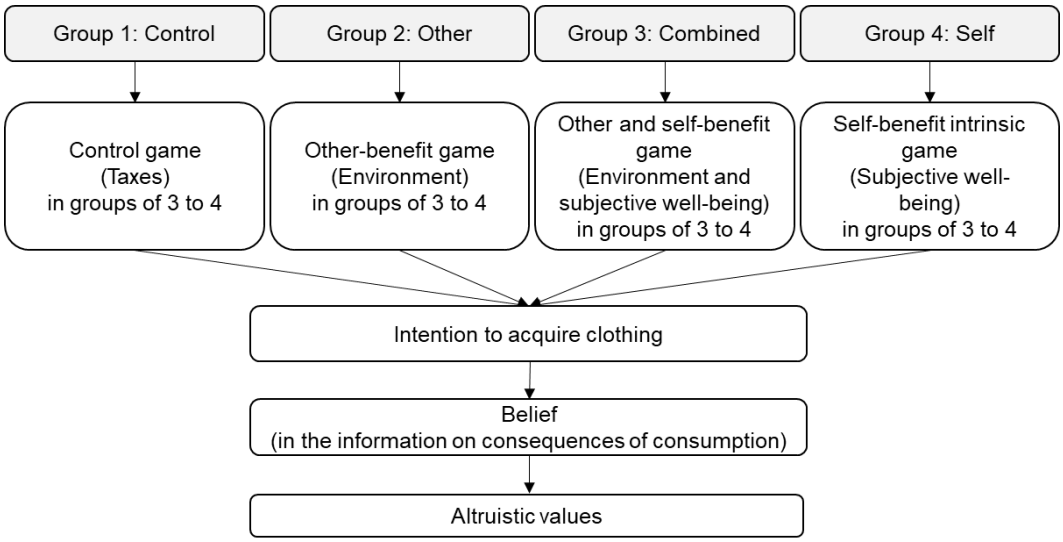


**Figure 9.** The flow of the Study 1

A pedagogical game was chosen as the stimulus for several reasons. First, it offered a means to test the appeals in a realistic context and a format applicable to real-life consumer education. Secondly, as previously noted, a single exposure to an appeal is often insufficient, and more varied and extensive exposure is necessary (Betts et al., 2019; Centola & Macy, 2007; Keating & Totzkay, 2024). Thirdly, mobile game-based learning can have a significant and positive effect on student engagement (Krouska et al., 2022). It is a productive tool to engage easily distracted learners and provides a platform for instant feedback, critical thinking, creativity, and collaboration (Misra et al., 2022).

For the first three groups, the game focused on the clothing economy and sustainable clothing consumption. The original game, *Pikamuodista hitaaseen* (From fast fashion to slow fashion), was developed in collaboration with two NGOs, two education development initiatives, and two academic researchers, including the thesis author. The game was modified for the experiment so that in the intrinsic self-benefit condition, the tasks emphasized the benefits of clothing anti-consumption for individual well-being; in the other-benefit condition, they highlighted its benefits for the environment and society; and in the combined condition, they addressed both. Minor adjustments were also made to the game board to suit these conditions. In all other respects, the three versions were as similar as possible across all conditions. For instance, encouraging and discouraging messages (Grappi et al., 2024) were equally distributed in each condition. In the intrinsic self-benefit game, subjective well-being was operationalized as both well-being and happiness. Happiness was chosen to ensure the content's comprehensibility as it was considered the most colloquial term for the construct. It is widely used as a synonym for subjective well-

being in both the scientific literature (Diener, 2000; DiMaria et al., 2020; Veenhoven, 2012) and in everyday language.

In the control condition, the game focused on taxation and was unrelated to well-being, clothing consumption, or the environment. This game, called #Verottaako (#Taxify), had been developed by an NGO in collaboration with several public administration entities. In each game session, the groups selected exercises from the game board and earned points by completing various assignments together. The sessions lasted 30 minutes, after which the participants individually answered feedback (filler) questions about the session (The gameboards, examples of exercises, and filler questions are provided in the appendices of Essay 3).

In the second part of the experiment, the participants individually completed a survey on "Consumption habits, values, and well-being," ostensibly unrelated to the first part. This survey measured the dependent (DV) - intention to acquire clothing - and the moderators - altruistic values and belief in the consequences of consumption. The moderators were assessed only after the intervention to maintain the integrity of the manipulation. In particular, measuring moderators before the manipulation could have contaminated the participants in the self-condition with questions that hinted at sustainability or the environment. Before conducting the actual experiment, the research setting was tested with a sample of 35 students in the spring of 2023.

Regarding measurements, intention to acquire clothing was assessed by asking the participants to estimate the number of clothing items (including underwear, socks, accessories, shoes, sports clothing, etc.) they expect to acquire for themselves (excluding, e.g., items for children) over the next year, whether new or secondhand. Altruistic values were measured using established scales: the environmental altruism and self-transcendence altruism scales by Steg, Perlaviciute, et al. (2014) based on Schwartz (1973, 1992). The impact of repeated exposure to information was evaluated by measuring the participants' belief in the effects of consumption habits on their well-being, the well-being of others, and the well-being of the environment. Finally, the participants answered background questions on age, gender, region, education level, and income, and a control question to gauge their understanding of the study's purpose, "What kind of things do you think this study is intended to analyze in more detail?".

The second experiment was conducted online with a representative sample of the Finnish population (n=600) based on age, gender, and region. The data was collected by an external service provider in fall 2024 using quota sampling. After excluding 54 respondents due to the poor quality of their answers (low variance) or incomplete responses on key variables (income), the final sample comprised 546 valid responses. The participants were randomly assigned to one of six conditions: (1) Extrinsic Other-

Benefit (Image) (n = 97), (2) Intrinsic Other-Benefit (Values) (n=100), (3) Extrinsic Self-Benefit 1 (Money) (n=90), (4) Extrinsic Self-Benefit 2 (Image 2) (n=86), (5) Intrinsic Self-Benefit (SWB) (n=85), (6) Control (No claim) (n=88). The flow of Study 2 is illustrated in Figure 10.

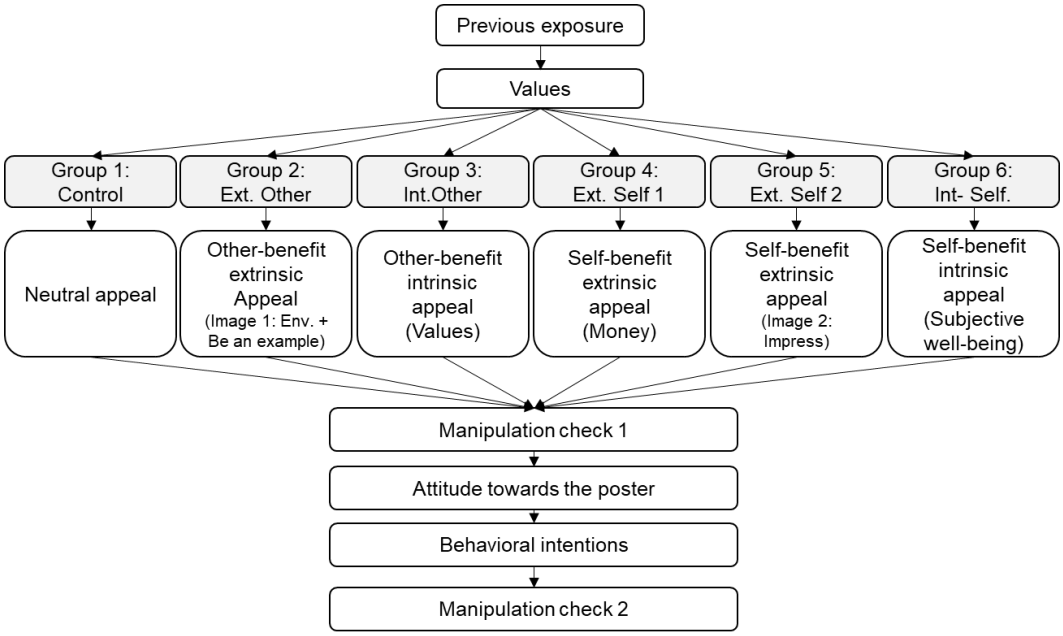


**Figure 10.** The flow of the Study 2

The questionnaire, presented as "a background survey for a campaign concerning clothing consumption habits, values, and well-being," began with questions measuring the moderators, namely perceived prior exposure to information and altruistic values. Next, the IV was manipulated by showing the participants one of six campaign posters. The posters were identical except for the texts that varied according to each condition. The texts all began with "According to research, overconsumption is harmful…" and continued based on the condition (Control condition: blank, Extrinsic and Intrinsic Other-Benefit:"…to the environment", Extrinsic Self-Benefit 1: "to your personal financial situation," Extrinsic Self-benefit 2: "to your image," Intrinsic Self-Benefit: "to your well-being") followed by a fact justifying the claim.

Next, the self-orientation versus other-orientation was emphasized with a request that read: "Think about your consumption!" (Control) versus "Think about others!" (Other-Benefit) versus "Think about yourself" (Self-Benefit). Finally, the intrinsic versus extrinsic motivation was emphasized with a request that read: "Consume less." (Control), "Be an example and consume less." (Extrinsic Other-Benefit), "Act according to your values and consume less." (Intrinsic Other-Benefit), "Consume less and save money." (Extrinsic Self-Benefit 1), "Consume less and impress" (Extrinsic

Self-Benefit 2) and "Consume less and feel better" (Intrinsic Self-Benefit). The participants were asked to familiarize themselves with the posters and to answer related questions. The first question was a manipulation check about the focus of the poster (well-being/saving/environment/image).

Next, the DV was measured in three ways: 1. attitude toward the poster, 2. behavioral intention toward the poster, and 3. estimated change in clothing consumption compared to the previous calendar year. Then, the participants answered background questions on age, gender, region, education level, and income, as well as a control question for guessing the purpose of the study, "What kind of things do you think this study is intended to analyze in more detail?". Finally, participants were asked to recall the core message of the poster by choosing from four options.

## 3.3 Data Analysis

In this section, the methods for data analysis are justified and described.

### 3.3.1 Qualitative content analysis

Both of the qualitative data sets of this thesis, the articles of Essay 1 and the blog data of Essay 2, were analyzed using qualitative content analysis. "Content analysis is a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use" (Krippendorff, 2019: 24). A critical characteristic of content analyses compared to other analysis methods is that the object of analysis is text, which carries meanings (Krippendorff, 2019: 25). Text has been produced to mediate meaning to someone, and the reader of the text interprets meanings from it (Krippendorff, 2019: 25). Therefore, it cannot be analyzed without interpretation.

Content analysis comprises both quantitative and qualitative methods. Apart from quantifying the articles of the systematic literature review according to the journals or books they were published in and the methods used in them, qualitative content analysis was used for both Essay 1 and Essay 2 (Drisko & Maschi, 2016: 3, 5-6). Qualitative content analysis requires that data are analyzed in a systematic and controlled way to enable reproducibility (Mayring, 2014). In Essays 1 and 2, the data were manually coded using a category system that included both deductive categories derived from existing theories and inductive categories developed from the material itself (Mayring, 2014).

The analysis phase of the systematic literature review commenced by extracting data from the chosen articles regarding concepts related to anti-consumerist behavior and their definitions. Next, the identified concepts were coded based on mostly inductive categories, created based on the data itself, but also some deductive categories, created based on previous theories. An inductive, data driven coding strategy is suitable approach particularly when there is not yet enough previous theory for deductive category building, the literature is fragmented and the goal of the review is to describe the data in detail (Elo & Kyngäs, 2008; Schreier, 2012: 87-90). An inductive approach is often needed for qualitative data, given its rich content that is difficult to categorize in advance (Schreier, 2012: 87-90).

The coding and the coding scheme building process was iterative in that it was primarily executed by the first author, but critically discussed with the second author, in different iteration stages. The final coding scheme of the first analysis phase of essay 1 is illustrated in table 5. On the first level, the data, i.e. the concepts, were coded into two deductive categories: sustainable anti-consumption of clothing and sustainable acquisition of clothing. While concepts clearly representing the latter category were left out already in the screening phase, cases with characteristics from both categories were kept in the analysis. In the next phase, the data was coded into two inductive categories, ideologies and strategies. The concepts were then grouped under codes based on similarities in their definitions. If no similarities existed, new category/code was created. For instance, slow fashion consumer was grouped with slow fashion, voluntary simplistic clothing consumption with voluntary simplicity, style consumption with style orientation, fashion diet with fashion detox, mending, repair, alteration, and redesign with mending, repair, alteration, and redesign services, renting with leasing and lending with borrowing. Finally, the data under the group strategies was coded into 5 subcategories, abstinence, clothes care, design for longevity, clothing product-service systems and collaborative fashion consumption.

**Table 5.** Coding framework Essay 1 Phase 1

| Categories | | | | |
|---|---|---|---|---|
| **Level 1** | **Level 2** | **Level 3** | **Level 4** | **Description** |
| Sustainable clothing consumption | | | | Attempts of any kind to reduce the harmful effects of clothing consumption, such as buying higher-quality products, buying ethically and/or ecologically produced clothing, buying second-hand as well as mending and simply buying less (Diddi et al., 2019). |
| | Sustainable acquisition of clothing | | | Acquiring products that are sustainable in terms of locality, transparency, traceability, environment and/or social aspects (Berberyan et al., 2021; Carey & Cervellon, 2014; Henninger et al., 2016; Joergens, 2006). |
| | Sustainable anti-consumption of clothing | | | Ideologies and strategies aiming at reducing the personal consumption of clothing. |
| | | Ideologies | | Ideologies that aim at clothing consumption reduction, but can be realized in different manner in practice. |
| | | Strategies | | Strategies to follow the anti-consumerist ideologies in practice. |
| | | | Abstinence | Strategies focused on abstinence from acquisition or redirecting the focus of clothing consumption away from acquisition. |
| | | | Clothes care | Strategies focused on avoiding the need for new acquisitions by taking care of clothes. |
| | | | Design for longevity | Design that aims at enhancing person–product attachment and thereby the lifecycle of the product through for example simplicity, modularity or incremental improvements to existing garments (Niinimäki & Armstrong, 2013; Pal & Gander, 2018). |
| | | | CPSS: Clothing product-service systems | Combinations of products and services that aim at making the products more valuable to the consumer, to extend garments' lifespan and reduce consumption (Armstrong et al., 2015). |
| | | | CFC: Collaborative fashion consumption | Pieces of clothing that would normally be discarded due to boredom, bad fit or lack of storage space are given to other users with the intention of increasing the number of uses per garment and enabling the satisfaction of consumption needs with fewer products (Iran & Schrader, 2017). |

In the next phase, each concept was coded according to whether each type of anti-consumption behaviour increases or decreases acquisition, use and disposal of clothing. In addition to these deductive categories, the acquire phase was further classified into four more detailed inductive categories: acquisition of products, strategic acquisition, acquisition of services, and sustainable acquisition. Similarly, the use phase was classified into two categories: use more and use longer. The effect of the behaviour on each phase of the consumption cycle could be either explicitly mentioned or implicitly understood from the articles. The coding scheme with the categories, subcategories, their descriptions and codes, is illustrated in Table 6.

**Table 6.** Coding framework Essay 1 Phase 2

| Category | Subcategory | Description | Coding |
|---|---|---|---|
| Acquisition | Acquisition of products | Does the behaviour described by the concept increase or decrease acquisition of products | Less / - |
| | Sustainable Acquisition | Does the behaviour described by the concept increase or decrease acquiring products that are sustainable in terms of locality, transparency, traceability, environment and/or social aspects (Berberyan et al., 2021; Carey & Cervellon, 2014; Henninger et al., 2016; Joergens, 2006) | More / - |
| | Acquisition of services | Does the behaviour described by the concept increase or decrease acquiring of services | More / - |
| | Strategic Acquisition | Does the behaviour described by the concept increase or decrease acquisition decisions that are made in such a manner that the acquisition optimally contributes to the functionality of one's wardrobe and style in the long run (Armstrong & Lang, 2018) | More / - |
| Use | | Does the behaviour described by the concept increase or decrease use of clothing | More / Longer / - |
| Disposal | | Does the behaviour described by the concept increase or decrease disposal of clothing | Less / - / More |

The examination of the blog entries commenced with the extraction of pertinent quotations concerning the attributes, regulations, and ramifications of the detox. The retrieved information was synthesized and examined at the content level to enhance the understanding of clothing consumption reduction, particularly regarding the three identified components of clothing consumption reduction and CSWB. The coding and the coding scheme building process was iterative in that it was primarily executed by the first author, but critically discussed with the third author, in different iteration stages.

**Table 7.** Coding framework Essay 2 Study 1

| | | **Category** | Nature | Consequences to CSWB |
|---|---|---|---|---|
| **Category** | **Subcategory** | **Description** | Quotes related to the nature of the detox | Quotes related to the consequences of the detox to CSWB |
| Reduced anticipation | | Quotes related to reduced anticipation | | |
| | No shopping and browsing | Quotes related to reduced shopping and browsing of webstores | *"I noticed that the easiest way to avoid fast fashion and unnecessary whims is simply not to go to stores that sell fast fashion – on the streets, in malls and online. […] I have also unsubscribed from the chain stores' newsletters and stopped following Instagram accounts that seem to make me develop strange needs for myself."* | |
| | Feelings of freedom in your home and in your soul | Quotes related to feelings of space or freedom in home or in mind | | *"There's this absolutely immense sense of freedom and space at home and in the soul. Quite amazing; I can highly recommend this."* |
| | No more wants | Quotes related to reduced feelings of wants and needs | *"The best thing about this detox has been that I don't have to bother my head with thinking about what I might want to buy next or spending time on comparing products and finding the 'right' shirt."* | *"Buying no longer gives me kicks the way it used to – instead, even the thought of having to find space for new stuff in my wardrobe makes me anxious."* |
| Reduced acquisition | | Quotes related to reduced acquisition | | |
| | The contradictory role of secondhand acquisition | Quotes discussing the role of second-hand acquisition in the detox or its role in relation to sustainability | *"However, constantly rummaging flea markets, in fact, contributes to the fundamental phenomenon behind the problem: the desire to get something new."* | |
| Intensive and extended usage | | Quotes related to intensive and extended usage | | |

| | | | |
|---|---|---|---|
| Shopping in your own closet increases | Quotes related to shifting the focus from buying new clothes to their own closet | *"This challenge is wonderful because it forces you to put together different outfits from your existing clothes. For example, before, I didn't feel like wearing one of my cardigans – but then, some time ago, I noticed that it brings a nice edge to almost any outfit. At the office, it goes well with any bottom, especially as it's black."* | *"An alternative way: you open your wardrobe and take a deep breath of gratitude for everything you already have. You think enthusiastically about all the possibilities of combining the clothes you already own in different ways, and about the great combinations you will create […]"* |
| Finding your style | Quotes related to getting more aware of their style and likings | | *"Especially in the summer, I noticed how I only needed my most comfortable gowns – my own style seems to be becoming steadily clearer."* |
| DIY, repairing and clothes care increase | Quotes related to increase in repair, alter, and use of repair services | *"[…] I've bought back-to-black dying detergent and dyed my well-worn leggings to look as good as new." (Blogger 3)* | |
| Strategic purchasing | Quotes related to increase in strategic shopping, i.e. carefully weighing whether they would actively use and love a piece for a long time. | *"[…] in the store, I already consider whether the garment would really work for me and whether I'd start using it immediately or at least very soon [...]. Nowadays, I prefer to buy one well-thought-out item of clothing or an outdoor jacket in a sale/outlet than many cheap pieces of clothing. You can also find designer bags and clothes at the flea market."* | |
| Greater appreciation for the clothes you already own | Quotes related to increased feelings of appreciation for the clothes you already own | | *"When I haven't had to bother my head with thinking about the next purchase, I've had more time to focus on what I already own. I've learned to appreciate what I already have." (Blogger 6)* |
| Improved self-esteem and self-knowledge | Quotes related to enhanced self-knowledge and self-esteem | | *"The clothes don't hang in the rack reminding me of someone I might want to be, but they're all the kind I use, and I'm somehow happier with myself every day."* |

First, the identified quotes were coded into two deductive categorizations: 1. quotes describing the nature of the detox and 2. quotes related to the consequences of the detox to CSWB. Next, the quotes were coded into three deductive categories related to different phases of consumption cycle: 1. quotes related to reduced anticipation, 2. quotes related to reduced acquisition and 3. quotes related to intensive and extended usage. These three categories were further divided into several inductive subcategories, by grouping the quotes under codes based on similarities. If no similarities existed, new category/code was created. The final coding scheme, with categories, subcategories, descriptions of the categories and examples of quotes of different categories is illustrated in table 7.

### 3.3.2 Analyzing data with structural equation modeling

The quantitative survey data from Essay 2 was analyzed using covariance-based structural equation modeling (CB-SEM) with maximum likelihood estimation. More precisely, first, an exploratory factor analysis (EFA) was performed on the final CCC scale with SPSS 28, followed by validation of measurement constructs and hypothesis testing via structural equation modeling in SPSS Amos 28. The EFA identified three interrelated factors: 1) Reduced anticipation (RAN), 2) Reduced acquisition (RAC), and 3) Intensive and extended usage (IEU). A confirmatory factor analysis (CFA) showing an acceptable fit with the data provided reassurance that the reliability and validity of all measurement constructs were satisfactory. Appendix 2 of Essay 2 contains the final measurement scales and CFA estimates. To investigate the relationship between CCC and CSWB, including the indirect effect through body image, a model was run with RAN, RAC, and IEU as independent latent variables, CAWB and CCWB as dependent latent variables, and body image as a latent mediator. Income and age, which had significant relationships with the CCC and CSWB components, were included as confounding variables. The model fit indices, standardized coefficients for the relationships, and bias-corrected bootstrapped 95% confidence intervals for each path can be found in Essay 2.

Traditionally, effects between variables, especially mediation, have been tested in quantitative data with a sequential regression by first testing the direct effect and then the mediation paths and by using summated variables (Baron & Kenny, 1986). However, structural equation modeling programs allow for the incorporation of multiple independent and dependent variables, as well as hypothetical latent constructs and the calculation of all the estimates simultaneously in one procedure (Kenny, 2024b; MacCallum & Austin, 2000; Savalei & Bentler, 2006; Ullman, 2006).

According to, for example, Gunzler et al. (2013: Section 3) and Kenny (2024a), SEM is more appropriate than traditional sequential regression for mediation analysis. First, compared to sequential regression analysis, structural equations allow for a more appropriate expression of the relationships in a hypothesized mediation process: the simultaneity of the indirect and direct effects and the dual role of the mediator as both an antecedent of the dependent variable and consequence of the independent variable (Gunzler et al., 2013). Second, the SEM analysis approach provides model-fit information on the consistency of the hypothesized mediational model to the data (Gunzler et al., 2013; Kenny, 2024a). Third, SEM programs provide unbiased estimates of indirect effects and bootstrapping, which is currently the recommended method for testing indirect effects [instead of Sobel's test, recommended by Baron & Kenny (1986)] (Cheung & Lau, 2008; Kenny, 2024a; Zhao et al., 2010: 198). Finally, testing models containing latent variables such as SWB, as well as multiple independent variables, mediators, or outcomes in a single analysis solves the problem related to different numbers of observations missing in the different regression equations representing a mediation process (Gunzler et al., 2013; Kenny, 2024a). In these programs, there is a built-in missing data mechanism, and thus, no need to handle missing data via listwise deletion, as in ordinary least squares (OLS) (Gunzler et al., 2013).

### 3.3.3 Analysis of the experimental data

The two quantitative datasets collected for Essay 3 were analyzed using statistical analysis methods. More specifically, in Study 1, one-way ANOVAs were run to test the direct effects of the four conditions on intended clothing acquisition. Analysis of Variance (ANOVA) is a statistical method used to test differences between two or more means. In ANOVA, inferences about means are made by analyzing variance. In Study 2, to ensure the representativeness of the data and the reliability of the results, the background variables —age, gender, education, and income— were added to the analysis as covariates. An ANCOVA was run to test the direct effects of the six conditions on attitudes to the poster, behavioral intentions, and anticipated changes in clothing consumption.

The moderation effects were tested in both studies using Hayes' (2022) PROCESS Model 1 with 5000 boot-strapped samples and a 95% confidence interval. In particular, in Study 1 of Essay 3, the moderation effect of altruistic values, as well as belief in the effects of clothing consumption reduction on the well-being of self, the well-being of others, and the well-being of the environment, was tested. Study 2 of Essay 3 included testing of the moderation effect of altruistic values, as well as of perceived prior exposure to information about the impacts of clothing consumption

habits on the environment, personal economy, and image. Simple slope analysis with observation points at -1 SD, Mean, and +1 SD was performed in those cases in which significant interaction was detected.

In addition, to ensure that there was no difference between the groups in terms of background variables, ANOVA and Chi-square tests were run in relation to the background variables. The measurement scales and descriptive statistics can be found in the appendices of Essay 3.

## 3.4 Reliability and validity of the research

The goal of good research is objectivity, which is realized through as much *reliability* and *validity* as possible (Kirk & Miller, 1986: 20). "*Reliability* is the degree to which a finding is independent of accidental circumstances of the research and validity is the degree to which the finding is interpreted in a correct way" (Kirk & Miller, 1986: 20). In other words, *reliability* refers to whether a measurement or an observation is replicable or repeatable if the same methodology is used (Golafshani, 2003, Kirk & Miller, 1986: 41-42) and *validity* of a measurement or an observation refers to whether it measures or describes what it claims to measure or describe (Kirk & Miller, 1986: 21-23).

In quantitative research, *reliability* is often measured through internal consistency. It refers to the suitability of single-item measures for forming multi-item measures. In this thesis, multiple measures ensured internal consistency. First, the research uses established, tested scales wherever possible, and a confirmatory factor analysis (CFA) was conducted for all the multi-item measurements throughout the quantitative studies. No established scale existed to measure the different phases of CCC; thus, a scale was built based on previous literature and a qualitative study, and an explorative factor analysis (EFA) was conducted before the CFA.

For the quantitative study of Essay 2, the CFA was conducted first by fitting the CFA model with the data which gave acceptable results (Minimum Discrepancy Function by Degrees of Freedom divided [CMIN/DF] = 3.765, p = 0.000, comparative fit index [CFI] = 0.941, Tucker-Lewis index [TLI] = 0.931, root mean square error of approximation [RMSEA] = 0.065). Second, the factor loadings, construct reliabilities (CR), and average variances extracted (AVE) were evaluated, demonstrating acceptable convergent validity (Bagozzi & Yi, 1988; Hair et al., 2014: 709-710). All factor loadings were over 0.50 and significant, while CRs were above 0.70. The AVEs were all greater than 0.50, except for the IEU, which was 0.489. However, since this scale was specifically built for this study, the AVE below 0.50 is considered acceptable due to CR being above 0.70 (Fornell & Larcker, 1981).

In addition, to reduce the risk of common method bias (CMB) that can affect cross-sectional studies, Podsakoff et al.'s (2003) recommendations were adhered to. Firstly, the responses were anonymous, the order of questions was counterbalanced, and the questionnaire was pretested with a diverse group of individuals (N = 20) of different genders, ages, and social groups to ensure clarity. Secondly, to mitigate social desirability and demand characteristics, the study's aim was described in general terms ("a study on wellbeing, values, and consumer habits"), and a control question was included: "What kind of things do you think this study is intended to analyze in more detail?". None of the respondents identified the true aim of the study.

CMB was also statistically controlled using the single-factor test at both the item and construct levels (Podsakoff et al., 2003). The results showed no single or general factor explaining the majority of the variance (only 15.871% for the items and 15.669% for the constructs). Additionally, discriminant validity was assessed using the AVE-SV test (Voorhees et al., 2016), revealing no violations as both the maximum squared variance (MSV = 0.448) and average squared variance (ASV = 0.037) were below all average variances extracted (AVEs) (Fornell & Larcker, 1981).

The internal consistency of the studies comprising Essay 3 was checked with Cronbach's alpha, the most common internal consistency measure (Bonett & Wright, 2015). In these tests, the alphas ranged from .771 to .932, indicating good *reliability* (Bonett & Wright, 2015). The risk of common method bias (CMB) was mitigated by following Podsakoff et al.'s (2003) guidelines. The responses were anonymous, and the order of the questions was counterbalanced. The questionnaires were pretested to ensure clarity. Study 1 was tested with a student sample of 35, representing the target group of the actual experiment, and Study 2 with 27 individuals from diverse backgrounds, including different genders, ages, and social groups. To control for the demand characteristics and social desirability bias, the true aims of the two studies were not revealed but cover stories were invented and a control question was included: "What kind of things do you think this study is intended to analyze in more detail?". None of the respondents were able to discern the true purpose of the study.

Regarding *validity* considerations in quantitative studies, a distinction can be made between *external* and *internal validity* (see Krauth, 2000: 22). External validity refers to the extent to which the findings can be generalized to other places, populations, or times (Krauth, 2000: 22). To maintain high *external validity*, several methodological choices were made. For instance, in both Essays 2 and 3, at least one of the datasets was representative of the Finnish population with regard to age, sex, and home region. *Internal validity*, on the other hand, pertains to the consistency of the theoretical concepts applied, the experimental setups created, and the measuring instruments selected (Krauth, 2000: 22). *Internal validity* can be achieved through 1)

*apparent validity*= a measuring instrument is so closely linked to the phenomena under observation that it is "obviously" providing valid data, 2) *instrumental validity*=observations match those generated by an alternative procedure that is itself accepted as valid and 3) *theoretical validity*=there is substantial evidence that the theoretical paradigm rightly corresponds to observations (Kirk & Miller, 1986: 21-23).

In the three quantitative studies, *internal validity* was mainly ensured through *apparent* and *theoretical validity.* As mentioned, established, tested scales were used where possible. In particular, in Essay 2, Consumer subjective well-being (CSWB) was measured with a Finnish translation of the widely applied WHO-5 scale (Psychiatric Research Unit, WHO Collaborating Center for Mental Health, 1996) for Affective Consumer Well-being (ACWB) and with the Satisfaction with Life Scale (SWLS) by Diener et al. (1985) for Cognitive Consumer Well-being (CCWB). Positive (negative) body image was gauged using the six-item Body Image States Scale (BISS) developed by Cash et al. (2002) and translated into Finnish by Finne et al. (2012). In Essay 3, established scales were used for altruistic values: the self-transcendence altruism and environmental altruism scales by Steg, Perlaviciute, et al. (2014) based on Schwartz (1973, 1992). For perceived prior exposure to information about the impacts of participants' clothing consumption habits on their own well-being, the environment, personal economy, and image, the measure of (Rizzi et al., 2020) was used. Rizzi et al.'s measure was chosen as it addresses both the amount of exposure and the array of information sources and social affirmation that are needed for behavioral change (Betts et al., 2019; Centola & Macy, 2007; Keating & Totzkay, 2024).

The validity of the manipulations and the measure of beliefs related to the effects of consumption habits on personal well-being, that of others, and of the environment was ensured mainly through *apparent validity*. In other words, the IVs were considered isomorphic with their operationalizations —the games and the posters— meaning that experiments tested the appeals as they naturally appeared rather than attempting to indirectly activate or prime an underlying trait. Therefore, a manipulation check was not included in Study 1 (see, e.g., Stoner et al., 2023). However, for Study 2 of Essay 3, although similarly isomorphic, the *validity* of the manipulations was ensured with two manipulation checks, which indicated that the manipulations were perceived as intended.

While the assessment of *reliability* and *validity* in quantitative research is fairly straightforward and follows traditions, the application of these concepts in qualitative research is somewhat more complex. Qualitative studies often use concepts such as trustworthiness, rigor, or quality instead of *reliability* and *validity*

(Golafshani, 2003). Tracy (2010) holds that ensuring qualitative research is of good quality requires a *worthy topic*, *rich rigor, sincerity*, *credibility*, *resonance, significant contribution, ethic*s, and *meaningful coherence*.

In the two qualitative studies of this thesis, the systematic literature review of Essay 1 and Study 1 of Essay 2, the *topics* - sustainable anti-consumption of clothing and the well-being effects of different phases of anti-consumption of clothing - are both very timely and offer interesting novel perspectives that are also relevant and significant in relation to practical implications. Both studies demonstrate *rigorous* research by employing sufficient and appropriate theoretical constructs, data samples, and analytical processes (Tracy, 2010). Although total objectivity and independence of the research results from the researcher is rarely possible within qualitative approaches (Mayring, 2014), to increase *sincerity* and to minimize the biases caused by subjective values and inclinations of the researchers, in both studies, the results were discussed between two researchers, and the methods and processes were carefully reported. Both studies were conducted systematically following established processes.

For the data collection informing the systematic literature review, the guidelines of Fink (2020) were applied that comprise three phases: 1. planning, 2. searching and screening, and 3. collecting data and synthesizing the results, and a similar approach was applied for the data collection of Study 1 of Essay 2 including careful reporting of the search process as well as the inclusion and exclusion criteria of the blogs. Both analyses followed the process of qualitative content analysis outlined by Mayring (2014: 14). The credibility of the results was enhanced by the use of several citations in Essay 1 and quotes from the data in Study 1 of Essay 2. In addition, conflicting findings were reported and discussed. Furthermore, in Essay 2, triangulation in the form of other quantitative data was used to test and optimize the credibility of the qualitative study (see Golafshani, 2003).

In terms of *resonance*, both studies offer transferable findings that resonate with academics, companies, NGOs, and the general public. All address problems related to sustainable consumption and production of clothing. The results of this work have been presented at several events for key stakeholders, which has tested their *credibility*. That speaks to a practical *contribution,* but these studies also contribute conceptually and theoretically. That contribution relies on conceptualizing sustainable anti-consumption of clothing and building theory on the linking role of the phases of consumption and body image with the anti-consumption of clothing and subjective well-being. Both studies are *coherent* in that they achieve what was intended, use methods and procedures that fit the intended goals, and meaningfully connect literature, research questions, findings, and interpretations (Tracy, 2010).

*Ethics* were also considered, not only in the two qualitative studies but also by adhering to the principles of the responsible conduct of research in all the essays at each stage of the work, from study planning to data reporting. Systematic methods were employed, and the phases of data collection and analysis were carefully documented to enhance the repeatability of both qualitative studies (Essay 1 and Study 1 of Essay 2). Using online materials in research has sparked much debate about its ethics: is the material public or private and under what conditions can it be used as research material? (Kozinets, 2020: 164-188). In this thesis, a risk-averse strategy was opted and the study subjects involved in Study 1 of Essay 2 were sufficiently informed about the aim and nature of the study, and written consent was obtained from the bloggers to use their content for research purposes. Similarly, in both quantitative studies, the study subjects were informed about the content of the studies on a general level, and written consent was obtained. All the collected quantitative data is anonymous. However, in experimental research designs, the study's aims must remain largely opaque, and approval was granted by the Ethics Committee for Human Sciences at the University of Vaasa.

## 3.5 Self-reflection

This dissertation originates from a deeply personal motivation to influence the current unsustainable consumer culture. I have been interested in frugal consumption—including mending and customizing my clothes—since middle school. This interest likely stems in part from my upbringing, but it is also closely tied to my creativity. My awareness of sustainable development began to grow during high school. Around that time, I also stopped reading women's magazines after encountering an article suggesting that their primary purpose is to advertise new products, thereby creating unnecessary desires, contributing to issues such as low self-esteem.

Later, in business school, I explored the topic further by writing my bachelor's thesis on the development of materialism in children. It was during this time that I first encountered research linking materialism to lower levels of well-being. Subsequently, I became involved in the non-profit sector through volunteer work focused on sustainable consumption and global education. These experiences deepened my understanding of the sustainability challenges within the fashion industry. At the same time, I began to question the often guilt-inducing, negative, and environmentally centered tone of global education related to consumption. This led me to wonder whether educational efforts could be reframed: what if the message was to consume less not only for the planet, but also because it could enhance personal well-being?

Moreover, I noticed a gap in the public discourse around sustainable development. Most of the discussion revolved around what is wrong with current consumption or, alternatively, what constitutes ideal behavior. Conversations about how behavior can actually be changed were far less common—and that was what interested me.

While personal motivation can serve as a fruitful foundation and driving force for research, it is not without its challenges. Conducting research with a strong personal investment carries an inherent risk of bias. To mitigate this potential influence, I have, firstly, sought to remain aware of my own standpoints and to continuously reflect on how they might shape my decisions throughout each stage of the research process. Secondly, I have made a conscious effort to prioritize objectivity by designing the study carefully, reporting transparently, and conducting rigorous analyses. In essence, I have strived to let the data speak for itself.

As I have progressed in writing this dissertation, it has become increasingly clear that the issue is systemic in nature. Addressing it requires not only individual action but also legislative changes and the active involvement of all stakeholders—consumers, policymakers, businesses, and civil society alike. Nonetheless, achieving change requires influencing opinions and attitudes, whether among consumers, decision-makers, or entrepreneurs. And it is becoming ever more apparent that guilt-driven, negative, and solely environmentally focused approaches are not the answer.

# 4 SUMMARY OF THE ESSAYS

This chapter briefly summarizes the three essays by outlining their aims, theoretical premises, methodological choices, results and novelty value.

## 4.1 Essay 1: Sustainable Anti-Consumption of Clothing: A Systematic Literature Review

This essay aims to conceptualize *sustainable anti-consumption of clothing*. Despite its potential to advance sustainability objectives, the definition of anti-consumption is unclear. Specifically, the relationship between anti-consumption and sustainable clothing consumption remains poorly defined. This essay seeks to clarify this concept with a systematic literature review.

The essay integrates insights from the literature on sustainable clothing consumption and anti-consumption, adopting a macromarketing perspective. The key theoretical premise is that consumption consists of three phases: acquisition, usage, and disposal. Regarding the relationship between sustainable consumption and anti-consumption, prior research defines anti-consumption as including any resistance to marketed products, including boycotting specific products or companies (Garima et al., 2025). Accordingly, it does not necessarily relate to sustainability. However, Lee et al. (2011) define anti-consumption as opposition to all phases of the consumption cycle, whether acquisition, usage, or disposal. That approach raises the question of whether, when assessing clothing consumption from a sustainability standpoint, resistance should target the entire consumption cycle, from acquisition to disposal. If useable clothing ends up in waste, does this not indicate that these items are not (fully) used, but merely acquired and then disposed of?

A systematic literature review was conducted to address these questions. The sources were articles examining anti-consumption of clothing from an environmental sustainability perspective. A relational framework was developed to illustrate the concepts manifesting anti-consumption of clothing in relation to 1) their perceptions of consumption reduction, 2) their interrelationships, and 3) their levels of abstraction. The perception of the reduction of consumption refers to the division between sustainable acquisition and sustainable anti-consumption of clothing, which is not always clear. Therefore, borderline cases were also included in the framework, and their relationships to both higher-order concepts clarified. The level of abstraction refers to two categories: ideologies and strategies. Ideologies encompass concepts that represent a way of thinking or a lifestyle, such as a style consumption. Conversely, strategies refer to the practical application of anti-consumerist ideologies, such as refraining from acquiring or maintaining clothes. Finally, each

concept was analyzed in relation to how the phases of consumption manifest within it.

The analysis revealed that sustainable anti-consumption ideologies, behaviors, and business models in the clothing sector are characterized by various overlapping concepts. Many of these concepts incorporate elements of sustainable acquisition (i.e. acquiring sustainable products) and sustainable anti-consumption (i.e. reducing consumption). However, the analysis reveals that while sustainable anti-consumption aims to reduce the acquisition and disposal of clothing, it involves very active usage, resulting in intensive consumption. The study thus identified that the phases of the consumption cycle play a connecting role between sustainable consumption and anti-consumption. As illustrated in Figure 11, the phases of the consumption cycle are interconnected, with behaviors in one phase impacting others: Anti-acquisition inevitably intensifies and/or prolongs usage, which eventually reduces disposal, and vice versa.

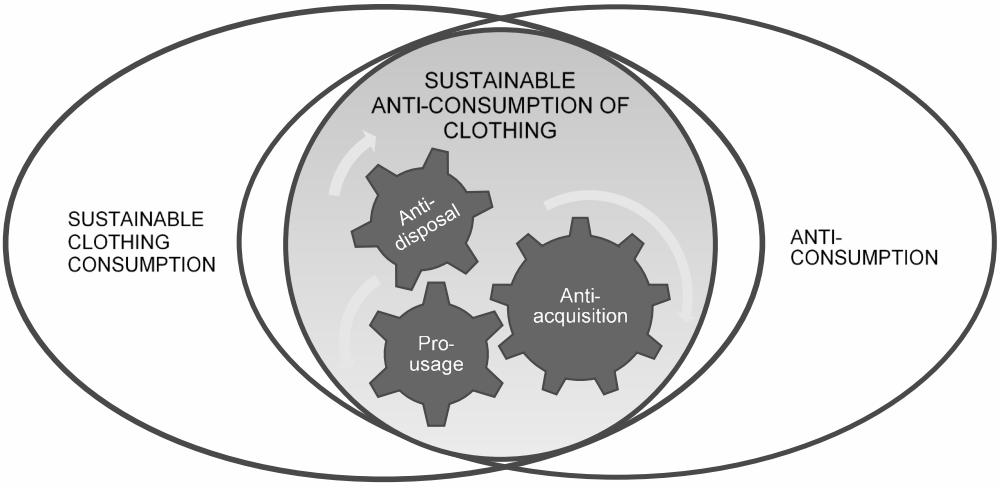


**Figure 11.** The phases of the consumption cycle viewed as connectors between sustainable consumption and anti-consumption (Vesterinen & Syrjälä, 2022).

As a result, the authors suggest that the definition of sustainable anti-consumption of clothing should include anti-acquisition, anti-disposal, and, in particular, pro-usage. That definition more accurately characterizes the behaviors required to drive systemic change in the industry and consumer culture toward sustainability. It was argued that while sustainable clothing consumption is a vague and multifaceted term, sustainable anti-consumption—comprising anti-acquisition, pro-usage, and anti-disposal—provides a clearer directive. Furthermore, the authors contend that sustainable clothing consumption, which currently focuses primarily on the

acquisition of sustainable products, perpetuates the vicious cycle of acquisition and disposal, depleting natural resources. In contrast, sustainable anti-consumption of clothing, encompassing anti-acquisition, pro-usage, and anti-disposal, is the only way to truly break this cycle and achieve genuinely sustainable clothing consumption.

**Table 8.** Novelty Value of Essay 1

| Conceptual Novelty Value | Empirical Novelty Value |
|---|---|
| - application of the phases of consumption as a framework in the anti-consumption context<br><br>- defining the concept of sustainable anti-consumption of clothing as anti-anticipation, pro-usage, and anti-disposal | Methodological choices:<br>-focus on sustainable clothing consumption ideologies´ and strategies' effects on the consumption cycle<br><br>- instead of only acquisition, focus on all phases of consumption (also usage and disposal) |
| - clarifying the differences and common grounds of sustainable clothing consumption and anti-consumption | Key results:<br>-sustainable anti-consumption of clothing leads to consumption curtailment through anti-acquisition, pro-usage, and anti-disposal<br><br>-by intensifying and extending the usage of clothing, it is possible to reduce both acquisition and disposal, thereby slowing down the fashion cycle |

Table 8 illustrates the novelty value in relation to the previous literature. The current essay, "Sustainable Anti-Consumption of Clothing: A Systematic Literature Review," was published in Cleaner and Responsible Consumption in 2022.

## 4.2 Essay 2: Wear Your Pants Out and Be Happy! Clothing Consumption Curtailment and Consumer Subjective Well-Being

This essay examines the role of different phases of consumption—anticipation, acquisition, and usage—in the relationship between clothing consumption curtailment (CCC) and enhanced consumer subjective well-being (CSWB). The focus of the essay is on slowing the consumption cycle through reduced acquisition and increased and extended usage. Accordingly, the concept of clothing consumption curtailment (CCC) is used in place of SACC. The study builds on past research to theorize on and empirically examine whether increased CSWB can be attributed to

shifting the focus from acquisition to usage. In addition, it is expected that enhanced body image mediates this relationship.

The first theoretical premise of the essay is the definition of consumption as a cyclical process comprising three phases: acquisition, usage, and disposal. In addition, the essay draws on studies on sustainable clothing consumption and consumer subjective well-being, which suggest that a fashion orientation focused on following the latest fashion trends is associated with materialism, increased shopping frequency, and diminished subjective well-being. Style consumption, emphasizing enduring personal styles over rapidly changing fashion trends, is associated with higher subjective well-being. Furthermore, materialists tend to focus more on acquisition, experiencing a temporary boost in pleasure even before the purchase, as they expect possessions will meet a psychological need. However, this pre-acquisition pleasure quickly diminishes after the purchase due to hedonic adaptation, creating a cycle where they must continually acquire new items to experience the next momentary high.

In contrast, less materialistic consumers, who primarily use material possessions to meet functional needs, focus more on the usage phase, experiencing more sustained pleasure from fulfilling needs after acquisition. Additionally, while acquisition experiences are relative and subject to comparison, usage experiences can create absolute value, making them less susceptible to hedonic adaptation. In conclusion, it appears that a shift from acquisition to usage might explain the relationship between CCC and improved CSWB.

In addition, this essay draws on social psychology literature, particularly social comparison theories. One key factor in the link between sustainable clothing consumption and subjective well-being appears to be social comparison. When fashion constantly changes, consumers experience persistent discrepancies between their ideal and actual selves. Moreover, clothing is unique because the consumption experience is influenced by how well a garment fits the wearer’s body. Therefore, the social comparisons between current and desired ideals pertain specifically to one's body. Consequently, body image can be expected to mediate the connection between CCC and CSWB.

In the essay, these theories are tested by conducting a content analysis of blog posts from individuals undergoing clothes shopping detox and applying structural equation modeling (SEM) to survey data. The qualitative Study 1 explored how the components—reduced anticipation, reduced acquisition, and intensive and extended usage—are implemented in CCC practices and their potential impact on CSWB. This study served as an initial exploration of the research model conceptually derived from existing literature and helped refine the measurement items for Study 2. The

quantitative Study 2 then investigated the relationships outlined by the research model.

The analysis revealed three distinct but interconnected constructs—reduced anticipation, reduced acquisition, and intensive and extended usage—that had varying relationships with CSWB. Notably, it unveiled a positive total effect between intensive and extended usage and both affective and cognitive well-being. In addition, the results establish that enhanced body image partially mediates that connection.

**Table 9.** Novelty Value of Essay 2

| Conceptual Novelty Value | Empirical Novelty Value |
|---|---|
| - linking CCC and CSWB with phases of consumption and body image | Methodological choices:<br>-using real blog posts (not prompted) as data<br>- application of the phases of consumption as a framework to analyze the connection between anti-consumption of clothing and CSWB |
| - clarifying the role of the acquisition of second-hand clothing in CCC | - instead of solely on acquisition, focus on all phases of consumption (also anticipation, usage, and disposal) in analysis of the connections between the anti-consumption of clothing and CSWB |
| | Key results:<br>- Reducing acquisition is not associated with CSWB, whereas intensive and prolonged usage are positively linked to CSWB.<br>- Enhanced body image partially mediates the connection between intensive and prolonged usage and CSWB. |

Table 9 illustrates the novelty in comparison to previous research. The present essay, "Wear Your Pants Out and Be Happy! Clothing Consumption Curtailment and Consumer Subjective Well-Being," was published in the Journal of Macromarketing in 2024.

## 4.3 Essay 3: When Appealing to Selfishness Enhances Sustainability: Subjective Well-being as an Intrinsic Self-Benefit Driver to Reduce Consumption

This essay investigates the impact of consumer subjective well-being as an intrinsic self-benefit appeal compared to extrinsic self-benefit appeals (money and image) and intrinsic and extrinsic other-benefit appeals (environment and values, environment and image) on reducing consumption within the context of clothing. The essay draws upon consumer psychology, social marketing literature, and self/other appeal literature in particular. That literature has mainly focused on extrinsic self-benefits, such as money or status, that are received as a trade-off for an assumed altruistic act. The literature is thus heavily based on the idea of a self-other trade-off. Intrinsic motivations, where the act itself benefits the self without an altruistic feature, have received less attention. In particular, few studies have compared the effects of intrinsic and extrinsic self-benefit appeals in the same study.

The essay addresses that gap through two experiments: an online and a laboratory experiment. The two experiments compared the impacts of intrinsic self-benefit appeal (consume less to feel better), extrinsic self-benefit appeals (consume less to save money, consume less to improve your image), and intrinsic and extrinsic other-benefit appeals (consume less to save the environment and act according to your values, consume less to save the environment and be an example) as well as a combined appeal (consume less and save the environment and feel better) to a control group in the context of clothing. In the first experiment, participants played a digital pedagogical game in small teams that competed against each other, with assignments and game boards adjusted according to each condition. In Study 2, participants answered an online survey in which they were shown a campaign poster adjusted to each condition. Both studies measured the dependent variables and moderators using an online survey.

At the outset, the forms of appeal seem equally effective. However, when the concept of repeated exposure—in the form of perceived prior exposure to information and thereby belief in the consequences of consumption—is considered, the intrinsic self-benefit appeal, focusing on subjective well-being, outperformed the other types.

**Table 10.** Novelty Value of Essay 3

| Conceptual Novelty Value | Empirical Novelty Value |
|---|---|
| - adding the concept of repeated exposure in the forms of perceived prior exposure to information on and belief in the impacts of consumption to the self vs. other-benefit appeal discussion<br>- focus on self-benefit vs. other-benefit appeals and intrinsic and extrinsic self- and other-benefit appeals | Methodological choices:<br>- using an online pedagogical game as a stimulus |
| | Key results:<br>-when perceived prior exposure to and acceptance of information related to the consequences of consumption is taken into account, the intrinsic self-benefit appeal focusing on subjective well-being outperforms other-benefit appeals and extrinsic self-benefit appeals |

Table 10 illustrates the essay's novelty in comparison to previous literature. The present essay, "When Appealing to Selfishness Enhances Sustainability: Subjective Well-being as an Intrinsic Self-Benefit Driver to Reduce Consumption," in under review in Journal of consumer Behavior.

# 5 DISCUSSION AND CONCLUSIONS

This chapter discusses the study's findings and outlines their broader significance. The first section, Interpretation of Findings, analyzes the results in light of the purpose and objectives of the thesis, and existing literature, highlighting key insights and points of convergence or divergence with prior studies. The next section, Theoretical Contributions, considers how the findings advance, refine, or challenge existing theories.

The chapter then turns to Practical Implications, which are discussed across four key stakeholder groups: consumers, companies, NGOs, and regulators. This is followed by a subsection discussing the potential impacts of industry deceleration on employment and the role of governments and businesses in ensuring a just transition. Finally, the chapter concludes with a discussion of the study's Limitations and Future Research Suggestions, identifying areas for improvement and proposing directions for continued scholarly inquiry.

## 5.1 Interpretation of findings

The purpose of this thesis was to investigate whether consumer subjective well-being can be used as a self-oriented driver for the sustainable anti-consumption of clothing. This purpose was achieved by meeting three objectives. First, a conceptual framework was created based on a systematic literature review to understand the concept of anti-consumption in the context of sustainable clothing consumption. Second, the relationship between sustainable anti-consumption of clothing and consumers' subjective well-being was empirically analyzed with qualitative and quantitative methods. Third, experimental methods were employed to investigate the extent to which subjective well-being can serve as an intrinsic self-benefit motivator to promote sustainable anti-consumption of clothing. The results of the thesis are summarized in Figure 12.

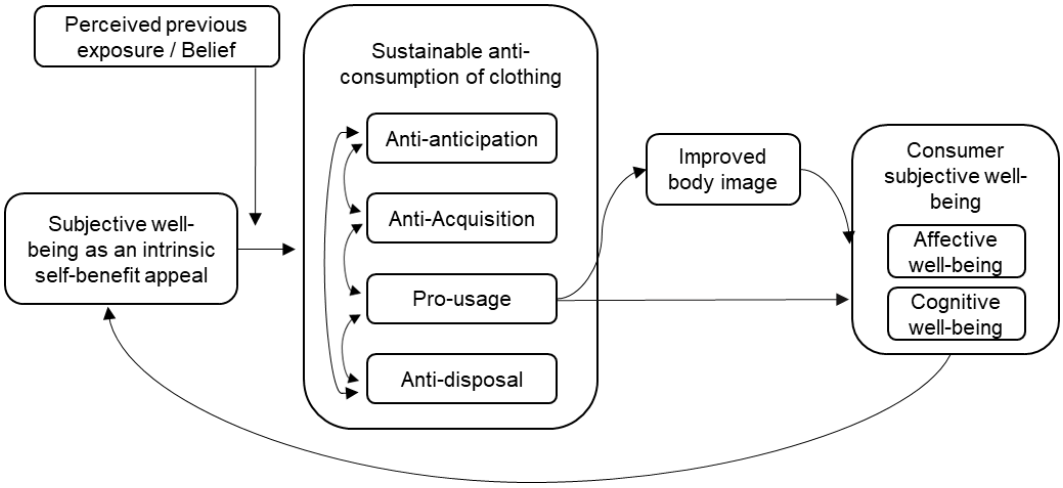


**Figure 12.** The results of the thesis

The systematic literature review facilitated the definition of the concept of sustainable anti-consumption of clothing, including anti-disposal, anti-acquisition, and pro-usage. This definition provides consumers and the industry with a clear and straightforward guideline for sustainability: avoid the disposal and acquisition of both new and second-hand clothing and increase and intensify the usage of clothing.

The guideline assigns a key role to the user, who decides how often to buy products, which products to acquire, how long to use them, and when and how to dispose of them (Fletcher, 2016: 211). Products are often discarded not because they wear out but due to psychological obsolescence. Psychological obsolescence refers to cases where a product's aesthetics no longer appeal to the user or align with societal preferences, new technological advancements make the product appear outdated, or financial considerations favor replacement over repair (Burns, 2016). Therefore, it is important to consider the diversity of consumers and their varying relationships with clothing and to explore different ways to achieve sustainable anti-consumption. For those passionate about clothing, sustainable anti-consumption offers multiple opportunities to actively use and style clothing while minimizing acquisition and disposal. Conversely, sustainable anti-consumption does not demand specialized knowledge of consumers who are not interested in fashion, style, or crafting.

The most sustainable garment is one that is worn repeatedly, making personal needs and preferences central. While sustainable anti-consumption of clothing prioritizes usage rather than acquisition and disposal, purchasing a new garment should be based on long-term preferences and needs. This approach is more intuitive for consumers, as selecting sustainably produced clothing often causes confusion and anxiety (Bly et al., 2015; Harris et al., 2016), whereas personal needs and style are already common criteria for clothing choices (Joergens, 2006).

That said, the social nature of consumption cannot be ignored, particularly in the case of clothing. Individuals are part of a system where the choices of the majority define the preferred aesthetics and the level of consumption. In other words, individual preferences reflect the prevailing social norm. Changing that social norm requires action from all the actors in the system: regulators, businesses, the third sector, and consumers. Social media influencers are becoming particularly powerful stakeholders, as many are currently seen as major contributors to stimulating overconsumption.

A reverse trend is already emerging. The "Underconsumption Core" hashtag has been trending since the summer of 2024, mainly in the United States, but since the spring of 2025 in the UK too (Google Trends, 2025). Under the hashtag, influencers encourage their followers to swim against the tide of overconsumption by buying less, wearing out products before replacing them, and repairing and repurposing (Collins, 2024; Radin, 2024). The movement—also referred to as de-influencing—has impacted attitudes and purchase intentions. Some consumers find de-influencers more credible than traditional influencers (Elhajjar & Itani, 2025).

In terms of the relationship between sustainable anti-consumption of clothing and consumers' subjective well-being (CSWB), three distinct yet interconnected constructs were identified based on qualitative and quantitative data: reduced anticipation, reduced acquisition, and intensive and extended usage. Each construct has a different relationship with CSWB. Notably, intensive and extended usage showed a positive total effect on both affective and cognitive well-being. By highlighting the importance of usage in the well-being effects of sustainable anti-consumption of clothing, this finding connects the earlier research on minimalism and style consumption, both of which seek to prolong usage and have been linked to positive consumer subjective well-being (CSWB) effects (Malik & Ishaq, 2023; Nielsen et al., 2023; Shafqat et al., 2023).

In addition, the qualitative data aligns with previous studies showing that focusing on existing wardrobe items enhances the appreciation and enjoyment of clothing while boosting awareness and confidence in a personal style (Bly et al., 2015), thereby contributing to CSWB. Furthermore, the data support the notion that the link between intensive and prolonged usage and CSWB is mediated by improved perceived body image, as suggested in earlier research (Armstrong et al., 2016; Bly et al., 2015). Specifically, the findings indicate that by utilizing existing wardrobe items and choosing new pieces mindfully to prevent regret purchases and enhance usage, consumers tend to possess and wear well-fitting garments, which positively impacts body image and CSWB.

These findings challenge the sustainable consumption literature, which emphasizes sustainable acquisition and circular business models as ways to satisfy consumers' growing desire for novelty while minimizing environmental impact (Amasawa et al., 2023; Daukantienė, 2023; Laudien et al., 2023). Such studies appear to presume that consumer cravings for variety are some sort of endogenic human need that must be satisfied. However, if the fast fashion cycle and frequent wardrobe changes really catered to fundamental needs, then extending the usage phase of clothing should theoretically diminish the consumer's well-being compared to that of people who regularly acquire and discard clothes. Nevertheless, while a correlational study cannot prove definitively that prolonged usage positively impacts CSWB, it suggests that extended usage is unlikely to have a negative effect.

No positive associations were identified regarding other components of clothing consumption curtailment (CCC). Instead, a negative overall effect was observed between reduced anticipation and consumer affective well-being. A direct negative effect was identified between reduced acquisition and affective well-being, although the total effect was not significant. The findings indicate that reducing anticipation negatively impacts well-being, whereas reducing acquisition does not. Consequently, the anticipation of future purchases may be more closely linked to well-being than actual acquisitions. Accordingly, postponing purchases could positively affect well-being compared to frequent acquisition.

While it was surprising that reduced anticipation and reduced acquisition were not associated with increased consumer subjective well-being (CSWB)—contrary to the hypotheses—this result can likely be explained by the interconnectedness of the constructs. In other words, attempting to reduce acquisition does not appear to yield positive well-being effects unless it simultaneously leads to increased and intensified usage. In other words, the benefits emerge only when the focus genuinely shifts from constant acquisition to meaningful use.

Similarly, when comparing the current findings with previous research on anticipation and well-being, delaying acquisition seems beneficial—especially when anticipation centers on the practical value of clothing and the experience of using it, rather than on materialistic expectations such as status or happiness (Kumar & Gilovich, 2016; Luo et al., 2018). Thus, anticipation itself is not inherently detrimental to well-being; rather, what matters is the nature of the anticipation and whether it fosters intensified and prolonged usage.

Thereby, the results offer new insights into the nature and structure of clothing consumption curtailment (CCC). The qualitative study supports the notion that effective CCC requires a comprehensive and cyclical approach to its market system

components: reduced anticipation, reduced acquisition, and intensive and extended usage.

No significant direct effect was observed of the use of subjective well-being as an intrinsic self-benefit motivator to boost the sustainable anti-consumption of clothing. However, a significant moderation effect was identified for perceived prior exposure to information about the consequences of clothing consumption. Specifically, when the participants had high levels of prior exposure to information regarding the impact of clothing consumption on their well-being, the intrinsic self-benefit appeal notably decreased their intention to acquire new clothes. This effect was not observed for the other conditions or prior exposure to information related to the impact of clothing consumption on the environment, consumer savings, or consumer image.

This dissertation theorized that prior exposure to information on the environmental impacts of clothing consumption did not moderate the effects of the appeals due to message fatigue. Specifically, while repeated exposure and social affirmation or reinforcement from multiple sources are necessary to enhance credibility (Pennycook et al., 2018; Smelter & Calvillo, 2020; Unkelbach et al., 2019) and ultimately shift attitudes and behaviors (Betts et al., 2019; Centola & Macy, 2007; Keating & Totzkay, 2024), excessive repetition can create an inverted U-effect. Participants may begin to perceive the overly repeated message as a persuasive attempt, resulting in reactance and a decline in the message's credibility (Koch & Zerback, 2013; Lu et al., 2015; Reynolds-Tylus et al., 2021; Song & So, 2023).

In other words, it was suggested that consumers who are receptive to other-benefit appeals likely already practice the targeted behavior (Nolan et al., 2008). For others, these messages fail to resonate or may even backfire, especially with individuals who are skeptical of climate change or resistant to environmental narratives (Amos et al., 2016; Grapsas et al., 2023; Johnstone & Tan, 2015; Tan et al., 2016). In contrast, intrinsic self-oriented appeals that highlight benefits for subjective well-being present a fresh and untapped lever for change.

This theory was partially supported by the indicative results regarding belief in the consequences of consumption. Specifically, average and high levels of belief in the environmental impact of consumption habits moderated the effect of the self-benefit appeal, such that the more participants believed their consumption habits affected the environment's well-being, the less they intended to acquire clothes the following year in the self condition, but not in other conditions. Hence, the self-benefit appeal appeared to provide the necessary lever for change, even among ecologically aware consumers.

## 5.2 Theoretical contributions

This thesis generates five theoretical contributions related to 1) the conceptual development related to sustainable anti-consumption of clothing (SACC), 2) the importance of intensive and extended usage in the connection between anti-consumption and subjective well-being, 3) the literature on psychological obsolescence, 4) the literature on psychological ownership and 5) literature on self versus other-benefit appeals. Next, these contributions are discussed in more detail.

First, this work contributes to both the sustainable clothing consumption literature and the anti-consumption literature by exploring their common core aspect—the meaning of consumption—and by proposing a conceptual development involving a shift from sustainable clothing consumption and anti-consumption to anti-disposal, anti-acquisition, and pro-usage, aiming to promote the sustainable manifestation of anti-consumption.

While much of the research on sustainable fashion has focused on promoting the acquisition of eco-friendly or recycled products and sustainable disposal methods such as recycling (see Mukendi et al., 2020), the issue extends beyond the sustainability of the production and materials to the sheer volume of production and over-consumption (Ozdamar Ertekin & Atik, 2015; Ozdamar-Ertekin, 2016). Although recycling can mitigate the negative impacts of waste, it does not prevent waste generation in the first place (Fletcher et al., 2012: 63-64). Essentially, it does not address unsustainable purchasing behavior and production volumes (Fletcher et al., 2012: 63-64). Therefore, anti-consumption seems to be a promising contributor to achieving sustainability goals (Mukendi et al., 2020).

Nevertheless, although the general concept of anti-consumption is delimited by the practices of rejecting, reducing, and reusing (Black & Cherrier, 2010), its relationship to sustainable consumption is far more complex. Firstly, anti-consumption can refer to any form of resistance against marketed products, companies, or industries and does not necessarily relate to sustainability (Izberk-Bilgin, 2010; Lee, 2022; Makri et al., 2020). Conversely, Lee et al. (2011: 1681) define anti-consumption in terms of opposing each phase of the consumption cycle, whether acquisition, usage, or disposal.

However, when examining clothing consumption through a sustainability lens, should we really resist the entire cycle from desire to acquisition, usage, and disposal? If usable clothing ends up as waste (Ozdamar Ertekin & Atik, 2015), does that not indicate that it was not fully used but merely acquired and disposed of? By proposing the novel concept of sustainable anti-consumption of clothing, encompassing anti-disposal, anti-acquisition, and pro-usage, this thesis addresses the ambiguity

surrounding the concept of anti-consumption in the context of sustainable consumption. It offers a clear guide to the actions necessary to embed sustainability in the clothing context.

In addition, regarding the literature on anti-consumption in the context of clothing and consumer subjective well-being, most of it has separately focused on various phenomena such as style consumption and minimalism (Armstrong & Lang, 2018; Gupta et al., 2019; Martin-Woodhead, 2023; Vladimirova, 2021). This thesis expands the understanding by adopting a comprehensive perspective of the consumption cycle and linking these phenomena through three interconnected constructs: reduced anticipation, reduced acquisition, and intensive and extended usage.

Second, this thesis identifies intensive and extended usage as the most significant construct for positive well-being effects among the three. Regarding the mechanisms that explain the link between anti-consumption and consumer subjective well-being, prior studies have highlighted factors such as the satisfaction of intrinsic motivation and psychological needs, the feelings of control, and the restoration of self-esteem (Balderjahn et al., 2023; Iyer & Muncy, 2016; Kasser & Ryan, 1996; Lee & Ahn, 2016; Oral & Thurner, 2019; Rich et al., 2017; Zavestoski, 2002). This thesis also advances the discourse by quantitatively examining and validating the notion that, within the realm of clothing, the link between intensive and extended usage and CSWB is mediated by enhanced perceived body image, as suggested in earlier qualitative research (Bly et al., 2015).

Regarding the sustainable clothing consumption literature, the significance of intensively and extensively using existing garments to enhance well-being is a noteworthy discussion point. Previous studies have largely accepted that the accelerating fashion cycle drives increased consumption, necessitating the creation of new business models to sustain this level of consumption in a sustainable manner (De Ponte et al., 2023; Hellström & Olsson, 2024). Consequently, past studies have predominantly focused on production, acquisition, disposal, and waste management to promote circularity in consumer behavior, emphasizing circular fashion, second-hand, rental, and sharing platforms (Amasawa et al., 2023; Daukantienė, 2023; Laudien et al., 2023).

While prolonging the usage phase should be a crucial element of circular business models (Geissdoerfer et al., 2020)—and lifecycle assessments suggest that reducing consumption by prolonging the use of existing garments is the most effective way to lessen the environmental impact of the clothing system (Levänen et al., 2021; Munasinghe et al., 2021)—that phase has attracted considerably less attention than acquisition of circular garments and recycling. This thesis addresses this gap by adopting a consumer perspective on the vital consumption phase of usage,

demonstrating that prioritizing usage over acquisition can benefit both the environment and the consumer.

Third, the findings contribute to the discourse on psychological obsolescence (Guillard et al., 2023). Extending the lifecycle of clothing is a common objective in sustainability literature. Many studies have emphasized the importance of clothing care, particularly wash frequency, and the production of physically durable items (Maguire & Fahy, 2023; Sahimaa et al., 2024). Nevertheless, although physical durability is essential for longevity in the fashion industry, even the best-made and well-maintained clothes become unfashionable and psychologically obsolete (Sahimaa et al., 2024).

Therefore, addressing psychological obsolescence is as important as focusing on physical durability to achieve a more sustainable clothing system. Maguire and Fahy (2023) state potential enablers of extended garment longevity include enhancing knowledge and awareness of clothing care and understanding the link between prolonged garment wear and sustainability. This thesis adds the awareness of the link between extending garment wear and CSWB and body image to Maguire and Fahy's (2023) list of enablers.

Fourth, the findings contribute to the literature on psychological ownership, which refers to the feeling individuals have when they perceive an object or part of it as *theirs* (Pierce et al., 2003: 86). Experiencing psychological ownership allows people to define and express themselves through their possessions, integrating them into their identity (Belk, 1988; Pierce et al., 2003; Weiss & Johar, 2016). It has been suggested that a significant barrier to adopting circular business models is their shift from ownership to access, which fails to provide consumers with a sense of psychological ownership (Claudy & Peterson, 2022; Singh & Giacosa, 2019).

Moreover, Zhao et al. (2024) discovered that sharing goods reduces the sense of psychological ownership, diminishing consumer happiness. The current findings emphasize the significance of ownership for consumers, as the intensive and extensive use of their possessions enhances their subjective well-being. Furthermore, the results suggest that instead of resisting the desire for psychological ownership, it could be leveraged to encourage prolonged use-time.

The findings also contribute to the literature on sufficiency (Jungell-Michelsson & Heikkurinen, 2022). In the context of fashion marketing, the concept of sufficiency has so far been applied predominantly from a business perspective (Freudenreich & Schaltegger, 2020; Garcia-Ortega et al., 2023, 2025; Gossen et al., 2019; Gossen & Heinrich, 2021; Gossen & Kropfeld, 2022; Härri et al., 2024). However, the sustainable anti-consumption discourse clearly represents a parallel approach within consumer

research, offering an alternative to the efficiency paradigm in the pursuit of sustainability.

Although this thesis does not aim to define what constitutes a sufficient level of clothing consumption, it offers novel insights into how such a level might be achieved. Specifically, it explores what sufficiency-oriented behavior can look like in the clothing context and how it can be motivated. In particular, this thesis contributes to the sufficiency discussion by providing new knowledge on the relationship between sufficiency-oriented consumption and consumer subjective well-being.

Fifth, the findings of this thesis contribute to the literature on self versus other-benefit appeals. It distinguishes between self-benefit and other-benefit appeals, as well as intrinsic and extrinsic self- and other-benefit appeals. Specifically, this thesis offers prima facie support for the theory that the intrinsic self-benefit appeal is the most effective appeal in terms of promoting sustainable consumption behavior. This appeal targets both the inherent selfishness of consumers and their intrinsic motivations. Intrinsic motivations are particularly powerful compared to extrinsically motivated actions, such as monetary compensation for altruistic behavior, because they tend to lead to more committed actions (Sheldon & Elliot, 1999), have a higher likelihood of persistence (Ross, 2011), and can even spill over into other sustainable actions (Thøgersen & Crompton, 2009b).

In addition, this thesis highlights the crucial role of repeated exposure in the self versus other-benefit conversation. It is proposed that for an intrinsic self-oriented appeal that emphasizes consumer subjective well-being to be effective, it must be frequently repeated and widely disseminated to establish credibility and familiarity (Pennycook et al., 2018; Smelter & Calvillo, 2020; Unkelbach et al., 2019), and, ultimately, to influence attitudes and behaviors (Betts et al., 2019; Centola & Macy, 2007; Keating & Totzkay, 2024). However, repeated exposure can also lead to message fatigue. Specifically, other-benefit appeals that emphasize the environmental impacts of consumption may become ineffective with excessive repetition, following an inverted U-shaped curve, where too much repetition renders the appeal ineffective or even counterproductive.

Moreover, this thesis provides fresh insights into how altruistic values moderate the effectiveness of self and other-benefit appeals. While previous studies have indicated that the most effective appeal aligns with the recipient's values (egoistic versus altruistic) (Birkenbach & Egloff, 2024; Van Den Broek et al., 2017), the two experimental studies in this thesis did not find that effect. Instead, it was proposed that although individuals generally invest more effort in actions that align with their personal goals and values (Sheldon & Elliot, 1999), in the context of sustainable consumption behavior, altruistic values do not necessarily moderate the impact of

self and other-benefit appeals. That is because individuals with altruistic values already engage in the target behaviors, resulting in no significant change in the target variables (Nolan et al., 2008).

Finally, while environmental appeals have traditionally been viewed as intrinsic (Edinger-Schons et al., 2018; Kramer & Petzoldt, 2023; Schwartz et al., 2015; Van Den Broek et al., 2017), the current findings suggest that for most people, these appeals may actually be extrinsic. That is because the behaviors they prompt are driven not by an intrinsic desire to save the planet but by the extrinsic reputational benefits associated with pro-environmental actions (Griskevicius et al., 2010).

## 5.3 Practical implications

As this thesis followed the approach of transformative consumer research (TCR), one of the primary aims was to offer practical tools to enhance consumer well-being directly and through sustainability. That aim encompassed both providing insights to consumers and effectively sharing knowledge with all potential beneficiaries (Mick et al., 2012:8; Ozanne et al., 2011). The practical implications of this thesis stem from the critical role of usage in addressing the issue of overconsumption and from leveraging the connection between usage, consumer subjective well-being (CSWB), and positive body image in these efforts.

### 5.3.1 Practical implications for companies

From a business perspective, although shifting from excessive fashion consumption to sustainable anti-consumption represents a significant transformation for the industry, it also presents numerous opportunities for innovative and revitalized business models (Härri et al., 2024). The foundation of a future sustainable clothing system should be the production of high-quality, durable garments. Nevertheless, there is considerable potential in exploring how the system could be directed from shortening usage times toward embracing longevity creatively.

The findings provide opportunities for social and green marketing, as well as for promoting slow fashion brands. In addition to the current appeals (Lučić & Uzelac, 2024), marketers could appeal to consumers' self-oriented motivations for well-being by promoting repair and timeless styles with slogans such as "Wear your pants out and be happy," "Find your style and stick to it," or "Be you and be happy." Swedish denim producer Nudie Jeans is an example of a company embracing product longevity. The firm offers to repair any damage to its jeans as often as necessary and has established repair shops and mobile repair stations, and collaborates with repair

partners to fulfill that commitment. If those options are inconvenient, the firm also provides free repair kits.

Longer use times can also be supported by style consultancy services that help consumers select well-fitting, multifunctional garments that are physically and psychologically durable, and also advise on creating new looks from existing wardrobes (Armstrong et al., 2015). Additionally, the findings can be applied in marketing therapeutic services aimed at helping consumers enhance their self-knowledge and self-esteem and discover their unique personal style. Another business opportunity lies in the craft of mending. Besides professional dressmakers and re-makers, the findings could be used to market courses and workshops that teach consumers mending skills (e.g., Durrani, 2018).

Moreover, the finding that delaying product acquisition can enhance well-being more than frequent purchases could be utilized by extending the interval between product launches. This approach would foster excitement, hype, and anticipation for new trends, simultaneously reducing production and boosting consumer subjective well-being (CSWB). To achieve the necessary level of exposure and familiarity for actual behavior change, companies could engage content marketers and collaborate with NGOs to spread the message.

### 5.3.2 Practical implications for NGOs

From the perspective of NGOs and global educators, the findings reinforce the idea that fostering green attitudes is not the sole route to sustainable consumption. Actual behavior is increasingly unrelated to sustainability and driven by personal well-being, status, or financial benefits. Furthermore, long-term, consistent behavior change appears achievable only when the motivators are intrinsic, meaning actions are performed for their own sake rather than for external rewards like status or money.

Climate deniers are a particularly challenging group to reach with the current green narrative. Information about climate change, even when combined with post-materialist values, does not spur sustainable behavior if individuals do not accept humanity's responsibility for climate change or that it can be mitigated. (Vainio & Paloniemi, 2013). There is a growing segment of people who wholly reject green ideology, perceiving it as a threat to their identities, and who organize to resist it (see, e.g., Amos et al., 2016). For instance, between 2021 and 2023 in the EU, the proportion of respondents who considered climate change "not a serious problem" increased in at least ten countries, while the number of those who viewed it as "a very serious problem" decreased in at least 14 member states. Therefore, exploring

alternative methods to address overconsumption and climate change is increasingly critical and must extend beyond promoting the green message to unreceptive audiences.

Accordingly, in addition to appealing to altruistic motivations by highlighting the sustainability benefits of prolonged wear, it is also beneficial to target self-oriented drivers by raising awareness of the potential well-being effects of extended use. Previous research has shown that self-oriented motivators, such as status or stress reduction, can effectively encourage consumers to reduce consumption (Armstrong Soule & Sekhon, 2022; Herziger et al., 2020). This thesis suggests that subjective well-being and body image could also serve as self-oriented levers in social marketing campaigns. A crucial message is that increasing and extending product usage is a key factor linking consumption reduction with well-being, and this connection could be utilized in conservation education.

In particular, while earlier studies have shown that merely educating consumers about the effects of their consumption habits does not result in behavior change (Eckhardt et al., 2010; Joanes et al., 2025), the findings of this thesis indicate that the right content can indeed make a difference. It appears that earlier studies highlighting the inefficacy of education and information dissemination primarily focused on other-oriented information. However, the findings of the current and previous research (Herziger et al., 2020) suggest that self-oriented information, particularly intrinsic self-oriented information, can have a different impact.

Specifically, sustainable well-being as an intrinsic self-benefit driver could bridge the green gap and effectively influence those who are already knowledgeable about the environmental impacts of consumption but have not yet changed their behavior. Furthermore, the results highlight the importance of repeated exposure in shaping social norms and behaviors.

In practice, when designing communication campaigns and global education initiatives on over-consumption, it is advisable to highlight the intrinsic self-benefits of anti-consumption, such as the connection between reduced consumption and well-being. Any NGO wishing to achieve repeated exposure and social reinforcement should focus on creating diverse content and fostering discourse among varied audiences, disseminating it through multiple media channels. The interactive pedagogical game used in one of the studies indicates how to apply those findings in global education.

A key focus in transformative consumer research is the effective dissemination of the novel knowledge and ideas produced. Fulfilling that aim required close collaboration with two NGOs, Pro Ethical Trade Finland and Youth Academy. For instance, a

pedagogical game related to sustainable clothing consumption was produced and disseminated to schools and pedagogical institutions. In addition, results were disseminated through blogs and social media channels, as well as via presentations at events attended by groups that work closely with consumers, educators, decision-makers, and companies. Key results were also communicated through press releases, resulting in numerous news articles and radio and podcast interviews.

### 5.3.3 Practical implications for consumers

From a consumer perspective, the findings of this thesis clearly indicate that intensifying and prolonging clothing usage is beneficial for both the environment and consumer well-being. Moreover, there are various options to increase usage. People interested in clothing can extend its usage by, for instance, mending, upcycling, mixing and matching, and selecting garments that are both psychologically and physically durable. Creating a capsule wardrobe consisting of a few versatile items that can be combined in various ways can also be inspiring (Martin-Woodhead, 2023). Those seeking to escape the fashion cycle should avoid online and physical stores, unsubscribe from mailing lists and unfollow social media accounts promoting acquisition.

For consumers who are not particularly interested in fashion, style, or crafting, prolonging clothing use is likely the simplest way to practice sustainable consumption. This approach can simultaneously enhance financial and subjective well-being while saving time. At its core, intensifying and prolonging usage begins with people paying attention to personal needs and preferences and purchasing only clothing they like and need for the long term. This approach should come naturally to many, as the average consumer prioritizes traditional apparel characteristics, such as fit, comfort, and the price–quality ratio, over sustainability features (Rausch et al., 2021). The principles of clothing sustainability are often too complex for consumers to fully understand and incorporate into their purchasing routines (Harris et al. 2016).

Coscieme et al. (2022) recently estimated the sustainable number of items that could be bought annually in OECD countries. For nations with four distinct seasons, like Finland, this number was five, inspiring a five-item challenge that gained traction on social media. The new finding that anticipation enhances well-being more than acquisition could be leveraged to promote such challenges. Longer anticipation periods for purchases could also allow consumers to consider them more thoroughly, potentially leading to better decisions that enhance future well-being through well-fitting, well-functioning, and cherished clothing.

### 5.3.4 Practical implications for regulators

Systemic change away from overconsumption cannot rely solely on consumers and the market; supportive policies are essential. For instance, policies such as a mandatory two-year warranty for clothing and a repair service (subject to appropriate use) could benefit both the environment and individuals. The care instructions could be standardized into categories such as Normal (water wash 40–60°C with similar colors) and Special (wool wash, airing, dry cleaning) to simplify post-purchase garment care, as identified by Maguire & Fahy (2023).

The guarantee policy could be linked to the value-added tax (VAT) by binding the VAT level to the guaranteed use-time, care category, and materials used, considering their environmental impact and recyclability. A warranty that only provided for repairs or refunds, not replacements, could help prevent rebound effects, such as continuous exchanges of damaged products for new ones. Manufacturers of products that frequently fail within the warranty period should face consequences. These policies could be facilitated through the planned digital product passport (DPP) (Ospital et al., 2023).

Limiting the number of collection launches, such as two per year, could slow the fast fashion cycle. Additionally, restricting fashion advertising could produce benefits. The restriction might be more stringent on advertising targeting vulnerable groups like youths and children who are still forming their consumer habits and self-identity through clothing (Joy et al., 2012; Joyner Martinez & Iran, 2024). Finally, the systemic change could be supported by reducing VAT for repair services, following Sweden's example (Dalhammar et al., 2020).

Over time, these regulations could steer production away from single-use products, and higher prices, along with changes in supply and selection, could influence consumers' perceptions of product use times and their consumption behavior.

### 5.3.5 The social consequences of anti-consumption

Although this thesis has focused on the environmental aspects of sustainability in the clothing industry, it is important not to overlook the associated social ramifications. Specifically, decelerating the industry will impact employment (Schroeder, 2020). Business models emphasizing quality and durability over quantity could create worthwhile jobs in terms of wages, freedom, and work safety. However, the deceleration could also lead to job losses disproportionately impacting women in various regions (Stevenson et al., 2021). Governments and businesses should

consider these social implications when planning and implementing strategies to reduce clothing consumption.

From the viewpoint of companies, several essential actions are required. First, it is crucial to gain an understanding of how the transition impacts present and future staff, particularly women. Second, decisions should be made holistically, considering both emission reductions and job impacts. Third, it is important to provide women with the necessary training for new tasks when jobs are transformed or lost and new ones are created. Fourth, companies should leverage their procurement policies to promote equal gender representation throughout the supply chain. (Barrientos & Pallangyo, 2018; Stevenson et al., 2021).

From a governance standpoint, a socially sustainable transition can be facilitated through various measures. These include providing incentives for companies to perform gender analysis, fostering collaborations between government and civil society to develop social protection programs in regions facing significant job losses, and implementing industrial strategies to identify alternative job creation opportunities and necessary skill development in high-risk regions. Additionally, laws should be enacted to mandate companies to provide living wages and ensure employee freedom and workplace safety (Barrientos & Pallangyo, 2018; Schroeder, 2020; Stevenson et al., 2021).

## 5.4 Limitations and future research suggestions

Like all academic research, this thesis has its limitations, which simultaneously open avenues for further investigation. First, building on the proposed novel concept of sustainable anti-consumption of clothing, which encompasses anti-acquisition, pro-usage, and anti-disposal, further exploration to assess its practical applicability using both qualitative and quantitative methods is warranted. It would be productive to examine how consumers perceive the above definition in comparison to one based on a general resistance to consumption.

Moreover, the results of this thesis highlight the need for future research on sustainable consumption to prioritize usage. The use-oriented clothing economy, seeking to shift the focus from material consumption to usage ( e.g., Armstrong et al., 2016), has predominantly been viewed from an industry perspective. Future quantitative and qualitative studies could investigate the drivers and barriers of repeated usage, as well as the emergence and spread of movements like the Underconsumption Core trend.

Proceeding to the linkages between sustainable anti-consumption of clothing and consumer subjective well-being, although Study 1 of Essay 2 and the previous research suggest potential causal links between reduced consumption, perceived body image, and well-being, the cross-sectional nature of the data restricted the analysis to exploring associations rather than confirming causality. Therefore, longitudinal and experimental research is necessary to establish causal explanations and to determine the long-term effects of reducing clothing consumption on CSWB. Qualitative research utilizing for instance diaries could also enhance comprehension of the relationship between clothing anti-consumption and well-being.

The research methods employed mean that the influence of reverse causality cannot be entirely ruled out. Consumers with higher CSWB might feel more self-assured and satisfied with their appearance, reducing the need to enhance their look or elevate life satisfaction by purchasing new garments. In contrast, those with lower CSWB who feel uncomfortable in their bodies may attempt to enhance their well-being by purchasing clothes. Nevertheless, if the underlying issue is psychological rather than physical, increased acquisition may not enhance CSWB and could even decrease it, resulting in a vicious cycle.

Moreover, perceived body image and CSWB are multifaceted concepts influenced by numerous factors beyond clothing consumption, including physical health, supportive social connections, temperament, and creativity (Acar et al., 2021; Diener et al., 2018; Halliwell, 2015; Tan et al., 2021). Therefore, the links between increased and prolonged usage, body image, and CSWB may be affected by additional variables. Future research should identify and examine other potential contributing factors.

For example, while it was proposed that the positive relationship between intensive and extended usage and subjective well-being might be due to reduced social comparisons and a decreased desire for novelty, this mediation effect was not tested. Therefore, future research should examine the robustness of this mediation effect. Researchers might also adopt qualitative methods to investigate the role of social comparisons and craving for newness in the relationship between clothing anti-consumption and well-being.

Creativity is another potential mediator to explore in the relationship between usage and CSWB. The qualitative findings of Essay 2 align with previous research, suggesting that reducing clothing acquisition and engaging in upcycling activities can boost creativity (Ruppert-Stroescu et al., 2015), which has been found to improve subjective well-being (Acar et al., 2021; Tan et al., 2021). Future research could also investigate the effects of anticipation and second-hand clothing acquisition on consumer subjective well-being.

In addition, so far, the research on the connection between clothing anti-consumption and well-being, including this work, has relied on subjective measures of well-being through self-reports (Gwozdz, Steensen Nielsen, & Müller, 2017; Malik & Ishaq, 2023; Shafqat et al., 2023). Future studies could investigate the effects of anti-consumption on well-being using physiological measures, such as heart rate monitoring.

Moreover, as knowledge continues to grow regarding what constitutes a sufficient level of clothing consumption and a sustainable frequency of acquisitions (Coscieme et al., 2022), it would be valuable to examine the well-being effects of adhering to these specific limitations. Furthermore, it would be worthwhile to investigate how the outcomes differ when the focus is placed on limitations and reductions, compared to an approach that emphasizes what can be owned and consumed—shifting the narrative from restriction to possibility.

Regarding Essay 3, while the results support the idea that subjective well-being can drive anti-consumption, this study did not measure actual behavior or its persistence. However, previous research suggests that the underlying motives for individual sustainable actions influence the likelihood of continued behavior. Intrinsically motivated actions are more likely to persist than extrinsically motivated ones (Ross, 2011; Thøgersen & Crompton, 2009). Therefore, if clothing anti-consumption is driven by intrinsic well-being motivation, it may be more enduring over time than actions spurred by status or financial incentives. Investigating the long-term continuation of this effect would be a valuable direction for future research.

Another limitation, although addressed in Study 2 of Essay 3, pertains to the control condition in Study 1 of Essay 3. Specifically, in Study 1, the intention to acquire clothing was stronger across all three study conditions compared to the control condition, while in Study 2, no significant difference was observed. A plausible explanation for this discrepancy is related to repeated exposure: The intervention in Study 1 was likely more effective due to its longer duration and the active and repeated processing of the new information. Additionally, in Study 1, consumption reduction was not promoted in the control condition, whereas in Study 2, it was encouraged in all conditions, with only the supporting arguments differing.

Another potential explanation relates to the emphasis on finances in the control condition of Study 1. Specifically, it is possible that acquisition intentions were not reduced in the study groups but increased in the control group due to money priming, which may have heightened participants' selfishness (Stajkovic et al., 2022). Future research could test similar stimuli to those used in Study 1, albeit with a more neutral control stimulus. In addition, the results of Study 1 might have also been influenced by the social nature of the game. Although pedagogically justified, this may have blurred the distinctions between study groups. The group-based activity could also

have led to socially desirable responses that do not necessarily reflect individuals' true perceptions. Therefore, it would be beneficial for future studies to replicate the first experiment using individual games.

Both qualitative and quantitative approaches could be used to explore the extrinsic and intrinsic nature of the motivations triggered by different appeals. Future quantitative research should explicitly measure these motivational types, while qualitative studies could provide deeper insight into how individuals perceive and interpret the motivations behind their behavior. In addition, future experiments would benefit from investigating how the participants understand the well-being effects of consumption reduction and the well-being concept in general. The connotations of, and emotions evoked by, appeals leveraging the subjective well-being motivation should be further explored with qualitative methods.

Regarding the generalizability of the results, although this thesis focused on addressing the issue of over-consumption within the clothing industry, clothing consumption serves as a prominent example of broader material consumption challenges. Future research could extend the concept of sustainable anti-consumption—encompassing anti-acquisition, pro-usage, and anti-disposal—to other consumption areas to refine the concept.

For example, Fischer et al. (2021) noted that the housing and information technology domains are under-explored, making them promising contexts for sustainability research. Electronics, in particular, would be an intriguing field for studying the anti-consumption-well-being relationship due to the prevalence of psychological obsolescence in that context (Islam et al., 2021; Pasdiora et al., 2025). Additionally, despite using samples representative of the Finnish population, the findings may not be applicable to other countries. Prior studies have shown that the factors driving sustainable fashion purchases vary across cultures (Khan et al., 2024). Future studies should test the current findings in a cross-cultural setting.

Another limitation that offers an opportunity for future research is that this thesis focused on adult consumers. Considering the future, an interesting target group for future studies could be youths and children because they are still adopting consumer behavior patterns and exploring their self-identities through clothing (Joy et al., 2012). The relationship between anti-consumption and well-being, as well as the effectiveness of self-benefit versus other-benefit appeals, might also vary depending on product type. For instance, Zhao et al. (2024) found that intrinsic self-benefit appeals were effective with virtuous products (organic oats), while other-benefit appeals worked better with vice products (organic ice cream). Future research applying that logic to the clothing context could compare the impact of different

appeals on the willingness to buy different types of clothing, such as party tops versus outdoor apparel.

Finally, although this thesis approached the research problem from the perspective of the individual consumer, consumer behavior is shaped by and shapes social and cultural contexts and the consumer culture (Arnould & Thompson, 2005). Therefore, the findings of this thesis could be meaningfully complemented by interpretative methods—particularly practice theory approaches—to gain a deeper understanding of the proposed vicious cycle of constant acquisition and disposal. What are the everyday practices that sustain this cycle, and what social meanings and power dynamics are embedded within them?

Furthermore, while increased subjective well-being shows promise as a motivator for reducing consumption, especially with repeated exposure, it is essential to acknowledge that the issue of overconsumption cannot be resolved solely by educating consumers. Because excess consumption is the prevailing norm from which it is difficult for individuals to deviate (Boström, 2020; Ghorban Nejad et al., 2024), achieving sustainability requires normative and systemic changes supported by effective policies. Future research should explore policies such as limiting the number of collection launches, restricting fashion advertising, implementing steering taxes on ultra- and fast-fashion products, and reducing VAT for repair services.

## References

Acar, S., Tadik, H., Myers, D., Van Der Sman, C., & Uysal, R. (2021). Creativity and Well-being: A Meta-analysis. *The Journal of Creative Behavior*, *55*(3), 738–751. https://doi.org/10.1002/jocb.485

Adam, M., Strähle, J., & Freise, M. (2018). *Dynamic Capabilities of Early-Stage Firms: Exploring the Business of Renting Fashion*. *28*(2).

Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behavior. In J. Kuhl & J. Beckmann (Eds.), *Action Control* (pp. 11–39). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-69746-3_2

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211. https://doi.org/10.1016/0749-5978(91)90020-T

Albinsson, P. A., & Perera, B. Y. (Eds.). (2018). *The Rise of the Sharing Economy: Exploring the Challenges and Opportunities of Collaborative Consumption* (1st ed.). ABC-CLIO, LLC. https://doi.org/10.5040/9798216009252

Alessi, E. J., & Martin, J. I. (2010). Conducting an Internet-based Survey: Benefits, Pitfalls, and Lessons Learned. *Social Work Research*, *34*(2), 122–128. JSTOR.

Amasawa, E., Brydges, T., Henninger, C. E., & Kimita, K. (2023). Can Rental Platforms Contribute to More Sustainable Fashion Consumption? Evidence from a Mixed-Method Study. *Cleaner and Responsible Consumption*, *8*, 100103. https://doi.org/10.1016/j.clrc.2023.100103

Amos, C., Spears, N., & Pentina, I. (2016). Rhetorical Analysis of Resistance to Environmentalism As Enactment of Morality Play between Social and Ecological Well-Being. *Journal of Consumer Affairs*, *50*(1), 224–259. https://doi.org/10.1111/joca.12081

Anderson, P. F. (1986). On Method in Consumer Research: A Critical Relativist Perspective. *Journal of Consumer Research*, *13*(2), 155. https://doi.org/10.1086/209058

Antinyan, A., & Corazzini, L. (2025). Breaking the bag habit: Testing interventions to reduce plastic bag demand. *Ecological Economics*, *228*, 108454. https://doi.org/10.1016/j.ecolecon.2024.108454

Apeagyei, P. R. (2008). Significance of body image among UK female fashion consumers: The cult of size zero, the skinny trend. *International Journal of Fashion Design, Technology and Education*, *1*(1), 3–11. https://doi.org/10.1080/17543260701867697

Argo, J. J., & Dahl, D. W. (2018). Standards of Beauty: The Impact of Mannequins in the Retail Context. *Journal of Consumer Research*, *44*(5), 974–990. https://doi.org/10.1093/jcr/ucx072

Armstrong, C. M. J., & Lang, C. (2018). The Clothing Style Confidence Mindset in a Circular Economy. In K. Niinimäki (Ed.), *Sustainable Fashion in a Circular Economy* (pp. 42–63). Aalto ARTS Books.

Armstrong, C. M., Niinimäki, K., Kujala, S., Karell, E., & Lang, C. (2015). Sustainable Product-Service Systems for Clothing: Exploring Consumer Perceptions of Consumption Alternatives in Finland. *Journal of Cleaner Production*, *97*, 30–39. https://doi.org/10.1016/j.jclepro.2014.01.046

Armstrong, C. M., Niinimäki, K., Lang, C., & Kujala, S. (2016). A Use-Oriented Clothing Economy? Preliminary Affirmation for Sustainable Clothing Consumption Alternatives: A Use-Oriented Clothing Economy? *Sustainable Development*, *24*(1), 18–31. https://doi.org/10.1002/sd.1602

Armstrong Soule, C. A., & Sekhon, T. S. (2022). Signaling Nothing: Motivating the Masses with Status Signals That Encourage Anti-Consumption. *Journal of Macromarketing*, *42*(2), 308–325. https://doi.org/10.1177/02761467221093228

Arnould, E. J., Price, L. L., & Zinkhan, G. M. (2004). *Consumers* (2. ed., internat. ed). McGraw-Hill/Irwin.

Arnould, E. J., & Thompson, C. J. (2005). Consumer Culture Theory (CCT): Twenty Years of Research. *Journal of Consumer Research*, *31*(4), 868–882. https://doi.org/10.1086/426626

Atik, D., & Ozdamar Ertekin, Z. (2023). The Restless Desire for the New Versus Sustainability: The Pressing Need for Social Marketing in Fashion Industry. *Journal of Social Marketing*, *13*(1), 1–19. https://doi.org/10.1108/JSOCM-02-2022-0036

Aviste, R. P., & Niemiec, C. P. (2023). Antecedents of Environmental Values and Pro-Environmental Behavior Intentions: A Self-Determination Theory Approach. *Journal of Environmental Psychology*, *88*, 102023. https://doi.org/10.1016/j.jenvp.2023.102023

Aydin, N. (2010). Subjective Well-Being and Sustainable Consumption. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.1633620

Azarova, V., Cohen, J. J., Kollmann, A., & Reichl, J. (2020). Reducing household electricity consumption during evening peak demand times: Evidence from a field experiment. *Energy Policy*, *144*, 111657. https://doi.org/10.1016/j.enpol.2020.111657

Bagozzi, R. P., Gurhan-Canli, Z., & Priester, J. R. (2002). *The social psychology of consumer behaviour*. Open University Press.

Bagozzi, R. P., & Yi, Y. (1988). On the Evaluation of Structural Equation Models. *Journal of the Academy of Marketing Science*, *16*(1), 74–94. https://doi.org/10.1007/BF02723327

Balderjahn, I., Buerke, A., Kirchgeorg, M., Peyer, M., Seegebarth, B., & Wiedmann, K.-P. (2013). Consciousness for Sustainable Consumption: Scale Development and New

Insights in the Economic Dimension of Consumers' Sustainability. *AMS Review*, *3*(4), 181–192. https://doi.org/10.1007/s13162-013-0057-6

Balderjahn, I., Hoffmann, S., & Hüttel, A. (2023). How Empowerment and Materialism Contribute to Anti-Consumers' Well-Being. *European Journal of Marketing*, *57*(4), 1186–1218. https://doi.org/10.1108/EJM-04-2020-0284

Balderjahn, I., Lee, M. S. W., Seegebarth, B., & Peyer, M. (2020). A Sustainable Pathway to Consumer Wellbeing. The Role of Anticonsumption and Consumer Empowerment. *Journal of Consumer Affairs*, *54*(2), 456–488. https://doi.org/10.1111/joca.12278

Bardey, A., Booth, M., Heger, G., & Larsson, J. (2022). Finding yourself in your wardrobe: An exploratory study of lived experiences with a capsule wardrobe. *International Journal of Market Research*, *64*(1), 113–131. https://doi.org/10.1177/1470785321993743

Baron, R. M., & Kenny, D. A. (1986). The Moderator–Mediator Variable Distinction in Social Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182. https://doi.org/10.1037/0022-3514.51.6.1173

Barrientos, S., & Pallangyo, C. (2018). *Gender* (Global Value Chain Policy Series). World Economic Forum.

Bastos Rudolph, L. T., Bassi Suter, M., & Barakat, S. R. (2023). The Emergence of a New Business Approach in the Fashion and Apparel Industry: The Ethical Retailer. *Journal of Macromarketing*, *43*(3), 367–383. https://doi.org/10.1177/02761467231180456

Becerra, E. P., Carrete, L., & Arroyo, P. (2023). A Study of the Antecedents and Effects of Green Self-Identity on Green Behavioral Intentions of Young Adults. *Journal of Business Research*, *155*, 113380. https://doi.org/10.1016/j.jbusres.2022.113380

Becker-Leifhold, C., & Iran, S. (2018). Collaborative Fashion Consumption – Drivers, Barriers and Future Pathways. *Journal of Fashion Marketing and Management: An International Journal*, *22*(2), 189–208. https://doi.org/10.1108/JFMM-10-2017-0109

Belk, R. W. (1988). Possessions and the Extended Self. *Journal of Consumer Research*, *15*(2), 139–168. https://doi.org/10.1086/209154

Berberyan, Z., Jastram, S. M., & Friedman, B. A. (2021). Berberyan, Z., Jastram, S.M., Friedman, B.A., 2018. Drivers and obstacles of ethical fashion consumption. In C. Becker-Leifhold & M. Heuer (Eds.), *Eco-friendly and fair: Fast fashion and consumer behaviour* (pp. 36–48). Routledge.

Betts, K. R., Aikin, K. J., Kelly, B. J., Johnson, M., Parvanta, S., Southwell, B. G., Mack, N., Tzeng, J., & Cameron, L. (2019). Taking Repeated Exposure into Account: An Experimental Study of Direct-To-Consumer Prescription Drug Television Ad Effects. *Journal of Health Communication*, *24*(5), 503–511. https://doi.org/10.1080/10810730.2019.1609139

Bhatt, D., Silverman, J., & Dickson, M. A. (2019). Consumer Interest in Upcycling Techniques and Purchasing Upcycled Clothing as an Approach to Reducing Textile Waste. *International Journal of Fashion Design, Technology and Education*, *12*(1), 118–128. https://doi.org/10.1080/17543266.2018.1534001

Bickman, L. (1972). Environmental Attitudes and Actions. *The Journal of Social Psychology*, *87*(2), 323–324. https://doi.org/10.1080/00224545.1972.9922533

Birch, D., Memery, J., & De Silva Kanakaratne, M. (2018). The mindful consumer: Balancing egoistic and altruistic motivations to purchase local food. *Journal of Retailing and Consumer Services*, *40*, 221–228. https://doi.org/10.1016/j.jretconser.2017.10.013

Birkenbach, M., & Egloff, B. (2024). Effects of matching climate change appeals to personal values. *Scientific Reports*, *14*(1), 6128. https://doi.org/10.1038/s41598-024-56631-z

Black, I. R., & Cherrier, H. (2010). Anti-Consumption as Part of Living a Sustainable Lifestyle: Daily Practices, Contextual Motivations and Subjective Values. *Journal of Consumer Behaviour*, *9*(6), 437–453. https://doi.org/10.1002/cb.337

Bly, S., Gwozdz, W., & Reisch, L. A. (2015). Exit from the High Street: An Exploratory Study of Sustainable Fashion Consumption Pioneers. *International Journal of Consumer Studies*, *39*(2), 125–135. https://doi.org/10.1111/ijcs.12159

Bolderdijk, J. W., & Steg, L. (2015). Promoting sustainable consumption: The risks of using financial incentives. In L. A. Reisch & J. Thøgersen (Eds.), *Handbook of Research on Sustainable Consumption*. Edward Elgar Publishing. https://doi.org/10.4337/9781783471270.00033

Bolderdijk, J. W., Steg, L., Geller, E. S., Lehman, P. K., & Postmes, T. (2013). Comparing the Effectiveness of Monetary Versus Moral Motives in Environmental Campaigning. *Nature Climate Change*, *3*(4), 413–416. https://doi.org/10.1038/nclimate1767

Bonett, D. G., & Wright, T. A. (2015). Cronbach's alpha reliability: Interval estimation, hypothesis testing, and sample size planning. *Journal of Organizational Behavior*, *36*(1), 3–15. https://doi.org/10.1002/job.1960

Boström, M. (2020). The social life of mass and excess consumption. *Environmental Sociology*, *6*(3), 268–278. https://doi.org/10.1080/23251042.2020.1755001

Bray, J. (2008). *Consumer behaviour theory approaches and models*. https://eprints.bournemouth.ac.uk/10107/1/Consumer_Behaviour_Theory_-_Approaches_&_Models.pdf

Brown, P. M., & Cameron, L. D. (2000). What Can Be Done to Reduce Overconsumption? *Ecological Economics*, *32*(1), 27–41. https://doi.org/10.1016/S0921-8009(99)00093-2

Brownbridge, K., Gill, S., Grogan, S., Kilgariff, S., & Whalley, A. (2018). Fashion misfit: Women's dissatisfaction and its implications. *Journal of Fashion Marketing and*

*Management: An International Journal*, *22*(3), 438–452. https://doi.org/10.1108/JFMM-05-2017-0050

Bruderer Enzler, H., Diekmann, A., & Liebe, U. (2019). Do Environmental Concern and Future Orientation Predict Metered Household Electricity Use? *Journal of Environmental Psychology*, *62*, 22–29. https://doi.org/10.1016/j.jenvp.2019.02.004

Burns, B. (2016). Re-evaluating Obsolescence and Planning for It. In T. Cooper (Ed.), *Longer lasting products: Alternatives to the throwaway society* (pp. 65–86). Routledge. https://doi.org/10.4324/9781315592930

Burroughs, J. E., Chaplin, L. N., Pandelaere, M., Norton, M. I., Ordabayeva, N., Gunz, A., & Dinauer, L. (2013). Using Motivation Theory to Develop a Transformative Consumer Research Agenda for Reducing Materialism in Society. *Journal of Public Policy & Marketing*, *32*(1), 18–31. https://doi.org/10.1509/jppm.10.046

Busseri, M. A. (2024). Evaluating the Structure of Subjective Well-Being: Evidence From Three Large-Scale, Long-Term, National Longitudinal Studies. *Personality and Social Psychology Bulletin*, 01461672241233433. https://doi.org/10.1177/01461672241233433

Campos, P. D. O., Lima, A. A. L. D. S., Costa, C. S. R., & Costa, M. F. D. (2023). The Influence of Voluntary Simplicity and Environmental Activism on Sustainable Fashion Purchase Intention. *Journal of Fashion Marketing and Management: An International Journal*, *27*(2), 352–369. https://doi.org/10.1108/JFMM-10-2021-0254

Canabal, A., & White, G. O. (2008). Entry mode research: Past and future. *International Business Review*, *17*(3), 267–284. https://doi.org/10.1016/j.ibusrev.2008.01.003

Cao, H., Chang, R., Kallal, J., Manalo, G., McCord, J., Shaw, J., & Starner, H. (2014). Adaptable Apparel: A Sustainable Design Solution for Excess Apparel Consumption Problem. *Journal of Fashion Marketing and Management*, *18*(1), 52–69. https://doi.org/10.1108/JFMM-08-2012-0046

Carey, L., & Cervellon, M.-C. (2014). Ethical fashion dimensions: Pictorial and auditory depictions through three cultural perspectives. *Journal of Fashion Marketing and Management*, *18*(4), 483–506. https://doi.org/10.1108/JFMM-11-2012-0067

Cash, T., Fleming, E., Alindogan, J., Steadman, L., & Whitehead, A. (2002). Beyond Body Image as a Trait: The Development and Validation of the Body Image States Scale. *Eating Disorders*, *10*(2), 103–113. https://doi.org/10.1080/10640260290081678

Centola, D., & Macy, M. (2007). Complex Contagions and the Weakness of Long Ties. *American Journal of Sociology*, *113*(3), 702–734. https://doi.org/10.1086/521848

Chamberlin, L., & Callmer, Å. (2021). Spark Joy and Slow Consumption: An Empirical Study of the Impact of the KonMari Method on Acquisition and Wellbeing. *Journal of Sustainability Research*, *3*(1). https://doi.org/10.20900/jsr20210007

Chen, M., Chen, Y., Qi, R., Hsiao, J. H., Lam, W. W. T., & Liao, Q. (2024). Testing the effects of health-benefit, environmental-benefit and co-benefit priming for promoting sustainable food choice and their psychological mechanisms: A randomized controlled trial combined with eye tracking. *Journal of Environmental Psychology*, *100*, 102485. https://doi.org/10.1016/j.jenvp.2024.102485

Cheung, G. W., & Lau, R. S. (2008). Testing Mediation and Suppression Effects of Latent Variables: Bootstrapping With Structural Equation Models. *Organizational Research Methods*, *11*(2), 296–325. https://doi.org/10.1177/1094428107300343

Chhabra, S., Sindhi, S., & Nandy, M. (2022). Factors Affecting the Adoption of Slow Fashion – An Exploratory Study of Multiple Stakeholders. *Journal of Macromarketing*, *42*(4), 492–509. https://doi.org/10.1177/02761467221116294

Cho, E., Gupta, S., & Kim, Y. (2015). Style Consumption: Its Drivers and Role in Sustainable Apparel Consumption. *International Journal of Consumer Studies*, *39*(6), 661–669. https://doi.org/10.1111/ijcs.12185

Clark, H. (2008). SLOW + FASHION—an Oxymoron—Or a Promise for the Future …? *Fashion Theory*, *12*(4), 427–446. https://doi.org/10.2752/175174108X346922

Claudy, M., & Peterson, M. (2022). Sustainability: Understanding consumer behavior in a circular economy. In L. R. Kahle, T. M. Lowrey, & J. Huber, *APA handbook of consumer psychology.* (pp. 373–392). American Psychological Association. https://doi.org/10.1037/0000262-015

Collins, R. (2024). When TikTok's underconsumption trend meets festive excess. *BBC*. https://www.bbc.com/news/articles/cx2p784ppzqo

Comfort, S. E., & Park, Y. E. (2018). On the Field of Environmental Communication: A Systematic Review of the Peer-Reviewed Literature. *Environmental Communication*, *12*(7), 862–875. https://doi.org/10.1080/17524032.2018.1514315

Coscieme, L., Latva-Hakuni, E., Niinimäki, K., Henninger, C. E., Iran, S., Akenji, L., Vladimirova, K., Nielsen, K. S., Joyner Armstrong, C. M., & D'Itria, E. (2022). *Unfit, Unfair, Unfashionable: Resizing Fashion for a Fair Consumption Space*. The Hot or Cool Institute.
https://policycommons.net/artifacts/3441270/hot_or_cool_1_5_fashion_report/4241241/ on 23 Feb 2024

Costa Pinto, D., Maurer Herter, M., Rossi, P., Meucci Nique, W., & Borges, A. (2019). Recycling Cooperation and Buying Status: Effects of Pure and Competitive Altruism on Sustainable Behaviors. *European Journal of Marketing*, *53*(5), 944–971. https://doi.org/10.1108/EJM-09-2017-0557

Craig-Lees, M., & Hill, C. (2002). Understanding Voluntary Simplifiers. *Psychology & Marketing*, *19*(2), 187–210. https://doi.org/10.1002/mar.10009

Creswell, J., & Plano Clark, V. (Eds.). (2017). *Designing and Conducting Mixed Methods Research* (3, ed.). SAGE Publications, Inc.

Dabić, M., Vlačić, B., Paul, J., Dana, L.-P., Sahasranamam, S., & Glinka, B. (2020). Immigrant entrepreneurship: A review and research agenda. *Journal of Business Research*, *113*, 25–38. https://doi.org/10.1016/j.jbusres.2020.03.013

Dalhammar, C., Richter, J., Almén, J., Anehagen, M., Enström, E., Hartman, C., Jonsson, C., Lindbladh, F., & Ohlsson, J. (2020). *Promoting the Repair Sector in Sweden.*

Dao, J. F., & Joyner Martinez, C. M. (2024). Defining sustainable clothing use: A taxonomy for future research. *International Journal of Consumer Studies*, *48*(2), e13033. https://doi.org/10.1111/ijcs.13033

Daukantienė, V. (2023). Analysis of the sustainability aspects of fashion: A literature review. *Textile Research Journal*, *93*(3–4), 991–1002. https://doi.org/10.1177/00405175221124971

De Ponte, C., Liscio, M. C., & Sospiro, P. (2023). State of the art on the Nexus between sustainability, fashion industry and sustainable business model. *Sustainable Chemistry and Pharmacy*, *32*, 100968. https://doi.org/10.1016/j.scp.2023.100968

Deci, E. L. (1976). Notes on the Theory and Metatheory of Intrinsic Motivation. *Organizational Behavior and Human Performance*, *15*(1), 130–145. https://doi.org/10.1016/0030-5073(76)90033-7

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior*. Springer US. https://doi.org/10.1007/978-1-4899-2271-7

Deci, E. L., & Ryan, R. M. (2000). The 'What' and 'Why' of Goal Pursuits: Human Needs and the Self-Determination of Behavior. *Psychological Inquiry*, *11*(4), 227–268. https://doi.org/10.1207/S15327965PLI1104_01

Dethier, F., De Hoe, R., Muylaert, C., Roman, P., Ruwet, C., Thiry, G., & Maréchal, K. (2025). A cross-sector analysis of consumer intention towards sustainable product-service systems: Evidence from mobility, clothing and tooling. *Journal of Cleaner Production*, *486*, 144369. https://doi.org/10.1016/j.jclepro.2024.144369

Diddi, S., & Yan, R.-N. (2019). Consumer Perceptions Related to Clothing Repair and Community Mending Events: A Circular Economy Perspective. *Sustainability*, *11*(19), 5306. https://doi.org/10.3390/su11195306

Diddi, S., Yan, R.-N., Bloodhart, B., Bajtelsmit, V., & McShane, K. (2019). Exploring Young Adult Consumers' Sustainable Clothing Consumption Intention-Behavior Gap: A Behavioral Reasoning Theory Perspective. *Sustainable Production and Consumption*, *18*, 200–209. https://doi.org/10.1016/j.spc.2019.02.009

Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment*, *49*(1), 71–75. https://doi.org/10.1207/s15327752jpa4901_13

Diener, E., Lucas, R. E., & Scollon, C. N. (2009). Beyond the Hedonic Treadmill: Revising the Adaptation Theory of Well-Being. In *The science of well-being*. Springer.

Diener, E., Ng, W., Harter, J., & Arora, R. (2010). Wealth and happiness across the world: Material prosperity predicts life evaluation, whereas psychosocial prosperity predicts positive feeling. *Journal of Personality and Social Psychology*, *99*(1), 52–61. https://doi.org/10.1037/a0018066

Diener, E., Oishi, S., & Tay, L. (2018). Advances in subjective well-being research. *Nature Human Behaviour*, *2*(4), 253–260. https://doi.org/10.1038/s41562-018-0307-6

Dissanayake, K., & Pal, R. (2023). Sustainability Dichotomies of Used Clothes Supply Chains: A Critical Review of Key Concerns and Strategic Resources. *The International Journal of Logistics Management*, *34*(7), 75–97. https://doi.org/10.1108/IJLM-10-2022-0410

Dittmar, H. (2011). Understanding the Impact of Consumer Culture. In H. Dittmar & E. Halliwell (Eds.), *Consumer culture, identity and well-being: The search for the 'good life' and the 'body perfect'* (pp. 1–23). Psychology Press.

Dittmar, H., & Halliwell, E. (2011). Think 'Ideal' and Feel Bad? Using Self-Discrepancies to Understand Negative Media Effects. In H. Dittmar & E. Halliwell (Eds.), *Consumer culture, identity and well-being: The search for the 'good life' and the 'body perfect'* (pp. 147–172). Psychology Press.

Drisko, J. W., & Maschi, T. (2016). *Content analysis*. Oxford University Press.

Durrani, M. (2018). "People Gather for Stranger Things, So Why Not This?" Learning Sustainable Sensibilities through Communal Garment-Mending Practices. *Sustainability*, *10*(7), 2218. https://doi.org/10.3390/su10072218

Eckhardt, G. M., Belk, R., & Devinney, T. M. (2010). Why Don't Consumers Consume Ethically? *Journal of Consumer Behaviour*, *9*(6), 426–436. https://doi.org/10.1002/cb.332

Edinger-Schons, L. M., Sipilä, J., Sen, S., Mende, G., & Wieseke, J. (2018). Are Two Reasons Better Than One? The Role of Appeal Type in Consumer Responses to Sustainable Products. *Journal of Consumer Psychology*, *28*(4), 644–664. https://doi.org/10.1002/jcpy.1032

Eike, R. J., Burton, M., Hustvedt, G., & Cho, S. (2022). The "Joy of Letting Go": Decluttering and Apparel. *Fashion Practice*, *14*(2), 225–241. https://doi.org/10.1080/17569370.2021.1987654

Eladwi, M. M. T., & Kotb, R. M. (2015). Minimalism as a concept for textile finishing and fashion design. *International Journal of Textile and Fashion Technology*, *5*(4), 1–14.

ElHaffar, G., Durif, F., & Dubé, L. (2020). Towards closing the attitude-intention-behavior gap in green consumption: A narrative review of the literature and an overview of future research directions. *Journal of Cleaner Production*, *275*, 122556. https://doi.org/10.1016/j.jclepro.2020.122556

Elhajjar, S., & Itani, O. S. (2025). Examining the impact of social media de-influencing on audiences. *Internet Research*. https://doi.org/10.1108/INTR-04-2024-0574

Ellen MacArthur Foundation. (2017). *A New Textiles Economy Redesigning Fashion's Future*. Ellen MacArthur Foundation. https://www.ellenmacarthurfoundation.org/a-new-textiles-economy

Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, *62*(1), 107–115. https://doi.org/10.1111/j.1365-2648.2007.04569.x

Feiler, D. C., Tost, L. P., & Grant, A. M. (2012). Mixed Reasons, Missed Givings: The Costs of Blending Egoistic and Altruistic Reasons in Donation Requests. *Journal of Experimental Social Psychology*, *48*(6), 1322–1328. https://doi.org/10.1016/j.jesp.2012.05.014

Festinger, L. (1954). A Theory of Social Comparison Processes. *Human Relations*, *7*(2), 117–140. https://doi.org/10.1177/001872675400700202

Finger, M. (1994). From Knowledge to Action? Exploring the Relationships Between Environmental Experiences, Learning, and Behavior. *Journal of Social Issues*, *50*(3), 141–160. https://doi.org/10.1111/j.1540-4560.1994.tb02424.x

Fink, A. (2020). *Conducting research literature reviews: From the internet to paper* (Fifth edition). SAGE.

Finne, M., Nissinen, K., Nygård, S., Hietaranta-Luoma, H.-L., Karhu, H., & Peltoniemi, A. (2012). *Eteläpohjalaisten Elintavat Ja Terveyskäyttäytyminen Tervas – Terveelliset Valinnat Ja Räätälöidyt Syömisen Ja Liikkumisen Mallit 2009 – 2011*. Seinäjoki University of Applied Sciences.

Fischer, D., Reinermann, J.-L., Guillen Mandujano, G., DesRoches, C. T., Diddi, S., & Vergragt, P. J. (2021). Sustainable Consumption Communication: A Review of an Emerging Field of Research. *Journal of Cleaner Production*, *300*, 126880. https://doi.org/10.1016/j.jclepro.2021.126880

Fischer, H. R. (2001). Abductive Reasoning as a Way of Worldmaking. *Foundations of Science*, *6*(4), 361–383. https://doi.org/10.1023/A:1011671106610

Fletcher, K. (2007). The Green Pages-Slow Fashion-It's Quality Not Quantity That Counts, Says Eco Textile Designer Kate Fletcher. *Ecologist*, *37*(5), 71–71.

Fletcher, K. (2010). Slow Fashion: An Invitation for Systems Change. *Fashion Practice*, *2*(2), 259–265. https://doi.org/10.2752/175693810X12774625387594

Fletcher, K. (2016). *Craft of use: Post-growth fashion*. Routledge, Taylor & Francis Group.

Fletcher, K., Grose, L., & Hawken, P. (2012). *Fashion & sustainability: Design for change*. L. King.

Folkes, V. S. (1988). Recent Attribution Research in Consumer Behavior: A Review and New Directions. *Journal of Consumer Research*, *14*(4), 548. https://doi.org/10.1086/209135

Forgeard, M. J. C., Jayawickreme, E., Kern, M. L., & Seligman, M. E. P. (2011). Doing the Right Thing: Measuring Well-Being for Public Policy. *International Journal of Wellbeing*, *1*(1). https://doi.org/10.5502/ijw.v1i1.15

Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, *18*(1), 39. https://doi.org/10.2307/3151312

Fowler, F. J. (2014). *Survey research methods* (5. ed). SAGE.

Freudenreich, B., & Schaltegger, S. (2020). Developing Sufficiency-Oriented Offerings for Clothing Users: Business Approaches to Support Consumption Reduction. *Journal of Cleaner Production*, *247*, 119589. https://doi.org/10.1016/j.jclepro.2019.119589

Garcia-Ortega, B., Galan-Cubillo, J., Llorens-Montes, F. J., & de-Miguel-Molina, B. (2023). Sufficient consumption as a missing link toward sustainability: The case of fast fashion. *Journal of Cleaner Production*, *399*, 136678. https://doi.org/10.1016/j.jclepro.2023.136678

Garcia-Ortega, B., Galan-Cubillo, J., Morozova, D., & Llorens-Montes, F. J. (2025). Decoding business strategies toward sufficient consumption in the fashion industry. *Journal of Fashion Marketing and Management: An International Journal*. https://doi.org/10.1108/JFMM-04-2024-0132

Garima, Sangroya, D., & Joshi, Y. (2025). Anti-Consumption Research: A Systematic Literature Review and Research Agenda. *International Journal of Consumer Studies*, *49*(1), e70014. https://doi.org/10.1111/ijcs.70014

Geiger, S. M., & Keller, J. (2018). Shopping for Clothes and Sensitivity to the Suffering of Others: The Role of Compassion and Values in Sustainable Fashion Consumption. *Environment and Behavior*, *50*(10), 1119–1144. https://doi.org/10.1177/0013916517732109

Geissdoerfer, M., Pieroni, M. P. P., Pigosso, D. C. A., & Soufani, K. (2020). Circular business models: A review. *Journal of Cleaner Production*, *277*, 123741. https://doi.org/10.1016/j.jclepro.2020.123741

Geller, E. S. (1981). Evaluating Energy Conservation Programs: Is Verbal Report Enough? *Journal of Consumer Research*, *8*(3), 331–335.

Geller, E. S., Erickson, J. B., & Buttram, B. A. (1983). Attempts to promote residential water conservation with educational, behavioral and engineering strategies. *Population and Environment*, *6*(2), 96–112. https://doi.org/10.1007/BF01362290

Gerber, J. P., Wheeler, L., & Suls, J. (2018). A social comparison theory meta-analysis 60+ years on. *Psychological Bulletin*, *144*(2), 177–197. https://doi.org/10.1037/bul0000127

Ghorban Nejad, S., Skeiseid, H. V., & Våland, T. I. (2024). Individual-level consumption reduction: Literature review and research propositions. *Journal of Cleaner Production*, *471*, 143420. https://doi.org/10.1016/j.jclepro.2024.143420

Gilal, F. G., Zhang, J., Paul, J., & Gilal, N. G. (2019). The role of self-determination theory in marketing science: An integrative review and agenda for research. *European Management Journal*, *37*(1), 29–44. https://doi.org/10.1016/j.emj.2018.10.004

Gleim, M. R., Smith, J. S., Andrews, D., & Cronin, J. J. (2013). Against the Green: A Multi-method Examination of the Barriers to Green Consumption. *Journal of Retailing*, *89*(1), 44–61. https://doi.org/10.1016/j.jretai.2012.10.001

Global Footprint Network. (2025). Earth Overshoot Day. https://overshoot.footprintnetwork.org/

Golafshani, N. (2003). Understanding Reliability and Validity in Qualitative Research. *The Qualitative Report*, *8*(4), 597–606. https://doi.org/10.46743/2160-3715/2003.1870

Google Trends. (2025). *Underconsumption*. https://trends.google.com/trends/explore?date=all&geo=US&q=underconsumption&hl=en

Gossen, M., & Heinrich, A. (2021). Encouraging Consumption Reduction: Findings of a Qualitative Study with Clothing Companies on Sufficiency-Promoting Communication. *Cleaner and Responsible Consumption*, *3*, 100028. https://doi.org/10.1016/j.clrc.2021.100028

Gossen, M., & Kropfeld, M. I. (2022). "Choose nature. Buy less." Exploring sufficiency-oriented marketing and consumption practices in the outdoor industry. *Sustainable Production and Consumption*, *30*, 720–736. https://doi.org/10.1016/j.spc.2022.01.005

Gossen, M., Ziesemer, F., & Schrader, U. (2019). Why and How Commercial Marketing Should Promote Sufficient Consumption: A Systematic Literature Review. *Journal of Macromarketing*, *39*(3), 252–269. https://doi.org/10.1177/0276146719866238

Grappi, S., Bergianti, F., Gabrielli, V., & Baghi, I. (2024). The effect of message framing on young adult consumers' sustainable fashion consumption: The role of anticipated emotions and perceived ethicality. *Journal of Business Research*, *170*, 114341. https://doi.org/10.1016/j.jbusres.2023.114341

Grapsas, S., Becht, A. I., & Thomaes, S. (2023). Self-Focused Value Profiles Relate to Climate Change Skepticism in Young Adolescents. *Journal of Environmental Psychology*, *87*, 101978. https://doi.org/10.1016/j.jenvp.2023.101978

Green, T., & Peloza, J. (2014). Finding the Right Shade of Green: The Effect of Advertising Appeal Type on Environmentally Friendly Consumption. *Journal of Advertising*, *43*(2), 128–141. https://doi.org/10.1080/00913367.2013.834805

Greene, S. B. (2011). *Body image: Perceptions, interpretations and attitudes*. Nova Science Publishers.

Griskevicius, V., Cantú, S. M., & Van Vugt, M. (2012). The Evolutionary Bases for Sustainable Behavior: Implications for Marketing, Policy, and Social Entrepreneurship. *Journal of Public Policy & Marketing*, *31*(1), 115–128. https://doi.org/10.1509/jppm.11.040

Griskevicius, V., Tybur, J. M., & Van Den Bergh, B. (2010). Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation. *Journal of Personality and Social Psychology*, *98*(3), 392–404. https://doi.org/10.1037/a0017346

Groves, R. M., Fowler, F. J., Couper, M., Lepkowski, J. M., Singer, E., & Tourangeau, R. (2011). *Survey Methodology* (2nd ed (Online-Ausg.)). Wiley.

Guba, E. G., & Lincoln, Y. S. (1994). Competing paradigms in qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 105–117). Sage Publications.

Guillard, V., Le Nagard, E., & De Campos Ribeiro, G. (2023). A Typology of Consumers Regarding Perceived Obsolescence: The Paradox of Eco-Conscious Consumers. *Journal of Cleaner Production*, *412*, 137202. https://doi.org/10.1016/j.jclepro.2023.137202

Güner, H. (2025). An analysis of relation between adaptive, egocentric and pathological forms of selfishness and two-factor environmental values model (2-MEV). *Journal of Cleaner Production*, *490*, 144727. https://doi.org/10.1016/j.jclepro.2025.144727

Gunzler, D., Chen, T., Wu, P., & Zhang, H. (2013). *Introduction to mediation analysis with structural equation modeling*. *25*(6).

Gupta, S., Gwozdz, W., & Gentry, J. (2019). The Role of Style Versus Fashion Orientation on Sustainable Apparel Consumption. *Journal of Macromarketing*, *39*(2), 188–207. https://doi.org/10.1177/0276146719835283

Gwozdz, W., Steensen Nielsen, K., Gupta, S., & Gentry, J. (2017). *The Relationship Between Fashion and Style Orientation and Well-Being.* (2017:5; Mistra Future Fashion Report). Mistra Future Fashion. https://research.cbs.dk/en/publications/the-relationship-between-fashion-and-style-orientation-and-well-b

Gwozdz, W., Steensen Nielsen, K., & Müller, T. (2017). An Environmental Perspective on Clothing Consumption: Consumer Segments and Their Behavioral Patterns. *Sustainability*, *9*(5), 762. https://doi.org/10.3390/su9050762

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2014). *Multivariate data analysis* (7. Auflage, Pearson new internat. ed). Pearson.

Halliwell, E. (2015). Future directions for positive body image research. *Body Image*, *14*, 177–189. https://doi.org/10.1016/j.bodyim.2015.03.003

Hao, A. W., Paul, J., Trott, S., Guo, C., & Wu, H.-H. (2019). Two decades of research on nation branding: A review and future research agenda. *International Marketing Review*, *38*(1), 46–69. https://doi.org/10.1108/IMR-01-2019-0028

Härri, A., Jarkko, L., & Lassi, L. (2024). Sufficiency-related Strategies and Activities of Small Finnish Clothing Companies. *Circular Economy and Sustainability*. https://doi.org/10.1007/s43615-024-00442-x

Harris, F., Roby, H., & Dibb, S. (2016). Sustainable Clothing: Challenges, Barriers and Interventions for Encouraging More Sustainable Consumer Behaviour. *International Journal of Consumer Studies*, *40*(3), 309–318. https://doi.org/10.1111/ijcs.12257

Hassan, L. M., Shiu, E., & Parry, S. (2016). Addressing the cross-country applicability of the theory of planned behaviour (TPB): A structured review of multi-country TPB studies. *Journal of Consumer Behaviour*, *15*(1), 72–86. https://doi.org/10.1002/cb.1536

Hellström, D., & Olsson, J. (2024). Let's go thrift shopping: Exploring circular business model innovation in fashion retail. *Technological Forecasting and Social Change*, *198*, 123000. https://doi.org/10.1016/j.techfore.2023.123000

Henninger, C. E., Alevizou, P. J., & Oates, C. J. (2016). What Is Sustainable Fashion? *Journal of Fashion Marketing and Management: An International Journal*, *20*(4), 400–416. https://doi.org/10.1108/JFMM-07-2015-0052

Henninger, C. E., Bürklin, N., & Niinimäki, K. (2019). The Clothes Swapping Phenomenon – When Consumers Become Suppliers. *Journal of Fashion Marketing and Management: An International Journal*, *23*(3), 327–344. https://doi.org/10.1108/JFMM-04-2018-0057

Herziger, A., Berkessel, J. B., & Steinnes, K. K. (2020). Wean Off Green: On the (in)effectiveness of Biospheric Appeals for Consumption Curtailment. *Journal of Environmental Psychology*, *69*, 101415. https://doi.org/10.1016/j.jenvp.2020.101415

Holt, D. B. (2014). Why the Sustainable Economy Movement Hasn't Scaled: Toward a Strategy That Empowers Main Street. In J. Schor & C. J. Thompson (Eds.), *Sustainable lifestyles and the quest for plenitude: Case studies of the new economy*. Yale University Press.

Hookway, N. (2008). `Entering the blogosphere': Some strategies for using blogs in social research. *Qualitative Research*, *8*(1), 91–113. https://doi.org/10.1177/1468794107085298

Howell, B. (2024). *The top 7 most polluting industries in 2024*. The Eco Experts. https://www.theecoexperts.co.uk/blog/top-7-most-polluting-industries

Hsee, C. K., Yang, Y., Li, N., & Shen, L. (2009). Wealth, Warmth, and Well-Being: Whether Happiness is Relative or Absolute Depends on Whether it is about Money, Acquisition, or Consumption. *Journal of Marketing Research*, *46*(3), 396–409. https://doi.org/10.1509/jmkr.46.3.396

Hudson, L. A., & Ozanne, J. L. (1988). Alternative Ways of Seeking Knowledge in Consumer Research. *The Journal of Consumer Research*, *14*(4), 508–521.

Hur, E. (2020). Rebirth fashion: Secondhand clothing consumption values and perceived risks. *Journal of Cleaner Production*, *273*, 122951. https://doi.org/10.1016/j.jclepro.2020.122951

Hurmerinta-Peltomäki, L., & Nummela, N. (2006). Mixed methods in international business research: A value-added perspective. *Management International Review*, *46*(4), 439–459. https://doi.org/10.1007/s11575-006-0100-z

Hüttel, A., Balderjahn, I., & Hoffmann, S. (2020). Welfare Beyond Consumption: The Benefits of Having Less. *Ecological Economics*, *176*, 106719. https://doi.org/10.1016/j.ecolecon.2020.106719

Inglehart, R. (1990). *Culture shift in advanced industrial society*. Princeton University Press.

Iran, S., & Geiger, S. (2018). Influences of values on the attitudes towards and the engagement in collaborative fashion consumption. In C. Becker-Leifhold & M. Heuer (Eds.), *Eco-Friendly and Fair: Fast Fashion and Consumer Behaviour* (pp. 153–162). Routledge, Taylor & Francis Group.

Iran, S., & Schrader, U. (2017). Collaborative fashion consumption and its environmental effects. *Journal of Fashion Marketing and Management: An International Journal*, *21*(4), 468–482. https://doi.org/10.1108/JFMM-09-2016-0086

Islam, M. T., Huda, N., Baumber, A., Shumon, R., Zaman, A., Ali, F., Hossain, R., & Sahajwalla, V. (2021). A global review of consumer behavior towards e-waste and implications for the circular economy. *Journal of Cleaner Production*, *316*, 128297. https://doi.org/10.1016/j.jclepro.2021.128297

Iyer, R., & Muncy, J. A. (2016). Attitude toward Consumption and Subjective Well-Being. *Journal of Consumer Affairs*, *50*(1), 48–67. https://doi.org/10.1111/joca.12079

Izberk-Bilgin, E. (2010). An Interdisciplinary Review of Resistance to Consumption, Some Marketing Interpretations, and Future Research Suggestions. *Consumption Markets & Culture*, *13*(3), 299–323. https://doi.org/10.1080/10253861003787031

Jacobs, K., Petersen, L., Hörisch, J., & Battenfeld, D. (2018). Green thinking but thoughtless buying? An empirical extension of the value-attitude-behaviour hierarchy in sustainable clothing. *Journal of Cleaner Production*, *203*, 1155–1169. https://doi.org/10.1016/j.jclepro.2018.07.320

Jamali, D., & Karam, C. (2018). Corporate Social Responsibility in Developing Countries as an Emerging Field of Study. *International Journal of Management Reviews*, *20*(1), 32–61. https://doi.org/10.1111/ijmr.12112

Jamsen, J., & Corley, K. (2007). E-Survey Methodology: In R. A. Reynolds, R. Woods, & J. D. Baker (Eds.), *Handbook of Research on Electronic Surveys and Measurements* (pp. 1–8). IGI Global. https://doi.org/10.4018/978-1-59140-792-8.ch001

Janigo, K. A., & Wu, J. (2017). Collaborative Redesign of Used Clothes as a Sustainable Fashion Solution and Potential Business Oppo. *Fashion Practice*, *7*(1).

Jimenez-Fernandez, A., Aramendia-Muneta, M. E., & Alzate, M. (2023). Consumers' awareness and attitudes in circular fashion. *Cleaner and Responsible Consumption*, *11*, 100144. https://doi.org/10.1016/j.clrc.2023.100144

Joanes, T. (2019). *Sufficiency for Sustainability: Determinants and Strategies for Reducing Clothing Consumption*.

Joanes, T., Geiger, S. M., & Gwozdz, W. (2025). Think Twice—An Intervention Strategy to Reduce Personal Clothing Consumption. *Environment and Behavior*, 00139165251315563. https://doi.org/10.1177/00139165251315563

Joergens, C. (2006). Ethical Fashion: Myth or Future Trend? *Journal of Fashion Marketing and Management: An International Journal*, *10*(3), 360–371. https://doi.org/10.1108/13612020610679321

Johnson, K. K. P., Mun, J. M., & Chae, Y. (2016). Antecedents to Internet Use to Collaboratively Consume Apparel. *Journal of Fashion Marketing and Management: An International Journal*, *20*(4), 370–382. https://doi.org/10.1108/JFMM-12-2015-0092

Johnson, O., & Chattaraman, V. (2019). Conceptualization and measurement of millennial's social signaling and self-signaling for socially responsible consumption. *Journal of Consumer Behaviour*, *18*(1), 32–42. https://doi.org/10.1002/cb.1742

Johnson, T., & Attmann, J. (2009). Compulsive Buying in a Product Specific Context: Clothing. *Journal of Fashion Marketing and Management: An International Journal*, *13*(3), 394–405. https://doi.org/10.1108/13612020910974519

Johnstone, M.-L., & Tan, L. P. (2015). Exploring the Gap Between Consumers' Green Rhetoric and Purchasing Behaviour. *Journal of Business Ethics*, *132*(2), 311–328. https://doi.org/10.1007/s10551-014-2316-3

Jones, M., & Alony, I. (2008). *Blogs—The New Source of Data Analysis*. InSITE 2008: Informing Science + IT Education Conference. https://doi.org/10.28945/3246

Joy, A., Sherry, J. F., Venkatesh, A., Wang, J., & Chan, R. (2012). Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands. *Fashion Theory*, *16*(3), 273–295. https://doi.org/10.2752/175174112X13340749707123

Joyner Armstrong, C. M., Connell, K. Y. H., Lang, C., Ruppert-Stroescu, M., & LeHew, M. L. A. (2016). Educating for Sustainable Fashion: Using Clothing Acquisition Abstinence to Explore Sustainable Consumption and Life Beyond Growth. *Journal of Consumer Policy*, *39*(4), 417–439. https://doi.org/10.1007/s10603-016-9330-z

Joyner Martinez, C. M., & Iran, S. (2024). Making the 'short game' a 'long game': Promoting clothing longevity in the use phase. In *International Journal of Sustainable Fashion & Textiles* (Vol. 3, Issue The Future of Sustainable Clothing Use Practice, pp. 49–77). Intellect. https://doi.org/10.1386/sft_00039_1

Jung, S., & Jin, B. (2014). A Theoretical Investigation of Slow Fashion: Sustainable Future of the Apparel Industry. *International Journal of Consumer Studies*, *38*(5), 510–519. https://doi.org/10.1111/ijcs.12127

Jungell-Michelsson, J., & Heikkurinen, P. (2022). Sufficiency: A systematic literature review. *Ecological Economics*, *195*, 107380. https://doi.org/10.1016/j.ecolecon.2022.107380

Kahiya, E. T. (2018). Five decades of research on export barriers: Review and future directions. *International Business Review*, *27*(6), 1172–1188. https://doi.org/10.1016/j.ibusrev.2018.04.008

Kardes, F. R., & Herr, P. M. (2019). Experimental Research Methods in Consumer Psychology. In F. R. Kardes, P. M. Herr, & N. Schwarz (Eds.), *Handbook of research methods in consumer psychology* (Second edition, pp. 3–16). Routledge, Taylor & Francis Group.

Kareklas, I., Carlson, J. R., & Muehling, D. D. (2014). "I Eat Organic for My Benefit and Yours": Egoistic and Altruistic Considerations for Purchasing Organic Food and Their Implications for Advertising Strategists. *Journal of Advertising*, *43*(1), 18–32. https://doi.org/10.1080/00913367.2013.799450

Kasser, T. (2004). Sketches for a Self-Determination Theory of Values. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (Softcover edition, pp. 123–140). University of Rochester Press.

Kasser, T., & Ryan, R. M. (1996). Further Examining the American Dream: Differential Correlates of Intrinsic and Extrinsic Goals. *Personality and Social Psychology Bulletin*, *22*(3), 280–287. https://doi.org/10.1177/0146167296223006

Keating, D. M., & Totzkay, D. (2024). Theorizing about persuasive message repetition in communication research: A systematic review. *Review of Communication*, 1–18. https://doi.org/10.1080/15358593.2024.2373800

Kenny, D. A. (2024a). *SEM: Mediation*. https://davidakenny.net/cm/mediate.htm

Kenny, D. A. (2024b). *SEM: Mediation History*. https://davidakenny.net/cm/MediationHistory.html

Kernan, J. B. (1979). Presidential Address: Consumer Research and the Public Purpose. *ACR North American Advances*.

Kettunen, H., Poikolainen, J., Kouhia, A., & Autio, M. (2025). Crafting Sustainable Fashion: Dimensions of Care in Wearer-Clothing Relationships. *Fashion Theory*, 1–26. https://doi.org/10.1080/1362704X.2025.2471155

Khamitov, M., Grégoire, Y., & Suri, A. (2020). A systematic review of brand transgression, service failure recovery and product-harm crisis: Integration and guiding insights. *Journal of the Academy of Marketing Science*, *48*(3), 519–542. https://doi.org/10.1007/s11747-019-00679-1

Khamitov, M., Wang, X. (Shane), & Thomson, M. (2019). How Well Do Consumer-Brand Relationships Drive Customer Brand Loyalty? Generalizations from a Meta-Analysis of Brand Relationship Elasticities. *Journal of Consumer Research*, *46*(3), 435–459. https://doi.org/10.1093/jcr/ucz006

Khan, O., Varaksina, N., & Hinterhuber, A. (2024). The influence of cultural differences on consumers' willingness to pay more for sustainable fashion. *Journal of Cleaner Production*, *442*, 141024. https://doi.org/10.1016/j.jclepro.2024.141024

Ki, C.-W. (Chloe), Li, C., Chenn, A. S., Chong, S. M., & Cho, E. (2024). Wise consumer choices in online secondhand luxury (OSHL) shopping: An integrated model of motivations, attitudes, and purchase intentions for OSHL as wise, conspicuous, and sustainable consumption. *Journal of Retailing and Consumer Services*, *76*, 103571. https://doi.org/10.1016/j.jretconser.2023.103571

Kim, S. (2024). Going green to repair damaged self-concept: The interplay of self-deficit and benefit appeals on green consumer behavior. *Journal of Consumer Behaviour*, cb.2335. https://doi.org/10.1002/cb.2335

Kirchherr, J., Reike, D., & Hekkert, M. (2017). Conceptualizing the circular economy: An analysis of 114 definitions. *Resources, Conservation and Recycling*, *127*, 221–232. https://doi.org/10.1016/j.resconrec.2017.09.005

Kirk, J., & Miller, M. (1986). *Reliability and Validity in Qualitative Research*. SAGE Publications, Inc. https://doi.org/10.4135/9781412985659

Kirk, R. (2013). *Experimental Design: Procedures for the Behavioral Sciences*. SAGE Publications, Inc. https://doi.org/10.4135/9781483384733

Klein, S. A., Horsten, L. K., & Hilbig, B. E. (2022). The Effect of Environmental Versus Social Framing on Pro-Environmental Behavior. *Journal of Environmental Psychology*, *84*, 101897. https://doi.org/10.1016/j.jenvp.2022.101897

Klepp, I. G., & Laitala, K. (2018). Shared use and owning of clothes: Borrow, steal or inherit. In I. Cruz, R. Ganga, & S. Wahlen (Eds.), *Contemporary Collaborative Consumption* (pp. 153–177). Springer Fachmedien Wiesbaden. https://doi.org/10.1007/978-3-658-21346-6

Knoll, J., & Matthes, J. (2017). The effectiveness of celebrity endorsements: A meta-analysis. *Journal of the Academy of Marketing Science*, *45*(1), 55–75. https://doi.org/10.1007/s11747-016-0503-8

Koch, T., & Zerback, T. (2013). Helpful or Harmful? How Frequent Repetition Affects Perceived Statement Credibility: Helpful or Harmful. *Journal of Communication*, *63*(6), 993–1010. https://doi.org/10.1111/jcom.12063

Kopplin, C. S., & Rösch, S. F. (2021). Equifinal causes of sustainable clothing purchase behavior: An fsQCA analysis among generation Y. *Journal of Retailing and Consumer Services*, *63*, 102692. https://doi.org/10.1016/j.jretconser.2021.102692

Kozinets, R. V. (2020). *Netnography: The essential guide to qualitative social media research* (Third edition). SAGE.

Kramer, J., & Petzoldt, T. (2023). Environmental, altruistic, or monetary benefits? A longitudinal online experiment on how framed behavioral consequences affect self-reported eco-driving of German vehicle owners. *Transportation Research Part F: Traffic Psychology and Behaviour*, *93*, 204–221. https://doi.org/10.1016/j.trf.2023.01.006

Krauth, J. (2000). *Experimental design: A handbook and dictionary for medical and behavioral research* (1st ed). Elsevier.

Krippendorff, K. (2019). *Content analysis: An introduction to its methodology* (Fourth edition). SAGE.

Kropfeld, M. I. (2023). Lifestyles of enough exploring sufficiency-oriented consumption behavior from a social practice theory perspective. *Journal of Consumer Culture*, *23*(2), 369–390. https://doi.org/10.1177/14695405221095008

Krouska, A., Troussas, C., & Sgouropoulou, C. (2022). Mobile game-based learning as a solution in COVID-19 era: Modeling the pedagogical affordance and student interactions. *Education and Information Technologies*, *27*(1), 229–241. https://doi.org/10.1007/s10639-021-10672-3

Kumar, A., & Gilovich, T. (2016). To do or to have, now or later? The preferred consumption profiles of material and experiential purchases. *Journal of Consumer Psychology*, *26*(2), 169–178. https://doi.org/10.1016/j.jcps.2015.06.013

Kwon, T. A., Choo, H. J., & Kim, Y. (2020). Why Do We Feel Bored with Our Clothing and Where Does It End Up? *International Journal of Consumer Studies*, *44*(1), 1–13. https://doi.org/10.1111/ijcs.12540

Laitala, K. (2014). Consumers' Clothing Disposal Behaviour – a Synthesis of Research Results. *International Journal of Consumer Studies*, *38*(5), 444–457. https://doi.org/10.1111/ijcs.12088

Laitala, K., & Klepp, I. G. (2018). Care and Production of Clothing in Norwegian Homes: Environmental Implications of Mending and Making Practices. *Sustainability*, *10*(8), 2899. https://doi.org/10.3390/su10082899

Lang, C. (2018). Perceived Risks and Enjoyment of Access-Based Consumption: Identifying Barriers and Motivations to Fashion Renting. *Fashion and Textiles*, *5*(1), 23. https://doi.org/10.1186/s40691-018-0139-z

Lang, C., & Armstrong, C. M. J. (2018). Fashion Leadership and Intention Toward Clothing Product-Service Retail Models. *Journal of Fashion Marketing and*

*Management: An International Journal*, *22*(4), 571–587. https://doi.org/10.1108/JFMM-12-2017-0142

Lang, C., Armstrong, C. M., & Liu, C. (2016). Creativity and Sustainable Apparel Retail Models: Does Consumers' Tendency for Creative Choice Counter-Conformity Matter in Sustainability? *Fashion and Textiles*, *3*(1), 24. https://doi.org/10.1186/s40691-016-0076-7

Lang, C., & Joyner Armstrong, C. M. (2018). Collaborative Consumption: The Influence of Fashion Leadership, Need for Uniqueness, and Materialism on Female Consumers' Adoption of Clothing Renting and Swapping. *Sustainable Production and Consumption*, *13*, 37–47. https://doi.org/10.1016/j.spc.2017.11.005

Lapolla, K., & Sanders, E. B.-N. (2015). Using Cocreation to Engage Everyday Creativity in Reusing and Repairing Apparel. *Clothing and Textiles Research Journal*, *33*(3), 183–198. https://doi.org/10.1177/0887302X15572877

Laudien, S. M., Manuel Guaita Martínez, J., & María Martín Martín, J. (2023). Business models based on sharing fashion and accessories: Qualitative-empirical insights into a new type of sharing economy business models. *Journal of Business Research*, *157*, 113636. https://doi.org/10.1016/j.jbusres.2022.113636

Lee, H.-R., Lee, H. E., Choi, J., Kim, J. H., & Han, H. L. (2014). Social Media Use, Body Image, and Psychological Well-Being: A Cross-Cultural Comparison of Korea and the United States. *Journal of Health Communication*, *19*(12), 1343–1358. https://doi.org/10.1080/10810730.2014.904022

Lee, M., Roux, D., Cherrier, H., & Cova, B. (2011). Anti-Consumption and Consumer Resistance: Concepts, Concerns, Conflicts and Convergence. *European Journal of Marketing*, *45*(11/12). https://doi.org/10.1108/ejm.2011.00745kaa.001

Lee, M. S. W., & Ahn, C. S. Y. (2016). Anti-consumption, Materialism, and Consumer Well-being. *Journal of Consumer Affairs*, *50*(1), 18–47. https://doi.org/10.1111/joca.12089

Lee, M. SW. (2022). Anti-consumption research: A foundational and contemporary overview. *Current Opinion in Psychology*, *45*, 101319. https://doi.org/10.1016/j.copsyc.2022.101319

Leipämaa-Leskinen, H., Syrjälä, H., & Laaksonen, P. (2016). Conceptualizing Non-Voluntary Anti-Consumption: A Practice-Based Study on Market Resistance in Poor Circumstances. *Journal of Consumer Culture*, *16*(1), 255–278. https://doi.org/10.1177/1469540514521082

Levänen, J., Uusitalo, V., Härri, A., Kareinen, E., & Linnanen, L. (2021). Innovative Recycling or Extended Use? Comparing the Global Warming Potential of Different Ownership and End-of-Life Scenarios for Textiles. *Environmental Research Letters*, *16*(5), 054069. https://doi.org/10.1088/1748-9326/abfac3

Lim, W. M. (2016). Understanding the selfie phenomenon: Current insights and future research directions. *European Journal of Marketing*, *50*(9/10), 1773–1788. https://doi.org/10.1108/EJM-07-2015-0484

Liu, F., Johnson, Z., Massiah, C., & Lowrey, T. M. (2020). Nonmonetary and nonreciprocal freecycling: Motivations for participating in online alternative giving communities. *Journal of Consumer Behaviour*, *19*(4), 339–350. https://doi.org/10.1002/cb.1810

Liu, J. (Joyce), Dalton, A. N., & Mukhopadhyay, A. (2023). Favorite Possessions Protect Subjective Well-Being Under Income Inequality. *Journal of Marketing Research*, 002224372211410. https://doi.org/10.1177/00222437221141053

Lloyd, K., & Pennington, W. (2020). Towards a Theory of Minimalism and Wellbeing. *International Journal of Applied Positive Psychology*, *5*(3), 121–136. https://doi.org/10.1007/s41042-020-00030-y

Lu, X., Xie, X., & Liu, L. (2015). Inverted U-shaped model: How frequent repetition affects perceived risk. *Judgment and Decision Making*, *10*(3), 219–224. https://doi.org/10.1017/S1930297500004629

Luchs, M. G., & Kumar, M. (2017). "Yes, but this Other One Looks Better/Works Better": How do Consumers Respond to Trade-offs Between Sustainability and Other Valued Attributes? *Journal of Business Ethics*, *140*(3), 567–584. https://doi.org/10.1007/s10551-015-2695-0

Lučić, A., & Uzelac, M. (2024). Addressing global overconsumption: Positioning the anti-consumption through communication appeals. *Corporate Communications: An International Journal*, *29*(2), 187–205. https://doi.org/10.1108/CCIJ-08-2023-0114

Lundblad, L., & Davies, I. A. (2016). The Values and Motivations Behind Sustainable Fashion Consumption. *Journal of Consumer Behaviour*, *15*(2), 149–162. https://doi.org/10.1002/cb.1559

Luo, Y., Chen, X., Qi, S., You, X., & Huang, X. (2018). Well-being and Anticipation for Future Positive Events: Evidences from an fMRI Study. *Frontiers in Psychology*, *8*. https://doi.org/10.3389/fpsyg.2017.02199

MacCallum, R. C., & Austin, J. T. (2000). Applications of Structural Equation Modeling in Psychological Research. *Annual Review of Psychology*, *51*(1), 201–226. https://doi.org/10.1146/annurev.psych.51.1.201

Magnuson, B., Reimers, V., & Chao, F. (2017). Re-Visiting an Old Topic with a New Approach: The Case of Ethical Clothing. *Journal of Fashion Marketing and Management: An International Journal*, *21*(3), 400–418. https://doi.org/10.1108/JFMM-10-2016-0091

Maguire, H., & Fahy, F. (2023). Unlocking Insights in the Everyday: Exploring Practices to Foster Sustainable Maximum Use of Clothing. *Cleaner and Responsible Consumption*, *8*, 100095. https://doi.org/10.1016/j.clrc.2022.100095

Majer, H. (1985). Technology measurement: The functional approach. *Technological Forecasting and Social Change*, *27*(2–3), 335–351. https://doi.org/10.1016/0040-1625(85)90065-4

Makri, K., Schlegelmilch, B. B., Mai, R., & Dinhof, K. (2020). What We Know About Anticonsumption: An Attempt to Nail Jelly to the Wall. *Psychology & Marketing*, *37*(2), 177–215. https://doi.org/10.1002/mar.21319

Malik, F., & Ishaq, M. I. (2023). Impact of Minimalist Practices on Consumer Happiness and Financial Well-Being. *Journal of Retailing and Consumer Services*, *73*, 103333. https://doi.org/10.1016/j.jretconser.2023.103333

Manchiraju, S., & Damhorst, M. (2020). "I Want to Be Beautiful and Rich": Consumer Culture Ideals Internalization and Their Influence on Fashion Consumption. *Journal of Global Fashion Marketing*, *11*(4), 325–342. https://doi.org/10.1080/20932685.2020.1788408

Margolis, S., Schwitzgebel, E., Ozer, D. J., & Lyubomirsky, S. (2019). A New Measure of Life Satisfaction: The Riverside Life Satisfaction Scale. *Journal of Personality Assessment*, *101*(6), 621–630. https://doi.org/10.1080/00223891.2018.1464457

Martinez, C. M. J., Iran, S., & Dao, J. F. (2024). TACKLING FASHION WASTE FROM INSIDE THE WARDROBE: THE INFLUENCE OF PERSONAL FACTORS ON SUSTAINABLE CLOTHING USE PRACTICE. *Cleaner and Responsible Consumption*, 100233. https://doi.org/10.1016/j.clrc.2024.100233

Martin-Woodhead, A. (2022). Limited, Considered and Sustainable Consumption: The (non)consumption Practices of Uk Minimalists. *Journal of Consumer Culture*, *22*(4), 1012–1031. https://doi.org/10.1177/14695405211039608

Martin-Woodhead, A. (2023). Making wardrobe space: The sustainable potential of minimalist-inspired fashion challenges. *Area*, *55*(2), 274–283. https://doi.org/10.1111/area.12848

Mayring, P. (2014). *Qualitative Content Analysis*.

McKenzie-Mohr, D. (2000). New Ways to Promote Proenvironmental Behavior: Promoting Sustainable Behavior: An Introduction to Community-Based Social Marketing. *Journal of Social Issues*, *56*(3), 543–554. https://doi.org/10.1111/0022-4537.00183

McNeill, L., & Moore, R. (2015). Sustainable Fashion Consumption and the Fast Fashion Conundrum: Fashionable Consumers and Attitudes to Sustainability in Clothing Choice. *International Journal of Consumer Studies*, *39*(3), 212–222. https://doi.org/10.1111/ijcs.12169

McNeill, L. S., Potdar, B., & McQueen, R. H. (2024). Prioritising sustainable garment choice among high-volume fashion consumers. *Journal of Fashion Marketing and Management: An International Journal*, *28*(4), 875–889. https://doi.org/10.1108/JFMM-11-2022-0229

Mellander, E., & Petersson McIntyre, M. (2021). Fashionable Detachments: Wardrobes, Bodies and the Desire to Let Go. *Consumption Markets & Culture*, *24*(4), 343–356. https://doi.org/10.1080/10253866.2020.1802258

Michaelidou, N., & Dibb, S. (2006). Product Involvement: An Application in Clothing. *Journal of Consumer Behaviour*, *5*(5), 442–453. https://doi.org/10.1002/cb.192

Mick, D. G. (2006). Meaning and Mattering Through Transformative Consumer Research. *Advances in Consumer Research*, *33*.

Mick, D. G., Pettigrew, S., Pechmann, C., & Ozanne, J. L. (2012). Origins, qualities, and envisionments of transformative consumer research. In D. G. Mick (Ed.), *Transformative consumer research for personal and collective well-being* (pp. 31–52). Routledge. https://doi.org/10.4324/9780203813256

Middleton, J. (2015). Mending. In K. Fletcher & M. Tham (Eds.), *Routledge handbook of sustainability and fashion* (pp. 280–292). Routledge. https://doi.org/10.4324/9780203519943

Millward-Hopkins, J., Purnell, P., & Baurley, S. (2023). Scenarios for Reducing the Environmental Impacts of the Uk Clothing Economy. *Journal of Cleaner Production*, *420*, 138352. https://doi.org/10.1016/j.jclepro.2023.138352

Misra, R., Eyombo, L., & Phillips, F. T. (2022). Benefits and Challenges of Using Educational Games: In I. R. Management Association (Ed.), *Research Anthology on Developments in Gamification and Game-Based Learning* (pp. 1560–1570). IGI Global. https://doi.org/10.4018/978-1-6684-3710-0.ch075

Mohamed Shaffril, H. A., Samsuddin, S. F., & Abu Samah, A. (2021). The ABC of systematic literature review: The basic methodological guidance for beginners. *Quality & Quantity*, *55*(4), 1319–1346. https://doi.org/10.1007/s11135-020-01059-6

Morgan, D. L. (2014). Pragmatism as a Paradigm for Social Research. *Qualitative Inquiry*, *20*(8), 1045–1053. https://doi.org/10.1177/1077800413513733

Mukendi, A., Davies, I., Glozer, S., & McDonagh, P. (2020). Sustainable Fashion: Current and Future Research Directions. *European Journal of Marketing*, *54*(11), 2873–2909. https://doi.org/10.1108/EJM-02-2019-0132

Munasinghe, P., Druckman, A., & Dissanayake, D. G. K. (2021). A Systematic Review of the Life Cycle Inventory of Clothing. *Journal of Cleaner Production*, *320*, 128852. https://doi.org/10.1016/j.jclepro.2021.128852

Muralidharan, S., La Ferle, C., & Roth-Cohen, O. (2024). "Mirror, mirror, on the wall. Who is the greenest of them all?" the impact of green advertising cues on generational cohorts. *International Journal of Advertising*, *43*(1), 125–148. https://doi.org/10.1080/02650487.2023.2187192

Myers, T. A., Nisbet, M. C., Maibach, E. W., & Leiserowitz, A. A. (2012). A Public Health Frame Arouses Hopeful Emotions About Climate Change: A Letter. *Climatic Change*, *113*(3–4), 1105–1112. https://doi.org/10.1007/s10584-012-0513-6

Nayir, T., Uskun, E., Yürekli, M. V., Devran, H., Çelik, A., & Okyay, R. A. (2016). Does Body Image Affect Quality of Life?: A Population Based Study. *PLOS ONE*, *11*(9), e0163290. https://doi.org/10.1371/journal.pone.0163290

Nepomuceno, M. V., & Laroche, M. (2015). The Impact of Materialism and Anti-Consumption Lifestyles on Personal Debt and Account Balances. *Journal of Business Research*, *68*(3), 654–664. https://doi.org/10.1016/j.jbusres.2014.08.006

Netter, S. (2016). Availability Cascades and the Sharing Economy: A Critique of Sharing Economy Narratives. In A. Genus (Ed.), *Sustainable Consumption65* (Vol. 3, pp. 65–82). Springer International Publishing. https://doi.org/10.1007/978-3-319-29665-4_5

Nielsen, K. S., Brick, C., Hofmann, W., Joanes, T., Lange, F., & Gwozdz, W. (2022). The motivation–impact gap in pro-environmental clothing consumption. *Nature Sustainability*, *5*(8), 665–668. https://doi.org/10.1038/s41893-022-00888-7

Nielsen, K. S., Joanes, T., Webb, D., Gupta, S., & Gwozdz, W. (2023). Exploring the Psychological Characteristics of Style and Fashion Clothing Orientations. *Journal of Consumer Marketing*, *40*(7), 897–910. https://doi.org/10.1108/JCM-04-2022-5344

Niemiec, C. P., Ryan, R. M., & Deci, E. L. (2009). The path taken: Consequences of attaining intrinsic and extrinsic aspirations in post-college life. *Journal of Research in Personality*, *43*(3), 291–306. https://doi.org/10.1016/j.jrp.2008.09.001

Niinimäki, K., & Armstrong, C. (2013). From Pleasure in Use to Preservation of Meaningful Memories: A Closer Look at the Sustainability of Clothing Via Longevity and Attachment. *International Journal of Fashion Design, Technology and Education*, *6*(3), 190–199. https://doi.org/10.1080/17543266.2013.825737

Nogueira, M., Dias, F., & Santos, V. (2023). Sustainable Mobility Choices: Exploring the Impact of Consumers' Values, Attitudes, Perceived Behavioural Control and Subjective Norms on the Likelihood to Choose Sustainable Mobility Options. *Journal of Consumer Behaviour*, *22*(2), 511–528. https://doi.org/10.1002/cb.2144

Nolan, J. M., Schultz, P. W., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2008). Normative Social Influence is Underdetected. *Personality and Social Psychology Bulletin*, *34*(7), 913–923. https://doi.org/10.1177/0146167208316691

Norum, P. S. (2013). Examination of Apparel Maintenance Skills and Practices: Implications for Sustainable Clothing Consumption. *Family and Consumer Sciences Research Journal*, *42*(2), 124–137. https://doi.org/10.1111/fcsr.12047

O'Cass, A. (2004). Fashion Clothing Consumption: Antecedents and Consequences of Fashion Clothing Involvement. *European Journal of Marketing*, *38*(7), 869–882. https://doi.org/10.1108/03090560410539294

Onel, N. (2023). Transforming Consumption: The Role of Values, Beliefs, and Norms in Promoting Four Types of Sustainable Behavior. *Journal of Consumer Behaviour*, cb.2212. https://doi.org/10.1002/cb.2212

Oral, C., & Thurner, J. (2019). The Impact of Anti-Consumption on Consumer Well-Being. *International Journal of Consumer Studies*, *43*(3), 277–288. https://doi.org/10.1111/ijcs.12508

Osburg, V.-S., Akhtar, P., Yoganathan, V., & McLeay, F. (2019). The influence of contrasting values on consumer receptiveness to ethical information and ethical choices. *Journal of Business Research*, *104*, 366–379. https://doi.org/10.1016/j.jbusres.2019.07.022

Ospital, P., Masson, D., Beler, C., & Legardeur, J. (2023). Toward product transparency: Communicating traceability information to consumers. *International Journal of Fashion Design, Technology and Education*, *16*(2), 186–197. https://doi.org/10.1080/17543266.2022.2142677

Ozanne, J., Pettigrew, S., Crockett, D., Firat, A. F., Downey, H., & Pescud, M. (2011). The Practice of Transformative Consumer Research—Some Issues and Suggestions. *Journal of Research for Consumers*, *19*, 1–7. ABI/INFORM Collection; Publicly Available Content Database.

Ozdamar Ertekin, Z., & Atik, D. (2015). Sustainable Markets: Motivating Factors, Barriers, and Remedies for Mobilization of Slow Fashion. *Journal of Macromarketing*, *35*(1), 53–69. https://doi.org/10.1177/0276146714535932

Ozdamar-Ertekin, Z. (2016). Conflicting Perspectives on Speed: Dynamics and Consequences of the Fast Fashion System. *Markets, Globalization & Development Review: The Official Journal of the International Society of Markets and Development*, *1*(1). https://doi.org/10.23860/MGDR-2016-01-01-06

Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hróbjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., … Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, n71. https://doi.org/10.1136/bmj.n71

Pal, R. (2016). Extended Responsibility Through Servitization in Pss: An Exploratory Study of Used-Clothing Sector. *Journal of Fashion Marketing and Management: An International Journal*, *20*(4), 453–470. https://doi.org/10.1108/JFMM-12-2015-0100

Pal, R. (2017). Sustainable Design and Business Models in Textile and Fashion Industry. In S. S. Muthu (Ed.), *Sustainability in the Textile Industry* (pp. 109–138). Springer Singapore. https://doi.org/10.1007/978-981-10-2639-3_6

Pal, R., & Gander, J. (2018). Modelling Environmental Value: An Examination of Sustainable Business Models Within the Fashion Industry. *Journal of Cleaner Production*, *184*, 251–263. https://doi.org/10.1016/j.jclepro.2018.02.001

Pansari, A., & Kumar, V. (2017). Customer engagement: The construct, antecedents, and consequences. *Journal of the Academy of Marketing Science*, *45*(3), 294–311. https://doi.org/10.1007/s11747-016-0485-6

Park, H., & Armstrong, C. M. J. (2017). Collaborative Apparel Consumption in the Digital Sharing Economy: An Agenda for Academic Inquiry. *International Journal of Consumer Studies*, *41*(5), 465–474. https://doi.org/10.1111/ijcs.12354

Park, S.-J., & Yim, E.-H. (2013). Comparison of the Functional Minimalism in Fashion and Architecture. *Journal of the Korean Society of Clothing and Textiles*, *37*(3), 247–259. https://doi.org/10.5850/JKSCT.2013.37.3.247

Pasdiora, M. A., Brei, V. A., & Nicolao, L. (2025). Why do upgrades worsen consumers' experience with their possessions? *European Journal of Marketing*, *59*(2), 311–338. https://doi.org/10.1108/EJM-04-2023-0273

Paul, J. (2019). Marketing in emerging markets: A review, theoretical synthesis and extension. *International Journal of Emerging Markets*, *15*(3), 446–468. https://doi.org/10.1108/IJOEM-04-2017-0130

Paul, J., & Benito, G. R. G. (2018). A review of research on outward foreign direct investment from emerging countries, including China: What do we know, how do we know and where should we be heading? *Asia Pacific Business Review*, *24*(1), 90–115. https://doi.org/10.1080/13602381.2017.1357316

Paul, J., & Mas, E. (2020). Toward a 7-P framework for international marketing. *Journal of Strategic Marketing*, *28*(8), 681–701. https://doi.org/10.1080/0965254X.2019.1569111

Paul, J., Parthasarathy, S., & Gupta, P. (2017). Exporting challenges of SMEs: A review and future research agenda. *Journal of World Business*, *52*(3), 327–342. https://doi.org/10.1016/j.jwb.2017.01.003

Paul, J., & Rosado-Serrano, A. (2019). Gradual Internationalization vs Born-Global/International new venture models: A review and research agenda. *International Marketing Review*, *36*(6), 830–858. https://doi.org/10.1108/IMR-10-2018-0280

Paul, J., & Singh, G. (2017). The 45 years of foreign direct investment research: Approaches, advances and analytical areas. *The World Economy*, *40*(11), 2512–2527. https://doi.org/10.1111/twec.12502

Pedersen, E. R. G., & Andersen, K. R. (2015). Sustainability Innovators and Anchor Draggers: A Global Expert Study on Sustainable Fashion. *Journal of Fashion Marketing and Management*, *19*(3), 315–327. https://doi.org/10.1108/JFMM-08-2014-0059

Pedersen, E. R. G., & Netter, S. (2015). Collaborative Consumption: Business Model Opportunities and Barriers for Fashion Libraries. *Journal of Fashion Marketing and Management*, *19*(3), 258–273. https://doi.org/10.1108/JFMM-05-2013-0073

Peifer, J. L., Chugani, S., & Roos, J. M. (2020). The Ethical Underpinnings of Nonmaterialistic Values and Voluntary Simplicity Behavior in the United States. *Psychology & Marketing*, *37*(2), 232–249. https://doi.org/10.1002/mar.21277

Peiró Signes, Á., Miret-Pastor, L., Tsiouni, M., Siggia, D., & Galati, A. (2023). Determinants of consumers' response to eco-labelled seafoods: The interaction between altruism, awareness and information demand. *Journal of Cleaner Production*, *433*, 139758. https://doi.org/10.1016/j.jclepro.2023.139758

Pennycook, G., Cannon, T. D., & Rand, D. G. (2018). Prior exposure increases perceived accuracy of fake news. *Journal of Experimental Psychology: General*, *147*(12), 1865–1880. https://doi.org/10.1037/xge0000465

Perera, C. R., Kalantari Daronkola, H., & Johnson, L. W. (2022). Anthropocentric, Biospheric and Egobiocentric Environmental Values and Green Product Purchase Intention: The Mediating Effect of Environmental Identity. *Journal of Consumer Behaviour*, *21*(6), 1334–1350. https://doi.org/10.1002/cb.2095

Perera, C. R., Kalantari, H. D., & Johnson, L. W. (2024). Environmental values and sustainable consumption. *Journal of Consumer Behaviour*, 1–6. https://doi.org/10.1002/cb.2322

Peters, G., Li, M., & Lenzen, M. (2021). The Need to Decelerate Fast Fashion in a Hot Climate—A Global Sustainability Perspective on the Garment Industry. *Journal of Cleaner Production*, *295*, 126390. https://doi.org/10.1016/j.jclepro.2021.126390

Pierce, J. L., Kostova, T., & Dirks, K. T. (2003). The State of Psychological Ownership: Integrating and Extending a Century of Research. *Review of General Psychology*, *7*(1), 84–107. https://doi.org/10.1037/1089-2680.7.1.84

Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. *Journal of Applied Psychology*, *88*(5), 879–903. https://doi.org/10.1037/0021-9010.88.5.879

Prakash, G., Choudhary, S., Kumar, A., Garza-Reyes, J. A., Khan, S. A. R., & Panda, T. K. (2019). Do altruistic and egoistic values influence consumers' attitudes and purchase intentions towards eco-friendly packaged products? An empirical investigation. *Journal of Retailing and Consumer Services*, *50*, 163–169. https://doi.org/10.1016/j.jretconser.2019.05.011

Pretner, G., Darnall, N., Testa, F., & Iraldo, F. (2021). Are consumers willing to pay for circular products? The role of recycled and second-hand attributes, messaging, and third-party certification. *Resources, Conservation and Recycling*, *175*, 105888. https://doi.org/10.1016/j.resconrec.2021.105888

Psychiatric Research Unit, WHO Collaborating Center for Mental Health. (1996). *WHO (Five) Well-Being Index (1998 version)*. Psychiatric Research Unit, WHO Collaborating Center for Mental Health.

Quantis. (2018). *Measuring Fashion: Insights from the Environmental Impact of the Global Apparel and Footwear Industries*. Quantis. https://quantis.com/report/measuring-fashion-report/

Radin, S. (2024). 'It is OK to be content with your simple life': Is 'underconsumption core' the answer to too much shopping? *The Guardian*. https://www.theguardian.com/fashion/article/2024/aug/07/it-is-ok-to-be-content-with-your-simple-life-is-underconsumption-core-the-answer-to-too-much-shopping

Rana, J., & Paul, J. (2017). Consumer behavior and purchase intention for organic food: A review and research agenda. *Journal of Retailing and Consumer Services*, *38*, 157–165. https://doi.org/10.1016/j.jretconser.2017.06.004

Randhawa, K., Wilden, R., & Hohberger, J. (2016). A Bibliometric Review of Open Innovation: Setting a Research Agenda. *Journal of Product Innovation Management*, *33*(6), 750–772. https://doi.org/10.1111/jpim.12312

Rathinamoorthy, R., Surjit, R., & Karthik, T. (2019). Clothing Swap: Gateway to Sustainable Eco-friendly Fashion. In L. M. T. Martínez, O. V. Kharissova, & B. I. Kharisov (Eds.), *Handbook of Ecomaterials* (pp. 1599–1622). Springer International Publishing. https://doi.org/10.1007/978-3-319-68255-6_63

Rausch, T. M., Baier, D., & Wening, S. (2021). Does sustainability really matter to consumers? Assessing the importance of online shop and apparel product attributes. *Journal of Retailing and Consumer Services*, *63*, 102681. https://doi.org/10.1016/j.jretconser.2021.102681

Reimers, V., Magnuson, B., & Chao, F. (2017). Happiness, altruism and the Prius effect: How do they influence consumer attitudes towards environmentally responsible clothing? *Journal of Fashion Marketing and Management: An International Journal*, *21*(1), 115–132. https://doi.org/10.1108/JFMM-07-2016-0053

Reynolds-Tylus, T., Lukacena, K. M., & Truban, O. (2021). Message Fatigue to Bystander Intervention Messages: Examining Pathways of Resistance among College Men. *Health Communication*, *36*(13), 1759–1767. https://doi.org/10.1080/10410236.2020.1794551

Rich, S. A., Hanna, S., & Wright, B. J. (2017). Simply Satisfied: The Role of Psychological Need Satisfaction in the Life Satisfaction of Voluntary Simplifiers. *Journal of Happiness Studies*, *18*(1), 89–105. https://doi.org/10.1007/s10902-016-9718-0

Richins, M. L. (2013). When Wanting Is Better than Having: Materialism, Transformation Expectations, and Product-Evoked Emotions in the Purchase Process. *Journal of Consumer Research*, *40*(1), 1–18. https://doi.org/10.1086/669256

Richins, M. L., & Dawson, S. (1992). A Consumer Values Orientation for Materialism and Its Measurement: Scale Development and Validation. *Journal of Consumer Research*, *19*(3), 303. https://doi.org/10.1086/209304

Riefler, P., Baar, C., Büttner, O. B., & Flachs, S. (2024). What to gain, what to lose? A taxonomy of individual-level gains and losses associated with consumption reduction. *Ecological Economics*, *224*, 108301. https://doi.org/10.1016/j.ecolecon.2024.108301

Riegler, A. (2012). Constructivism. In L. L'Abate (Ed.), *Paradigms in theory construction* (pp. 235–255). Springer.

Rieke, S. E., Fowler, D. C., Chang, H. J., & Velikova, N. (2016). Exploration of Factors Influencing Body Image Satisfaction and Purchase Intent: Millennial Females. *Journal of Fashion Marketing and Management*, *20*(2), 208–229. https://doi.org/10.1108/JFMM-12-2015-0094

Rizzi, F., Annunziata, E., Contini, M., & Frey, M. (2020). On the effect of exposure to information and self-benefit appeals on consumer's intention to perform pro-environmental behaviours: A focus on energy conservation behaviours. *Journal of Cleaner Production*, *270*, 122039. https://doi.org/10.1016/j.jclepro.2020.122039

Rosado-Serrano, A., Paul, J., & Dikova, D. (2018). International franchising: A literature review and research agenda. *Journal of Business Research*, *85*, 238–257. https://doi.org/10.1016/j.jbusres.2017.12.049

Rosenberg, L. M., Weijo, H. A., & Kerkelä, I. (2023). Consumer Desires and the Fluctuating Balance between Liquid and Solid Consumption: The Case of Finnish Clothing Libraries. *Journal of Consumer Research*, *50*(4), 826–847. https://doi.org/10.1093/jcr/ucad021

Ross, S. M. (2011). Egoism and the everyday consumer: Developing a new theory on prosocial behaviours in consumption contexts. In S. M. Noble (Ed.), *Delivering value in turbulent times; AMA educators' proceedings Volume 22* (pp. 165–172). Curran Associates.

Rothschild, M. L. (1999). Carrots, Sticks, and Promises: A Conceptual Framework for the Management of Public Health and Social Issue Behaviors. *Journal of Marketing*, *63*(4), 24–37. https://doi.org/10.1177/002224299906300404

Ruggeri, G., Orsi, L., & Corsi, S. (2019). A bibliometric analysis of the scientific literature on Fairtrade labelling. *International Journal of Consumer Studies*, *43*(2), 134–152. https://doi.org/10.1111/ijcs.12492

Ruppert-Stroescu, M., LeHew, M. L. A., Connell, K. Y. H., & Armstrong, C. M. (2015). Creativity and Sustainable Fashion Apparel Consumption: The Fashion Detox. *Clothing and Textiles Research Journal*, *33*(3), 167–182. https://doi.org/10.1177/0887302X15579990

Rūtelionė, A., & Bhutto, M. Y. (2024). Exploring the psychological benefits of green apparel and its influence on attitude, intention and behavior among Generation Z: A serial multiple mediation study applying the stimulus–organism–response model. *Journal of Fashion Marketing and Management: An International Journal*, *28*(5), 1074–1092. https://doi.org/10.1108/JFMM-06-2023-0161

Ryoo, Y., Sung, Y., & Chechelnytska, I. (2020). What Makes Materialistic Consumers More Ethical? Self-Benefit Vs. Other-Benefit Appeals. *Journal of Business Research*, *110*, 173–183. https://doi.org/10.1016/j.jbusres.2020.01.019

Saboya De Aragão, B., & Alfinito, S. (2021). The relationship between human values and conscious ecological behavior among consumers: Evidence from Brazil. *Cleaner and Responsible Consumption*, *3*, 100024. https://doi.org/10.1016/j.clrc.2021.100024

Saha, K., Dey, P. K., & Kumar, V. (2024). A comprehensive review of circular economy research in the textile and clothing industry. *Journal of Cleaner Production*, *444*, 141252. https://doi.org/10.1016/j.jclepro.2024.141252

Sahimaa, O., Miller, E. M., Halme, M., Niinimäki, K., Tanner, H., Mäkelä, M., Rissanen, M., Härri, A., & Hummel, M. (2024). From Simplistic to Systemic Sustainability in the Textile and Fashion Industry. *Circular Economy and Sustainability*, *4*(2), 1115–1131. https://doi.org/10.1007/s43615-023-00322-w

Sampson, E. E. (1981). Cognitive Psychology as Ideology. *American Psychologist*, *36*(7), 730–743. https://doi.org/10.1037/0003-066X.36.7.730

Sandlin, J. A., & Wallin, J. J. (2022). Decluttering the Pandemic: Marie Kondo, Minimalism, and the "Joy" of Waste. *Cultural Studies ⇄ Critical Methodologies*, *22*(1), 96–102. https://doi.org/10.1177/15327086211049703

Saravade, S., Felix, R., & Fırat, A. F. (2021). From Solidity to Liquidity: Macro-Level Consumption Patterns in the Sharing Economy. *Journal of Macromarketing*, *41*(2), 284–296. https://doi.org/10.1177/0276146720958184

Sarokin, S. N., & Bocken, N. M. P. (2024). Pursuing profitability in slow fashion: Exploring brands' profit contributors. *Journal of Cleaner Production*, *444*, 141237. https://doi.org/10.1016/j.jclepro.2024.141237

Sarpong, K. A., Amankwaa, G., Frimpong, O., Xu, W., Cao, Y., Ni, X., & Nkrumah, N. K. (2021). Consumers' purchasing intentions for efficient water-saving products: The mediating effects of altruistic and egoistic values. *Journal of Water Supply: Research and Technology-Aqua*, *70*(2), 226–238. https://doi.org/10.2166/aqua.2021.100

Savalei, V., & Bentler, P. M. (2006). Structural Equation Modeling. In R. Grover & M. Vriens, *The Handbook of Marketing Research* (pp. 330–364). SAGE Publications, Inc. https://doi.org/10.4135/9781412973380.n17

Say, A. L., Guo, R. A., & Chen, C. (2021). Altruism and Social Utility in Consumer Sharing Behavior. *Journal of Consumer Behaviour*, *20*(6), 1562–1574. https://doi.org/10.1002/cb.1967

Schiaroli, V., Fraccascia, L., & Dangelico, R. M. (2024). How can consumers behave sustainably in the fashion industry? A systematic literature review of determinants, drivers, and barriers across the consumption phases. *Journal of Cleaner Production*, 144232. https://doi.org/10.1016/j.jclepro.2024.144232

Schreier, M. (2012). *Qualitative Content Analysis in Practice*. SAGE Publications Ltd. https://doi.org/10.4135/9781529682571

Schroeder, P. (with Royal Institute of International Affairs). (2020). *Promoting a just transition to an inclusive circular economy*. The Royal Institute of International Affairs.

Schuitema, G., & De Groot, J. I. M. (2015). Green consumerism: The influence of product attributes and values on purchasing intentions. *Journal of Consumer Behaviour*, *14*(1), 57–69. https://doi.org/10.1002/cb.1501

Schwartz, D., Bruine De Bruin, W., Fischhoff, B., & Lave, L. (2015). Advertising Energy Saving Programs: The Potential Environmental Cost of Emphasizing Monetary Savings. *Journal of Experimental Psychology: Applied*, *21*(2), 158–166. https://doi.org/10.1037/xap0000042

Schwartz, S. H. (1973). Normative explanations of helping behavior: A critique, proposal, and empirical test. *Journal of Experimental Social Psychology*, *9*(4), 349–364. https://doi.org/10.1016/0022-1031(73)90071-1

Schwartz, S. H. (1992). Universals in the Content and Structure of Values: Theoretical Advances and Empirical Tests in 20 Countries. In *Advances in Experimental Social Psychology* (Vol. 25, pp. 1–65). Elsevier. https://doi.org/10.1016/S0065-2601(08)60281-6

Seegebarth, B., Peyer, M., Balderjahn, I., & Wiedmann, K. (2016). The Sustainability Roots of Anticonsumption Lifestyles and Initial Insights Regarding Their Effects on Consumers' Well-Being. *Journal of Consumer Affairs*, *50*(1), 68–99. https://doi.org/10.1111/joca.12077

Shafqat, T., Ishaq, M. I., & Ahmed, A. (2023). Fashion Consumption Using Minimalism: Exploring the Relationship of Consumer Well-Being and Social Connectedness. *Journal of Retailing and Consumer Services*, *71*, 103215. https://doi.org/10.1016/j.jretconser.2022.103215

Shehzala, Jaiswal, A. K., Vemireddy, V., & Angeli, F. (2024). Social Media "Stars" Vs "the Ordinary" Me: Influencer Marketing and the Role of Self-Discrepancies, Perceived Homophily, Authenticity, Self-Acceptance and Mindfulness. *European Journal of Marketing*, *58*(2), 590–631. https://doi.org/10.1108/EJM-02-2023-0141

Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, *76*(3), 482–497. APA PsycArticles. https://doi.org/10.1037/0022-3514.76.3.482

Singh, P., & Giacosa, E. (2019). Cognitive biases of consumers as barriers in transition towards circular economy. *Management Decision*, *57*(4), 921–936. https://doi.org/10.1108/MD-08-2018-0951

Sleboda, P., Bruine De Bruin, W., Gutsche, T., & Arvai, J. (2024). Don't Say "Vegan" or "Plant-Based": Food Without Meat and Dairy Is More Likely to Be Chosen When Labeled as "Healthy" and "Sustainable". *Journal of Environmental Psychology*, *93*, 102217. https://doi.org/10.1016/j.jenvp.2023.102217

Smelter, T. J., & Calvillo, D. P. (2020). Pictures and repeated exposure increase perceived accuracy of news headlines. *Applied Cognitive Psychology*, *34*(5), 1061–1071. https://doi.org/10.1002/acp.3684

Soares, A. M., Rebouças, R., & Heath, T. P. (2025). Adopting Voluntary Simplicity: A Netnographic Study. *International Journal of Consumer Studies*, *49*(1), e70025. https://doi.org/10.1111/ijcs.70025

Solomon, M. R. (2004). Consumer Psychology. In *Encyclopedia of Applied Psychology* (pp. 483–492). Elsevier. https://doi.org/10.1016/B0-12-657410-3/00219-1

Song, H., & So, J. (2023). Message fatigue beyond the health message context: A replication and further extension of So et al. (2017). *Human Communication Research*, *49*(3), 339–344. https://doi.org/10.1093/hcr/hqad021

Stajkovic, A. D., Greenwald, J. M., & Stajkovic, K. S. (2022). The money priming debate revisited: A review, meta-analysis, and extension to organizations. *Journal of Organizational Behavior*, *43*(6), 1078–1102. https://doi.org/10.1002/job.2619

Stål, H. I., & Jansson, J. (2017). Sustainable Consumption and Value Propositions: Exploring Product–Service System Practices Among Swedish Fashion Firms. *Sustainable Development*, *25*(6), 546–558. https://doi.org/10.1002/sd.1677

Statista. (2024). *Projected carbon dioxide equivalent emissions of the apparel industry worldwide from 2019 to 2030*. Statista. https://www.statista.com/statistics/1305696/apparel-industry-co2e-emissions/

Steg, L. (2015). Environmental psychology and sustainable consumption. In L. A. Reisch & J. Thøgersen (Eds.), *Handbook of Research on Sustainable Consumption*. Edward Elgar Publishing. https://doi.org/10.4337/9781783471270.00012

Steg, L., Bolderdijk, J. W., Keizer, K., & Perlaviciute, G. (2014). An Integrated Framework for Encouraging Pro-environmental Behaviour: The role of values, situational factors and goals. *Journal of Environmental Psychology*, *38*, 104–115. https://doi.org/10.1016/j.jenvp.2014.01.002

Steg, L., Perlaviciute, G., Van Der Werff, E., & Lurvink, J. (2014). The Significance of Hedonic Values for Environmentally Relevant Attitudes, Preferences, and Actions. *Environment and Behavior*, *46*(2), 163–192. https://doi.org/10.1177/0013916512454730

Stevenson, G., Harris, S., Bortes, C., & Doherty, E. (2021). *Women and the Net Zero Economy: A Briefing on Changes in Garment, Agriculture and Energy Supply Chains* (3; WOW Helpdesk Guidance Note).

Stiff, J. B., & Mongeau, P. A. (2003). *Persuasive communication / James B. Stiff, Paul A. Mongeau.* (2nd ed.). Guilford Press.

Stoner, J. L., Felix, R., & Stadler Blank, A. (2023). Best Practices for Implementing Experimental Research Methods. *International Journal of Consumer Studies*, *47*(4), 1579–1595. https://doi.org/10.1111/ijcs.12878

Strähle, J., & Erhardt, C. (2017). Collaborative consumption 2.0: An alternative to fast fashion consumption. In J. Strähle (Ed.), *Green Fashion Retail* (pp. 135–155). Springer Singapore. https://doi.org/10.1007/978-981-10-2440-5

Sunder M., V., Ganesh, L. S., & Marathe, R. R. (2018). A morphological analysis of research literature on Lean Six Sigma for services. *International Journal of Operations & Production Management*, *38*(1), 149–182. https://doi.org/10.1108/IJOPM-05-2016-0273

Sunder M., V., L.S., G., & Marathe, R. R. (2019). Dynamic capabilities: A morphological analysis framework and agenda for future research. *European Business Review*, *31*(1), 25–63. https://doi.org/10.1108/EBR-03-2018-0060

Suter, M., Rabaa, S., & Essl, A. (2025). The benefits of less: The effect of sufficiency gain framing on sufficiency behavior. *Ecological Economics*, *231*, 108561. https://doi.org/10.1016/j.ecolecon.2025.108561

Swami, V., Tran, U. S., Stieger, S., Voracek, M., & The YouBeauty.com Team. (2015). Associations Between Women's Body Image and Happiness: Results of the YouBeauty.com Body Image Survey (YBIS). *Journal of Happiness Studies*, *16*(3), 705–718. https://doi.org/10.1007/s10902-014-9530-7

Taljaard, H., & Sonnenberg, N. (2019). Basic Psychological Needs and Self-Determined Motivation as Drivers of Voluntary Simplistic Clothing Consumption Practices in South Africa. *Sustainability*, *11*(13), 3742. https://doi.org/10.3390/su11133742

Tan, C.-Y., Chuah, C.-Q., Lee, S.-T., & Tan, C.-S. (2021). Being Creative Makes You Happier: The Positive Effect of Creativity on Subjective Well-Being. *International Journal of Environmental Research and Public Health*, *18*(14), 7244. https://doi.org/10.3390/ijerph18147244

Tan, L. P., Johnstone, M.-L., & Yang, L. (2016). Barriers to Green Consumption Behaviours: The Roles of Consumers' Green Perceptions. *Australasian Marketing Journal*, *24*(4), 288–299. https://doi.org/10.1016/j.ausmj.2016.08.001

Tay, L., & Diener, E. (2011). Needs and Subjective Well-Being Around the World. *Journal of Personality and Social Psychology*, *101*(2), 354–365. https://doi.org/10.1037/a0023779

Taylor, C. R., Borenstein, B., & Pangarkar, A. (2025). What, no logos? Why some minimalists prefer quiet luxury. *Psychology & Marketing*, *42*(1), 142–158. https://doi.org/10.1002/mar.22121

Teixeira Da Silva, J. A., & Daly, T. (2024). Against Over-reliance on PRISMA Guidelines for Meta-analytical Studies. *Rambam Maimonides Medical Journal*, *15*(1), e0004. https://doi.org/10.5041/RMMJ.10518

Terlau, W., & Hirsch, D. (2015). *Sustainable Consumption and the Attitude-Behaviour-Gap Phenomenon—Causes and Measurements towards a Sustainable Development*.

Tewari, A., Mathur, S., Srivastava, S., & Gangwar, D. (2022). Examining the Role of Receptivity to Green Communication, Altruism and Openness to Change on Young Consumers' Intention to Purchase Green Apparel: A Multi-Analytical Approach. *Journal of Retailing and Consumer Services*, *66*, 102938. https://doi.org/10.1016/j.jretconser.2022.102938

Thøgersen, J., & Crompton, T. (2009a). Simple and Painless? The Limitations of Spillover in Environmental Campaigning. *Journal of Consumer Policy*, *32*(2), 141–163. https://doi.org/10.1007/s10603-009-9101-1

Thøgersen, J., & Crompton, T. (2009b). Simple and Painless? The Limitations of Spillover in Environmental Campaigning. *Journal of Consumer Policy*, *32*(2), 141–163. https://doi.org/10.1007/s10603-009-9101-1

Todeschini, B. V., Cortimiglia, M. N., Callegaro-de-Menezes, D., & Ghezzi, A. (2017). Innovative and Sustainable Business Models in the Fashion Industry: Entrepreneurial Drivers, Opportunities, and Challenges. *Business Horizons*, *60*(6), 759–770. https://doi.org/10.1016/j.bushor.2017.07.003

Touré-Tillery, M., & Fishbach, A. (2018). Three Sources of Motivation. *Consumer Psychology Review*, *1*(1), 123–134. https://doi.org/10.1002/arcp.1007

Tracy, S. J. (2010). Qualitative Quality: Eight "Big-Tent" Criteria for Excellent Qualitative Research. *Qualitative Inquiry*, *16*(10), 837–851. https://doi.org/10.1177/1077800410383121

Twigger Holroyd, A. (2016). Perceptions and Practices of Dress-Related Leisure: Shopping, Sorting, Making and Mending. *Annals of Leisure Research*, *19*(3), 275–293. https://doi.org/10.1080/11745398.2015.1111148

Ullman, J. B. (2006). Structural Equation Modeling: Reviewing the Basics and Moving Forward. *Journal of Personality Assessment*, *87*(1), 35–50. https://doi.org/10.1207/s15327752jpa8701_03

Unkelbach, C., Koch, A., Silva, R. R., & Garcia-Marques, T. (2019). Truth by Repetition: Explanations and Implications. *Current Directions in Psychological Science*, *28*(3), 247–253. https://doi.org/10.1177/0963721419827854

Vainio, A., & Paloniemi, R. (2013). Does Belief Matter in Climate Change Action? *Public Understanding of Science*, *22*(4), 382–395. https://doi.org/10.1177/0963662511410268

Van Den Broek, K., Bolderdijk, J. W., & Steg, L. (2017). Individual Differences in Values Determine the Relative Persuasiveness of Biospheric, Economic and Combined Appeals. *Journal of Environmental Psychology*, *53*, 145–156. https://doi.org/10.1016/j.jenvp.2017.07.009

Van Doorn, J., & Kurz, T. (2021). The warm glow of recycling can make us more wasteful. *Journal of Environmental Psychology*, *77*, 101672. https://doi.org/10.1016/j.jenvp.2021.101672

Van Gogh, R., Bats, Y., Walrave, M., & Poels, K. (2025). Could you show me the path(s) to slow fashion consumption? An application of the prototype willingness model. *Journal of Fashion Marketing and Management: An International Journal*, *29*(2), 286–303. https://doi.org/10.1108/JFMM-03-2023-0057

Vehmas, K., Raudaskoski, A., Heikkilä, P., Harlin, A., & Mensonen, A. (2018). Consumer Attitudes and Communication in Circular Fashion. *Journal of Fashion Marketing and Management: An International Journal*, *22*(3), 286–300. https://doi.org/10.1108/JFMM-08-2017-0079

Vesterinen, E., Lee, M. S. W., & Luomala, H. T. (2024). Wear Your Pants out and Be Happy! Clothing Consumption Curtailment and Consumer Subjective Well-Being. *Journal of Macromarketing*, 02761467241269822. https://doi.org/10.1177/02761467241269822

Vesterinen, E., & Syrjälä, H. (2022). Sustainable Anti-Consumption of Clothing: A Systematic Literature Review. *Cleaner and Responsible Consumption*, *5*, 100061. https://doi.org/10.1016/j.clrc.2022.100061

Viglia, G., Zaefarian, G., & Ulqinaku, A. (2021). How to Design Good Experiments in Marketing: Types, Examples, and Methods. *Industrial Marketing Management*, *98*, 193–206. https://doi.org/10.1016/j.indmarman.2021.08.007

Vladimirova, K. (2021). Consumption Corridors in Fashion: Deliberations on Upper Consumption Limits in Minimalist Fashion Challenges. *Sustainability: Science, Practice and Policy*, *17*(1), 102–116. https://doi.org/10.1080/15487733.2021.1891673

Vollebregt, M., Mugge, R., Thürridl, C., & Van Dolen, W. (2024). Reducing without losing: Reduced consumption and its implications for well-being. *Sustainable Production and Consumption*, *45*, 91–103. https://doi.org/10.1016/j.spc.2023.12.023

Voorhees, C. M., Brady, M. K., Calantone, R., & Ramirez, E. (2016). Discriminant Validity Testing in Marketing: An Analysis, Causes for Concern, and Proposed Remedies. *Journal of the Academy of Marketing Science*, *44*(1), 119–134. https://doi.org/10.1007/s11747-015-0455-4

Weiss, L., & Johar, G. V. (2016). Products as Self-Evaluation Standards: When Owned and Unowned Products Have Opposite Effects on Self-Judgment. *Journal of Consumer Research*, *42*(6), 915–930. https://doi.org/10.1093/jcr/ucv097

White, K., & Peloza, J. (2009). Self-Benefit versus Other-Benefit Marketing Appeals: Their Effectiveness in Generating Charitable Support. *Journal of Marketing*, *73*(4), 109–124. https://doi.org/10.1509/jmkg.73.4.109

Witkowski, T. H. (2021). Broadening Anti-Consumption Research: A History of Right-Wing Prohibitions, Boycotts, and Resistance to Sustainability. *Journal of Macromarketing*, *41*(4), 610–625. https://doi.org/10.1177/0276146720983420

Wood, J. V. (1996). What is Social Comparison and How Should We Study it? *Personality and Social Psychology Bulletin*, *22*(5), 520–537. https://doi.org/10.1177/0146167296225009

Wu, D. E., Boyd Thomas, J., Moore, M., & Carroll, K. (2013). Voluntary simplicity: The Great American Apparel Diet. *Journal of Fashion Marketing and Management: An International Journal*, *17*(3), 294–305. https://doi.org/10.1108/JFMM-05-2012-0020

Yu, M., Cao, D., & Tan, J. Y. (2019). Csr-Consumption Paradox: Examination of Uk Apparel Companies. *Journal of Fashion Marketing and Management: An International Journal*, *23*(1), 124–137. https://doi.org/10.1108/JFMM-02-2018-0021

Zabkar, V., & Hosta, M. (2013). Willingness to Act and Environmentally Conscious Consumer Behaviour: Can Prosocial Status Perceptions Help Overcome the Gap? *International Journal of Consumer Studies*, *37*(3), 257–264. https://doi.org/10.1111/j.1470-6431.2012.01134.x

Zamani, B., Sandin, G., & Peters, G. M. (2017). Life Cycle Assessment of Clothing Libraries: Can Collaborative Consumption Reduce the Environmental Impact of Fast Fashion? *Journal of Cleaner Production*, *162*, 1368–1375. https://doi.org/10.1016/j.jclepro.2017.06.128

Zarley Watson, M., & Yan, R. (2013). An Exploratory Study of the Decision Processes of Fast Versus Slow Fashion Consumers. *Journal of Fashion Marketing and Management: An International Journal*, *17*(2), 141–159. https://doi.org/10.1108/JFMM-02-2011-0045

Zavestoski, S. (2002). The Social–Psychological Bases of Anticonsumption Attitudes. *Psychology & Marketing*, *19*(2), 149–165. https://doi.org/10.1002/mar.10007

Zhang, X. (2024). *What is modular fashion: Towards A Common Definition*.

Zhang, X., Chen, K., & Li, S. (2024). The effects of green advertising appeal and message type on purchase intention. *Journal of Retailing and Consumer Services*, *81*, 104007. https://doi.org/10.1016/j.jretconser.2024.104007

Zhao, A. L., Dermody, J., Koenig-Lewis, N., & Hanmer-Lloyd, S. (2024). Cultivating sustainable consumption: The role of harmonious cultural values and pro-environmental self-identity. *Journal of Consumer Behaviour*, *23*(2), 1014–1031. https://doi.org/10.1002/cb.2261

Zhao, J., Huo, H., Wei, S., Han, C., Yang, M., Gupta, B. B., & Arya, V. (2024). Research on the matching effect between advertising appeal and product type on the purchase intention of organic food. *British Food Journal*, *126*(13), 162–181. https://doi.org/10.1108/BFJ-11-2023-1016

Zhao, X., Lynch, J. G., & Chen, Q. (2010). Reconsidering Baron and Kenny: Myths and Truths about Mediation Analysis. *Journal of Consumer Research*, *37*(2), 197–206. https://doi.org/10.1086/651257

Ziesemer, F., Hüttel, A., & Balderjahn, I. (2021). Young People as Drivers or Inhibitors of the Sustainability Movement: The Case of Anti-Consumption. *Journal of Consumer Policy*, *44*(3), 427–453. https://doi.org/10.1007/s10603-021-09489-x

# Appendices

## Appendix 1. Distribution of the DV variable in Study one of Essay 3, unclassified

| | **Intention to acquire clothing, nr. of items** | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **12** | **13** | **15** | **16** | **18** | **20** | **25** | **30** | **35** | **40** | **50** | **70** | **Total** |
| **Control** | | | | | | | | | | | | | | | | | | | | | | | |
| **n** | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 2 | 0 | 6 | 1 | 0 | 2 | 1 | 0 | 3 | 0 | 2 | 1 | 1 | 4 | 1 | 28 |
| **%** | 0 | 0 | 0 | 0 | 10,7 | 3,6 | 0 | 7,1 | 0 | 21,4 | 3,6 | 0 | 7,1 | 3,6 | 0 | 10,7 | 0 | 7,1 | 3,6 | 3,6 | 14,3 | 3,6 | 100 |
| **Other** | | | | | | | | | | | | | | | | | | | | | | | |
| **n** | 0 | 0 | 2 | 3 | 6 | 0 | 0 | 0 | 1 | 12 | 0 | 0 | 1 | 1 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 30 |
| **%** | 0 | 0 | 6,7 | 10 | 20 | 0 | 0 | 0 | 3,3 | 40 | 0 | 0 | 3,3 | 3,3 | 0 | 10 | 3,3 | 0 | 0 | 0 | 0 | 0 | 100 |
| **Comb.** | | | | | | | | | | | | | | | | | | | | | | | |
| **n** | 0 | 1 | 1 | 0 | 5 | 2 | 1 | 1 | 0 | 9 | 0 | 0 | 3 | 0 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| **%** | 0 | 3,7 | 3,7 | 0 | 18,5 | 7,4 | 3,7 | 3,7 | 0 | 33,3 | 0 | 0 | 11,1 | 0 | 0 | 14,8 | 0 | 0 | 0 | 0 | 0 | 0 | 100 |
| **Int. Self** | | | | | | | | | | | | | | | | | | | | | | | |
| **n** | 2 | 1 | 1 | 0 | 7 | 1 | 2 | 0 | 0 | 9 | 1 | 1 | 4 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 2 | 0 | 34 |
| **%** | 5,9 | 2,9 | 2,9 | 0 | 20,6 | 2,9 | 5,9 | 0 | 0 | 26,5 | 2,9 | 2,9 | 11,8 | 0 | 2,9 | 0 | 0 | 0 | 2,9 | 2,9 | 5,9 | 0 | 100 |
| **Total** | | | | | | | | | | | | | | | | | | | | | | | |
| **n** | 2 | 2 | 4 | 3 | 21 | 4 | 3 | 3 | 1 | 36 | 2 | 1 | 10 | 2 | 1 | 10 | 1 | 2 | 2 | 2 | 6 | 1 | 119 |
| **%** | 1,7 | 1,7 | 3,4 | 2,5 | 17,6 | 3,4 | 2,5 | 2,5 | 0,8 | 30,3 | 1,7 | 0,8 | 8,4 | 1,7 | 0,8 | 8,4 | 0,8 | 1,7 | 1,7 | 1,7 | 5 | 0,8 | 100 |

# Appendix 2. Distribution of the DV variable in Study one of Essay 3, classified

| | **Intention to acquire clothing, nr. of items** | | | | | |
|---|---|---|---|---|---|---|
| | **1-5** | **6-10** | **11-15** | **16-20** | **21-** | **Total** |
| **Control** | 3 | 9 | 3 | 4 | 9 | 28 |
| | 9,40 % | 19,10 % | 23,10 % | 30,80 % | 64,30 % | 100 % |
| **Other** | 11 | 13 | 1 | 4 | 1 | 30 |
| | 34,40 % | 27,70 % | 7,70 % | 30,80 % | 7,10 % | 100 % |
| **Combined** | 7 | 13 | 3 | 4 | 0 | 27 |
| | 21,90 % | 27,70 % | 23,10 % | 30,80 % | 0,00 % | 100 % |
| **Int. Self** | 11 | 12 | 6 | 1 | 4 | 34 |
| | 34,40 % | 25,50 % | 46,20 % | 7,70 % | 28,60 % | 100 % |
| **Total** | 32 | 47 | 13 | 13 | 14 | 119 |
| | 26,90 % | 39,50 % | 10,90 % | 10,90 % | 11,80 % | 100 % |

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# Sustainable anti-consumption of clothing: A systematic literature review

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ABSTRACT

The fashion system constitutes one of the most unsustainable industries. In response, the majority of the sustainability research has concentrated on finding ways to boost acquisition of greener products, whereas more recent research has regarded anti-consumption as the pathway to sustainable consumption. However, there appears to be a conceptual ambiguity in the relationship between the constructs of sustainable consumption and anti-consumption. In addition, it is unclear which phases of consumption – acquisition, usage and/or disposal – are to be opposed when one opposes consumption. To clarify these ambiguities, a systematic literature review of the concepts relating to *sustainable anti-consumption of clothing* is conducted. In the review, 58 papers are identified and analysed to construct a relational framework of the concepts manifesting anti-consumption of clothing from an environmental sustainability perspective, and with respect to the cycle of consumption. The analysis shows that the multitude of overlapping concepts aim at decreasing either acquisition or disposal, but are not against usage. On the contrary, the analysis emphasises how by intensifying and prolonging the usage, it is possible to decrease acquiring and disposing of clothing, and slow down the cycle of fashion. In this way, the current research constructs conceptual and societal contributions that highlight clearer guidelines for consumers to redirect their behaviour and to companies to develop their business models in a way that releases usage from the negative connotations of consumption.

## 1. Introduction

The current fashion system constitutes one of the most unsustainable industries, accounting for around 10% of global carbon emissions (Unece, 2018). Although Peters et al. (2021) report that the eco-efficiency of the fashion industry has improved, its output has doubled this century, with a 30% rise in carbon emissions by 2015. Furthermore, the fashion industry is the most polluting industry due to all the procedures – like bleaching, rinsing, dyeing and mercerising – needed in textile production (Anguelov, 2015). What is particularly troubling about the fashion industry are the disposability problems of used garments and overstock (Ozdamar Ertekin & Atik, 2015). Globally, 1.7 kg of garments per capita are wasted post-production every year (Kirchain et al., 2015). Textile waste is considered to pose one of the primary challenges of the industry (Armstrong et al., 2015), as clothing's life cycle has shortened significantly during the last decades while consumption has simultaneously increased (Ozdamar Ertekin, 2016). As to social sustainability, the accelerating fashion cycle causes stress, uncertainty and exhaustion in every step of the supply chain (Ozdamar Ertekin, 2016) and the working conditions at low-cost production facilities could even be described as slavery (Oosterhoff et al., 2018).

To tackle these problems, a majority of the sustainable fashion research has concentrated on finding ways to boost acquisition of greener or recycled products and sustainable disposal, such as recycling (see Mukendi et al., 2020). However, the problem involves not only the sustainability of the production and materials, but also simply the amount produced and their over-consumption (Ozdamar Ertekin, 2016; Ozdamar Ertekin & Atik, 2015). While recycling products might help to reduce the negative effects of waste, it does not prevent it from being generated in the first place (Fletcher and Grose, 2012: 63–64). In brief, it does not question unsustainable buying behaviour and production volume (Fletcher and Grose, 2012: 63–64).

Another, more recent line of research that regards anti-consumption as the pathway to sustainable consumption emerged at the beginning of the 21st century (Black and Cherrier, 2010; Makri et al., 2020). Anti-consumption appears to be a promising way to achieve sustainable goals, as for example Mukendi et al. (2020) regard anti-consumption as one of the radical approaches to sustainable consumption of clothing. Yet, although the general notion of anti-consumption defines it simply as the practices of rejecting, reduction and reuse (Black and Cherrier, 2010), its conceptual connection to sustainable consumption is far more ambiguous.

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First, anti-consumption may refer to any resistance towards marketed products, including boycotting of particular products or companies, and thus does not necessarily have anything to do with sustainability (Izberk-Bilgin, 2010; Lee and Fernandez, 2006; Makri et al., 2020). On the other hand, Lee et al. (2011: 1681) define anti-consumption as being against every phase of the cycle of consumption – acquisition, usage and disposal – in the way consumption is generally understood in consumer research (e.g. Arnould et al., 2002:5-6; Bagozzi et al., 2002:1). However, if we look at clothing consumption from a sustainability perspective, is it really the whole cycle of consumption from desire to acquisition, usage and disposal that should be resisted? If useable pieces of clothing end up in waste (Ozdamar Ertekin & Atik, 2015), does this not mean that they are not (fully) used, but only acquired and discarded?

To answer these questions, we analyse conceptually what *sustainable anti-consumption of clothing* entails. Through a systematic literature review, we identify 58 studies that examine anti-consumption of clothing from the sustainability perspective, focusing on the environmental dimension of sustainability. Our analysis reveals a high number of related and overlapping concepts manifesting sustainable anti-consumption of clothing. We aim to clarify this conceptual ambiguity by constructing a relational framework. Our paper provides a theoretical contribution by elaborating on their shared core aspect: the meaning of consumption. In this way, we are able to propose a clarification of the concept of sustainable anti-consumption of clothing, as in all of the analysed papers, it does not mean simply being against all phases of consumption, but rather being *anti-acquisition, anti-disposal* and *pro-usage*.

Thereby, through this systematic literature review, we aim to yield societal implications by providing ideas for understanding sustainable anti-consumption practices in which anti-consumption slows down the personal cycle of consumption of individual consumers, as the focus is on acquiring fewer products and using them longer. In this, we respond to Fischer et al.'s (2021) call to improve effectiveness in sustainable consumption communication by including other phases of consumption (usage, disposal) in addition to purchase. As the term "sustainable clothing consumption" has been found to be ambiguous among consumers (Bly et al., 2015; Harris et al., 2016), the use of more tangible vocabulary could support consumers' ability and willingness to adopt anti-consumption practices of clothing. Sandin and Peters (2018) showed that in terms of environmental impact, it is more beneficial to reuse textiles rather than recycle. We agree with their analysis by providing conceptual support to approaching various actors in the markets. Thus, by producing a clearer guideline for consumers to redirect their behaviour and to companies in the industry to develop their business models, it is possible to release the usage phase of the cycle of consumption from the negative connotations of consumption.

Our paper proceeds as follows. In section two, we present the methods used in the systematic literature review. In section three, the results are shown in two parts. First, we construct a relational framework displaying the concepts manifesting anti-consumption of clothing in relation to 1) their perception on reduction of consumption, 2) in relation to each other, and 3) in relation to the level of abstraction. Second, we reflect on how the phases of consumption appear in each of the concepts. In section four, we discuss the significance of the results. In section five, we highlight managerial and societal implications as well as future research ideas in relation to consumers, new business models, societal consequences and systemic change. In the sixth section, we provide the conclusions of our study.

## 2. Method

To clarify the concept of sustainable anti-consumption of clothing, the present study adopts a systematic literature review (SLR) approach. A systematic literature review aims at systematically and comprehensively examining all relevant research while carefully describing and justifying this procedure to enable reproducibility (Fink, 2020:16). Our SLR procedure followed the guidelines of Fink (2020), which can be summarised to consist of three phases: 1. planning, 2. searching and screening and 3. collecting data and synthesising the results.

In the planning phase, we first defined our aim and research questions (Fink, 2020: 20–21). The research questions then guided the selection of bibliographic databases and keywords used in the online search for literature. The aim and research questions are as follows:

AIM: To clarify the meaning of the concept of sustainable anti-consumption of clothing from the environmental perspective.

RQ1: What *concepts* are used in the literature to describe sustainable anti-consumption of clothing?

RQ2: What is *meant by consumption* in these concepts of sustainable anti-consumption of clothing?

As research related to sustainable consumption and clothing consumption is published in a variety of journals, several major databases were used to ensure coverage and to allow the selected databases to complement the weaknesses of each other (Mohamed Shaffril et al., 2021). Thus, ABI/INFORM Collection, Science Direct, Business Source Premier, Academic Search Elite and Google Scholar were searched for all relevant articles available until June 2020. Articles were selected if the used search terms appeared in the topic section of the database or in the keywords, title or abstract of the article under consideration. The following search terms were used:

consum* OR behavio* OR lifestyle* OR shopping OR purchas* OR buy*

AND

sustain* OR green* OR ecolog* OR environment* OR ethic* OR natur*

AND

sufficien* OR reduc* OR conscious* OR mindful* OR frugal* OR anti*consum* OR slow*

OR simpli* OR down*shift* OR ethical OR responsible

AND

cloth* OR garment* OR fashion OR textile* OR apparel

As usual, after the first searches, new keywords were found, especially as the topic is new and the terminology and concepts are used inconsistently and not necessarily in the headings of the papers as such (Fink, 2020: 28). In this stage, the concepts of *adaptable apparel, clothes swapping, mending, collaborative consumption, disposal, second-hand, product-service systems, reuse, circular garment, circular clothing, decluttering* and *minimalism* were added to the search terms.

Once all relevant articles were identified, they went through an initial screening at the title and abstract level (Fink, 2020: 53). We decided to focus on peer-reviewed journal articles and chapters of books from high-quality publishers (e.g. Routledge, Springer) in English including both conceptual work and empirical studies. Grey literature, dissertations and chapters in universities' own publication series were left out. To follow a very systematic method and enable reproducibility, also books were excluded (Fink, 2020: 84). No timeframe criterion was needed, as the amount of literature was still limited.

Next, the articles went through a content screening by both authors. The content-related criteria to include/exclude an article were as follows and summarised in Table 1:

1. The definition of anti-consumption by Lee et al. (2011) served as the basis for the criteria. According to them, anti-consumption is defined as intentionally rejecting, restricting or reclaiming particular products or consumption as a whole. Therefore, literature in which anti-consumption is perceived as unintentional or non-voluntary (e.g. when anti-consumption is practised in poverty, and therefore not completely by choice [Leipämaa-Leskinen et al., 2016]) was excluded.
2. As we were interested in anti-consumption as a way of consuming in an environmentally sustainable way, we followed the more detailed classification proposed by Makri et al. (2020) to narrow down our criteria. We included only studies that fell in the categories of 1. Green/sustainable consumption or ethical/moral consumption, alternative consumption, or 3. Voluntary simplicity, as they characterise behaviour that aims at consuming in a sustainable manner. Categories where the opposition is directed towards certain brands or products, for instance due to their symbolic meanings, but where the aim is not to reduce the amount of personal consumption per se (i.e. 2. Consumer resistance, 4. Boycotts/consumer activism, 5. Symbolic consumption or 6. Brand/product avoidance) (Makri et al., 2020) were excluded.
3. To be included, articles had to deal with concepts that aim at the reduction of personal consumption levels. Therefore, articles that described concepts in which anti-consumption is perceived as a choice of "greener" product option were excluded as they are more closely related to other forms of sustainable consumption. By consumption we refer to consuming products from the perspective of an individual consumer. From this perspective, a distinction can be made between 1. consuming greener products, where the consumption of raw materials might be reduced from the global perspective, but the amount of the products consumed remains the same from the consumer's perspective; 2. circular consumption, where, again, the consumption of raw materials might be reduced but the amount of products going through the personal consumption loop of an individual consumer stays the same; and finally, 3. sustainable anti-consumption, where the amount of products going through the individual consumption loop is reduced.

The first three criteria, defining sustainable anti-consumption as the common ground between sustainable consumption and anti-consumption, are illustrated in Fig. 1.

4. Studies had to look at anti-consumption from the consumer perspective, or from the industrial perspective but in a form that supports anti-consumption as sustainable consumer behaviour. Hence, studies looking at how businesses can avoid or fight anti-consumption were not included. Also, publications on anti-consumerist communication were left out.
5. Studies had to look at sustainable anti-consumption specifically in the context of clothing consumption.

During the content screening phase, we decided to exclude concepts such as *circular garment* and *clothing*, *second-hand*, *minimalism* and *decluttering* from the analysis, as the literature showed that these concepts do not meet the criteria presented above. The purchase of *second-hand* clothing and *circular garments/clothing*, referring to reused garments or garments made from recycled textiles (Pretner et al., 2021; Vehmas et al., 2018), might lead to a decline in the amount of raw materials used in production, but they do not reduce the amount of products that are consumed from the perspective of an individual consumer.

As to the concepts of *minimalism* and *decluttering*, the literature on consumption referred to the ideology of Marie Kondo, in which garments that no longer "spark joy" are discarded (Eike et al., 2021; Sandlin and Wallin, 2021). Thus, these concepts seem to refer to increased disposal, rather than downscaling the product flow (Eike et al., 2021; Mellander and Petersson McIntyre, 2021; Sandlin and Wallin, 2021), and do not meet our criteria. According to Eike et al. (2021), these "decluttered" items are often replaced with new ones at an unfortunate speed, which underlines the unfitness of these concepts in relation to the given criteria. The exclusion of these concepts can also be justified by the difference between anti-materialism and anti-consumption. While anti-materialism focuses on the rejection of material possessions as a way of pursuing happiness, anti-consumption is about being against consumption, not necessarily possessions (Lee and Ahn, 2016).

The rest of the articles on minimalism discussed minimalistic aesthetics and design and did not mention consumption behaviour at all (e.g. Eladwi and Kotb, 2015; Park and Yim, 2013).

Finally, "bread crumbing" and "pearl growing" were used to identify further relevant publications. This means that we searched through the reference lists of the most relevant articles as well as the articles that had cited the most relevant articles (Fink, 2020: 29). This iterative process of

**Table 1**
Criteria for sample inclusion and exclusion.

| Criteria | Include | Exclude |
|---|---|---|
| **1. Definition of sustainable anti-consumption 1** | Studies that concern action that intentionally and voluntarily reduces consumption | Studies that concern unintentional or non-voluntary anti-consumption |
| **2. Definition of sustainable anti-consumption 2** | Studies that concern:<br>-Green/sustainable consumption<br>-Ethical/moral consumption<br>-Alternative consumption<br>-Voluntary simplicity | Studies that concern:<br>- Consumer resistance in general<br>- Symbolic consumption<br>- Brand/product avoidance |
| **3. Definition of sustainable anti-consumption 3** | Studies that concern reduction of personal consumption | Studies that concern choosing "greener" products |
| **4. Angle of the study** | Studies that look at consumption from a consumer or industry perspective, but in a form that supports anti-consumption as sustainable consumer behaviour | Studies looking at how businesses can avoid or fight anti-consumption |
| **5. Context** | Papers looking at the context of clothing | Other context or anti-consumption in general |
| **Type of literature** | Peer-reviewed journal articles and book chapters | Grey literature, dissertations, chapters in universities' own publications, books |
| **Language of the literature** | English | Other languages |
| **Study type** | Conceptual work and empirical studies | Other |
| **Timeframe** | No timeframe needed | |

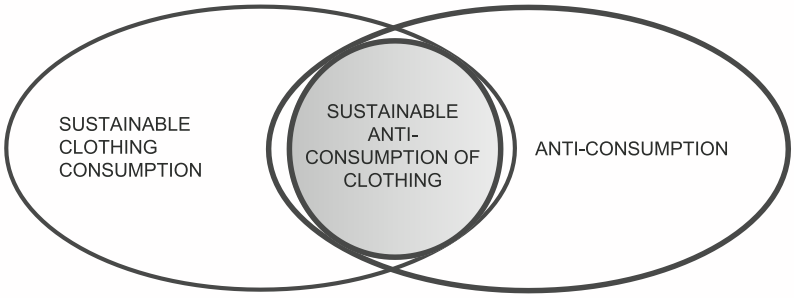


**Fig. 1.** Sustainable anti-consumption as the common ground between sustainable consumption and anti-consumption.

identifying new publications and new keywords continued as long as no new relevant research or keywords were found. At this stage, the preliminary sample went through final screening, where the full texts were checked for the content criteria in detail and discussed by the researchers.

The final sample consists of 58 articles (see Appendix A). Of these, 11 are conceptual, two literature reviews and 45 empirical studies. Of the empirical papers, 22 are quantitative and 18 qualitative, while five employ mixed methods. The articles come from 27 different journals and books representing different study fields.

In the data collection phase, we extracted data from the articles in terms of the concepts related to anti-consumerist behaviour and the definitions of the concepts. This information was then synthesised and analysed at the content level, seeking to identify relationships among constructs and to clarify which phase(s) of the cycle of consumption are referred to. The analysis was conducted in a systematic and controlled way by using qualitative content analysis (Mayring, 2004). In particular, the reviewed material was manually coded based on a category system that enables reproducibility (Mayring, 2014). The coding framework is based on both deductive categories that were built based on previous theory, such as cycle of consumption, and inductive categories that were built based on the material itself (Mayring, 2014).

## 3. Results

The results of our systematic literature review are organised as follows. First, we discuss the concepts that manifest the sustainable anti-consumption of clothing. We present a relational framework that displays the concepts in relation to reduction of consumption, in relation to each other, and in relation to the level of abstraction (see Fig. 2). In the second part, we analyse the concepts of sustainable anti-consumption of clothing with respect to the cycle of consumption.

### 3.1. Concepts manifesting sustainable anti-consumption of clothing

In this section, we present the relational framework (Fig. 2) showing the concepts that manifest the sustainable anti-consumption of clothing. In the framework, the concepts are organised according to their level of abstraction into two categories: 1. ideologies and 2. strategies. The category of ideologies contains concepts that refer to a way of thinking or a lifestyle, while strategies refer to the ways in which anti-consumerist ideologies manifest in practice.

Sustainable clothing consumption can be divided into two main categories of *sustainable acquisition* and *sustainable anti-consumption of clothing*. As their division is not always clear, the framework illustrates their interrelations. By *sustainable clothing consumption,* we refer to attempts of any kind to reduce the harmful effects of clothing consumption, such as buying higher-quality products, buying ethically and/or ecologically produced clothing, buying second-hand as well as mending and simply buying less (Diddi et al., 2019). By *sustainable acquisition,* we refer to acquiring products that are sustainable in terms of locality, transparency, traceability, environment and/or social aspects (Berberyan et al., 2018; Carey and Cervellon, 2014; Henninger et al., 2016; Joergens, 2006). As these practices indicate those of choosing a "greener" option, sustainable acquisition is excluded from further analysis and highlighted in grey in the framework. Finally, by *sustainable anti-consumption of clothing,* we refer to ideologies and strategies aiming at reducing the personal consumption of clothing.

The concepts and terminology used in the sustainable anti-consumption of clothing path of research are discussed in detail below by presenting each concept proceeding from top to bottom, i.e. from ideologies to strategies. As anticipated, the conceptual ambiguity did emerge during the analysis and several concepts had different definitions and meanings in different articles. The definitions of each concept are summarised in Appendix B.

#### 3.1.1. Anti-consumerist clothing consumption ideologies

In regard to anti-consumerist **ideologies**, several concepts emerge, some of which adhere more tightly to the logic of sustainable anti-consumption and some more loosely.

*Slow fashion* is one of the ideological concepts that was defined in a variety of ways (Cataldi et al., 2017; Clark, 2008; Fletcher, 2010; Jung and Jin, 2014, 2015, 2016a, 2016b; Pal, 2017; Pal and Gander, 2018; Pookulangara and Shephard, 2013; Reimers et al., 2016; Şener et al., 2019; Sobreira et al., 2020; Štefko and Steffek, 2018; Tama et al., 2017; Zarley Watson & Yan, 2013). Depending on the angle of the article, the definitions ranged from producing seasonless clothing (Zarley Watson & Yan, 2013) to fair labour, regional production, high quality, small lines and consumers thinking about the origins of the garment and engaging in long-term use of high-quality products (Pookulangara and Shephard, 2013).

Despite the varying interpretations, most of the chosen articles base their understanding on either Fletcher's (2007, 2010) conceptualisation of slow fashion or the scale of Jung and Jin (2014) built upon Fletcher's concept. Originating from the slow food movement, Fletcher's conceptualisation refers not only to durable products, but to challenging existing hierarchical business models (Clark, 2008; Fletcher, 2007, 2010) by favouring distributed economies with less intermediation between producer and consumer, transparent production and local resources (Fletcher, 2007, 2010). Jung and Jin (2014) further encapsulated the concept in five dimensions – equity, localism, authenticity, exclusivity and functionality. They refer to caring for producers and local communities, valuing the craftsmanship behind the products, adding diversity and individuality to fashion, as well as prolonging product lifespan. Therefore, while concentrating on slowing down the production process, the concept of slow fashion combines characteristics from both sustainable acquisition and sustainable anti-consumption (and is therefore

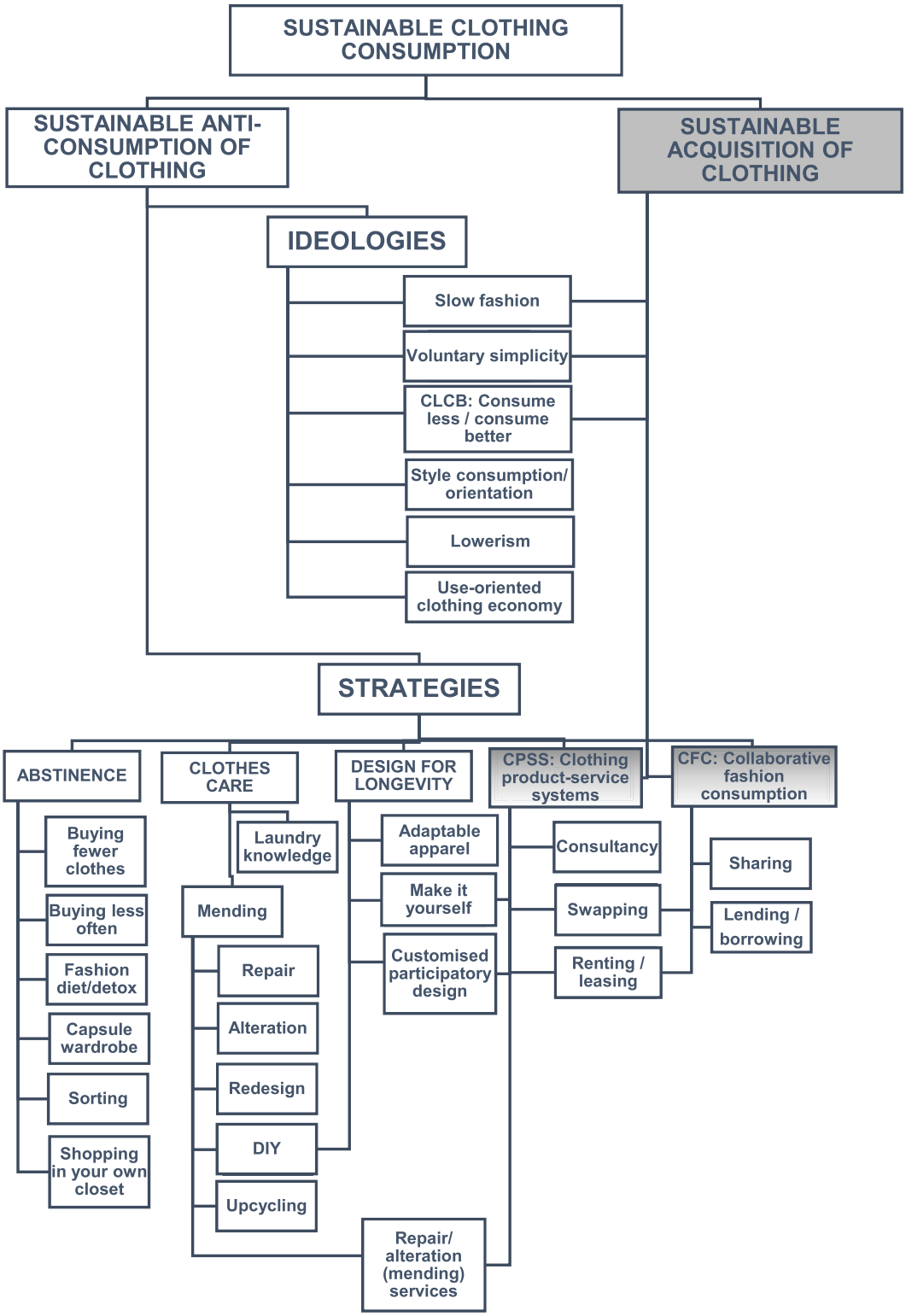


**Fig. 2.** The framework of sustainable anti-consumption of clothing.

connected to both categories in Fig. 2). Also, while it implicitly promotes the idea of buying less but better quality garments (Magnuson et al., 2017), in many of the articles, it does not explicitly take a stand on the reduction of consumption from the consumers' point of view.

Another ideological concept that has multiple definitions is *voluntary simplicity*. While Wu et al. (2013) look at voluntary simplicity purely as reduction of material consumption, according to Taljaard and Sonnenberg (2019), voluntary simplicity of clothing includes also choosing local brands and unique handcrafted clothing as well as ethically and environmentally sustainable brands. Their definition resembles the concept of slow fashion and is likewise a hybrid, conjoining acquiring sustainable products and reducing consumption.

A third group similar to voluntary simplifiers and slow fashion consumers are the *"consume less, consume better" (CLCB)* consumers (Bly et al., 2015). These consumers, when they do shop, strive to buy sustainable options, but above all, they concentrate on buying less but higher quality items from small and trustworthy producers (Bly et al., 2015). In addition to just concentrating on quality, CLCB consumers use personal style as a means to combine the contradictory concepts of sustainability and fashion. By pursuing individual style that reflects wearers' long-term identities instead of trends that change over time (Cho et al., 2015; Gupta et al., 2019), these consumers are able to wear their clothes for a long time and thereby reduce the frequency of their clothing purchases. This is also the core idea of *style consumption*, which is proposed as a sustainable substitute to fashion consumption (Cho et al., 2015; Gupta et al., 2019). The logic of buying less but better is also the core of *Lowerism*, which refers to a critical approach to consumption that includes prudent acquisitions of new garments (Todeschini et al., 2017).

Finally, from the industry's point of view, in addition to producing durable and individual clothing (Freudenreich and Schaltegger, 2020), sustainable anti-consumption can be supported by moving the emphasis from material consumption to usage. This is referred to as *use-oriented clothing economy* and can be pursued for example through supplementing and replacing products with services (Armstrong et al., 2016). While use-oriented clothing economy as an ideology reflects well the characteristics of sustainable anti-consumption of clothing, the same is not always true of the strategies for pursuing it. This issue is discussed in more detail in the next section.

#### 3.1.2. Strategies to follow anti-consumerist ideologies

In this section, we discuss the concepts that operate at the level of **strategies**, i.e. how to follow the anti-consumerist ideologies in practice.

The easiest way to follow the ideology is through ***abstinence***. This can simply mean *buying fewer clothes* or *buying clothes less often* (e.g. Diddi et al., 2019; Joanes, 2019), but also taking part in *fashion diet* or *fashion detox* (Armstrong et al., 2016; Ruppert-Stroescu et al., 2015; Wu et al., 2013). These concepts refer to abstaining from routine purchasing behaviour for apparel for a certain period of time (Armstrong et al., 2016; Ruppert-Stroescu et al., 2015; Wu et al., 2013). A similar concept to fashion diet is *capsule wardrobe,* which refers to making a commitment to own and use only a limited amount of clothes for a fixed period of time (e.g. a season or a year) (Todeschini et al., 2017).

While refraining from acquisition, the desire to consume and craving for novelty can be redirected into *sorting*, which refers to organising and reviewing clothes within the consumer's own wardrobe (Twigger Holroyd, 2016). It is sometimes conceptualised as *"shopping in your own closet",* meaning rediscovering and recombining pieces you already own (Bly et al., 2015). According to studies (Bly et al., 2015; Ruppert-Stroescu et al., 2015), reducing acquisition of clothing seems to increase creativity as well as interest in, and consciousness and confidence about, one's own style (Bly et al., 2015). However, in cases where sorting is conceptualised more as choosing pieces for disposal or second-hand sale to make space for new items (Twigger Holroyd, 2016), it clearly increases rather than decreases consumption (Laitala, 2014) and should not be categorised as sustainable anti-consumption.

Another way to avoid acquiring and disposing of clothing is by prolonging the life of a garment through ***clothes care*** (Norum, 2013). This refers to *laundry knowledge,* i.e. knowledge about right water temperatures, detergents, frequency of washing and line drying, but also *mending skills* including *repairing, altering* or *redesigning* (Diddi et al., 2019; Diddi and Yan, 2019; Durrani, 2018; Janigo and Wu, 2015; Laitala and Klepp, 2018; Lang et al., 2016; Lapolla and Sanders, 2015; Middleton, 2015; Norum, 2013; Pal, 2016; Twigger Holroyd, 2016). Mending can mean for example replacing a zipper or a seam, altering the size of a garment or making something completely new from old clothing. Mending can be done privately or in a workshop that provides space, materials and tutoring as well as a social dimension to promote the skill of mending (Durrani, 2018). Mending can even be offered as a service, either added to the price of the product or as a separate option (Durrani, 2018; Freudenreich and Schaltegger, 2020). According to Laitala & Klepp (2018), mending enables prolonging the lifecycle of garments, but can also help consumers to understand quality when buying new products and appreciate clothes more.

Frugal or simplistic consumption behaviour often results in *DIY* behaviour (Bly et al., 2015; Laitala and Klepp, 2018; Twigger Holroyd, 2016). Making your own clothes might serve as a way of resisting the market, but whether this reduces consumption or not depends on the consumer and whether new fabrics are used. If new garments are made from old ones, the behaviour is more like *upcycling,* where one repurposes and remakes old items (Bhatt et al., 2019), and is a manifestation of sustainable anti-consumption of clothing. If new clothes are made from new fabrics, the same amount of fabric has to be produced as with ready-made clothes and this should be seen as being comparable to buying new apparel. That said, self-made garments can be more valuable to the owner than ready-made garments and can therefore be worn longer (Niinimäki and Armstrong, 2013).

This kind of longevity thinking can be taken to an industrial context and is then called ***design for longevity.*** This notion refers to design that aims at enhancing person–product attachment and thereby the lifecycle of the product through for example simplicity, modularity or incremental improvements to existing garments (Niinimäki and Armstrong, 2013; Pal and Gander, 2018). Longevity and attachment can also be pursued through adaptability (Becker-Leifhold and Iran, 2018; Cao et al., 2014). *Adaptable apparel* items, in addition to often being environmentally friendly, are easily changeable in terms of function, fit and style (Becker-Leifhold and Iran, 2018; Cao et al., 2014). However, whether these design strategies truly prolong the life cycle of the garments and reduce consumption is very much dependent on the preferences and behaviour of consumers.

Other concepts that represent the category of design for longevity are *Make it Yourself* toolkits, referring to kits containing materials and tools to make and personalise a garment, as well as *customised, participatory design,* referring to building a garment by selecting clothing components or working with a designer to create a one-of-a-kind garment (Armstrong et al., 2015). These two strategies can also be seen as ***product-service systems (PSS)*** (Armstrong et al., 2015; Armstrong et al., 2016; Lang and Armstrong, 2018b; Pal, 2016, 2017; Pal and Gander, 2018; Strähle and Erhardt, 2017; Stål and Jansson, 2017). By combining products with services, PSS aim at making the products more valuable to the consumer, extending garments' lifespan and thereby reducing consumption (Armstrong et al., 2015). These business models can be classified into: 1. use-oriented service systems, such as *consultancy, clothing swaps* and *renting*, 2. product-oriented systems, such as *repair, redesign*, *take-back* and *customised or participatory design* and 3. result-oriented services that offer a complete look (Armstrong et al., 2015).

However, only a part of the PSS business models are included in our framework. *Swapping, renting* and *repair/alteration services*, as well as *style consultancy services* (Adam et al., 2018; Armstrong et al., 2015; Armstrong et al., 2016; Lang and Armstrong, 2018b; Lang, 2018; Lang et al., 2016; Rathinamoorthy et al., 2018) manifest the sustainable anti-consumerist ideology, as they reduce the need for consumers to acquire clothing. Here, style consultancy services refer to advice on how to continue to

wear existing clothes and to create new and different looks with them (Armstrong et al., 2015). As for the case of the *take-back* of used clothing in exchange for a coupon for new purchases and selling *redesigned clothing* made out of this old clothing (Armstrong et al., 2015), only the product changes, not the amount of products acquired and disposed of. Thus, these strategies are not included in sustainable anti-consumption. Also, as not all PSS follow the ideology of sustainable anti-consumption (see e.g. Tukker's [2004] PSS typology), PSS is marked with gradient grey in the framework.

Some of the above-mentioned forms of product-service systems may also be seen as forms of ***collaborative fashion consumption (CFC)*** (Becker-Leifhold and Iran, 2018; Iran and Schrader, 2017; Johnson et al., 2016; Lang and Armstrong, 2018a; Pal, 2017; Pal and Gander, 2018; Park and Armstrong, 2017; Pedersen and Netter, 2015; Strähle and Erhardt, 2017; Zamani et al., 2017). In CFC, pieces of clothing that would normally be discarded due to boredom, bad fit or lack of storage space are given to other users with the intention of increasing the number of uses per garment and enabling the satisfaction of consumption needs with fewer products (Iran and Schrader, 2017). CFC can be followed by either acquiring individual ownership through *second-hand purchases, gifting* or *swapping* or by acquiring a temporary right to use a garment owned by others through *sharing, lending, renting* or *leasing* (Iran and Schrader, 2017). Furthermore, CFC can be organised in a peer-to-peer manner, with or without the facilitation of a company, or in a business-to-customer manner (Becker-Leifhold and Iran, 2018; Henninger et al., 2019; Iran and Schrader, 2017). A very traditional example of peer-to-peer sharing is *inheriting,* referring to children inheriting items from their siblings or other relatives (Klepp and Laitala, 2018).

However, from the point of view of sustainable anti-consumption, CFC, like PSS, appears to be a borderline case (and is thus marked with gradient grey in the framework). Second-hand clothing was decided to be left out of the analysis already in the data screening phase, as it does not meet our criteria for reducing the amount of products that go through the consumption loop of an individual consumer. Similarly, inheriting or gifting are basically just different types of acquisition and disposal methods, just like buying and selling second-hand, and thus do not meet the criteria of reducing personal consumption, whether second-hand or new.

When it comes to other forms of CFC, sharing, lending, renting and swapping match the theoretical inclusion criteria and are taken into the analysis. In these cases, the consumption is genuinely collaborative and changes the consumption paradigm of acquiring and disposing. In swapping, for example, the number of pieces that one can bring to a swapping event is generally limited, with a preference for quality over quantity, and as the participants swap items on a piece for piece basis, the consumption loop remains closed and the amount of clothing does not increase.

### 3.2. Phases of consumption in the concepts of sustainable anti-consumption

In this section, we present the results on the meaning of consumption in the concepts of sustainable anti-consumption of clothing. Although we included only those concepts that approach anti-consumption of clothing in terms of reducing consumption, it became evident that the conceptual boundaries are nevertheless not that clear-cut. Therefore, to clarify what exactly is opposed when sustainably opposing consumption, we analysed the concepts in relation to the cycle of consumption. We analysed whether each type of anti-consumption behaviour increases or decreases **acquisition**, **use** and **disposal** of clothing, and further classified the acquire phase into four more detailed categories: **acquisition of products**, **strategic acquisition**, **acquisition of services**, and **sustainable acquisition.** By strategic acquisition, we refer to acquisition decisions that are made in such a manner that the acquisition optimally contributes to the functionality of one's wardrobe and style in the long run (Armstrong and Lang, 2018). Similarly, the use phase was classified into two categories: **use more** and **use longer**. The meaning of consumption in the concepts of sustainable anti-consumption of clothing is illustrated in Table 2. The meaning of consumption was either explicitly mentioned or could be implicitly understood from the articles.

In the purchase phase, many concepts contained characteristics from both sustainable anti-consumption and **sustainable acquisition.** In addition to acquiring sustainable products, anti-consumerist behaviours often include or lead to **acquisition of services** or **strategic acquisition**. As to the usage phase, most of the concepts aim at either **intensifying or prolonging the usage** of the garments. Finally, around half of the identified concepts aim at **reducing disposal of clothing**.

The feature that characterises all of the concepts is that by **increasing product use** and **prolonging the life cycle** as well as through **acquiring services** and **strategic acquiring**, these concepts all aim at **decreasing the need for acquisition (i.e. purchasing products)**. Moreover, while opposing acquisition, sustainable anti-consumption of clothing in fact involves very active usage. This was previously noted also by Craig-Lees and Hill (2002) who, while studying anti-consumers, found that they seem to own more things than non-anti-consumers or at least display these things more actively. It is therefore clear that while anti-consumers do not **acquire** and **dispose** of things as much as others do, they still **consume** their clothes in one way or another.

This raises the question of whether anti-consumption is actually the most appropriate term to describe this behaviour or whether we should be talking more precisely about anti-acquisition and anti-disposal accompanied with pro-usage. Not opposing the whole cycle of consumption, but focusing on anti-acquisition, pro-usage and anti-disposal, would be a much clearer guideline for consumers to redirect their behaviour and to companies in the industry to develop their business models towards a genuinely use-oriented clothing economy. While opposing acquisition and disposal, the usage phase of the cycle of consumption would be released from the negative connotations of consumption. As more and more garments are thrown away, often almost unused (Finnish Textile and Fashion, 2017; Ozdamar Ertekin & Atik, 2015), it is not over-usage but over-acquisition that is the problem. To highlight this argument, we show the connecting role of phases of the cycle of consumption between sustainable consumption and anti-consumption in Fig. 3. The figure illustrates how the phases of the cycle of consumption are interrelated and how behaviours in one phase have implications for other phases of the cycle, as anti-acquisition inevitably intensifies and/or prolongs usage and eventually diminishes disposal and vice versa.

## 4. Discussion

In this paper, we systematically reviewed the concepts relating to sustainable anti-consumption of clothing. Our attention was drawn to the concept of consumption, and what exactly is opposed when one opposes consumption from the sustainability viewpoint. Based on our analysis, we suggest the conceptual development of moving from anti-consumption to *anti-disposal*, *anti-acquisition* and *pro-usage*, to advocate the sustainable manifestation of anti-consumption.

We argue that instead of just opposing consumption in general – which seems to be an abstract concept that has strong cultural and religious connotations (Azevedo, 2020; Wilk, 2004; Witkowski, 2010) – we have to offer consumers and the industry simpler and more concrete guidelines on what to actually oppose to be sustainable. To answer this need, we propose the guideline of avoiding disposal and acquisition of both new and second-hand clothing, while increasing and intensifying the usage of clothing.

It becomes evident that the most powerful actor is the user, who decides when and what to buy, how long to use a piece, and when and how to get rid of it (Fletcher, 2016: 211). Products are most commonly discarded not due to physical durability, but due to psychological obsolescence, meaning that either the aesthetics no longer please the user, they do not fit with societal preferences, new technological inventions make the old ones look dated, or the economic structures encourage

**Table 2**
Sustainable anti-consumption of clothing in relation to phases of consumption.

| CONCEPT | LEVEL | ACQUISITION OF PRODUCTS | SUSTAINABLE ACQUISITION | ACQUISITION OF SERVICES | STRATEGIC ACQUISITION | USE | | DISPOSAL | Papers on this concept |
|---|---|---|---|---|---|---|---|---|---|
| Slow fashion | Ideology | LESS | MORE | | MORE | MORE | LONGER | LESS | Cataldi et al., 2017; Clark, 2008; Fletcher, 2010; Jung & Jin, 2014, 2015, 2016a, 2016b; Pal, 2017; Pal & Gander, 2018; Pookularanga & Shephard, 2013; Şener et al., 2019; Sobreira et al., 2020; Štefko & Steffek, 2018; Ståhl & Jansson, 2017; Tama et al., 2017; Zarley Watson & Yan, 2013 |
| Voluntary simplicity | Ideology | LESS | MORE | | MORE | MORE | LONGER | LESS | Taljaard & Sonnenberg, 2019; Wu et al. 2013 |
| Consume less/consume better (CLCB) | Ideology | LESS | MORE | | | MORE | | | Bly et al. 2015 |
| Style consumption/orientation | Ideology | LESS | | | MORE | MORE | LONGER | | Cho et al., 2015; Gupta et al., 2019 |
| Lowerism | Ideology | LESS | | | | | | | Todeschini et al., 2017 |
| Use-oriented clothing economy | Ideology | LESS | | MORE | MORE | MORE | LONGER | | Armstrong, Niinimäki et al., 2016 |
| Buying fewer clothes | Strategy | LESS | | | | | | | Diddi et al., 2019; Joanes, 2019 |
| Buying clothes less often | Strategy | LESS | | | | | | | Diddi et al., 2019 |
| Fashion diet/detox | Strategy | LESS | | | | MORE | | | Armstrong, Connell et al., 2016; Ruppert-Stroescu et al., 2015; Wu et al., 2013 |
| Capsule wardrobe | Strategy | LESS | | | | MORE | | | Todeschini et al., 2017 |
| Sorting | Strategy | LESS | | | | MORE | | MORE | Twigger Holroyd, 2016 |
| Shopping in your own closet | Strategy | LESS | | | | MORE | LONGER | | Bly et al., 2015 |
| Clothes care | Strategy | LESS | | | | | LONGER | LESS | Norum, 2013 |
| Laundry knowledge | Strategy | LESS | | | | | LONGER | LESS | Norum, 2013 |
| Mending: repair, alteration, redesign | Strategy | LESS | | MORE | | | LONGER | LESS | Diddi & Yan, 2019; Diddi et al., 2019; Durrani, 2018; Janigo & Wu, 2015; Laitala & Klepp, 2018; Lang et al., 2016; Lapolla & Sanders, 2015; Middleton, 2015; Norum, 2013; Pal, 2016; Twigger Holroyd, 2016 |
| Repair/alteration/redesign services | Strategy | LESS | | MORE | | | LONGER | LESS | Armstrong et al., 2015; Diddi et al., 2019; Lang & Armstrong, 2018b |
| DIY | Strategy | LESS | | | | | LONGER | LESS | Bly et al., 2015; Freudenreich & Schaltegger, 2020; Laitala & Klepp, 2018; Twigger Holroyd, 2016 |
| Upcycling | Strategy | LESS | | | | | LONGER | LESS | Bhatt et al., 2019 |
| Design for longevity | Strategy | LESS | | | | MORE | LONGER | | Freudenreich & Schaltegger, 2020; Niinimäki & Armstrong, 2013; Pal & Gander, 2018 |
| Adaptable apparel | Strategy | LESS | | | | MORE | LONGER | | Becker-Leifhold & Iran, 2018; Cao et al., 2014 |
| Make it yourself | Strategy | LESS | | | | | LONGER | | Armstrong et al., 2015 |
| Customised, participatory design | Strategy | LESS | | | | | LONGER | | Armstrong et al., 2015 |
| Clothing product-service systems | Strategy | LESS | MORE | MORE | | MORE | LONGER | LESS | Armstrong et al., 2015; Armstrong, Niinimäki et al., 2016; Lang & Armstrong, 2018b; Pal, 2016; Pal, 2017; Pal & Gander, 2018; Strähle & Erhardt, 2017; Stål & Jansson, 2017 |
| Clothing consultancy | Strategy | LESS | | MORE | MORE | MORE | LONGER | | Armstrong et al., 2015; Armstrong, Niinimäki et al., 2016; Lang & Armstrong, 2018b; Lang et al., 2016 |
| Swapping | Strategy | LESS | | MORE | | MORE | LONGER | LESS | Armstrong et al., 2015; Armstrong, Niinimäki et al., 2016; Becker-Leifhold & Iran, 2018; Henninger et al., 2019; Iran & Schrader, 2017; Lang & Armstrong, 2018b; Lang et al., 2016; Pal, 2016; Pal & Gander, 2018; Rathinamoorthy et al., 2018 |
| Renting/leasing | Strategy | LESS | | MORE | | MORE | | LESS | Adam et al., 2018; Armstrong et al., 2015; Armstrong, Niinimäki et al., 2016; Becker-Leifhold & Iran, 2018; Iran & Schrader, 2017; Klepp& Laitala, 2018; Lang, 2018; Lang & Armstrong, 2018b; Lang et al., 2016; Pal, 2016; Pal & Gander, 2018 |
| Collaborative fashion consumption (CFC) | Strategy | LESS | MORE | MORE | | MORE | | LESS | Becker-Leifhold & Iran, 2018; Iran & Schrader, 2017; Johnson et al., 2016; Lang & Armstrong, 2018a; Pal, 2017; Pal & Gander, 2018; Park & Armstrong, 2017; Pedersen & Netter, 2015; Strähle & Erhardt, 2017; Zamani et al., 2017 |
| Sharing | Strategy | LESS | | MORE | | MORE | | | Becker-Leifhold & Iran, 2018; Iran & Schrader, 2017; Pal & Gander, 2018; Pedersen & Netter, 2015 |
| Lending/borrowing | Strategy | LESS | | MORE | | MORE | | | Becker-Leifhold & Iran, 2018; Iran & Schrader, 2017; Klepp & Laitala, 2018 |

replacement over maintenance (Burns, 2016). This means that even if the designer aims at creating so-called "emotionally durable design" (Fletcher, 2016: 209) it is not up to the designer to decide how long a garment will last; instead, this depends on the customer (Fletcher, 2016: 197, 211). As Fletcher (2016: 197) puts it, "Making a garment last is very different to making a long-lasting garment."

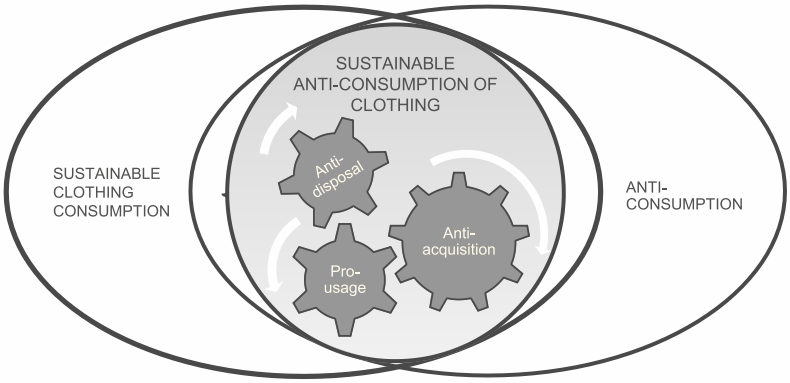


**Fig. 3.** Anti-acquisition, pro-usage and anti-disposal as connectors between sustainable consumption and anti-consumption.

This is why we have to take into consideration the divergence of consumers and their differing relationships to clothing and discuss different possibilities for realising sustainable anti-consumption of clothing. For those who take an active interest in clothing, sustainable anti-consumption offers numerous possibilities to actively *use* clothing and to be stylish while avoiding acquisition and disposal, as described in section three. On the other hand, if a consumer is not interested in fashion, style or crafting, sustainable anti-consumption does not require any special knowledge. As the most sustainable garment is the one that a consumer uses over and over again, it is the personal needs and preferences that become focal. While the focus of sustainable anti-consumption of clothing should not be on acquiring and disposing, but on usage instead, when a consumer needs a new piece of garment, the choice of clothing should be guided by what they really like and need in the long run. This should be a more natural path for consumers, as choosing sustainably produced clothing seems to cause confusion and anxiety to consumers (Bly et al., 2015; Harris et al., 2016), but personal needs and style are criteria that consumers already follow when choosing clothing (Joergens, 2006).

## 5. Implications and suggestions for future research

Building on our findings, we now discuss managerial and societal implications to provide suggestions for future research. We outline ideas to support and further explore consumer-driven change, novel business models, systemic transformation as well as the social consequences of reduced clothing consumption.

### *5.1. Consumer responses and drivers to (sustainable) anti-consumption of clothing*

First, we invite researchers to further explore the practical usability of the concept of sustainable anti-consumption, referring to anti-acquisition, pro-usage and anti-disposal. The connotations that it evokes among consumers compared to resisting consumption in general should be empirically examined. Moreover, we call for future research on sustainable consumption to focus on usage, as so far the use-oriented clothing economy has been seen mostly from the point of view of the industry and not the consumer. In this way, it would be possible to shed light on how we can foster intensification of usage of clothing.

Besides knowing how we should behave, we need knowledge on how to change behaviour into this direction. Motivations to consume green options have been studied for decades but this review gives indications that consuming, for example, slow fashion – which decreases the need for future purchases – is motivated by different attributes than the ones that motivate green consumption (Jung and Jin, 2016a; Zarley Watson & Yan, 2013). In addition, unlike drivers of green consumption, the drivers of anti-consumerist behaviour in the clothing context may be purely self-oriented. According to Bly et al. (2015), instead of just avoiding consumption for sustainability's sake, style consumers pursue their own style to seek uniqueness and freedom, which gives them a feeling of personal growth, self-fulfilment and well-being. Therefore, we call for research that looks at the drivers for reduction of consumption separately from green consumption. Furthermore, we call for research on the connection of individuality, well-being and usage of garments, and the possibilities of using these drivers in the promotion of sustainable anti-consumption of clothing.

Although this paper concentrated on looking at solving the problem of over-consumption in the context of clothing, clothing consumption may be seen as a pronounced example of problems that concern other kinds of material consumption. For instance, Fischer et al.'s (2021) analysis revealed that the domains of housing and information technology have gained less attention, and would thereby provide fruitful contexts for sustainability research. We, thus, invite additional research to apply the concept of sustainable anti-consumption – defined as anti-acquisition, pro-usage and anti-disposal – to other fields of consumption to develop the concept further.

### *5.2. Novel business models based on sustainable anti-consumption of clothing*

While the transition from over-acquisition of fashion towards sustainable anti-consumption means a radical change for the industry, it offers numerous possibilities for new and renewed business models that could even have bigger profit margins than the fast fashion industry. As this study has shown, there are already a multitude of strategies and practices that businesses and consumers can adopt to follow the ideology of sustainable anti-consumption. Yet, great potential remains untapped. To illustrate, as the ideology is based on the idea of extending and slowing down the lifecycle of clothing (Ozdamar Ertekin, 2016), the industry has to prepare itself for the production of high quality and durable garments. For the consumer to be able to assess garment durability, some standards and guarantees are needed. Therefore, research is required to explore whether these kinds of standards or guarantees would have an effect on purchase behaviour to ensure profitable business.

From the consumers' point of view, acquiring less but loving your clothes more means you have to know yourself better to follow your own style, and not the fast fashion cycle (Cho et al., 2015). This offers business possibilities for psychologists and consultants in helping consumers build better self-knowledge and self-esteem, and find their own style. Thus, research on how one finds their own style and how this can be supported by services is needed. Also, research is needed on how these style

searching services are perceived.

With prolonging the life cycle of garments comes the craft of mending, which likewise offers business possibilities not only for professional dressmakers and re-makers but for specialists in crafting skills in the form of courses and workshops to teach mending for consumers (e.g. Durrani, 2018). Repair services are of course a very old business model, but research is needed on how these services can be supported, promoted and made profitable, as many of them are currently struggling because the fast fashion cycle presses the prices of new garments so low that repairing is not economically sensible.

In the literature, clothes care and laundry practices were mostly seen as a way of reducing energy consumption and pollution (e.g. Dombek-Keith and Loker, 2011; Jack, 2013), but not as a way of prolonging the life cycle of garments and thereby reducing acquisition. Still, there are indications that consumers' interest in clothes care and laundry practices as a way of prolonging the lifespan of their favourite clothes is increasing. This trend can be seen in for example the growing popularity of Facebook groups, like *Pyykkimuia*, which offer tips and advice for clothes care to interested consumers. This growing interest implies opportunities for similar businesses. We suggest that in addition to the research on clothes care as a way of reducing energy consumption and pollution, clothes care as a strategy and a business to prolong the usage of clothing should be explored more thoroughly.

### 5.3. The social consequences of anti-consumption

Even though this review has concentrated on the environmental perspective of sustainability issues in the clothing industry, one should not forget the social issues attached to it. In particular, slowing down the clothing industry will have effects on employment (Schröder, 2020). While business models that are based on quality and durability over quantity could contribute to creating more decent jobs in terms of wages, freedom and work safety, slowing down the industry simultaneously reduces jobs in different places, with these job losses affecting women in particular (Stevenson et al., 2021). This issue should be taken into consideration by governments and businesses when planning and executing actions to support reduction of clothing consumption.

From the companies' perspective, this involves for example the following steps: 1. acquiring knowledge and understanding on how the transition affects current and future employees, in particular women; 2. making decisions in a holistic manner by taking into consideration both the emission reduction and impact on jobs; 3. ensuring that women have access to the training they need, when jobs are transformed and when old jobs are lost and new ones emerge; and 4. using power through procurement policies that acknowledge equal gender representation in the supply chain (Barrientos and Pallangyo, 2018; Stevenson et al., 2021).

From the governance perspective, the transition can be supported for example by incentives for businesses to conduct gender analysis, partnerships between government and civil society to create measures for social protection in areas threatened by significant job loss, industrial strategy for identifying alternatives for job creation and required upskilling in high-risk job loss areas, as well as legislation to require companies to pay living wages and ensure freedom and work safety for employees (Barrientos and Pallangyo, 2018; Schröder, 2020; Stevenson et al., 2021).

### 5.4. Systemic transformation via anti-consumption of clothing

Increasing clothing utilisation is in the core of the vision of the circular economy-based new textiles economy (Green strategy, 2016). Still, the focus is on sustainable acquisition and recycling. This approach to sustainability in the clothing industry is failing, because it tries to operate inside the dominant social paradigm (DSP) and the established business logic, while consumption behaviour of acquisition and disposal is not questioned (Kleinhückelkotten and Neitzke, 2019; Pedersen and Andersen, 2015). Therefore, radical approaches like anti-consumption that operate outside this paradigm (Mukendi et al., 2020) are needed. Moreover, as the problems of the clothing industry are heavily systemic and cultural, promoting change in the industry requires actions from all stakeholders (Pedersen and Andersen, 2015). In the current study, we have seen strategies and practices that businesses, designers and consumers can apply to adopt and foster the sustainable anti-consumerist way of thinking. We invite further research to look into how these practices and strategies presented previously can be supported by policies and NGOs.

## 6. Conclusion

As our systematic literature review shows, sustainable anti-consumption ideologies, behaviours and business models in the clothing context are described with a multitude of overlapping concepts. Many of these concepts have features from both sustainable acquisition (i.e. acquiring sustainable products) as well as sustainable anti-consumption (e.g. reducing consumption). Our analysis highlights that while reducing acquisition and disposal of clothing, sustainable anti-consumption of clothing is actually very active usage, and therefore constitutes intensive consumption. Thereby, we suggest that the definition of sustainable anti-consumption should be clarified to entail not only anti-acquisition and anti-disposal but also pro-usage, in order to characterise the behaviour that is needed to foster systemic change in the industry and consumer culture to make it sustainable. We claim that while sustainable clothing consumption is a vague and polysemous term, *sustainable anti-consumption*, consisting of anti-acquisition, pro-usage and anti-disposal, communicates a clearer message to follow. Finally, we argue that while sustainable clothing consumption, which now refers mostly to acquiring sustainable products, allows the vicious cycle of acquisition and disposal to carry on at the expense of natural resources, sustainable anti-consumption of clothing, i.e. anti-acquisition, pro-usage and anti-disposal, is the only way we can break this cycle, i.e. sustainable clothing consumption in real terms. In fact, one could replace both of the terms, *sustainable clothing consumption* and *sustainable anti-consumption of clothing,* with the three terms of *anti-acquisition, pro-usage* and *anti-disposal of clothing*.

## CRediT author statement

**Essi Vesterinen:** Conceptualization, Methodology, Investigation, Writing - Original Draft, Writing - Review & Editing, Visualization, Funding acquisition.

**Henna Syrjälä:** Conceptualization, Investigation, Methodology, Writing - Review & Editing.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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## Appendices A and B. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.clrc.2022.100061.

## References


Adam, M., Strähle, J., Freise, M., 2018. Dynamic capabilities of early-stage firms: exploring the business of renting fashion. Journal of Small Business Strategy 28 (2), 49–67.

Anguelov, N., 2015. The Dirty Side of the Garment Industry: Fast Fashion and its Negative Impact on Environment and Society. CRC Press.

Armstrong, C.M.J., Lang, C., 2018. The clothing style confidence mindset in a circular economy. In: Niinimäki, K. (Ed.), Sustainable Fashion in a Circular Economy. Aalto University.

Armstrong, C.M., Niinimäki, K., Kujala, S., Karell, E., Lang, C., 2015. Sustainable product-service systems for clothing: exploring consumer perceptions of consumption alternatives in Finland. Journal of Cleaner production 97, 30–39.

Armstrong, C.M.J., Connell, K.Y.H., Lang, C., Ruppert-Stroescu, M., LeHew, M.L., 2016. Educating for sustainable fashion: using clothing acquisition abstinence to explore sustainable consumption and life beyond growth. Journal of Consumer Policy 39 (4), 417–439.

Armstrong, C.M., Niinimäki, K., Lang, C., Kujala, S., 2016. A use-oriented clothing economy? Preliminary affirmation for sustainable clothing consumption alternatives. Sustainable Development 24 (1), 18–31.

Arnould, E.J., Price, L., Zinkhan, G.M., 2002. Consumers. McGraw-Hill/Irwin.

Azevedo, A., 2020. Recognizing consumerism as an "illness of an empty soul": a catholic morality perspective. Psychology & Marketing 37 (2), 250–259.

Bagozzi, R., Gurhan-Canli, Z., Priester, J., 2002. The Social Psychology of Consumer Behaviour. McGraw-Hill Education, UK).

Barrientos, S., Pallangyo, C., 2018. Global Value Chain Policy Series: Gender. World Economic Forum. https://www3.weforum.org/docs/WEF_51129_WP_Global_Value_Chain_Policy_Series_Gender_report_2018.pdf [online] (cited 13.12.2021) Available from: chrome-extension, ://oemmndcbldboiebfnladdacbdfmadadm/.

Becker-Leifhold, C., Iran, S., 2. Collaborative fashion consumption–drivers, barriers and future pathways. Journal of Fashion Marketing and Management: An International Journal 22 (2), 189–208. https://doi.org/10.1108/JFMM-10-2017-0109.

Berberyan, Z., Jastram, S.M., Friedman, B.A., 2018. Drivers and obstacles of ethical fashion consumption. In: Eco-Friendly and Fair. Routledge, pp. 36–48.

Bhatt, D., Silverman, J., Dickson, M.A., 2019. Consumer interest in upcycling techniques and purchasing upcycled clothing as an approach to reducing textile waste. *International Journal of Fashion Design, Technology and Educatio*n 12 (1), 118–128.

Black, I.R., Cherrier, H., 2010. Anti-consumption as part of living a sustainable lifestyle daily practices, contextual motivations and subjective values. Journal of Consumer Behaviour 9 (6), 437–453.

Bly, S., Gwozdz, W., Reisch, L.A., 2015. Exit from the high street: an exploratory study of sustainable fashion consumption pioneers. International Journal of Consumer Studies 39 (2), 125–135.

Burns, B., 2016. Re-evaluating obsolescence and planning for it. In: Longer Lasting Products. Routledge, pp. 65–86.

Cao, H., Chang, R., Kallal, J., Manalo, G., McCord, J., Shaw, J., Starner, H., 2014. Adaptable apparel:a sustainable design solution for excess apparel consumption problem. Journal of Fashion Marketing and Management 18 (1), 52–69. https://doi.org/10.1108/JFMM-08-2012-0046.

Carey, L., Cervellon, M.C., 2014. Ethical fashion dimensions: pictorial and auditory depictions through three cultural perspectives. Journal of Fashion Marketing and Management 18 (4), 483–506. https://doi.org/10.1108/JFMM-11-2012-0067.

Cataldi, C., Dickson, M., Grover, C., 2017. Slow fashion: tailoring a strategic approach for sustainability. In: Sustainability in Fashion and Textiles. Routledge, pp. 22–46.

Cho, E., Gupta, S., Kim, Y.K., 2015. Style consumption: its drivers and role in sustainable apparel consumption. International journal of consumer studies 39 (6), 661–669.

Clark, H., 2008. SLOW+ FASHION—an oxymoron—or a promise for the future…? Fashion theory 12 (4), 427–446.

Craig-Lees, M., Hill, C., 2002. Understanding voluntary simplifiers. Psychology & Marketing 19 (2), 187–210.

Diddi, S., Yan, R.N., 2019. Consumer perceptions related to clothing repair and community mending events: a circular economy perspective. Sustainability 11 (19), 5306.

Diddi, S., Yan, R.N., Bloodhart, B., Bajtelsmit, V., McShane, K., 2019. Exploring young adult consumers' sustainable clothing consumption intention-behavior gap: a Behavioral Reasoning Theory perspective. Sustainable Production and Consumption 18, 200–209.

Dombek-Keith, K., Loker, S., 2011. Sustainable clothing care by design. In: Shaping Sustainable Fashion: Changing the Way We Make and Use Clothes. Routledge, pp. 101–116.

Durrani, M., 2018. People gather for stranger things, so why not this?" Learning sustainable sensibilities through communal garment-mending practices. Sustainability 10 (7), 2218.

Eike, R.J., Burton, M., Hustvedt, G., Cho, S., 2021. The "Joy of Letting Go": Decluttering and Apparel. Fashion Practice, pp. 1–17.

Eladwi, M.M., Kotb, R.M., 2015. Minimalism as a concept for textile finishing and fashion design. International Journal of Textile and fashion technology 5 (4), 1–14.

Fink, A., 2020. Conducting Research Literature Reviews: from the Internet to Paper. Sage publications.

Fischer, D., Reinermann, J.L., Guillen-Mandujano, G., DesRoches, C.T., Diddi, S., Vergragt, P.J., 2021. Sustainable consumption communication: a review of an emerging field of research. Journal of Cleaner Production, 126880.

Fletcher, K., 2007. THE GREEN PAGES-Slow fashion-It's quality not quantity that counts, says eco textile designer Kate Fletcher. Ecologist 37 (5), 71-71.

Fletcher, K., 2010. Slow fashion: an invitation for systems change. Fashion Practice 2 (2), 259–265.

Fletcher, K., 2016. Craft of Use: Post-growth Fashion. Routledge.

Fletcher, K., Grose, L., 2012. Fashion & Sustainability. Hachette UK.

Freudenreich, B., Schaltegger, S., 2020. Developing sufficiency-oriented offerings for clothing users: business approaches to support consumption reduction. Journal of Cleaner Production 247, 119589.

Green strategy, 2016. The Clothes "We Don't Need" [online]. [cited 11.3.2020]. Available on World Wide Web. https://www.greenstrategy.se/the-clothes-we-dont-need-2/.

Gupta, S., Gwozdz, W., Gentry, J., 2019. The role of style versus fashion orientation on sustainable apparel consumption. Journal of Macromarketing 39 (2), 188–207.

Harris, F., Roby, H., Dibb, S., 2016. Sustainable clothing: challenges, barriers and interventions for encouraging more sustainable consumer behaviour. International Journal of Consumer Studies 40 (3), 309–318.

Henninger, C.E., Alevizou, P.J., Oates, C.J., 2016. What is sustainable fashion? Journal of Fashion Marketing and Management: An International Journal 20 (4), 400–416. https://doi.org/10.1108/JFMM-07-2015-0052.

Henninger, C.E., Bürklin, N., Niinimäki, K., 2019. The clothes swapping phenomenon–when consumers become suppliers. Journal of Fashion Marketing and Management: An International Journal 23 (3), 327–344. https://doi.org/10.1108/JFMM-04-2018-0057.

Iran, S., Schrader, U., 2017. Collaborative fashion consumption and its environmental effects. Journal of Fashion Marketing and Management: An International Journal 21 (4), 468–482.

Izberk-Bilgin, E., 2010. An interdisciplinary review of resistance to consumption, some marketing interpretations, and future research suggestions. Consumption, Markets and Culture 13 (3), 299–323.

Jack, T., 2013. Laundry routine and resource consumption in Australia. International Journal of Consumer Studies 37 (6), 666–674.

Janigo, K.A., Wu, J., 2015. Collaborative redesign of used clothes as a sustainable fashion solution and potential business opportunity. Fashion Practice 7 (1), 75–97.

Joanes, T., 2019. Personal norms in a globalized world: norm-activation processes and reduced clothing consumption. Journal of cleaner production 212, 941–949.

Joergens, C., 2006. Ethical fashion: myth or future trend? Journal of Fashion Marketing and Management: An International Journal 10 (3), 360–371.

Johnson, K.K.P., Mun, J.M., Chae, Y., 2016. Antecedents to internet use to collaboratively consume apparel. Journal of Fashion Marketing & Management 20 (4), 370–382.

Jung, S., Jin, B., 2014. A theoretical investigation of slow fashion: sustainable future of the apparel industry. International journal of consumer studies 38 (5), 510–519.

Jung, S., Jin, B., 2015. Time to be slow? Slow movement in the apparel business. In: Ideas in Marketing: Finding the New and Polishing the Old. Springer, Cham, pp. 565–568.

Jung, S., Jin, B., 2016a. From quantity to quality: understanding slow fashion consumers for sustainability and consumer education. International journal of consumer studies 40 (4), 410–421.

Jung, S., Jin, B., 2016b. Sustainable development of slow fashion businesses: customer value approach. Sustainability 8 (6), 540.

Kirchain, R., Olivetti, E., Miller, T.R., Greene, S., 2015. Sustainable Apparel Materials. Materials Systems Laboratory, Massachusetts Institute of Technology, Cambridge.

Kleinhückelkotten, S., Neitzke, H., 2019. Social acceptability of more sustainable alternatives in clothing consumption. Sustainability 11 (22), 6194.

Klepp, I.G., Laitala, K., 2018. Shared use and owning of clothes: borrow, steal or inherit. In: Contemporary Collaborative Consumption. Springer VS, Wiesbaden, pp. 153–177.

Laitala, K., 2014. Consumers' clothing disposal behaviour–a synthesis of research results. International Journal of Consumer Studies 38 (5), 444–457.

Laitala, K., Klepp, I.G., 2018. Care and production of clothing in Norwegian homes: environmental implications of mending and making practices. Sustainability 10 (8), 2899.

Lang, C., 2018. Perceived risks and enjoyment of access-based consumption: identifying barriers and motivations to fashion renting. Fashion and Textiles 5 (1), 23.

Lang, C., Armstrong, C.M.J., 2018a. Collaborative consumption: the influence of fashion leadership, need for uniqueness, and materialism on female consumers' adoption of clothing renting and swapping. *Sustainable Production and Consumption* 13, 37–47.

Lang, C., Armstrong, C.M.J., 2018b. Fashion leadership and intention toward clothing product-service retail models. Journal of Fashion Marketing and Management: An International Journal.

Lang, C., Armstrong, C.M., Liu, C., 2016. Creativity and sustainable apparel retail models: does consumers' tendency for creative choice counter-conformity matter in sustainability? Fashion and Textiles 3 (1), 24.

Lapolla, K., Sanders, E.B.N., 2015. Using cocreation to engage everyday creativity in reusing and repairing apparel. Clothing and Textiles Research Journal 33 (3), 183–198.

Lee, M.S.W., Ahn, C., 2016. Anti-consumption, materialism, and consumer well-being-being. Journal of Consumer Affairs 50 (1), 18–47, 2016.

Lee, M.S., Fernandez, K.V., 2006. Anti-consumption: rejecting, refusing, and resisting the market. Advances in Consumer Research 7, 73–76.

Lee, M., Roux, D., Cherrier, H., Cova, B., 2011. Anti-consumption and consumer resistance: concepts, concerns, conflicts and convergence. European Journal of Marketing 45, 11–12. https://doi.org/10.1108/ejm.2011.00745kaa.001.

Leipämaa-Leskinen, H., Syrjälä, H., Laaksonen, P., 2016. Conceptualizing non-voluntary anti-consumption: a practice-based study on market resistance in poor circumstances. Journal of Consumer Culture 16 (1), 255–278.

Magnuson, B., Reimers, V., Chao, F., 2017. Re-visiting an old topic with a new approach: the case of ethical clothing. Journal of Fashion Marketing and Management: An International Journal 21 (3), 400–418.

Makri, K., Schlegelmilch, B.B., Mai, R., Dinhof, K., 2020. What we know about anticonsumption: an attempt to nail jelly to the wall. Psychology & Marketing 1–39. https://doi.org/10.1002/mar.21319, 2020.

Mayring, P., 2004. Qualitative content analysis. A companion to qualitative research 1, 159–176, 2004.
Mayring, P., 2014. Qualitative Content Analysis: Theoretical Foundation, Basic Procedures and Software Solution. Klagenfurt. [online]. [cited 1.11. 2020]. Available on World Wide Web. https://nbn-resolving.org/urn:nbn:de:0168-ssoar-395173.
Mellander, E., Petersson McIntyre, M., 2021. Fashionable detachments: wardrobes, bodies and the desire to let go. Consumption Markets & Culture 24 (4), 343–356.
Middleton, J., 2015. Mending. In: Routledge Handbook of Sustainability and Fashion. Routledge, pp. 280–292.
Mohamed Shaffril, H.A., Samsuddin, S.F., Abu Samah, A., 2021. The ABC of systematic literature review: the basic methodological guidance for beginners. Quality & Quantity 55 (4), 1319–1346.
Mukendi, A., Davies, I., Glozer, S., McDonagh, P., 2020. Sustainable fashion current and future research directions. European Journal of Marketing 54 (11), 2873–2909. https://doi.org/10.1108/EJM-02-2019-0132.
Niinimäki, K., Armstrong, C., 2013. From pleasure in use to preservation of meaningful memories: a closer look at the sustainability of clothing via longevity and attachment. International Journal of Fashion Design, Technology and Education 6 (3), 190–199.
Norum, P.S., 2013. Examination of apparel maintenance skills and practices: implications for sustainable clothing consumption. Family and Consumer Sciences Research Journal 42 (2), 124–137.
Oosterhoff, P., Burns, D., Prasad, B., Robinson, S., 2018. The Modern Slavery Trap: Bonded Labour [online]. [cited 11.9.2019]. Available on World Wide Web: <URL: https://opendocs.ids.ac.uk/opendocs/bitstream/handle/123456789/13764/Modern_Slavery_Briefing.pdf?seq uence=.
Ozdamar Ertekin, Z., Atik, D., 2015. Sustainable markets: motivating factors, barriers, and remedies for mobilization of slow fashion. Journal of Macromarketing 35 (1), 53–69.
Ozdamar-Ertekin, Z., 2016. Conflicting perspectives on speed: dynamics and consequences of the fast fashion system. Markets, Globalization & Development Review 1 (1).
Pal, R., 2016. Extended responsibility through servitization in PSS. Journal of Fashion Marketing and Management: An International Journal 20 (4), 453–470. https://doi.org/10.1108/JFMM-12-2015-0100.
Pal, R., 2017. Sustainable design and business models in textile and fashion industry. In: Muthu, S. (Ed.), Sustainability in the Textile Industry. Springer, Singapore, pp. 109–138.
Pal, R., Gander, J., 2018. Modelling environmental value: an examination of sustainable business models within the fashion industry. Journal of Cleaner Production 184, 251–263.
Park, H., Armstrong, C.M.J., 2017. Collaborative apparel consumption in the digital sharing economy: an agenda for academic inquiry. International Journal of Consumer Studies 41 (5), 465–474.
Park, S.J., Yim, E.H., 2013. Comparison of the functional minimalism in fashion and architecture. Journal of the Korean Society of Clothing and Textiles 37 (3), 247–259.
Pedersen, E.R.G., Andersen, K.R., 2015. Sustainability innovators and anchor draggers: a global expert study on sustainable fashion. Journal of Fashion Marketing and Management 19 (3), 315–327.
Pedersen, E.R.G., Netter, S., 2015. Collaborative consumption: business model opportunities and barriers for fashion libraries. Journal of Fashion Marketing and Management 19 (3), 258–273.
Peters, G., Li, M., Lenzen, M., 2021. The need to decelerate fast fashion in a hot climate-A global sustainability perspective on the garment industry. Journal of Cleaner Production 295, 126390.
Pookulangara, S., Shephard, A., 2013. Slow fashion movement: understanding consumer perceptions—an exploratory study. Journal of retailing and consumer services 20 (2), 200–206.
Pretner, G., Darnall, N., Testa, F., Iraldo, F., 2021. Are consumers willing to pay for circular products? The role of recycled and second-hand attributes, messaging, and third-party certification. Resources, Conservation and Recycling 175, 105888.
Rathinamoorthy, R., Surjit, R., Karthik, T., 2018. Clothing Swap: Gateway to Sustainable Eco-Friendly Fashion. Handbook of Ecomaterials. Springer International Publishing, Springer Nature, Cham.
Reimers, V., Magnuson, B., Chao, F., 2016. The academic conceptualisation of ethical clothing. Journal of Fashion Marketing and Management: An International Journal 20 (4), 383–399. https://doi.org/10.1108/JFMM-12-2015-0097.
Ruppert-Stroescu, M., LeHew, M.L., Connell, K.Y.H., Armstrong, C.M., 2015. Creativity and sustainable fashion apparel consumption: the fashion detox. Clothing and Textiles Research Journal 33 (3), 167–182.
Sandin, G., Peters, G.M., 2018. Environmental impact of textile reuse and recycling–A review. Journal of cleaner production 184, 353–365.
Sandlin, J.A., Wallin, J.J., 2021. Decluttering the Pandemic: Marie Kondo, Minimalism, and the "Joy" of Waste, vol. 15327086211049703. Cultural Studies↔ Critical Methodologies.
Schröder, P., 2020. Promoting a Just Transition to an Inclusive Circular Economy. Chatham House. https://www.chathamhouse.org/sites/default/files/2020-04-01-inclusive-circular-economy-schroder.pdf [online] (cited 13.12.2021) Available in: chrome-e, xtension://oemmndcbldboiebfnladdacbdfmadadm/.
Şener, T., Bişkin, F., Kılınç, N., 2019. Sustainable dressing: consumers' value perceptions towards slow fashion. Business Strategy and the Environment 28 (8), 1548–1557.
Sobreira, É.M.C., da Silva, C.R.M., Romero, C.B.A., 2020. Do empowerment and materialism influence slow fashion consumption? Evidence from Brazil. Journal of Fashion Marketing and Management: An International Journal 24 (3), 415–435. https://doi.org/10.1108/JFMM-08-2019-0176.
Stål, H.I., Jansson, J., 2017. Sustainable consumption and value propositions: exploring product–service system practices among Swedish fashion firms. Sustainable Development 25 (6), 546–558.
Štefko, R., Steffek, V., 2018. Key Issues in slow fashion: current challenges and future perspectives. Sustainability 10 (7), 2270.
Stevenson, G., Harris, S., Bortes, C., Doherty, E., 2021. Women and the Net Zero Economy: A Briefing on Changes in Garment, Agriculture and Energy Supply Chains. WOW Helpdesk Guidance Note No. 3. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/980198/Guidance3-Women–Net-Zero-Economy-Briefing1.pdf. April 2021. [online] (cited 13.12.2021) Available i, n: chrome-extension://oemmndcbldboiebfnladdacbdfmadadm/.
Strähle, J., Erhardt, C., 2017. Collaborative consumption 2.0: an alternative to fast fashion consumption. In: Green Fashion Retail. Springer, Singapore, pp. 135–155.
Taljaard, H., Sonnenberg, N., 2019. Basic psychological needs and self-determined motivation as drivers of voluntary simplistic clothing consumption practices in South Africa. Sustainability 11 (13), 3742.
Tama, D.D., Encan, B.C., Öndoğan, Z., 2017. University students' attitude towards clothes in terms of environmental sustainability and slow fashion. Journal of Textile & Apparel/Tekstil ve Konfeksiyon 27 (2).
Textile, Finnish, Fashion, 2017. Kiertotalouden kärjessä - Ratkaisuja tekstiilien kiertoon [online]. [cited 11.9.2019]. Available on World Wide Web: <URL: www.businessfinland.fi/4adb18/globalassets/finnish-customers/02-build-your-network/bioeconomy–cleantech/biocircular-finland/stjm_kiertotalousjulkaisu_2017_blogi.pdf.
Todeschini, B.V., Cortimiglia, M.N., Callegaro-de-Menezes, D., Ghezzi, A., 2017. Innovative and sustainable business models in the fashion industry: entrepreneurial drivers, opportunities, and challenges. Business Horizons 60 (6), 759–770.
Tukker, A., 2004. Eight types of product–service system: eight ways to sustainability? Experiences from SusProNet. Business strategy and the environment 13 (4), 246–260.
Twigger Holroyd, A., 2016. Perceptions and practices of dress-related leisure: shopping, sorting, making and mending. Annals of Leisure Research 19 (3), 275–293.
Unece, 2018. Fashion Is an Environmental and Social Emergency, but Can Also Drive Progress towards the Sustainable Development. *Goals*. [online]. [cited 11.9.2019]. Available on World Wide Web: <URL: https://www.unece.org/info/media/news/forestry-and-timber/2018/fashion-is-an-environmental-and-social-emergency-but-can-also-drive-progress-towards-the-sustainable-development-goals/doc.html.
Vehmas, K., Raudaskoski, A., Heikkilä, P., Harlin, A., Mensonen, A., 2018. Consumer attitudes and communication in circular fashion. Journal of Fashion Marketing and Management: An International Journal 22 (3), 286–300.
Wilk, R., 2004. Morals and metaphors: the meaning of consumption. In: Ekström, K.M., Brembeck, H. (Eds.), Elusive Consumption. Berg, Oxford, pp. 11–26.
Witkowski, T.H., 2010. A brief history of frugality discourses in the United States. Consumption, Markets and Culture 13 (3), 235–258.
Wu, D.E., Thomas, J.B., Moore, M., Carroll, K., 2013. Voluntary simplicity: the great American apparel diet. Journal of Fashion Marketing and Management An International Journal 17 (3), 294–305. https://doi.org/10.1108/JFMM-05-2012-0020.
Zamani, B., Sandin, G., Peters, G.M., 2017. Life cycle assessment of clothing libraries: can collaborative consumption reduce the environmental impact of fast fashion? Journal of cleaner production 162, 1368–1375.
Zarley Watson, M., Yan, R.N., 2013. An exploratory study of the decision processes of fast versus slow fashion consumers. Journal of Fashion Marketing and Management: An International Journal 17 (2), 141–159.

| | AUTHORS | YEAR | PUBLICATION | TYPE/METHOD |
|---|---|---|---|---|
| **1** | Clark, H. | 2008 | Fashion theory | Conceptual |
| **2** | Fletcher, K. | 2010 | Fashion Practice | Conceptual |
| **3** | Niinimäki, K., & Armstrong, C. | 2013 | International Journal of Fashion Design, Technology and Education | Mixed method |
| **4** | Norum, P. S. | 2013 | Family and Consumer Sciences Research Journal | Quantitative |
| **5** | Pookulangara, S., & Shephard, A. | 2013 | International Journal of Consumer Studies | Qualitative |
| **6** | Wu, D. E., Thomas, J. B., Moore, M., & Carroll, K. | 2013 | Journal of Fashion Marketing and Management | Qualitative |
| **7** | Zarley Watson, M., & Yan, R. N. | 2013 | Journal of Fashion Marketing and Management | Qualitative |
| **8** | Cao, H., Chang, R., Kallal, J., Manalo, G., McCord, J., Shaw, J. & Starner, H. | 2014 | Journal of Fashion Marketing and Management | Qualitative |
| **9** | Jung, S. & Jin, B. | 2014 | International Journal of Consumer Studies | Quantitative |
| **10** | Armstrong, C. M., Niinimäki, K., Kujala, S., Karell, E., & Lang, C. | 2015 | Journal of Cleaner Production | Mixed method |
| **11** | Bly, S., Gwozdz, W., & Reisch, L. A. | 2015 | International Journal of Consumer Studies | Quantitative |
| **12** | Cho, E., Gupta, S., & Kim, Y. K. | 2015 | International Journal of Consumer Studies | Quantitative |
| **13** | Janigo, K. A., & Wu, J. | 2015 | Fashion Practice | Qualitative |
| **14** | Jung, S., & Jin, B. | 2015 | Ideas in Marketing: Finding the New and Polishing the Old | Quantitative |
| **15** | Lapolla, K., & Sanders, E. B. N. | 2015 | Clothing and Textiles Research Journal | Qualitative |
| **16** | Middleton, J. | 2015 | Routledge Handbook of Sustainability and Fashion | Conceptual |
| **17** | Pedersen, E. R. G., & Netter, S. | 2015 | Journal of Fashion Marketing and Management | Qualitative |
| **18** | Ruppert-Stroescu, M., LeHew, M. L., Connell, K. Y. H., & Armstrong, C. M. | 2015 | Clothing and Textiles Research Journal | Qualitative |
| **19** | Armstrong, C. M. J., Connell, K. Y. H., Lang, C., Ruppert-Stroescu, M., & LeHew, M. L. | 2016 | Journal of Consumer Policy | Qualitative |
| **20** | Armstrong, C. M., Niinimäki, K., Lang, C., & Kujala, S. | 2016 | Sustainable Development | Mixed method |
| **21** | Johnson, K. K. P., Mun, J. M., & Chae, Y. | 2016 | Journal of Fashion Marketing and Management | Quantitative |
| **22** | Jung, S., & Jin, B. (a) | 2016 | International Journal of Consumer Studies | Quantitative |
| **23** | Jung, S., & Jin, B. (b) | 2016 | Sustainability | Quantitative |
| **24** | Lang, C., Armstrong, C. M., & Liu, C. | 2016 | Fashion and Textiles | Qualitative |
| **25** | Pal, R. | 2016 | Journal of Fashion Marketing and Management: An International Journal | Qualitative |
| **26** | Reimers, V., Magnuson, B., & Chao, F. | 2016 | Journal of Fashion Marketing and Management | Quantitative |
| **27** | Twigger Holroyd, A. | 2016 | Annals of Leisure Research | Qualitative |
| **28** | Cataldi, C., Dickson, M., & Grover, C. | 2017 | Sustainability in Fashion and Textiles | Conceptual |
| **29** | Iran, S., & Schrader, U. | 2017 | Journal of Fashion Marketing and Management | Conceptual |
| **30** | Magnuson, B., Reimers, V., & Chao, F. | 2017 | Journal of Fashion Marketing and Management | Quantitative |
| **31** | Pal, R. | 2017 | Sustainability in the Textile Industry | Conceptual |
| **32** | Park, H., & Armstrong, C. M. J. | 2017 | International Journal of Consumer Studies | Literature review |
| **33** | Strähle, J., & Erhardt, C. | 2017 | Green Fashion Retail | Conceptual |

| | AUTHORS | YEAR | PUBLICATION | TYPE/METHOD |
|---|---|---|---|---|
| **34** | Stål, H. I., & Jansson, J. | 2017 | Sustainable Development | Qualitative |
| **35** | Tama, D., D., Encan, B. C., & Öndoğan, Z | 2017 | Journal of Textile & Apparel/Tekstil ve Konfeksiyon | Quantitative |
| **36** | Todeschini, B. V., Cortimiglia, M. N., Callegaro-de-Menezes, D., & Ghezzi, A. | 2017 | Business Horizons | Mixed method |
| **37** | Zamani, B., Sandin, G., & Peters, G. M. | 2017 | Journal of Cleaner Production | Mixed method |
| **38** | Adam, M., Strähle, J., & Freise, M. | 2018 | Journal of Small Business Strategy | Qualitative |
| **39** | Becker-Leifhold, C., & Iran, S. | 2018 | Journal of Fashion Marketing and Management | Literature review |
| **40** | Durrani, M. | 2018 | Sustainability | Qualitative |
| **41** | Klepp, I. G., & Laitala, K. | 2018 | Contemporary Collaborative Consumption | Qualitative |
| **42** | Laitala, K., & Klepp, I. G. | 2018 | Sustainability | Quantitative |
| **43** | Lang, C. | 2018 | Fashion and Textiles | Quantitative |
| **44** | Lang, C., & Armstrong, C. M. J. (a) | 2018 | Sustainable Production and Consumption | Quantitative |
| **45** | Lang, C., & Armstrong, C. M. J. (b) | 2018 | Journal of Fashion Marketing and Management | Quantitative |
| **46** | Pal, R., & Gander, J. | 2018 | Journal of Cleaner Production | Conceptual |
| **47** | Rathinamoorthy, R., Surjit, R., & Karthik, T. | 2018 | Handbook of Ecomaterials | Conceptual |
| **48** | Štefko, R., & Steffek, V. | 2018 | Sustainability | Conceptual |
| **49** | Bhatt, D., Silverman, J., & Dickson, M. A. | 2019 | Journal of Fashion Design, Technology and Education | Quantitative |
| **50** | Diddi, S., & Yan, R. N. | 2019 | Sustainability | Quantitative |
| **51** | Diddi, S., Yan, R. N., Bloodhart, B., Bajtelsmit, V., & McShane, K. | 2019 | Sustainable Production and Consumption | Qualitative |
| **52** | Gupta, S., Gwozdz, W., & Gentry, J. | 2019 | Journal of Macromarketing | Quantitative |
| **53** | Henninger, C. E., Bürklin, N., & Niinimäki, K. | 2019 | Journal of Fashion Marketing and Management | Qualitative |
| **54** | Joanes, T. | 2019 | Journal of Cleaner Production | Quantitative |
| **55** | Şener, T., Bişkin, F., & Kılınç, N. | 2019 | Business Strategy and the Environment | Quantitative |
| **56** | Taljaard, H., & Sonnenberg, N. | 2019 | Sustainability | Quantitative |
| **57** | Freudenreich, B., & Schaltegger, S. | 2020 | Journal of Cleaner Production | Conceptual |
| **58** | Sobreira, É. M. C., da Silva, C. R. M., & Romero, C. B. A. | 2020 | Journal of Fashion Marketing and Management | Quantitative |

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# Wear Your Pants out and Be Happy! Clothing Consumption Curtailment and Consumer Subjective Well-Being

**Essi Vesterinen[1], Michael S.W. Lee[2], and Harri T. Luomala[1]**

**Abstract**

This research addresses the role of different phases of consumption—anticipation, acquisition, and usage—in the relationship between clothing consumption curtailment (CCC) and increased consumer subjective well-being (CSWB). Building on past research, we theorize and empirically explore whether increased CSWB is explained by a change in focus from acquisition to usage. Through a content analysis of 140 blog posts from clothes shopping detoxers, we unearth how reduced acquisition and intensive and extended usage manifest in CCC practices. Furthermore, we apply structural equation modeling (SEM) to representative survey data (N = 661) to show that focusing on acquisition reduction is not associated with CSWB, while intensive and extended usage are positively associated with CSWB. In addition, we establish that this relationship is partially mediated by improved body image. Our results open a path for further research, and can be utilized in social marketing to promote the intensive usage rather than acquisition of clothing.

**Keywords**

consumption curtailment, sustainable marketing, clothing, phases of consumption, subjective well-being, body image

## Introduction

With an estimated 2–8% share of global $CO_2$ emissions, the clothing system entails one of the most carbon-heavy and polluting industries (Howell 2024; Quantis 2018; Statista 2023). Furthermore, the overconsumption of clothes causes a severe disposability problem (Dissanayake and Pal 2023; Ozdamar Ertekin and Atik 2015), as some 93 billion cubic meters of textile waste is produced globally each year (Ellen MacArthur Foundation 2017a in Ellen MacArthur Foundation 2017b). Despite the effort put into greener products (Bastos Rudolph, Bassi Suter, and Barakat 2023; Chhabra, Sindhi, and Nandy 2022), circular economy (Hellström and Olsson 2024; Papamichael et al. 2023), sharing, and collaborative business models such as second-hand, renting, and borrowing platforms (Albinsson and Perera 2018; Amasawa et al. 2023; Grappi et al. 2024), those carbon emissions have not reduced. Instead, a decrease in average garment-use time has led to an increase in total fiber production, leading in turn to an increase in emissions of 30% from 2000 to 2015 (Ellen MacArthur Foundation 2017a in Ellen MacArthur Foundation 2017b; Peters, Li, and Lenzen 2021). The higher emissions reveal the core issue driving clothing overconsumption the current approaches do not question, that is, the craving for newness and variation promoted by fashion marketing (Atik and Ozdamar Ertekin 2023). In order to break away from these recurring and fast-changing fashion loops, we need more radical approaches such as clothing consumption curtailment (CCC) (Millward-Hopkins, Purnell, and Baurley 2023; Mukendi et al. 2020).

In addition to potentially reducing the environmental impact of the clothing industry, CCC has been associated with increased consumer subjective well-being (CSWB) (Gwozdz et al. 2017; Malik and Ishaq 2023; Shafqat, Ishaq, and Ahmed 2023). This connection between CCC and CSWB could offer further support for the need for consumption curtailment, and be utilized in the promotion of CCC. However, more research is first needed to understand the mechanisms of the relationship, and what exactly drives the positive well-being effects of CCC. Vesterinen and Syrjälä (2022) reviewed the previous research on "sustainable anti-consumption of clothing", concluding that the key components in slowing the clothing consumption cycle are reduced acquisition, and intensive and extended usage, which eventually diminish disposal. Other studies have hinted that this shift from acquisition to usage might explain the association between CCC and CSWB (Gwozdz et al. 2017; Malik and Ishaq 2023). It is thought

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that trying to follow the accelerating fashion cycle causes a perceived discrepancy between the consumer's current and ideal self, leading to dissatisfaction and anxiety (Dittmar and Halliwell 2008; Johnson and Attmann 2009). By moving the focus from new acquisitions to using and enjoying what we already have, CCC could free consumers from this cycle and thereby reduce the negative well-being effects. Building on these prior findings, this paper theorizes whether the relationship between CCC and CSWB can be explained by a change in focus from acquisition to usage.

Moreover, we delve deeper into the CCC-CSWB connection by suggesting a mediating factor. Clothes represent a particular object of consumption, in that the comparison between our current and ideal self concerns not only self-image in general but our body in particular (Manchiraju and Damhorst 2020). Consumers who reduced their clothing consumption have described feelings of improved self-confidence and body image (Armstrong et al. 2016; Bly, Gwozdz, and Reisch 2015). Positive body image, in turn, has been connected to enhanced consumer subjective well-being (CSWB) (Lee et al. 2014; Nayir et al. 2016; Swami et al. 2015). However, the mediating role of body image between CCC and CSWB has yet to be investigated. This study aims to fill that research gap.

To that end, the present mixed method research proceeds in two phases. Study 1 qualitatively explores how the postulated components of reduced acquisition and intensive and extended usage manifest in CCC practices. We analyzed 140 posts from bloggers who had voluntarily refrained from buying clothes for at least three months. Subsequently, study 2 quantitatively examines the relationships between these components, consumer subjective well-being, and body image. Our analysis is based on representative survey data ($N = 661$) and covariance-based structural equation modeling (CB-SEM).

We seek to contribute to the sustainable consumption literature in two principal ways. First, instead of focusing solely on acquisition, a limitation highlighted by Fischer et al. (2021) and Vesterinen and Syrjälä (2022), we expand the discussion to other phases of consumption, such as usage. Second, we enrich the current conceptual understanding by revealing the role of perceived body image as a mediator between CCC and CSWB. Our research has both societal and managerial relevance. We produce new knowledge and insights to help tackle climate change and overconsumption issues (Helm and Little 2022, Wooliscroft and Ganglmair-Wooliscroft 2018). By studying the connection between consumption curtailment and well-being, we offer actionable ideas not only for social marketing of sustainable clothing consumption, but also for fashion demarketing, empowering marketing to drive positive social change and consumer well-being (Batat 2023). Finally, from a macromarketing perspective, we not only collect individual level data in our survey, but also consider clothing curtailment from a more macro systems perspective, through our analysis of 140 blogs, which form a type of social commentary.

Our article begins by elaborating the relationship between CCC and CSWB, culminating in the development of research hypotheses and a research model. Second, we report the findings of Study 1. Third, we present the methodology and results of Study 2. Finally, we discuss the academic significance of our research, offer theoretical and societal implications to be used in the promotion of consumption curtailment, identify study limitations, and outline future research suggestions.

## Theoretical Background and Hypothesis Building

### *Clothing Consumption Curtailment and Sustainability*

To tackle the sustainability problems of the clothing industry, much effort is invested in the efficiency-based approach of boosting the acquisition of greener products (Bastos Rudolph, Bassi Suter, and Barakat 2023; Chhabra, Sindhi, and Nandy 2022; Rūtelionė and Bhutto 2024). Yet, the industry's carbon emissions continue to rise due to decreasing garment-use time and increasing total fiber production (Ellen MacArthur Foundation 2017a in Ellen MacArthur Foundation 2017b; Peters, Li, and Lenzen 2021). We assert that this 'greener products' approach is failing, because it operates within the current system that encourages constant acquisition and disposal, even if the products are more eco-efficient (Pedersen and Andersen 2015, Vesterinen and Syrjälä 2022).

Other approaches have focused on facilitating the shift from linear to circular economy (Hellström and Olsson 2024; Jimenez-Fernandez, Aramendia-Muneta, and Alzate 2023), and from private ownership to sharing and collaborating (Albinsson and Perera 2018; Amasawa et al. 2023, Ki et al. 2024); that is, from solid (ownership-based) to liquid (access-based) consumption (Rosenberg, Weijo, and Kerkelä 2023; Saravade, Felix, and Firat 2021). However, although extending clothing use time should be at the core of the circular textile economy (Green strategy 2016), the associated initiatives and research mostly concentrate on sustainable acquisition and recycling, without addressing the core issue driving clothing overconsumption, namely the craving for newness and variation (Atik and Ozdamar Ertekin 2023). For instance, the second-hand market offers consumers the illusion of guilt-free sustainable shopping, and a channel for disposing of unwanted clothes to make room for new items (Netter 2016; Vehmas et al. 2018). This can even lead to compulsive buying (Seegebarth et al. 2016), and potentially justify the generation of more waste (van Doorn and Kurz 2021).

In fact, according to lifecycle assessments, instead of collaborative consumption or recycling, the most efficient way to reduce the carbon emissions of the clothing industry is by extending the usage of already owned garments, and curtailing the acquisition of new products (Levänen et al. 2021). Therefore, in order to break the norm of constant acquisition and disposal, radical approaches such as consumption curtailment are needed (Millward-Hopkins, Purnell, and Baurley 2023; Mukendi et al. 2020).

### Consumption Curtailment and Subjective Well-Being

The rejection of specific products, services, companies, or curtailing consumption in general, is often referred to with an umbrella term, anti-consumption (Lee 2022). Many studies indicate that anti-consumption enhances subjective well-being (Balderjahn et al. 2020; Oral and Thurner 2019; Vollebregt et al. 2024). Subjective well-being refers to individuals' subjective evaluation of their well-being as opposed to objective measures such as health, wealth, or education (Forgeard et al. 2011). It is often divided into two components, affective and cognitive well-being. Affective well-being refers to feelings of happiness, that is, how you are feeling, and cognitive well-being addresses satisfaction with life, that is, how you think you are doing (see Diener et al. 2010; Iyer and Muncy 2016). They can move in different directions (Diener, Lucas, and Scollon 2009), but anti-consumption can positively influence both (Iyer and Muncy 2016).

Anti-consumption does not always contribute to sustainability. For example, consumers could reject one brand in favor of competing brands, or even resist sustainable brands that are inconsistent with their image (Witkowski 2021). However, recently, four types of anti-consumption with sustainability roots have been studied: voluntary simplicity, referring to buying only what is necessary; collaborative consumption, referring to borrowing, sharing, and renting; debt-free living, referring to buying only when it does not risk financial insecurity; and boycotting unsustainable companies (Balderjahn, Hoffmann, and Hüttel 2023; Hüttel, Balderjahn, and Hoffmann 2020). According to these studies, voluntary simplicity in acquisitions leads not only to fewer product possessions and less impulsive buying but also to increased psychosocial and subjective well-being, as well as improved life satisfaction both directly and indirectly through reduced indebtedness (Balderjahn et al. 2020; Nepomuceno and Laroche 2015; Seegebarth et al. 2016). Collaborative consumption, while contributing to a decrease in product possessions and indebtedness and an increase in subjective well-being, also encourages impulse buying (Seegebarth et al. 2016), implying that it is less sustainable than previously thought.

Although anti-consumption may have positive consequences in terms of sustainability, its drivers may be more self-oriented than those of green consumption (Martin-Woodhead 2022; Zavestoski 2002); for example, financial well-being and long-term emotional well-being (Wu et al. 2013; Zabkar and Hosta 2013; Ziesemer, Hüttel, and Balderjahn 2021). Examples of this kind of anti-consumption in the clothing context are style (oriented) consumption and minimalism. Style consumption refers to buying styles instead of fashion, to extend usage and reduce frequency of clothing purchase (Nielsen et al. 2023; Cho, Gupta, and Kim 2015). Minimalism refers to limiting the number of clothing possessions through decluttering, extending the usage of apparel already owned, and cautious or strategic shopping aimed at long-term wardrobe functionality and style (Chamberlin and Callmer 2021; Martin-Woodhead 2022; Shafqat, Ishaq, and Ahmed 2023). Rather than environmentalism, these anti-consumption of clothing behaviors are motivated by individual creativity, freedom, uniqueness, and long-term well-being (Armstrong and Lang 2018; Bly, Gwozdz, and Reisch 2015; Vladimirova 2021). Accordingly, style consumption increases cognitive well-being and positive general affect, and reduces negative affect (Gwozdz et al. 2017). Minimalism has been connected to increased financial well-being, happiness, life satisfaction, and flourishing, and decreased depression (Malik and Ishaq 2023; Shafqat, Ishaq, and Ahmed 2023).

### The Roles of Acquisition and Usage in the Clothing Consumption Curtailment-Consumer Subjective Well-Being Connection

The connection between consumption curtailment and subjective well-being has been explained, for example, through psychological need satisfaction (Rich, Hanna, and Wright 2017). According to Deci and Ryan's (2000) self-determination theory, three basic psychological needs—autonomy, competence, and relatedness—need to be met in order to experience psychological well-being. Furthermore, the theory suggests that the satisfaction of these needs is supported by intrinsic motivation, that is, the acts are voluntary and performed with no extrinsic reward (Deci and Ryan 1985, p. 34; Niemiec, Ryan, and Deci 2009). Indeed, while the fulfillment of basic needs for food and shelter predicts subjective well-being across the world (Tay and Diener 2011), the correlation is stronger for psychological needs than for material needs, such as wealth (Kasser 2002). Accordingly, shifting the focus from material consumption enables the fulfillment of needs for competence, autonomy, and relatedness, and thereby leads to increased life satisfaction (Rich, Hanna, and Wright 2017).

Yet, material possessions, especially clothing, do not fulfill only material needs; they are used to express and build your identity to fulfill psychological needs such as competence and belongingness (Aydin 2010; Michaelidou and Dibb 2006). This pursuit of goals through possessions is affected by the current social and moral values of society (Aydin 2010), resulting in social comparison to cultural ideals (Dittmar 2008). These fast-changing rules of beauty and material standards are often unachievable, resulting in perceived discrepancy between current and ideal self, leading to dissatisfaction and anxiety (Dittmar and Halliwell 2008; Shehzala et al. 2024; Johnson and Attmann 2009).

Indeed, fashion orientation, where the focus of clothing consumption is on keeping up with the latest fashions, is associated with materialism, higher shopping frequency, and lower subjective well-being (Gupta, Gwozdz, and Gentry 2019; Gwozdz et al. 2017). By comparison, style consumption focuses on long-term individual styles instead of fast-changing fashion (Gupta, Gwozdz, and Gentry 2019; Gwozdz et al. 2017). Thus, it seems style consumption reduces social comparison and perceived self-image discrepancy, enabling the fulfillment of the need for authenticity and contributing to CSWB. But is this due to reduced acquisition or does extended usage also matter?

Materialism, a tendency to measure success and happiness in terms of material assets and to assign them a central position in your life (Richins and Dawson 1992), is often considered a value structure that lies at the other end of the value spectrum from anti-consumption (Lee and Ahn 2016). According to Richins (2013), materialists appear to concentrate more on the acquisition, resulting in hedonic elevation, i.e., momentary pleasure, even before purchase, as they load expectations on a possession's ability to also fulfill psychological needs. However, due to hedonic adaptation, this pre-acquisition pleasure fades quickly after purchase, leading to a hedonic treadmill where the person needs to constantly acquire new possessions to gain the next dose of momentary pleasure (Burroughs et al. 2013). This kind of pre-purchase elevation is less pronounced in less materialistic consumers, as they use material possessions mainly to fulfill functional needs and, thus, concentrate more on the usage phase, deriving a positive curve of pleasure during post-acquisition need fulfillment (Inglehart 1990, p. 66; Richins 2013).

Furthermore, according to Hsee et al. (2009), acquisition experiences are relative, while usage experiences can create absolute value, rendering them less sensitive to hedonic adaptation. Focusing on favorite possessions can even mitigate the effect of income inequality on CSWB, as it reduces social comparisons (Liu, Dalton, and Mukhopadhyay 2022). According to clothing anti-consumers, focusing on what you already have enables a particular attachment to and relationship with clothing that is based on care and joy rather than social comparisons and craving newness (Mellander and Petersson McIntyre 2021). In contrast, the acquisition of new clothing drives boredom, which makes consumers more likely to discard items (Kwon, Choo, and Kim 2019).

Consequently, we propose that CCC, which comprises reduction of acquisition and intensification and extension of usage, is positively associated with CSWB:

**H1a**: Reducing the acquisition of clothes is positively associated with CSWB.
**H1b**: Using the clothes you already own longer and/or more often is positively associated with CSWB.

In addition, the theory of the hedonic treadmill suggests that the anticipation phase could also play a role in the CCC-CSWB connection (Burroughs et al. 2013). When anti-consumers anticipate less unnecessary acquisition, and expose themselves to fewer social comparisons and potential perceived self-image discrepancies, they save time and energy (Dittmar and Halliwell 2008), which could then be allocated to fulfilling psychological needs and building self-esteem in ways that contribute more efficiently to long-term subjective well-being. For example, spending time with friends and family, or self-actualization through hobbies (Rich, Hanna, and Wright 2017). We thus propose:

**H1c**: Anticipating clothing purchases less often is positively associated with CSWB.

### *The Role of Body Image in the Clothing Consumption Curtailment-Consumer Subjective Well-Being Connection*

In addition to acting as a symbolic tool for identity building (O'Cass 2004), clothes are particular in that their consumption experience depends on the fit of a garment to the wearer's body (Rieke et al. 2016). Thus, social comparisons between current and desired ideals concern not only your self-image in general, but more concretely your body (Manchiraju and Damhorst 2020). Indeed, consumers who have reduced their clothing consumption have described feelings of improved confidence and body image (Armstrong et al. 2016; Bly, Gwozdz, and Reisch 2015). Body image is a multifaceted concept that refers to the individual's perceptions of and attitudes toward the size, shape, and form of their body and appearance (Greene 2011). It is considered a fairly stable trait, but such experiences may vary temporally and situationally (Cash et al. 2002). Most importantly, negative body image is shown to reduce consumer subjective well-being (Lee et al. 2014; Nayir et al. 2016; Swami et al. 2015).

Could body image be a mediator explaining the connection between CCC and CSWB? Fashion advertising typically uses models whose body represents an unrealistic or unattainable standard of ideal beauty (Argo and Dahl 2018). This encourages appearance comparison, leading to feelings of inadequacy and a decline in body image (Argo and Dahl 2018; Manchiraju and Damhorst 2020). Following fashion and beauty influencers, who represent the modern day online social standards, has had similar effects on self-discrepancy and body image (Shehzala et al. 2024). Thus, anticipating clothing acquisitions, in the form of browsing in magazines and stores, and following celebrities and blogs, could (negatively) affect perceived body image. Conversely, reduced anticipation could improve body image, and thereby lead to an increase in CSWB. We thus propose:

**H2a:** The positive relationship between reduced anticipation of clothing acquisition and CSWB is mediated by improved body image.

Another factor that may encourage appearance comparison is the standardized sizes and designs of ready-to-wear clothing, which rarely result in perfect matches owing to great diversity in human body shapes (Brownbridge et al. 2018). The fact that the average person struggles to find a perfect fit that looks the same on her/him as in the advertisements causes frustration and body dissatisfaction (Apeagyei 2008). In other words, curtailing clothes shopping simultaneously diminishes the chances of encountering this source of dissatisfaction. We thus propose:

**H2b:** The positive relationship between reduced acquisition of clothes and CSWB is mediated by improved body image.

Finally, if clothing anti-consumers concentrate on wearing clothes they already have, and on choosing new clothes very carefully to avoid regret and maximize usage, they will ultimately own and use clothes that fit well, and consequently

feel good about their body. By concentrating on usage rather than acquisition, they also focus more on their own body than the bodies in the advertisements, which contributes to self-knowledge and body satisfaction. Indeed, Ruppert-Stroescu et al. (2015) found that when clothing anti-consumers focused more on their existing clothes, they experienced positive development in body image. We thus propose:

> **H2c:** The positive relationship between intensive and extended usage of clothes and CSWB is mediated by improved body image.

Figure 1 displays our research model and associated hypotheses. Next, we present the methods and results of our two studies, starting with Study 1.

## Study 1: A Qualitative Exploration into the CCC Components, Body Image and Consumer Well-Being

In our first study, we explore whether and how the different components—reduced anticipation, reduced acquisition, and intensive and extended usage—are realized in the practices of CCC, and how they may relate to CSWB. Thus, the study serves as an initial exploration of our model, but also as a tool to refine the measurement items for the three components of CCC we conceptualized based on the previous literature.

### Method

Study 1 was conducted by analyzing the posts of Finnish bloggers who had voluntarily refrained from buying clothes for at least three months. Our approach resembles that of Ruppert-Stroescu et al. (2015) and Armstrong et al. (2016), differing in that our data are not prompted but comprise real blog posts. The blogs were identified through an online search using Google and blogit.fi (an open Finnish blog directory), with search words such as (translated word-for-word from Finnish to English) "shopping OR clothes shopping OR fashion shopping OR fashion OR clothing AND detox OR boycott OR strike OR fast." Some blogs were found through mentions in other blogs. Each blogger was contacted to obtain consent to use their content. The inclusion criteria were: 1) Finnish language, 2) the blog reports a clothing detox experience, 3) the detox duration was at least three months according to the blog posts, 4) the blog contains at least one initial and one follow-up post or otherwise describes the detox experience in sufficient detail, and 5) the blogger gives consent to use their content for research purposes. No timeframe was needed, since all the posts, written between 2014 and 2020, were considered timely enough. In total, 140 posts from 25 blogs comprising around 73,200 words met our criteria. The Study 1 data are described in Table 1.

### Analysis

The first author commenced the analysis by extracting relevant quotes from the posts with respect to the nature and rules of the detox, and its consequences. This information was synthesized and analyzed at the content level, seeking to clarify our understanding of the nature of clothing consumption curtailment, particularly in relation to CSWB and the three identified components of consumption curtailment. To enable reproducibility, the analysis was conducted systematically through qualitative content analysis (Mayring 2004). The data were manually coded using a coding framework based on both **deductive categories** built on previous theory and **inductive**

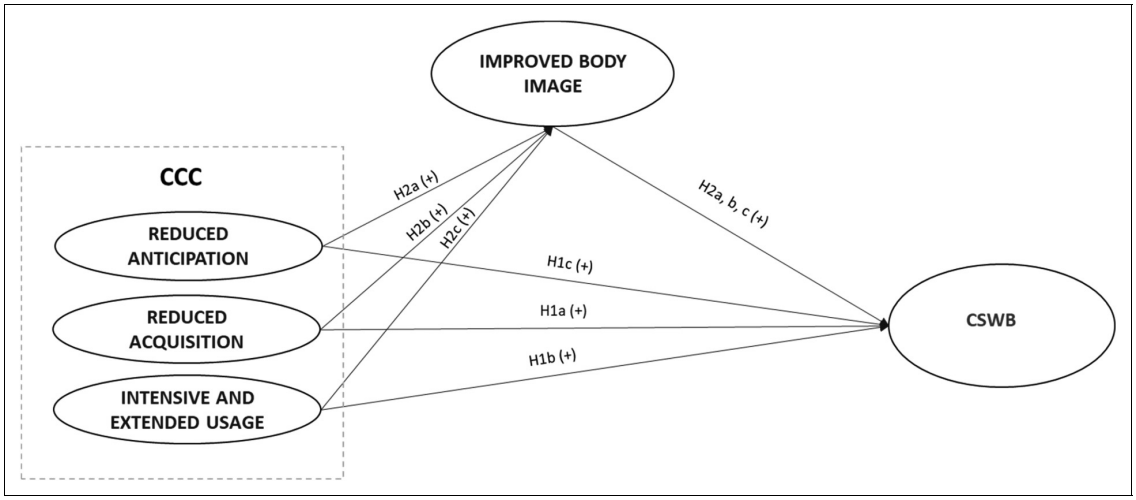


**Figure 1.** The research model.

**Table 1.** A Description of the Data of Study 1.

| Blogger no. | Theme of the blog | Gender of the blogger | Totality of the detox | Scope of the detox | Duration of the detox (months) | Posts |
|---|---|---|---|---|---|---|
| 1 | Lifestyle, (eco)lifestyle | Female | Entirely | Clothing | 15 | 7 |
| 2 | Lifestyle, (eco)lifestyle, Sustainable style | Female | Entirely | Clothing | 3 | 4 |
| 3 | Lifestyle, (eco)lifestyle, | Female | Partly | Clothing | 12 | 2 |
| 4 | Lifestyle | Female | Entirely | Clothing | 12 | 7 |
| 5 | Travel, food | Female | Partly | Material | 5 | 3 |
| 6 | (Eco)lifestyle, | Female | Partly, DIY allowed | Clothing | 12 | 8 |
| 7 | Lifestyle, (eco)lifestyle | Female | Entirely | Clothing | 12 | 8 |
| 8 | Lifestyle | Female | Entirely | Clothing | 12 | 10 |
| 9 | Financial | Female | Entirely | Clothing | 12 | 1 |
| 10 | Lifestyle | Female | Entirely | Clothing | 12 | 3 |
| 11 | Sustainable style | Female | Entirely | Material | 12 | 3 |
| 12 | Lifestyle | Female | Entirely | Clothing | 24 | 3 |
| 13 | Lifestyle | Female | Entirely | Clothing | 24 | 8 |
| 14 | Lifestyle | Female | Entirely | Clothing | 12 | 2 |
| 15 | Lifestyle | Female | Partly | Fast fashion | continuously | 3 |
| 16 | Travel | Female | Entirely | Clothing | 24 | 4 |
| 17 | Lifestyle | Female | Partly | All | 6 | 4 |
| 18 | Lifestyle | Female | Entirely | Clothing | 12 | 2 |
| 19 | Lifestyle | Female | Entirely | Clothing | 12 | 16 |
| 20 | Lifestyle, food | Female | Entirely | All | 12 | 4 |
| 21 | Lifestyle, (eco)lifestyle | Female | Partly, underwear allowed, secondhand with consideration | Clothing | 12 | 2 |
| 22 | Lifestyle | Female | Entirely | Clothing | 12 | 4 |
| 23 | Lifestyle | Female | Partly, underwear and socks allowed with consideration | Clothing | 8 | 6 |
| 24 | Lifestyle | Female | Partly, secondhand allowed with consideration, DIY allowed | Clothing | 5 | 2 |
| 25 | Lifestyle, (eco)lifestyle | Female | Entirely, including borrowing, etc. | All | 12 | 24 |

**categories** built on the material itself (Mayring 2014). The coding was executed by the first author and critically discussed with the third author. Examples of categories related to the nature of CCC were *no more wants, the contradictory role of second-hand acquisition,* and *shopping in your own closet*. Categories related to the consequences of CCC included *feelings of freedom in your home and in your soul*, *finding your style,* and *improved self-esteem and self-knowledge*.

## *Results of Study 1*

We now examine the results of Study 1, focusing on the aspects that either echoed or added to our prior understanding of the nature of CCC and its consequences for CSWB. Our analytical lenses were the components of CCC: reduced anticipation, reduced acquisition, and intensive and extended usage. Selected quotes supporting the findings can be found in Appendix 1.

While the *reduced acquisition* component was obvious in the blog texts dealing with shopping detoxes, the findings on second-hand shopping were somewhat contradictory. Most of the detoxers extended the challenge to include second-hand clothing, explaining that second-hand purchases simply represented another form of acquisition; the texts implied that the cheap prices and the illusion of it being a sustainable form of shopping may even mislead people into buying more and unnecessary clothing. Yet, some detoxers did allow themselves to buy second-hand and only avoided acquiring new clothes. Based on this finding, we decided to add separate items for avoiding buying new clothing and avoiding buying both new and second-hand clothing (see next section).

The bloggers described the *intensive and extended usage* component as shifting the focus from buying new clothes to their own closet. They began not only to mix and match their old clothes in more versatile and creative ways, but also to repair, alter, and use repair services. The detox also made bloggers more aware of their style and likings, turning them into more strategic purchasers who carefully weighed whether they would actively use and love a piece for a long time. Concentrating more on their own closet instead of buying new clothes also enhanced their self-knowledge and self-esteem, and made their daily dressing easier and more joyful. "The clothes don't hang on the rack reminding me of someone I might want to be, but they're all the kind I use,"

said one of the bloggers. This echoes our hypotheses on the role of *intensive and extended* usage in the CCC-CSWB connection, and the mediating role of body image therein.

Finally, regarding the *reduced anticipation* component, the bloggers reported no longer having wants. Their urge to go to stores and browse web stores had weakened. As a result, they reported a feeling of freedom in their home and soul. This suggests that in addition to reduced acquisition, reduced anticipation may play a role in the CCC-CSWB connection. Reducing the time and capacity they directed at their dressing wants and shopping left the fashion detoxers with more time to use on other meaningful activities. Also, many detoxers soon noticed that the easiest way to avoid making more acquisitions was to stay away from stores, both online and bricks-and-mortar. Many reported unsubscribing from mailing lists and no longer following social media accounts that were perceived to feed the need to acquire. One blogger even explained that not clicking on ads in social media reduced the number of ads they were seeing. Based on these findings, we formulated the anticipation items (see next section).

## Study 2: A Quantitative Examination of the Research Model

Study 2 examined the relationships proposed by the research model, which we derived conceptually from the previous literature. Study 1 provided initial affirmation of the model's feasibility.

### Method

To examine the relationships proposed by our model, an online survey was conducted in Finland in June 2021 on a sample of 661 Finns aged 18–65, representative of the Finnish population in relation to age, sex, and region. The data were collected by an external service provider using quota sampling. By answering the survey, the study participants received points they could use to redeem vouchers. The characteristics of the sample are illustrated in Table 2. The measurement constructs were validated, and the hypotheses tested using covariance-based structural equation modeling (CB-SEM) with maximum likelihood estimation. To check the significance of our mediation, we used bias-corrected bootstrapping with 5000 samples (Cheung and Lau 2008). We employed SPSS 28 and SPSS Amos 28 to perform the analyses.

**Table 2.** The Sample Characteristics of Study 2.

| | Frequency | Percent |
|---|---|---|
| **Age (years)** | | |
| 18–24 | 119 | 18.0 |
| 25–34 | 133 | 20.1 |
| 35–44 | 128 | 19.4 |
| 45–54 | 131 | 19.8 |
| 55–65 | 150 | 22.7 |
| **Gender** | | |
| Male | 331 | 50.1 |
| Female | 325 | 49.2 |
| Other | 5 | .8 |
| **Area** | | |
| Southern Finland | 360 | 54.5 |
| Western Finland | 165 | 25.0 |
| Eastern Finland | 59 | 8.9 |
| Northern Finland | 77 | 11.6 |
| **Education (highest)** | | |
| Comprehensive/elementary school | 41 | 6.2 |
| Upper secondary school | 98 | 14.8 |
| Vocational school | 239 | 36.2 |
| University of applied sciences | 153 | 23.1 |
| University | 130 | 19.7 |
| **Income (€)** | | |
| – 9 999 | 100 | 15.1 |
| 10 000–19 999 | 109 | 16.5 |
| 20 000–29 999 | 129 | 19.5 |
| 30 000–39 999 | 129 | 19.5 |
| 40 000–49 999 | 76 | 11.5 |
| 50 000–59 999 | 45 | 6.8 |
| 60 000–79 999 | 40 | 6.1 |
| 80 000–149 999 | 16 | 2 |
| 150 000– | 5 | .8 |
| No answer | 12 | 1.8 |

### Measures

Consumer subjective well-being (CSWB) was measured using two different scales, one for affective well-being (CAWB) and one for cognitive well-being (CCWB). CAWB was studied with a Finnish translation of the widely applied WHO-5 scale (Psychiatric Research Unit, WHO Collaborating Centre in Mental Health a and b), and CCWB with the Satisfaction With Life Scale (SWLS) by Diener et al. (1985). To reach maximal construct breadth and achieve minimal potential for bias, we used the extended version of SWLS by Margolis et al. (2019). Positive (negative) body image was measured through the six-item Body Image States Scale (BISS) by Cash et al. (2002), translated into Finnish by Finne et al. (2012).

For CCC, we developed a new measure based on Vesterinen and Syrjälä's (2022) review, and Study 1. For reduced anticipation, our operationalization comprised three items: 1) I often plan and/or daydream about my next clothing purchases (-), 2) I go around clothing stores or browse online stores often (-), and 3) I read newsletters from online clothing stores and/or follow clothing influencers or clothing brands/stores on social media (-). Regarding reduced acquisition, although Vesterinen and Syrjälä (2022) theorized that second-hand acquisition should not be considered as CCC, in Study 1 some of our informants included it in their CCC practices. Thus, we crafted separate items for avoiding buying new clothing as well as for avoiding buying both new and second-hand clothing. In addition, as pointed out by Vesterinen and Syrjälä (2022), and supported by Study 1, CCC also manifests

as strategic acquisition – resulting in the item "I avoid clothing purchases that I would regret later." Finally, we operationalized intensive and extended usage with two items according to Vesterinen and Syrjälä's (2022) theorization: 1) I wear the clothes I own as often as possible, and 2) I use the clothes I buy for as long as possible.

The survey commenced by asking the study participants to think about their personal well-being relating to the last two weeks (according to the WHO-5 measure), and then their life satisfaction as a whole (SWLS). Next, they answered questions on perceived body image, and finally on clothing consumption. The control questions (gender, age, income, education, area of residence) were located at the end of the questionnaire. The WHO-5 scale (CAWB) was gauged on a 6-point bipolar scale with the endpoints at no time/all of the time. All other items were scored on 7-point Likert scales, the body image measure with endpoints extremely satisfied/extremely dissatisfied, and others with the endpoints totally disagree/totally agree.

### *Validity and Reliability of the Measurements*

For the final scale of CCC, an explorative factor analysis (EFA) was conducted using SPSS 28. Three factors that correlated with each other were identified: 1) Reduced anticipation (RAN), 2) Reduced acquisition (RAC), and 3) Intensive and extended usage (IEU). Next, to assess the reliability and validity of our constructs, we conducted a confirmatory factor analysis (CFA) using SPSS Amos 28. The CFA model indicated an acceptable fit with the data (Minimum Discrepancy Function by Degrees of Freedom divided [CMIN/DF] = 3.765, $p$ = 0.000, comparative fit index [CFI] = 0.941, Tucker-Lewis index [TLI] = 0.931, root mean square error of approximation [RMSEA] = 0.065). The factor loadings, construct reliabilities (CR), and average variances extracted (AVE) demonstrated acceptable convergent validity (Bagozzi and Yi 1988; Hair et al. 2010, p. 709–710). The factor loadings were all significant and over 0.50 and CRs greater than 0.70. The AVEs were all higher than 0.50, except that of the IEU (0.489). However, as this scale was developed for this particular study, this AVE that was below 0.50 can be considered acceptable as the CR was above 0.70 (Fornell and Larcker 1981). The final measurement scales and the CFA estimates are illustrated in Appendix 2.

To minimize the risk of common method bias (CMB) that can hamper cross-sectional studies, we followed Podsakoff et al.'s (2003) guidelines. First, anonymous responding was applied, the presentation order of the questions counterbalanced, and to ensure clarity of the questionnaire, it was pretested with individuals representing different genders, ages, and social groups (N = 20). Second, to control for the social desirability and demand characteristics, the aim of the study was communicated only on a general level ("a study on well-being, values, and consumer habits") and the control question "What kind of things do you think this study is intended to analyze in more detail?" was posed. None of the respondents figured out the real aim of the study. CMB was also statistically controlled for using the single factor test, both on the item and on the construct level (Podsakoff et al. 2003), with no signs of the existence of a single or general factor that would explain the majority of the variance (only 15.871% for the items and 15.669% for the constructs was explained by one factor).

To assess the discriminant validity, an AVE-SV test was conducted (Voorhees et al. 2016). No discriminant validity violation was detected, as both the maximum squared variance (MSV = 0.448) and average squared variance (ASV = 0.037) were below all the AVEs (Fornell and Larcker 1981). The interconstruct correlations and descriptive statistics are illustrated in Table 3.

### *Results of Study 2*

To examine the relationship between CCC and CSWB and the indirect effect through body image, we ran a model with RAN, RAC, and IEU as independent latent variables, CAWB and CCWB as dependent latent variables, and body image as a latent mediator variable. Of the five control variables, income (CAWB: $\beta$ = .103 [.018;.180], $p$ < .01; CCWB: $\beta$ = .225 [.150;.293], $p$ < .001; RAN: $\beta$ = .119 [.049;.190], $p$ < .01; IEU: $\beta$ = −.083 [−.166;.000], $p$ < .05) and age (CAWB: $\beta$ = .166 [.095;.238 ], $p$ < .001; CCWB: $\beta$ = .097 [.023;.167], $p$ < .01; RAN: $\beta$ = .249 [.180;.317], $p$ < .001) had statistically significant relationships with the components of CCC and CSWB, and were thus included in our model as confounding variables. The fit indices for the model and the standardized coefficients for the relationships as well as the bias-corrected bootstrapped 95% confidence intervals for each of the paths are presented in Table 4.

**Table 3.** Interconstruct Correlations and Descriptive Statistics.

| Construct | Mean | SD | Min | Max | CAWB | CCWB | RAN | RAC | IEU |
|---|---|---|---|---|---|---|---|---|---|
| CAWB | 3.854 | .922 | 1 | 6 | 1 | | | | |
| CCWB | 4.434 | 1.190 | 1 | 7 | .670** | 1 | | | |
| RAN | 5.157 | 1.505 | 1 | 7 | −.068 | .011 | 1 | | |
| RAC | 3.755 | 1.585 | 1 | 7 | −.089* | −.031 | .362** | 1 | |
| IEU | 5.594 | 1.020 | 1 | 7 | .122** | .104** | .192** | .241** | 1 |
| BI | 4.112 | 1.471 | 1 | 7 | .501** | .441** | −.007 | .012 | .153** |

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).

**Table 4.** Modeling Results Describing the Relationships Between CCC, Body Image, and Well-Being.

| IV | DV | |
|---|---|---|
| | **CAWB** ($R^2$=.358) | **CCWB** ($R^2$=.303) |
| **Direct effects** | | |
| RAN | −.084 [−.179; .008] | −.048 [−.133; .042] |
| RAC | −.104* [−.197; −.008] | −.047 [−.137; .045] |
| IEU | .101 [−.001; .209] | .126** [.035; .220] |
| **Indirect effects** | | |
| RAN | −.023 [−.077; .028] | −.020 [−.064; .024] |
| RAC | −.006 [−.063; .051] | −.005 [−.053; .043] |
| IEU | .084** [.038; .133] | .071** [.033; .114] |
| **Total effects** | | |
| RAN | −.107* [−.215; .000] | −.067 [−.160; .034] |
| RAC | −.110 [−.221; .002] | −.052 [−.153; .055] |
| IEU | .185*** [.068; .298] | .197*** [.099; .299] |
| Model fit: CMIN/DF = 3.945, p = .000, CFI = .928, TLI = .916, RMSEA = .067 | | |

Note: *** $p < .001$; ** $p < .01$; * $p < .05$.
Standardized coefficients, bootstrapped standard errors n = 5000, bootstrapped 95% confidence intervals in parentheses, controls: age, income. CMIN/DF = Minimum Discrepancy Function by Degrees of Freedom Divided, CFI = Comparative Fit Index, TFI = Tucker–Lewis Index, RMSEA = Root Mean Square Error of Approximation.

The model fit the data well (CMIN/DF = 3.945, $p = .000$, CFI = .928, TLI = .916, RMSEA = .067). In relation to our hypotheses, surprisingly, neither reduced anticipation (RAN) nor reduced acquisition (RAC) had a positive total effect on consumer affective well-being (CAWB) (RAN: $\beta = -.107$* [−.215;.000], $p < .05$; RAC: $\beta = -.110$ [−.221;.002], $p > .05$) or consumer cognitive well-being (CCWB) (RAN: $\beta = -.067$ [−.160;.034], $p > .05$; RAC: $\beta = -.052$ [−.153;.055], $p > .05$). Instead, RAN had a significant negative total effect on CAWB. Thus, H1a and H1c were rejected. However, intensive and extended usage (IEU) had a statistically significant positive total effect on both CAWB ($\beta = .185$[.068;.298], $p < .001$) and CCWB ($\beta = .197$[.099;.299], $p < .001$). Thus, H1b was supported.

In addition, there was a significant indirect effect from IEU through body image to both CAWB ($\beta = .084$[.038;.133], $p < .01$) and CCWB ($\beta = .071$[.033;.114], $p < .01$), supporting H2c. No indirect effect was found for RAN (CAWB: $\beta = -.023$[−.077;.028], $p > .05$; CCWB: $\beta = -.020$[−.064;.024], $p > .05$) and RAC (CAWB: $\beta = -.006$[−.063;.051], $p > .05$; CCWB: $\beta = -.005$[−.053;.043], $p > .05$), and, consequently, H2a and H2c were rejected. In addition, we found a significant negative direct effect between RAC and CAWB ($\beta = -.104$[−.197;−.008], $p < .05$) and a significant positive direct effect between IEU and CCWB ($\beta = .126$[.035;.220], $p < .01$). The $R^2$ for CAWB was .358 and for CCWB .303.

## Discussion

The aim of this study was to investigate the connection between clothing consumption curtailment (CCC) and consumer subjective well-being (CSWB) by analyzing the roles of anticipation, acquisition, and usage in the connection.

Based on a qualitative study and quantitative survey data, we found three separate but interrelated constructs—reduced anticipation, reduced acquisition, and intensive and extended usage—that had different relationships with CSWB. Most importantly, we found a positive total effect between intensive and extended usage and both affective and cognitive well-being. This finding links previous results on minimalism and style consumption, both of which aim to extend usage and have been associated with positive CSWB effects (Malik and Ishaq 2023; Nielsen et al. 2023; Shafqat, Ishaq, and Ahmed 2023), by underlining the role of usage in the well-being connection. Also, our qualitative data reflected the previous studies, in that concentrating on what you already have makes you appreciate and enjoy your clothes more, and also makes you more conscious and confident about your own style (Bly, Gwozdz, and Reisch 2015), which then contributes to CSWB. In addition, our data lend support to the idea that the relationship between intensive and extended usage and CSWB is mediated by improvement in perceived body image, as was hinted at in previous studies (Armstrong et al. 2016; Bly, Gwozdz, and Reisch 2015). In particular, our results indicate that by wearing clothes you already have and choosing new clothes very carefully to avoid regrets and maximize usage, consumers end up owning and using clothes that fit well, making them feel good in their body and contributing to CSWB.

Our results somewhat contradict the sustainable consumption literature that focuses on sustainable acquisition and adopting novel circular business models to supply consumers' increasing need for novelty, without sacrificing our planet (Amasawa et al. 2023; Daukantienė 2023; Laudien, Martinez, and Martin 2023). These studies seem to assume that the consumers' desire for variety is a fundamental need that needs to be fed. However, if the current fast fashion cycle and variation were to meet consumers' fundamental needs, prolonging the clothing usage phase should reduce consumer well-being compared with those consumers who acquire and dispose of their clothes regularly. Instead, whilst our correlational study cannot definitively prove that extended usage has a positive causal effect on CSWB, it does suggest that it is even more unlikely that extended usage would have a negative impact.

With regard to other CCC components, no favorable associations can be reported. Instead, we found a negative total effect between reduced anticipation and consumer affective well-being. Also, a direct negative effect was found between reduced acquisition and affective well-being, although no significant total effect was found. Our results showed that reducing anticipation had a total negative effect on well-being, while reducing acquisition did not, indicating that anticipating future acquisitions might be more strongly associated with well-being than are actual acquisitions, and that compared with frequent acquisition, postponing acquisition could have positive well-being effects. Comparing these results with previous studies on anticipation and well-being, postponing acquisition would be beneficial, especially when the focus of anticipation

is on the utilitarian value of the garments and the experience of usage, rather than materialistic expectations related to, for example, status and happiness (Kumar and Gilovich 2016; Luo et al. 2018).

In addition, our study provides novel knowledge on the nature and structure of clothing consumption curtailment (CCC). Our qualitative study supported the idea that successful CCC does indeed necessitate a broader and more cyclical consideration of its market system components: reduced anticipation, reduced acquisition, and intensive and extended usage. We now discuss the theoretical, societal, practical, and macromarketing implications of our results, as well as limitations and future research suggestions, finally presenting our concluding remarks.

## *Theoretical Implications*

Theoretically, we contribute to both the anti-consumption and sustainable clothing marketing literatures. Regarding the anti-consumption literature, most prior research on the anti-consumption of clothing has separately focused on various phenomena under the umbrella of clothing anti-consumption, such as style consumption and minimalism (Armstrong and Lang 2018; Gupta, Gwozdz, and Gentry 2019; Martin-Woodhead 2022; Shafqat, Ishaq, and Ahmed 2023; Vladimirova 2021). This study extends the scope of knowledge by adopting a novel cross-cutting perspective on the consumption cycle, and linking the separate phenomena together with three interrelated constructs: reduced anticipation, reduced acquisition, and intensive and extended usage. Furthermore, our research establishes that of the three constructs, intensive and extended usage is the most relevant for positive well-being effects.

As to the mechanisms explaining the connection between anti-consumption and well-being, previous studies have discussed the role of, for instance, fulfillment of intrinsic motivation and psychological needs, arousal of feelings of control, and self-esteem restoration (Balderjahn, Hoffmann, and Hüttel 2023; Iyer and Muncy 2016; Kasser and Ryan 1996; Lee and Ahn 2016; Oral and Thurner 2019; Rich, Hanna, and Wright 2017; Zavestoski 2002). Our research contributes to the discussion by quantitatively testing and lending support to the idea that in the context of clothing, the relationship between intensive and extended usage and CSWB is mediated by improvement in perceived body image, as was hinted at in previous qualitative studies (Bly, Gwozdz, and Reisch 2015).

With regard to the current sustainable clothing marketing literature, our results on the importance of intensive and extended usage of already owned garments for well-being offer an interesting point of discussion. The previous studies seem to have taken as given that the accelerating fashion cycle increases consumption, and that to be able to maintain this level of consumption sustainably, new business models need to be created (de Ponte, Ciro Liscio, and Sospiro 2023; Hellström and Olsson 2024). Thus, to the best of our knowledge, in addition to not questioning the accelerating cycle of fashion, these studies have focused strongly on production, acquisition, disposal, and waste management to shift consumer behavior toward circularity, with circular fashion, second-hand, rental, and sharing platforms (Amasawa et al. 2023; Daukantienė 2023; Laudien, Martinez, and Martin 2023). Although extending the usage phase should be an essential component of the circular business models (Geissdoerfer et al. 2020), and lifecycle assessments indicate that reducing consumption by extending the usage of already owned garments would be the best way to reduce the environmental burden of the clothing system (Levänen et al. 2021; Munasinghe, Druckman, and Dissanayake 2021), the usage phase has garnered much less attention. The present research contributes to filling this gap by taking a consumer perspective on the critical consumption phase of usage, and showing that focusing on usage instead of acquisition could be beneficial not only for the environment but also to the consumer.

Furthermore, our results contribute to the discussion on psychological obsolescence (Guillard, Le Nagard, and Ribeiro 2023). Extending the lifecycle of garments seems to be a shared goal in the sustainability literature. To this end, many studies have strived to bring to the fore the importance of clothing care and particularly wash frequency, alongside producing physically durable products (Maguire and Fahy 2023; Sahimaa et al. 2024). Despite physical durability being a prerequisite for extended longevity in the fashion industry, even the most well-made and well cared-for clothes can still go out of style, that is, become psychologically obsolescent (Sahimaa et al. 2024). Therefore, in order to move toward a more sustainable clothing system, fighting psychological obsolescence is at least as important as focusing on physical durability. Maguire and Fahy (2023) identified that possible enablers for extended garment longevity could include heightened knowledge and awareness of clothing care, and of the connection between prolonging garment wear and sustainability. Our study adds awareness of the connection between prolonging garment wear and CSWB and body image to Maguire and Fahy's (2023) list of enablers.

Finally, our findings also speak to the literature on psychological ownership. Psychological ownership refers to "the state in which individuals feel as though the target of ownership or a piece of that target is 'theirs'" (Pierce, Kostova, and Dirks 2003, 86). The more people experience psychological ownership, the more they are able to define and present themselves through their possessions, and see them as a part of their identity (Belk 1988; Pierce et al. 2003; Weiss and Johar 2016). It has been argued that a key barrier to accepting circular business models is that in shifting focus from ownership toward access, they fail to provide the consumer with psychological ownership (Claudy and Peterson 2022, Singh and Giacosa 2019). Furthermore, Zhao et al. (2023) found that by triggering lower psychological ownership, the use of shared products impairs consumer happiness. Our findings provide further evidence on the importance of ownership to consumers, as intensive and extensive usage of their own items seems to increase subjective well-being. However, our results also suggest that rather than fighting against it, the yearning for psychological ownership could be harnessed as a driver for prolonging use time.

### Social and Practical Implications

The social and practical implications of our study stem from the importance of usage in solving the overconsumption problem, as well as the possibilities of utilizing its relationship with CSWB and positive body image in these aspirations.

For companies, our results open avenues to use the novel knowledge in social and green marketing, and in marketing so-called slow fashion brands. Companies could promote timeless styles and repair services with slogans appealing to consumers' self-oriented motivations through well-being, such as "Wear your pants out and be happy", "Find your style and stick to it", or simply "Be you and be happy". An example of a company that embraces the longevity of its products is Nudie Jeans, a Swedish denim producer that promises to repair any broken area of its jeans as many times as needed in their own repair shops, mobile repair stations, and through repair partners; and if none of these are close by, through sending free Repair Kits. Intensive and extended usage could also be supported by style consultancy services that advise consumers on how to choose well-fitting and multifunctional clothing that is durable, both physically and psychologically, and how to create new and different looks with the clothes (Armstrong et al. 2015). Our results could also be utilized in marketing therapeutic services to help consumers build better self-knowledge and self-esteem, and find their own style. Yet another business opportunity is related to the craft of mending: in addition to professional dressmakers and re-makers, our results could be utilized in marketing courses and workshops to teach consumers mending skills (e.g., Durrani 2018). Furthermore, if postponing acquisition has positive well-being effects compared with frequent acquisition, marketers and businesses could support both consumers and the environment by prolonging the gap between product launches, and instead building up excitement, hype, and anticipation of new fashions. This would have the dual effect of reducing production while increasing CSWB.

Our results send a clear message to consumers: intensifying and extending usage is not only beneficial for the environment but also in terms of consumer well-being. Also, usage can be increased in many different ways. For those who take an active interest in clothing, usage can be extended, for example, through mending, upcycling, and mixing and matching, in addition to choosing both psychologically and physically durable pieces. Building a so-called capsule wardrobe, consisting of only a few pieces that can be worn in different combinations, can also be an inspiration to some (Martin-Woodhead 2023). To step out of the fashion cycle, it could also be advisable to stay away from stores, both online and bricks-and-mortar, unsubscribe from mailing lists, and stop following social media accounts that stir up the need to acquire. On the other hand, if a consumer is not interested in fashion, style, or crafting, extending clothing usage is probably the easiest way to be a sustainable clothing consumer, while it can simultaneously contribute to both financial and subjective well-being, as well as save time. At its simplest, intensifying and extending usage starts from listening to personal needs and preferences, and acquiring only clothing you like and need in the long run. This should be a natural path for many as, according to Rausch, Baier, and Wening (2021), the average consumer already prioritizes conventional apparel characteristics such as fit, comfort, price-performance ratio, and quality over, for example, sustainable attributes. In fact, according to Harris, Roby, and Dibb (2016), clothing sustainability is too complex for consumers to comprehend, let alone apply to everyday practices.

Coscieme et al. (2022) recently estimated the sustainable numbers of items that could be purchased per year in OECD countries. For countries with four distinct seasons, such as Finland, that number was five, which inspired a five-item-challenge that spread across social media. The novel result that anticipation contributes more strongly to well-being than does acquisition could be applied in the promotion of this kind of challenge. The longer anticipation of acquisitions would also give consumers time to consider them more closely, and perhaps arrive at better decisions that contribute to their well-being also in the future, in the form of well-fitting, well-functioning, and well-loved clothing.

However, the systemic change away from overconsumption cannot rest solely on the shoulders of the consumers and the market; rather, we need policies to support it. For example, to increase the well-being of both the environment and people, we suggest policies such as a compulsory guarantee for clothing items, for example, two years combined with a repair service, assuming that care instructions have been followed. These instructions could also be regulated to conform to certain categories, such as Normal (water wash 40–60°C with similar colors) and Special (wool wash, airing, dry cleaning) to ease the post purchase cloth care, which Maguire and Fahy (2023) also identified as one of the factors affecting garment longevity. The guarantee policy could be combined with binding the level of value added tax (VAT) inversely to the use-time guaranteed by the garment producer, the care category and materials used in relation to their environmental burden, and later recyclability. In order for the regulation not to produce rebound effects, such as membership-like continuous exchange of damaged products for new, the guarantee should also be regulated so that it could not be implemented by replacing the broken garment with a new product; only, for example, by repair, or returning the cost of acquisition to the customer, and the imposition of consequences for companies in case of constant occurrences of wear and tear before the guaranteed use-time expired. These policies could be enabled through the planned digital product passport (DPP) (Ospital et al. 2023), guiding production away from single-use products, and, eventually, through higher prices and changes in supply and selection that affect consumers' perceptions on product use times and, hopefully, their consumption behavior.

In order to slow the accelerating fashion cycle that is shortening clothes' use-times, a limit to the number of collection launches could be set to, for example, two per year. Also, limiting fashion advertising could be advisable, starting from banning campaigns targeting the most sensitive groups, youths and children, who are still establishing their consumer

behavior patterns and seeking to discover their self-identity through clothing (Joy et al. 2012). Finally, we suggest a VAT reduction for repair services, following Sweden's example (Dalhammar et al. 2020).

### Macromarketing Implications

As noted, the lifespan of clothes is far more dependent on trends and styles than the physical durability of the garments (Netter 2016). Moreover, research shows that access-based consumption and the consumption of experiences can equally well be used to signal status, happiness, and self-worth (Atanasova and Eckhardt 2021), that is, as tools of materialism associated with decreased subjective well-being (Richins 2017). Therefore, we argue that the keys to extending clothing lifecycles are not only the physical durability of garments, but also dismantling the systems and circumstances that feed craving for newness. A key factor in this process might be repeat garment use and the negative socio-cultural beliefs linked thereto (Maguire and Fahy 2023). Maguire and Fahy (2023) found that repeat garment use is often seen negatively at this time. This belief is supported, for example, by Outfit Of The Day (OOTD) hashtags, and other social media phenomena linked to change and variation.

Changing the clothing marketing system from one that is built on the need for newness and variation to one that embraces extended usage and ownership, requires normative, regulatory, and systemic change. As long as the current norm benefits the industry, the so-called climate change social trap of favoring short-term positive consequences over long-term negative consequences cannot be resolved (Gossen, Ziesemer, and Schrader 2019; Rashidi-Sabet and Madhavaram 2021). Similarly, we cannot just ask consumers to change their values and lifestyle rooted in societal institutions (Brown and Cameron 2000; Scott, Martin, and Scouten 2014). Instead, our study suggested that while the craving for variation might be an innate need on the part of consumers, when incited by fashion marketing, it can be harmful to CSWB. Thus, to break the unhealthy status quo, regulation is needed to curb the marketing system that promotes the inadequate mentality of constant variation (Garcia-Ortega et al. 2023).

A recent study revealed that the majority of consumers remains unaware of the beneficial effects on sustainability of prolonging wear, and called for action to increase awareness (Maguire and Fahy 2023). We support this call, though add that prolonging wear does not necessarily have to be motivated by sustainability. In fact, while sustainable clothing consumption as it is currently understood is usually associated with altruism and ecological and environmental concerns (Hur 2020, Kopplin and Rösch 2021, Tewari et al. 2022), humans in general are inclined toward self-interest (Griskevicius, Cantú, and Van Vugt 2012). Therefore, many studies show that other-oriented content such as biospheric appeals have little or no effect on consumption levels (Herziger, Berkessel, and Knutsen Steinnes 2020). Hence, in addition to appealing to altruistic motivations by raising awareness of the sustainability effects of prolonging wear, it would be valuable to appeal to self-oriented drivers (ElHaffar et al. 2020) by raising awareness of the possible well-being effects of extended usage. Previously, self-oriented motivators such as status or reducing stress have proven effective in nudging consumers toward reducing consumption (Armstrong Soule and Sekhon 2022; Herziger, Berkessel, and Knutsen Steinnes 2020). We now propose well-being and body image as other self-oriented levers for use in social marketing initiatives. Moreover, we assert that the increase and extension of usage is a key factor in the consumption curtailment-well-being connection, and that this link could be utilized on a large scale in conservation education and marketing of sustainable products and services.

### Limitations and Future Research

As with all academic research, our paper has limitations which at the same time invite further research. First, even though our qualitative data and the previous research point toward the possible causalities between consumption reduction, perceived body image, and well-being, the cross-sectional nature of our data limited us to an exploration of their relationships. Thus, longitudinal and experimental research is needed to determine the (long-term) consequences of clothing consumption curtailment on CSWB, and to establish the causal explanations.

In particular, our study could not rule out the role of reverse causality. It is possible that consumers with higher CSWB are already self-confident and like the way their clothes look on them. Thus, they would not feel the need to improve their look or life satisfaction through acquiring new clothes. Conversely, consumers with lower CSWB who are uncomfortable in their body may seek to improve their CSWB through acquiring clothes. However, if the issue is originally psychological and not physical, the increased acquisition does not increase (but decreases) CSWB, creating a vicious circle. Furthermore, both perceived body image and CSWB are complex constructs affected by a multitude of other factors beyond clothing consumption, such as temperament, supportive social relationships, good physical health, and creativity (Acar et al. 2021; Diener, Oishi, and Tay 2018; Halliwell 2015; Tan et al. 2021). Thus, we cannot definitively rule out the possibility that the relationships between increased and extended usage, body image, and CSWB are influenced by a third variable. Therefore, our study offers an avenue for future research, proposing and testing other possible influential factors.

For instance, although we suggested that the positive relationship between intensive and extended usage and subjective well-being could be explained by a reduction in social comparisons and craving for newness, we did not test for that. Future research should thus investigate the robustness of this mediation effect. Another possible mediator to study in the usage-CSWB relationship is creativity. Our qualitative study echoed the previous research in that reducing the acquisition of clothing as well as participating in upcycling activities would increase creativity (Ruppert-Stroescu et al. 2015), which has been shown to enhance subjective well-being

(Acar et al. 2021; Tan et al. 2021). Other potential targets for future research are the impacts of anticipation and second-hand acquisition on consumer subjective well-being.

Third, even though we drew on a representative sample of the Finnish population, our results may not be generalizable to other countries. The previous research has found that drivers for sustainable fashion purchasing differ in different cultures (Khan, Varaksina, and Hinterhuber 2024). Future research should test our results in a cross-cultural setting. Similarly, as our research concentrated on clothing, we invite researchers to explore how the consumption curtailment-subjective well-being connection plays out in other product contexts, such as electronics, where the issue of psychological obsolescence is particularly prominent (Islam et al. 2021).

Finally, our policy suggestions related to guarantees and taxes call for policy analyses on their potential effects on consumption behavior and the economy.

## *Conclusions*

The aim of this study was to investigate the role of different consumption phases in the relationship between clothing consumption curtailment (CCC) and consumer subjective well-being (CSWB). To this end, we analyzed two datasets: one qualitative, comprising clothes shopping detoxers' blog entries, and one quantitative representative survey data. We found three separate but interrelated constructs—reduced anticipation, reduced acquisition, and intensive and extended usage—of which the most relevant for positive well-being effects is intensive and extended usage. It was found to have a positive total effect on both affective and cognitive well-being, as well as an indirect effect through improved body image. As for anticipation and acquisition, we found that anticipation had a stronger positive relationship with CSWB than had acquisition. Our findings support the idea that instead of fueling consumers' yearning for variation with a continuous flow of new market offerings, the opposite route of cherishing the clothes you already own could be just as promising a way out of overconsumption. This, of course, requires normative and systemic change, which, we argued, could be triggered with the help of curbing supply and marketing through regulation, and of shifting the focus of education and social and commercial marketing from the environmentally motivated "sustainable" acquisition of clothing toward the well-being driven promotion of intensive and extended usage.

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### References

Acar, Selcuk, Harun Tadik, Danielle Myers, Carian Van der Sman, and Recep Uysal (2021), "Creativity and Well-Being: A Meta-Analysis," *The Journal of Creative Behavior*, 55 (3), 738–751.

Albinsson, Pia A. and B. Yasanthi Perera (2018), "Access-Based Consumption: From Ownership to Non-Ownership of Clothing," in *The Rise of the Sharing Economy: Exploring the Challenges and Opportunities of Collaborative Consumption*, Pia A. Albinsson and Perera B. Yasanthi, eds. Santa Barbara, CA: Praeger, 183–212.

Amasawa, Eri, Taylor Brydges, Claudia E. Henninger, and Kimita Koji (2023), "Can Rental Platforms Contribute to More Sustainable Fashion Consumption? Evidence from a Mixed-Method Study," *Cleaner and Responsible Consumption*, 8, 100103. doi:10.1016/j.clrc.2023.100103.

Apeagyei, Phoebe R. (2008), "Significance of Body Image Among UK Female Fashion Consumers: The Cult of Size Zero, the Skinny Trend," *International Journal of Fashion Design, Technology and Education*, 1 (1), 3–11.

Argo, Jennifer J. and Darren W. Dahl (2018), "Standards of Beauty: The Impact of Mannequins in the Retail Context," *Journal of Consumer Research*, 44 (5), 974–990.

Armstrong, Cosette M., Kirsi Niinimäki, Sari Kujala, Essi Karell, and Chunmin Lang (2015), "Sustainable Product-Service Systems for Clothing: Exploring Consumer Perceptions of Consumption Alternatives in Finland," *Journal of Cleaner Production*, 97, 30–39.

Armstrong, Cosette M. J., Kim Y. Hiller Connell, Chunmin Lang, Mary Ruppert-Stroescu, and Melody L.E. LeHew (2016), "Educating for Sustainable Fashion: Using Clothing Acquisition Abstinence to Explore Sustainable Consumption and Life Beyond Growth," *Journal of Consumer Policy*, 39 (4), 417–439. doi:10.1007/s10603-016-9330-z

Armstrong, Cosette M. J. and Chunmin Lang (2018), "The Clothing Style Confidence Mindset in a Circular Economy," in *Sustainable Fashion in a Circular Economy*, Kirsi Niinimäki, ed. Finland: Aalto University, 42–61.

Armstrong Soule, Catherine A. and Tejvir Singh Sekhon (2022), "Signaling Nothing: Motivating the Masses with Status Signals That Encourage Anti-Consumption," *Journal of Macromarketing*, 42 (2), 308–325.

Atanasova, Aleksandrina and Giana M. Eckhardt (2021), "The Broadening Boundaries of Materialism," *Marketing Theory*, 21 (4), 481–500.

Atik, Deniz and Zeynep Ozdamar Ertekin (2023), "The Restless Desire for the New Versus Sustainability: The Pressing Need for Social

Marketing in Fashion Industry," *Journal of Social Marketing*, 13 (1), 1–19.

Aydin, Necati (2010), "Subjective Well-Being and Sustainable Consumption," *The International Journal of Environmental, Cultural, Economic and Social Sustainability*, 6 (5), 133–147.

Bagozzi, Richard P. and Youjae Yi (1988), "On the Evaluation of Structural Equation Models," *Journal of the Academy of Marketing Science*, 16 (1), 74–94.

Balderjahn, Ingo, Stefan Hoffmann, and Alexandra Hüttel (2023), "How Empowerment and Materialism Contribute to Anti-Consumers' Well-Being," *European Journal of Marketing*, 57 (4), 1186–1218.

Balderjahn, Ingo, Michael S. Lee, Barbara Seegebarth, and Mathias Peyer (2020), "A Sustainable Pathway to Consumer Wellbeing. The Role of Anticonsumption and Consumer Empowerment," *Journal of Consumer Affairs*, 54 (2), 456–488.

Bastos Rudolph, Livia T., Mariana Bassi Suter, and Simone R. Barakat (2023), "The Emergence of a New Business Approach in the Fashion and Apparel Industry: The Ethical Retailer," *Journal of Macromarketing*, 43 (3), 367–383. https://doi.org/10.1177/02761467231180456.

Batat, Wided (2023), "Is Marketing a Victim of Its Own Success? A Restoration Process to Unlock Marketing's Power for Creativity, Competitiveness, and Well-Being," *Journal of Macromarketing*, 43 (2), 119–128. https://doi.org/10.1177/02761467231162509.

Belk, Russell W. (1988), "Possessions and the Extended Self," *Journal of Consumer Research*, 15 (2), 139–168.

Bly, Sarah, Wencke Gwozdz, and Lucia A. Reisch (2015), "Exit from the High Street: An Exploratory Study of Sustainable Fashion Consumption Pioneers," *International Journal of Consumer Studies*, 39 (2), 125–135.

Brown, Paul M. and Linda D. Cameron (2000), "What Can Be Done to Reduce Overconsumption?" *Ecological Economics*, 32 (1), 27–41.

Brownbridge, Kathryn, Simeon Gill, Sarah Grogan, Sarah Kilgariff, and Amanda Whalley (2018), "Fashion Misfit: Women's Dissatisfaction and Its Implications," *Journal of Fashion Marketing and Management: An International Journal*, 22 (3), 438–452. doi 10.1108/JFMM-05-2017-0050.

Burroughs, James E., Lan N. Chaplin, Mario Pandelaere, Michael I. Norton, Nalya Ordabayeva,, Alex Gunz, et al. (2013), "Using Motivation Theory to Develop a Transformative Consumer Research Agenda for Reducing Materialism in Society," *Journal of Public Policy & Marketing*, 32 (1), 18–31.

Cash, Thomas F., Emily C. Fleming, Jenny Alindogan, Laura Steadman, and Abigail Whitehead (2002), "Beyond Body Image as a Trait: The Development and Validation of the Body Image States Scale," *Eating Disorders*, 10 (2), 103–113.

Chamberlin, Lucy C. J. and Åsa Callmer (2021), "Spark Joy and Slow Consumption: An Empirical Study of the Impact of the KonMari Method on Acquisition and Wellbeing," *Journal of Sustainability Research*, 3 (1), e210007. https://doi.org/10.20900/jsr20210007.

Cheung, G. W. and R. S. Lau (2008), "Testing Mediation and Suppression Effects of Latent Variables: Bootstrapping with Structural Equation Models," *Organizational Research Methods*, 11 (2), 296–325.

Chhabra, Sakhhi, Sumita Sindhi, and Merlin Nandy (2022), "Factors Affecting the Adoption of Slow Fashion – An Exploratory Study of Multiple Stakeholders," *Journal of Macromarketing*, 42 (4), 492–509. DOI:10.1177/02761467221116294.

Cho, Erin, Shipra Gupta, and Youn-Koun Kim (2015), "Style Consumption: Its Drivers and Role in Sustainable Apparel Consumption," *International Journal of Consumer Studies*, 39 (6), 661–669.

Claudy, Marius and Mark Peterson (2022), "Sustainability: Understanding Consumer Behavior in a Circular Economy," in *APA Handbook of Consumer Psychology*. Washington: American Psychological Association, 373–392.

Coscieme, Luca, Lewis Akenji, Elli Latva-Hakuni, Katia Vladimirova, Kirsi Niinimäki,, Claudia Henninger, et al. (2022), *Unfit, Unfair, Unfashionable: Resizing Fashion for a Fair Consumption Space*. The Hot or Cool Institute, Germany. (accessed January 10, 2024), [available at https://policycommons.net/artifacts/3441270/hot_or_cool_1_5_fashion_report/4241241/] CID: 20.500.12592/rcwq5z.

Dalhammar, Carl, Jessika L. Richter, (Ed.), Josefina Almén, Maja Anehagen, Emma Enström, Cornelia Hartman, Clara Jonsson,, Frida Lindbladh, et al. (2020), *Promoting the Repair Sector in Sweden*.

Daukantienė, Virginija (2023), "Analysis of the Sustainability Aspects of Fashion: A Literature Review," *Textile Research Journal*, 93 (3-4), 991–1002.

Deci, Edward L. and Richard M. Ryan (1985), *Intrinsic Motivation and Self-Determination in Human Behavior*. NY: Springer New York.

Deci, Edward L. and Richard M. Ryan (2000), "The 'What' and 'Why' of Goal Pursuits: Human Needs and the Self-Determination of Behavior," *Psychological Inquiry*, 11 (4), 227–268.

De Ponte, Caterina, Marco C. Liscio, and Paolo Sospiro (2023), "State of The Art on The Nexus Between Sustainability, Fashion Industry and Sustainable Business Model," *Sustainable Chemistry and Pharmacy*, 32, 100968.

Diener, Ed, Robert A. Emmons, Randy J. Larsen, and Sharon Griffin (1985), "The Satisfaction with Life Scale," *Journal of Personality Assessment*, 49 (1), 71–75.

Diener, Ed, Richard E. Lucas, and Christie N. Scollon (2009), "Beyond the Hedonic Treadmill: Revising the Adaptation Theory of Well-Being," in *The Science of Well-Being*, Ed Diener, ed. Dordrecht; New York: Springer, 103–118.

Diener, Ed, Weiting Ng, James Harter, and Raksha Arora (2010), "Wealth and Happiness Across the World: Material Prosperity Predicts Life Evaluation, Whereas Psychosocial Prosperity Predicts Positive Feeling," *Journal of Personality and Social Psychology*, 99 (1), 52–61. https://doi.org/10.1037/a0018066.

Diener, Ed, Shigehiro Oishi, and Louis Tay (2018), "Advances in Subjective Well-Being Research," *Nature Human Behaviour*, 2 (4), 253–260.

Dissanayake, Kanchana and Rudrajeet Pal (2023), "Sustainability Dichotomies of Used Clothes Supply Chains: A Critical Review of Key Concerns and Strategic Resources," *The International Journal of Logistics Management*, 34 (7), 75–97.

Dittmar, Helga (2008), "Understanding the Impact of Consumer Culture," in *Consumer Culture, Identity and Well-Being: The*

*Search for the "Good Life" and the "Body Perfect"*, Helga Dittmar, ed. Hove, UK: Psychology press, 1–23.

Dittmar, Helga and Emma Halliwell (2008), "Think 'Ideal' and Feel Bad? Using Self-Discrepancies to Understand Negative Media Effects," in *Consumer Culture, Identity and Well-Being: The Search for the "Good Life" and the "Body Perfect'*, Helga Dittmar, ed. Hove, UK: Psychology press, 147–172.

Durrani, M. (2018), "'People Gather for Stranger Things, So Why Not This?' Learning Sustainable Sensibilities Through Communal Garment-Mending Practices," *Sustainability*, 10 (7), 2218. https://doi.org/10.3390/su10072218.

ElHaffar, Gina, Fabien Durif, and Laurette Dubé (2020), "Towards Closing the Attitude-Intention-Behavior Gap in Green Consumption: A Narrative Review of the Literature and an Overview of Future Research Directions," *Journal of Cleaner Production*, 275, 122556.

Ellen MacArthur Foundation (EMF) (2017a), "Circular Fibres Initiative Analysis," in *EMF* (2017b).

Ellen MacArthur Foundation (EMF) (2017b), "A New Textiles Economy: Redesigning Fashion's Future". (accessed October 10, 2023), [available at http://www.ellenmacarthurfoundation.org/publications].

Finne, Merja, Kaija Nissinen, Sirpa Nygård, Anu Hopia, Hanna-Leena Hietaranta-Luoma,, Harri Luomala, et al. (2012), "Eteläpohjalaisten Elintavat ja Terveyskäyttäytyminen: TERVAS–Terveelliset Valinnat ja Räätälöidyt Syömisen ja Liikkumisen Mallit 2009–2011" (The Lifestyles and Health Behavior of the People of Southern Ostrobothnia: TERVAS–Healthy Choices and Customized Eating and Exercise Patterns 2009–2011). *Seinäjoen Ammattikorkeakoulun Julkaisusarja A. Tutkimuksia*, 10.

Fischer, Daniel, Julia-Lena Reinermann, Georgina Guillen-Mandujano, C. Tyler DesRoches, Sonali Diddi, and Philip J. Vergragt (2021), "Sustainable Consumption Communication: A Review of an Emerging Field of Research," *Journal of Cleaner Production*, 300, 126880. https://doi.org/10.1016/j.jclepro.2021.126880.

Forgeard, Marie J., Eranda Jayawickreme, Margaret L. Kern, and Martin E.P. Seligman (2011), "Doing the Right Thing: Measuring Wellbeing for Public Policy," *International Journal of Wellbeing*, 1 (1), 79–106. doi:10.5502/ijw.v1i1.15.

Fornell, Claes and David F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (1), 39–50.

Garcia-Ortega, Beatriz, Javier Galan-Cubillo, F. Javier Llorens-Montes, and Blanca de-Miguel-Molina (2023), "Sufficient Consumption as a Missing Link Toward Sustainability: The Case of Fast Fashion," *Journal of Cleaner Production*, 399, 136678. doi:10.1016/j.jclepro.2023.136678.

Geissdoerfer, Martin, Marina P. P. Pieroni, Daniela C. A. Pigosso, and Khaled Soufani (2020), "Circular Business Models: A Review," *Journal of Cleaner Production*, 277, 123741.

Gossen, Maike, Florence Ziesemer, and Ulf Schrader (2019), "Why and How Commercial Marketing Should Promote Sufficient Consumption: A Systematic Literature Review," *Journal of Macromarketing*, 39 (3), 252–269.

Grappi, Silvia, Francecsca Bergianti, Veronica Gabrielli, and Ilaria Baghi (2024), "The Effect of Message Framing on Young Adult Consumers' Sustainable Fashion Consumption: The Role of Anticipated Emotions and Perceived Ethicality," *Journal of Business Research*, 170, 114341.

Greene, Sophia B. (2011), *Body Image: Perceptions, Interpretations and Attitudes*. New York: Nova Science Publishers.

Green strategy (2016), "The Clothes We Don't Need," (accessed May 3, 2023), [available at https://www.greenstrategy.se/the-clothes-we-dont-need-2/].

Griskevicius, Vladas, Stephanie M. Cantú, and Mark Van Vugt (2012), "The Evolutionary Bases for Sustainable Behavior: Implications for Marketing, Policy, and Social Entrepreneurship," *Journal of Public Policy & Marketing*, 31 (1), 115–128.

Guillard, Valérie, Emmanuelle Le Nagard, and Gisele De Campos Ribeiro (2023), "A Typology of Consumers Regarding Perceived Obsolescence: The Paradox of Eco-Conscious Consumers," *Journal of Cleaner Production*, 412, 137202.

Gupta, Shipra, Wencke Gwozdz, and James Gentry (2019), "The Role of Style Versus Fashion Orientation on Sustainable Apparel Consumption," *Journal of Macromarketing*, 39 (2), 188–207.

Gwozdz, Wencke, Kristian S. Nielsen, Shipra Gupta, and James Gentry (2017), "The Relationship Between Fashion and Style Orientation and Well-Being," *Mistra Future Fashion*, 2017 (5), (accessed February 1, 2022), [available at www.mistrafuturefashion.com/wp-content/uploads/2017/11/D3.1.1.2-Style-versus-fashion-and-wellbeing.pdf].

Hair, Joseph F., Rolf E. Anderson, Barry J. Babin, and William C. Black (2010), *Multivariate Data Analysis: A Global Perspective (Vol. 7)*. Upper Saddle River, NJ: Pearson.

Halliwell, Emma (2015), "Future Directions for Positive Body Image Research," *Body Image*, 14, 177–189.

Harris, Fiona, Helen Roby, and Sally Dibb (2016), "Sustainable Clothing: Challenges, Barriers and Interventions for Encouraging More Sustainable Consumer Behavior," *International Journal of Consumer Studies*, 40 (3), 309–318.

Hellström, Daniel and John Olsson (2024), "Let's Go Thrift Shopping: Exploring Circular Business Model Innovation in Fashion Retail," *Technological Forecasting and Social Change*, 198, 123000. https://doi.org/10.1016/j.techfore.2023.123000.

Helm, Sabrina and Vicki Little (2022), "Macromarketing Our Way to a Zero-Carbon Future," *Journal of Macromarketing*, 42 (2), 262–266. https://doi.org/10.1177/02761467221088254.

Herziger, Atar, Jana B. Berkessel, and Kamilla Knutsen Steinnes (2020), "Wean Off Green: On the (In) Effectiveness of Biospheric Appeals for Consumption Curtailment," *Journal of Environmental Psychology*, 69, 101415.

Howell, B. (2024), "The Top 7 Most Polluting Industries In 2024," *The Eco Experts*, (accessed April 17, 2024), [available at https://www.theecoexperts.co.uk/blog/top-7-most-polluting-industries].

Hsee, Christopher K., Yang Yang, Naihe Li, and Luxi Shen (2009), "Wealth, Warmth, and Well-Being: Whether Happiness Is Relative or Absolute Depends on Whether It Is About Money, Acquisition, Or Consumption," *Journal of Marketing Research*, 46 (3), 396–409.

Hur, Eunsuk (2020), "Rebirth Fashion: Secondhand Clothing Consumption Values and Perceived Risks," *Journal of Cleaner Production*, 273, 122951.

Hüttel, Alexandra, Ingo Balderjahn, and Stefan Hoffmann (2020), "Welfare Beyond Consumption: The Benefits of Having Less," *Ecological Economics*, 176, 106719.

Inglehart, Ronald (1990), *Culture Shift in Advanced Industrial Society*. Princeton, NJ: Princeton University Press.

Islam, Md Tasbirul, Nazmul Huda, Alex Baumber, Rezaul Shumon, Atiq Zaman,, Forkan Ali, et al. (2021), "A Global Review of Consumer Behavior Towards e-Waste and Implications for the Circular Economy," *Journal of Cleaner Production*, 316, 128297.

Iyer, Rajesh and James A. Muncy (2016), "Attitude Toward Consumption and Subjective Well-Being," *Journal of Consumer Affairs*, 50 (1), 48–67.

Jimenez-Fernandez, Anne, Maria E. Aramendia-Muneta, and Miriam Alzate (2023), "Consumers' Awareness and Attitudes in Circular Fashion," *Cleaner and Responsible Consumption*, 11, 100144.

Johnson, Tricia and Julianna Attmann (2009), "Compulsive Buying in a Product Specific Context: Clothing," *Journal of Fashion Marketing and Management: An International Journal*, 13 (3), 394–405.

Joy, Annamma, John F. Sherry Jr, Alladi Venkatesh, Jeff Wang, and Ricky Chan (2012), "Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands," *Fashion Theory*, 16 (3), 273–295.

Kasser, Tim (2002), "Sketches for a Self-Determination Theory of Values," in *Handbook of Self-Determination Research*, E. Deci and R. Ryan, eds. Rochester, NY: The University of Rochester Press, 123–140.

Kasser, Tim and Richard M. Ryan (1996), "Further Examining the American Dream: Differential Correlates of Intrinsic and Extrinsic Goals," *Personality and Social Psychology Bulletin*, 22 (3), 280–287.

Khan, Owais, Nina Varaksina, and Andreas Hinterhuber (2024), "The Influence of Cultural Differences on Consumers' Willingness to Pay More for Sustainable Fashion," *Journal of Cleaner Production*, 442, 141024.

Ki, Chung-Wha (Chloe), Chunsheng Li, Ashley S. Chenn, S. M. Chong, and E. Cho (2024), "Wise Consumer Choices in Online Secondhand Luxury (OSHL) Shopping: An Integrated Model of Motivations, Attitudes, and Purchase Intentions for OSHL As Wise, Conspicuous, And Sustainable Consumption," *Journal of Retailing and Consumer Services*, 76, 103571.

Kopplin, Cristopher Siegfried and Stella Franca Rösch (2021), "Equifinal Causes of Sustainable Clothing Purchase Behavior: An fsQCA Analysis among Generation Y," *Journal of Retailing and Consumer Services*, 63, 102692.

Kumar, Amit and Thomas Gilovich (2016), "To Do or To Have, Now or Later? The Preferred Consumption Profiles of Material and Experiential Purchases," *Journal of Consumer Psychology*, 26 (2), 169–178.

Kwon, Theresa H., Ho J. Choo, and Youn-Kyung Kim (2019), "Why Do We Feel Bored with Our Clothing and Where Does It End Up?" *International Journal of Consumer Studies*, 44 (1), 1–13. https://doi.org/10.1111/ijcs.12540.

Laudien, Sven M., José M. G. Martínez, and José M. Martín (2023), "Business Models Based on Sharing Fashion and Accessories: Qualitative-Empirical Insights into a New Type of Sharing Economy Business Models," *Journal of Business Research*, 157, 113636.

Lee, Michael S.W. (2022), "Anti-Consumption Research: A Foundational and Contemporary Overview," *Current Opinion in Psychology*, 45, 101319.

Lee, Hye-Ryeon, Hye E. Lee, Jounghwa Choi, Jang H. Kim, and Hae L. Han (2014), "Social Media Use, Body Image, and Psychological Well-Being: A Cross-Cultural Comparison of Korea and the United States," *Journal of Health Communication*, 19 (12), 1343–1358.

Lee, Michael S. and Christie Ahn (2016), "Anti-Consumption, Materialism, and Consumer Well-Being," *Journal of Consumer Affairs*, 50 (1), 18–47.

Levänen, Jarkko, Ville Uusitalo, Anna Härri, Elisa Kareinen, and Lassi Linnanen (2021), "Innovative Recycling or Extended Use? Comparing the Global Warming Potential of Different Ownership and End-of-Life Scenarios for Textiles," *Environmental Research Letters*, 16 (5), 054069. doi 10.1088/1748-9326/abfac3.

Liu, Jingshi, Amy N. Dalton, and Anirban Mukhopadhyay (2022), "Favorite Possessions Protect Subjective Wellbeing under Income Inequality," *Journal of Marketing Research*, Advance online publication, https://doi.org/10.1177/00222437221141053.

Luo, Yangmei, Xuhai Chen, Senqing Qi, Xuqun You, and Xiting Huang (2018), "Well-Being and Anticipation for Future Positive Events: Evidences from an fMRI Study," *Frontiers in Psychology*, 8, 2199.

Maguire, Helen and Frances Fahy (2023), "Unlocking Insights in The Everyday: Exploring Practices to Foster Sustainable Maximum Use of Clothing," *Cleaner and Responsible Consumption*, 8, 100095.

Malik, Faiza and Muhammad I. Ishaq (2023), "Impact of Minimalist Practices on Consumer Happiness and Financial Well-Being," *Journal of Retailing and Consumer Services*, 73, 103333.

Manchiraju, Srikant and Mary Damhorst (2020), "'I Want to Be Beautiful and Rich': Consumer Culture Ideals Internalization and Their Influence on Fashion Consumption," *Journal of Global Fashion Marketing*, 11 (4), 325–342.

Margolis, Seth, Eric Schwitzgebel, Daniel J. Ozer, and Sonja Lyubomirsky (2019), "A New Measure of Life Satisfaction: The Riverside Life Satisfaction Scale," *Journal of Personality Assessment*, 101 (6), 621–630.

Martin-Woodhead, Amber (2022), "Limited, Considered and Sustainable Consumption: The (Non) Consumption Practices of UK Minimalists," *Journal of Consumer Culture*, 22 (4), 1012–1031. doi:10.1177/14695405211039608.

Martin-Woodhead, Amber (2023), "Making Wardrobe Space: The Sustainable Potential of Minimalist-Inspired Fashion Challenges," *Area*, 55 (2), 274–283.

Mayring, Philipp (2004), "Qualitative Content Analysis," *A Companion to Qualitative Research*, 1 (2004), 159–176.

Mayring, Philipp (2014), "Qualitative Content Analysis: Theoretical Foundation, Basic Procedures and Software Solution," Klagenfurt, (accessed May 16, 2022), [available at https://nbn-resolving.org/urn:nbn:de:0168-ssoar-395173].

Mellander, Elias and Magdalena Petersson McIntyre (2021), "Fashionable Detachments: Wardrobes, Bodies and the Desire to Let Go," *Consumption Markets & Culture*, 24 (4), 343–356.

Michaelidou, Nina and Sally Dibb (2006), "Product Involvement: An Application in Clothing," *Journal of Consumer Behaviour: An International Research Review*, 5 (5), 442–453.

Millward-Hopkins, Joel, Phil Purnell, and Sharon Baurley (2023), "Scenarios for Reducing the Environmental Impacts of The UK Clothing Economy," *Journal of Cleaner Production*, 420, 138352.

Mukendi, Amira, Iain Davies, Sarah Glozer, and Pierre McDonagh (2020), "Sustainable Fashion Current and Future Research Directions," *European Journal of Marketing*, 54 (11), 2873–2909. doi 10.1108/EJM-02-2019-0132.

Munasinghe, Prabod, Angela Druckman, and D. G. K. Dissanayake (2021), "A Systematic Review of the Life Cycle Inventory of Clothing," *Journal of Cleaner Production*, 320, 128852.

Nayir, Tufan, Ersin Uskun, Mustafa V. Yürekli, Hacer Devran, Ayşe Çelik, and Ramazan A. Okyay (2016), "Does Body Image Affect Quality of Life?: A Population Based Study," *PloS One*, 11 (9), e0163290.

Nepomuceno, Marcelo V. and Michel Laroche (2015), "The Impact of Materialism and Anti-Consumption Lifestyles on Personal Debt and Account Balances," *Journal of Business Research*, 68 (3), 654–664.

Netter, Sarah (2016), "Availability Cascades and the Sharing Economy: A Critique of Sharing Economy Narratives," in *Sustainable Consumption: Design, Innovation and Practice*, Vol. 3, Audley Genus, ed. Cham: Springer International Publishing, 65–82.

Nielsen, Kristian S., Tina Joanes, Dave Webb, Shipra Gupta, and Wencke Gwozdz (2023), "Exploring the Psychological Characteristics of Style and Fashion Clothing Orientations," *Journal of Consumer Marketing*, 40 (7), 897–910. https://doi.org/10.1108/JCM-04-2022-5344.

Niemiec, Christopher P., Richard M. Ryan, and Edward L. Deci (2009), "The Path Taken: Consequences of Attaining Intrinsic and Extrinsic Aspirations in Post-College Life," *Journal of Research in Personality*, 43 (3), 291–306.

O'Cass, Aron (2004), "Fashion Clothing Consumption: Antecedents and Consequences of Fashion Clothing Involvement," *European Journal of Marketing*, 38 (7), 869–882.

Oral, Cansu and Joy-Yana Thurner (2019), "The Impact of Anti-Consumption on Consumer Well-Being," *International Journal of Consumer Studies*, 43 (3), 277–288.

Ospital, Pantxika, Dimitri Masson, Cédrick Beler, and Jérémy Legardeur (2023), "Toward Product Transparency: Communicating Traceability Information to Consumers," *International Journal of Fashion Design, Technology and Education*, 16 (2), 186–197.

Ozdamar Ertekin, Zeynep and Deniz Atik (2015), "Sustainable Markets: Motivating Factors, Barriers, and Remedies for Mobilization of Slow Fashion," *Journal of Macromarketing*, 35 (1), 53–69.

Papamichael, Iliana, Georgia Chatziparaskeva, Irene Voukkali, Jose Navarro Pedreno, Mejdi Jeguirim, and Antonis A. Zorpas (2023), "The Perception of Circular Economy in the Framework of Fashion Industry," *Waste Management & Research*, 41 (2), 251–263.

Pedersen, Esben R. G. and Kirsti R. Andersen (2015), "Sustainability Innovators and Anchor Draggers: A Global Expert Study on Sustainable Fashion," *Journal of Fashion Marketing and Management*, 19 (3), 315–327.

Peters, Greg, Mengyu Li, and Manfred Lenzen (2021), "The Need to Decelerate Fast Fashion in a Hot Climate – A Global Sustainability Perspective on the Garment Industry," *Journal of Cleaner Production*, 295, 126390.

Pierce, Jon L., Tatiana Kostova, and Kurt T. Dirks (2003), "The State of Psychological Ownership: Integrating and Extending a Century of Research," *Review of General Psychology*, 7 (1), 84–107.

Podsakoff, Philip M., Scott B. MacKenzie, Jeong-Yeon Lee, and Nathan P. Podsakoff (2003), "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies," *Journal of Applied Psychology*, 88 (5), 879–903.

Psychiatric Research Unit, WHO Collaborating Centre in Mental Health (a), "Maailman Terveysjärjestön Viiden Kysymyksen Hyvinvointiasteikko," (WHO Five Well-Being Index), (accessed October 20, 2020), [available at https://www.psykiatri-regionh.dk/who-5/Documents/WHO5_Finnish.pdf].

Psychiatric Research Unit, WHO Collaborating Centre in Mental Health (b), "WHO (Five) Well-Being Index (1998 version)," (accessed October 20, 2020), [available at https://www.psykiatri-regionh.dk/who-5/Documents/WHO-5%20questionaire%20-%20English.pdf].

Quantis (2018), "Measuring Fashion: Insights from the Environmental Impact of the Global Apparel and Footwear Industries. Full Report and Methodological Considerations," (accessed October 10, 2023), [available at https://quantis.com/wp-content/uploads/2018/03/measuringfashion_globalimpactstudy_full-report_quantis_cwf_2018a.pdf].

Rashidi-Sabet, Siavash and Sreedhar Madhavaram (2021), "A Strategic Marketing Framework for Emerging Out of the Climate Change Social Trap: The Case of the Fashion Industry," *Journal of Macromarketing*, 42 (2), 267–291.

Rausch, Theresa M., Daniel Baier, and Stefanie Wening (2021), "Does Sustainability Really Matter to Consumers? Assessing the Importance of Online Shop and Apparel Product Attributes.," *Journal of Retailing and Consumer Services*, 63, 102681.

Rich, Stacey A., Sharon Hanna, and Bradley J. Wright (2017), "Simply Satisfied: The Role of Psychological Need Satisfaction in the Life Satisfaction of Voluntary Simplifiers," *Journal of Happiness Studies*, 18 (1), 89–105.

Richins, Marsha L. (2013), "When Wanting Is Better Than Having: Materialism, Transformation Expectations, and Product-Evoked Emotions in the Purchase Process," *Journal of Consumer Research*, 40 (1), 1–18.

Richins, Marsha L. (2017), "Materialism Pathways: The Processes That Create and Perpetuate Materialism," *Journal of Consumer Psychology*, 27 (4), 480–499.

Richins, Marsha L and Dawson Scott (1992), "A Consumer Values Orientation for Materialism and Its Measurement: Scale Development and Validation," *Journal of Consumer Research*, 19 (3), 303–316.

Rieke, Sara E., Deborah C. Fowler, Hyo J. Chang, and Natalia Velikova (2016), "Exploration of Factors Influencing Body Image Satisfaction and Purchase Intent: Millennial Females," *Journal of Fashion Marketing and Management*, 20 (2), 208–229.

Rosenberg, Laura M., Henri A. Weijo, and Iina Kerkelä (2023), "Consumer Desires and the Fluctuating Balance Between Liquid and Solid Consumption: The Case of Finnish Clothing Libraries," *Journal of Consumer Research*, 50 (4), 826–847.

Ruppert-Stroescu, Mary, Melody L. LeHew, Kim Y. Hiller Connell, and Cosette M. Armstrong (2015), "Creativity and Sustainable Fashion Apparel Consumption: The Fashion Detox," *Clothing and Textiles Research Journal*, 33 (3), 167–182.

Rūtelionė, Aušra and Muhammad Y. Bhutto (2024), "Exploring the Psychological Benefits of Green Apparel and Its Influence on Attitude, Intention and Behavior Among Generation Z: A Serial Multiple Mediation Study Applying the Stimulus–Organism–Response Model," *Journal of Fashion Marketing and Management*, Advance online publication, https://doi.org/10.1108/JFMM-06-2023-0161.

Sahimaa, Olli, Elizabeth M. Miller, Minna Halme, Kirsi Niinimäki, Hannu Tanner,, Mikko Mäkelä, et al. (2024), "From Simplistic to Systemic Sustainability in the Textile and Fashion Industry," *Circular Economy and Sustainability*, 4 (2), 1115–1131. https://doi.org/10.1007/s43615-023-00322-w.

Saravade, Swapnil, Reto Felix, and A. Fuat Fırat (2021), "From Solidity to Liquidity: Macro-Level Consumption Patterns in the Sharing Economy," *Journal of Macromarketing*, 41 (2), 284–296. https://doi.org/10.1177/0276146720958184.

Scott, Kristin, Diane M. Martin, and John W. Schouten (2014), "Marketing and the New Materialism," *Journal of Macromarketing*, 34 (3), 282–290.

Seegebarth, Barbara, Mathias Peyer, Ingo Balderjahn, and Klaus-Peter Wiedmann (2016), "The Sustainability Roots of Anticonsumption Lifestyles and Initial Insights Regarding Their Effects on Consumers' Well-Being," *Journal of Consumer Affairs*, 50 (1), 68–99.

Shafqat, Tehmeena, Muhammad I. Isha, and Anzar Ahmed (2023), "Fashion Consumption Using Minimalism: Exploring the Relationship of Consumer Well-Being and Social Connectedness," *Journal of Retailing and Consumer Services*, 71, 103215.

Shehzala, Anand K. Jaiswal, Vidya Vemireddy, and Federica Angeli (2024), "Social Media "Stars" vs "The Ordinary" Me: Influencer Marketing and the Role of Self-Discrepancies, Perceived Homophily, Authenticity, Self-Acceptance and Mindfulness," *European Journal of Marketing*, 58 (2), 590–631.

Singh, Poonam and Elisa Giacosa (2019), "Cognitive Biases of Consumers as Barriers in Transition Towards Circular Economy," *Management Decision*, 57 (4), 921–936.

Statista (2023), "Estimated Emissions of Greenhouse Gases by the Apparel Industry 2019–2030," (accessed October 10, 2023), [available at https://www.statista.com/statistics/1305696/apparel-industry-co2e-emissions/].

Swami, Viren, Ulrich S. Tran, Stefan Stieger, and Martin Voracek, and the YouBeauty.com team (2015), "Associations Between Women's Body Image and Happiness: Results of the Youbeauty.com Body Image Survey (YBIS)," *Journal of Happiness Studies*, 16 (3), 705–718.

Tan, Cher-Yi, Chun-Qian Chuah, Shwu Ting Lee, and Chee-Seng Tan (2021), "Being Creative Makes You Happier: The Positive Effect of Creativity on Subjective Well-Being," *International Journal of Environmental Research and Public Health*, 18 (14), 7244.

Tay, Louis and Ed Diener (2011), "Needs and Subjective Well-Being Around the World," *Journal of Personality and Social Psychology*, 101, 354–365. http://dx.doi.org/10.1037/a0023779.

Tewari, Alok, Smriti Mathur, Smriti Srivastava, and Divya Gangwar (2022), "Examining the Role of Receptivity to Green Communication, Altruism and Openness to Change on Young Consumers' Intention to Purchase Green Apparel: A Multi-Analytical Approach," *Journal of Retailing and Consumer Services*, 66, 102938.

van Doorn, Jenny and Tim Kurz (2021), "The Warm Glow of Recycling Can Make Us More Wasteful," *Journal of Environmental Psychology*, 77, 101672.

Vehmas, Kaisa, Anne Raudaskoski, Pirjo Heikkilä, Ali Harlin, and Aino Mensonen (2018), "Consumer Attitudes and Communication in Circular Fashion," *Journal of Fashion Marketing and Management: An International Journal*, 22 (3), 286–300.

Vesterinen, Essi and Henna Syrjälä (2022), "Sustainable Anti-Consumption of Clothing: A Systematic Literature Review," *Cleaner and Responsible Consumption*, 5, 100061. https://doi.org/10.1016/j.clrc.2022.100061.

Vladimirova, Katia (2021), "Consumption Corridors in Fashion: Deliberations on Upper Consumption Limits in Minimalist Fashion Challenges," *Sustainability: Science, Practice and Policy*, 17 (1), 103–117.

Vollebregt, Madeleine, Ruth Mugge, Carina Thürridl, and Willemijn van Dolen (2024), "Reducing Without Losing: Reduced Consumption and Its Implications for Well-Being," *Sustainable Production and Consumption*, 45, 91–103.

Voorhees, Clay M., Michael K. Brady, Roger Calantone, and Edward Ramirez (2016), "Discriminant Validity Testing in Marketing: An Analysis, Causes for Concern, and Proposed Remedies," *Journal of the Academy of Marketing Science*, 44 (1), 119–134.

Weiss, Liad and Gita Venkataramani Johar (2016), "Products as Self-Evaluation Standards: When Owned and Unowned Products Have Opposite Effects on Self-Judgment," *Journal of Consumer Research*, 42 (6), 915–930.

Witkowski, Terrence H. (2021), "Broadening Anti-Consumption Research: A History of Right-Wing Prohibitions, Boycotts, and Resistance to Sustainability," *Journal of Macromarketing*, 41 (4), 610–625.

Wooliscroft, Ben and Alexandra Ganglmair-Wooliscroft (2018), "Growth, Excess and Opportunities: Marketing Systems' Contributions to Society," *Journal of Macromarketing*, 38 (4), 355–363. https://doi.org/10.1177/0276146718805804.

Wu, Dorothy E., Thomas Jane Boyd, Marguerite Moore, and Kate Carroll (2013), "Voluntary Simplicity: The Great American Apparel Diet," *Journal of Fashion Marketing and Management: An International Journal*, 17 (3), 294–305.

Zabkar, Vesna and Maja Hosta (2013), "Willingness to Act and Environmentally Conscious Consumer Behaviour: Can Prosocial

Status Perceptions Help Overcome the Gap?" *International Journal of Consumer Studies*, 37 (3), 257–264.

Zavestoski, Stephen (2002), "The Social–Psychological Bases of Anticonsumption Attitudes," *Psychology & Marketing*, 19 (2), 149–165.

Zhao, Anita Lifen, Janine Dermody, Nicole Koenig-Lewis, and Stuart Hanmer-Lloyd (2023), "Cultivating Sustainable Consumption: The Role of Harmonious Cultural Values and Pro-Environmental Self-Identity," *Journal of Consumer Behaviour*, 23, 1014–1031.

Ziesemer, Florence, Alexandra Hüttel, and Ingo Balderjahn (2021), "Young People as Drivers or Inhibitors of the Sustainability Movement: The Case of Anti-Consumption," *Journal of Consumer Policy*, 44 (3), 427–453.

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**Harri Luomala** is a Professor of Consumer Behavior at the University of Vaasa, School of Marketing and Communication. He has studied food consumption and marketing; consumer well-being; and sustainable development. His main academic interest has focused on the interrelationships between values, emotions, motives, and taste perceptions in food consumption; and on consumer-oriented food product development. He has also been involved with studies addressing tailored health interventions; cross-cultural variation in eating behavior; consumer perception of products, brands, and commercial environments; and pro-social consumption as status signaling. He has national and international experience of interdisciplinary collaboration, company cooperation, and policy-making participation.

# When Appealing to Selfishness Enhances Sustainability: Subjective Well-being as an Intrinsic Self-Benefit Driver to Reduce Consumption

Essi Vesterinen, Harri T. Luomala

**Abstract**

Recent studies indicate that sustainable consumption can be motivated by intrinsic (doing something for its own sake) self-benefits, such as improved subjective well-being. However, the self-other-benefit appeal literature primarily focuses on extrinsic (doing something for an instrumental goal) self-benefits, such as money or status. The current study elaborates on this discussion by comparing the impact of intrinsic self-benefit appeal (consume less to feel better), extrinsic self-benefit appeals (consume less to save money, consume less to improve your image), and intrinsic and extrinsic other-benefit appeals (consume less to save the environment and act according to your values, consume less to save the environment and be an example) in the context of clothing. Through two experiments (Ns = 119, 546), we demonstrate that, although the appeals appear equally effective at first, when perceived prior exposure to information and thereby belief in the consequences of consumption are taken into account, the intrinsic self-benefit appeal, focusing on subjective well-being, outperforms the other types. This study contributes to the literature on sustainable consumer behavior by advancing our understanding of the difference between intrinsic and extrinsic drivers of sustainable consumption and the role of perceived prior exposure to information on the consequences of consumption as a moderator.

**Keywords (7):** anti-consumption, sustainable consumption, subjective well-being, self-benefit, intrinsic, extrinsic, prior exposure

## 1. Introduction

Motivators and barriers to sustainable consumption have been a focus of intensive research (Yadav et al., 2024). A common conclusion in these studies is that altruistic values often precede sustainable consumption behavior (Hur, 2020; Kopplin & Rösch, 2021; Perera et al., 2024; Suri et al., 2025; Tewari et al., 2022), suggesting that promoting these values in society can increase sustainable behavior. However, humans are generally inclined to pursue self-interest (Griskevicius et al., 2012), and values and lifestyles rooted in societal institutions are difficult to change (Brown & Cameron, 2000; Scott et al., 2014). Indeed, research has examined the effect of self-benefit (e.g., saving money, better taste, good conscience, good reputation) versus other-benefit (e.g., social and/or environmental sustainability) appeals on sustainable behavior (see, e.g., Birkenbach & Egloff, 2024; M. Chen et al., 2024; Sleboda et al., 2024), with many studies showing that other-oriented content, such as biospheric appeals, has little or no effect on actual consumption levels (Antinyan & Corazzini, 2025; Azarova et al., 2020; Herziger et al., 2020). However, in some studies, other-benefit appeals still work better than self-oriented appeals (Bolderdijk et al., 2013; Edinger-Schons et al., 2018; Kramer & Petzoldt, 2023; Schwartz et al., 2015). What could explain this variation?

On closer inspection, not all self-benefit appeals are the same. Instead, in addition to the self-other distinction, appeals can also be classified into extrinsic (doing something for an instrumental goal) and intrinsic (doing something for its own sake) appeals (Touré-Tillery & Fishbach, 2018). Studies analyzing whether extrinsic self-benefits, such as money or status, compensate for the costs that sustainable behavior engenders to self give mixed results (Antinyan & Corazzini, 2025; Azarova et al., 2020; Bolderdijk et al., 2013; Edinger-Schons et al., 2018; Kramer & Petzoldt, 2023). On the other hand, studies focusing on intrinsic self-benefits, such as the health benefits of vegetarian food or enhancing subjective well-being through anti-consumption (i.e., voluntary reduction of consumption), where the act itself benefits the self without an altruistic feature, convey more consistent results (Birkenbach & Egloff, 2024; Chen et al., 2024; Herziger et al., 2020; Sleboda et al., 2024). In particular, it seems that while extrinsic self-benefit appeals sometimes work better and sometimes worse than other-benefit appeals (Antinyan & Corazzini, 2025; Azarova et al., 2020; Edinger-Schons et al., 2018; Kramer & Petzoldt, 2023; D. Schwartz et

al., 2015), intrinsic self-benefit appeals are more (or at least equally) effective (Birkenbach & Egloff, 2024; Chen et al., 2024; Herziger et al., 2020; Muralidharan et al., 2024; Sleboda et al., 2024) compared to other-oriented appeals.

However, previous studies have not explicitly examined the difference between the potency of the intrinsic self-oriented motivators, such as objective or subjective well-being, and the extrinsic self-oriented motivators, such as money or status, in encouraging less consumption. This study aims to fill this gap in the literature by investigating the impact of subjective well-being as an intrinsic self-benefit appeal compared to extrinsic self-benefit appeals (money, image) and intrinsic and extrinsic other-benefit appeals (environment and values, environment and image) on reducing consumption within the context of clothing.

Furthermore, behavioral change does not usually happen based on a single exposure to novel information, but repetition is required to change attitudes and behaviors (Betts et al., 2019; Keating & Totzkay, 2024). Repeated exposure increases the believability and ease of processing of novel information by creating a sense of familiarity (Pennycook et al., 2018; Smelter & Calvillo, 2020; Unkelbach et al., 2019). Most social marketing has historically focused on spreading information on the environmental effects of overconsumption, while the well-being effects of reduced consumption have gained less visibility. Consequently, we suggest that appeals of the latter type are less familiar to consumers. That leads us to test how repeated exposure to information that increases knowledge of, and the resulting belief in, the consequences of consumption moderates the effect of the different appeals. We propose that other-oriented motivations are mainly used to promote sustainable consumption. Accordingly, we also claim that information on self-benefits, particularly the intrinsic self-benefits of sustainable consumption, can persuade consumers to adopt these behaviors even when they hold more egoistic values.

We conducted two experiments aimed at reducing clothing consumption to achieve our objectives. In Study 1, different versions of a digital pedagogical game are used as stimuli in a lab experiment with first-year marketing students (n = 119). In this study, the moderation effect is explored by measuring belief in the consequences of consumption. In Study 2, different versions of a campaign poster are used as stimuli in an online experiment with a representative sample (n =

546). In this study, the moderation effect is explored by measuring perceived prior exposure to information about the impact of clothing consumption on the environment, image, savings, and the respondents' own well-being.

Anti-consumption of clothing was chosen as the target behavior, as the clothing industry is one of the most polluting and carbon-intensive industries (Howell, 2024; Quantis, 2018; Statista, 2024). Furthermore, the connection between anti-consumption and enhanced subjective well-being has been studied particularly well in the clothing context (Nielsen et al., 2023; Shafqat et al., 2023; Vesterinen et al., 2024), providing sufficient material to produce the stimuli.

With our results, we contribute to the self versus other-benefit appeal literature by first highlighting the distinction between not only self-benefit and other-benefit appeals but also intrinsic and extrinsic self- and other-benefit appeals, and second, by acknowledging the role of repeated exposure in the effect of different appeals on sustainable behavior.

Our article begins by reviewing the previous literature on egoistic versus altruistic motivations and self- and other-benefit appeals related to sustainable consumption behavior in general, as well as in the context of anti-consumption, which informs the development of research hypotheses and a research model. Second, we present the methodology and results of our two studies. Finally, we discuss the academic significance of our research, outline its theoretical and societal implications, identify study limitations, and propose future research directions.

## 2. Theoretical Background and Hypotheses Development

In the following paragraphs, we discuss the prior literature, beginning with examples of egoistic and altruistic values and motivations, as well as intrinsic and extrinsic drivers previously linked to sustainable consumer behavior. We then proceed to examine the drivers of anti-consumption in particular. Finally, we examine the existing knowledge on the effects of self- and other-benefit appeals on sustainable consumption behavior, as well as the moderating roles of altruistic values, belief in, and perceived prior exposure to information about the consequences of consumption on these effects. Throughout this section, we also develop research hypotheses and a corresponding research model.

### 2.1. Egoistic Versus Altruistic Values and Motivations Fostering Sustainable Consumption

Many prior studies show that self-transcendence values, such as biospherism and altruism, are positively associated with sustainable consumption attitudes and behavior (Aviste & Niemiec, 2023; Becerra et al., 2023; Birkenbach & Egloff, 2024; Saboya De Aragão & Alfinito, 2021; Yu et al., 2019). Altruistic and biospheric values have been linked, for example, to the purchase of ethical and green products (Onel, 2023; Osburg et al., 2019; Peiró Signes et al., 2023; Perera et al., 2022; Schuitema & De Groot, 2015) and products with eco-friendly packaging (Prakash et al., 2019), electricity use (Bruderer Enzler et al., 2019), water consumption (Costa Pinto et al., 2019), attitudes to and acquisition of sustainable clothing (Campos et al., 2023; Geiger & Keller, 2018; Jacobs et al., 2018; Lundblad & Davies, 2016; Reimers et al., 2017; Tewari et al., 2022), collaborative clothing consumption (Iran & Geiger, 2018), and car-sharing (Say et al., 2021). By contrast, in the case of self-enhancement values, such as hedonism and egoism, the connection to sustainable consumption behavior appears negative (Geiger & Keller, 2018; Iran & Geiger, 2018; Jacobs et al., 2018; Nogueira et al., 2023; Steg, Bolderdijk, et al., 2014; Steg, 2015). Accordingly, researchers have concluded that promoting altruistic and biospheric values could increase consumer engagement in sustainable behavior (e.g., Brown & Cameron, 2000; Say et al., 2021).

Nevertheless, even pure self-orientation can be linked to sustainable actions. For example, saving water or energy or buying secondhand may be motivated by financial benefits (McNeill & Moore, 2015), sustainable food consumption, by individual health concerns (Birch et al., 2018), nonmonetary freecycling (i.e., donating and receiving secondhand items for free), by pure needs and wants (Liu et al., 2020), sustainable fashion acquisitions, by a sense of accomplishment, better health, self-esteem, and value for money (Lundblad & Davies, 2016), or frugal clothing consumption, clothing renting, swapping and secondhand shopping, by identity building (Johnson & Chattaraman, 2019; Lang & Armstrong, 2018; McNeill & Moore, 2015), creativity (Martin-Woodhead, 2023), or happiness (Reimers et al., 2017). In fact, Griskevicius et al. (2012) claim that a "propensity for self-interest" is a fundamental human trait rooted in evolutionary history and should be utilized rather than fought against when planning influence strategies. In other words, to close

the green gap, the desired behavior should "be perceived as personally beneficial" (ElHaffar et al., 2020).

### 2.2. Intrinsic Versus Extrinsic Motivation Fostering Sustainable Consumption

In addition to self-benefit versus other-benefit, motivations for sustainable behavior can be extrinsic (e.g., wealth, image, and fame) or intrinsic (e.g., autonomy, growth, and health) (Deci, 1976; Touré-Tillery & Fishbach, 2018). For example, it is often assumed that sustainable consumption causes some degree of discomfort to consumers, and therefore, some kind of external incentive, such as money, is needed to make it attractive (Bolderdijk & Steg, 2015), making such behavior extrinsically motivated (Deci, 1976). However, sustainable behavior can also be intrinsically motivated (i.e., beneficial to the self) as such. For individuals valuing the environment, behaving sustainably can be intrinsic. However, intrinsic motivation may also be more self-oriented. For instance, frugal consumption can be driven by enjoyment and relaxation (Kropfeld, 2023) or sustainable clothing consumption by self-expression and self-esteem (Lundblad & Davies, 2016). According to the self-concordance model, individuals put more effort into intrinsically motivated acts (Sheldon & Elliot, 1999). Moreover, providing external incentives may, in the long run, decrease the attractiveness of a product or behavior (Azarova et al., 2020; Folkes, 1988). In contrast, intrinsically motivated behavior has a greater probability of continuing (Ross, 2011) and even spilling over to other sustainable behaviors (Thøgersen & Crompton, 2009).

### 2.3. Sustainable Anti-Consumption and Its Drivers

In essence, anti-consumption refers to any form of rejection of traditionally marketed products, encompassing boycotting specific products or companies, as well as resisting the market in general (Lee & Fernandez, 2006). In many studies, anti-consumption is considered to be connected to other-oriented motivators, such as social or environmental concerns (Iyer & Muncy, 2016; Makri et al., 2020), but some research indicates that anti-consumption can also be motivated by self-benefits like personal well-being (Iyer & Muncy, 2016; Makri et al., 2020; Zabkar & Hosta, 2013; Ziesemer et al.,

2021). In fact, Zavestoski (2002) suggests that an increasing number of individuals are voluntarily downshifting as a response to the social-psychological stress associated with consumption, making it an intrinsically motivated, self-oriented act. Moreover, anti-consumption does not have to be motivated by opposition to consumption; it can also be driven by a preference for something other than consumption (Makri et al., 2020). Zavestoski (2002) claims that the downshifting movement arises from the fact that only two out of three motivational bases—self-esteem and efficacy—can be met through consumption, whereas the sense of authenticity cannot. Therefore, resisting consumption is a way of claiming back the right to build one's identity separate from an inauthentic consumer society (Cherrier & Murray, 2002).

The drivers of anti-consumption have been studied, particularly in the context of clothing, where the voluntary reduction of consumption seems to be motivated by individual well-being (Vladimirova, 2021) and creativity (Joyner Armstrong et al., 2018). Collaborative clothing consumption, in turn, is mostly motivated by the expression of individual identity, while the social and ethical consequences of the behavior are the least likely motivators (McNeill & Venter, 2019). Similarly, style consumption, where the focus is on long-term individual styles instead of fast-changing fashion (Gupta et al., 2019), addresses the self-oriented intrinsic needs of self-expression and authenticity (Joyner Armstrong et al., 2018), as well as freedom, uniqueness, and well-being (Bly et al., 2015).

### 2.4. Self Versus Other-Benefit Appeals for Sustainable Consumption

The discussion of the values and motivations of sustainable consumers has inspired research comparing the effects of self-benefit appeals versus other-benefit appeals, as well as their combinations, on different sustainable consumption behaviors (Tables 1 and 2). The majority of these studies focus on comparing extrinsic self-benefit appeals – leveraging, for example, financial and reputational benefits – to other-benefit appeals – leveraging, for instance, environmental and social benefits (Antinyan & Corazzini, 2025; Azarova et al., 2020; Bolderdijk et al., 2013; Edinger-Schons et al., 2018; Green & Peloza, 2014; Kim, 2024; Kramer & Petzoldt, 2023; Schwartz et al., 2015; Van Den Broek et al., 2017; Zhang et al., 2024). The results of these studies are mixed. While

several studies have found that extrinsic self-benefit appeals are more effective than other-benefit appeals, in relation to, for example, reducing single-use plastic bag usage and electricity consumption (Antinyan & Corazzini, 2025; Azarova et al., 2020), in other studies, appeals of this type have been less effective than other-benefit appeals; for example, in relation to the intention to purchase sustainable products, taking a tire-change coupon, willingness to enroll in an energy-saving program, and intent to adopt eco-driving behavior (Bolderdijk et al., 2013; Edinger-Schons et al., 2018; Kramer & Petzoldt, 2023; Schwartz et al., 2015).

**Table 1.** Motives of sustainable behavior in relation to self/other-orientation

| | **SELF-ORIENTED** | **OTHER-ORIENTED** |
|---|---|---|
| **EXTRINSIC** | e.g., money | e.g., image |
| **INTRINSIC** | e.g., well-being | e.g., environment |

The results related to intrinsic self-benefit appeals are more consistent. In only one study has intrinsic self-benefit appeal been proven less effective than other-benefit appeal (Kareklas et al., 2014). However, in this particular study, the self-benefit appeal focused on not only health benefits but also the taste of a novel organic meat product, which might have decreased the credibility of the appeal. In all the other previous studies, intrinsic self-benefit appeals, mainly focusing on objective well-being, have been either more effective (Birkenbach & Egloff, 2024; M. Chen et al., 2024; Herziger et al., 2020) or as effective (Bolderdijk, Steg, et al., 2013; Muralidharan et al., 2024; Sleboda et al., 2024) as other-benefit appeals. In one pioneering study, an appeal focusing on safety issues related to frequent tire-changing, which can be classified as an intrinsic self-benefit appeal, was even compared to an appeal focusing on financial benefits, which could be classified as an extrinsic self-appeal, and shown to be more effective (Bolderdijk et al., 2013). Therefore, previous research indicates that intrinsic self-benefit appeals are either as or more effective than other-benefit appeals. It also seems that intrinsic self-benefit appeals are more effective than extrinsic self-benefit appeals. We therefore propose:

**H1:** Intrinsic self-benefit appeal is either more effective or as effective as other-benefit appeal compared to a control appeal.

**H2:** Intrinsic self-benefit appeal is more effective than extrinsic self-benefit appeal compared to a control appeal.

While the distinction between intrinsic and extrinsic self-benefit appeals has received little attention, the discussion of the intrinsic versus extrinsic nature of other-oriented appeals is almost non-existent. The majority of the previous research on appeals does not address the intrinsic or extrinsic nature of the other-benefit appeals they use at all. In the studies that do touch upon this topic, the other-benefit environmental appeals have been consistently defined as intrinsic (Edinger-Schons et al., 2018; Kramer & Petzoldt, 2023; Schwartz et al., 2015; Van Den Broek et al., 2017). However, whether an act is intrinsic or extrinsic depends on the actor's personal goals (Sheldon & Elliot, 1999). Therefore, an environmental appeal may be intrinsic for those with strong environmental values. However, it could also be an extrinsic appeal for consumers who see pro-environmental behavior primarily as a way of obtaining reputational benefits (Griskevicius et al., 2010). If the "propensity for self-interest" is a fundamental human trait, and biospheric and altruistic values are in the minority (Griskevicius et al., 2012), environmental appeals might be extrinsic for the majority. This theory finds support from previous studies, where other-benefit appeal has worked better in public settings, where the reputational benefits could be exploited (Green & Peloza, 2014; White & Peloza, 2009). Consequently, if the environmental appeals were framed as intrinsic (underlining behavior according to values), or extrinsic, (underlining the reputational benefits of pro-environmental behavior), the latter might be more effective. We therefore propose:

**H3:** Extrinsic other-benefit appeal is more effective than intrinsic other-benefit appeal compared to a control appeal.

**Table 2.** Previous literature on self- and other-benefit appeals and sustainable consumption behavior

| Study | Moderator | Appeals | Self/ Other* | Int/ Ext ** | Effectiveness | Target behavior*** | | Results |
|---|---|---|---|---|---|---|---|---|
| **Antinyan & Corazzini 2025** | | Environment | O | A | - | Demand for single-use plastic bags | B | Both worked, but extrinsic self-benefit was more effective than other-benefit. |
| | | Money | S | E | + | | | |
| **Azarova et al. 2020** | | Money | S | E | + | Electricity consumption | B | Extrinsic self-benefit worked, other-benefit did not. |
| | | Social | O | A | - | | | |
| **Birkenbach & Egloff 2024** | Values: Self-Transcendent, Self-Enhancement | Social | O | A | + (self-transcendent values)<br>- (self-enhancement values) | Attitude to a climate change poster | A | Other-benefit appeal worked only for respondents with strong self-transcendent values. Self-benefit appeal worked for respondents with strong self-enhancement values and respondents with strong self-transcendent values. |
| | | Objective Well-Being | S | I | + (self-transcendent values)<br>+ (self-enhancement values) | | | |
| **Bolderdijk, Steg, et al. 2013** | | Money | S | E | - | Taking a tire-check coupon | B | Extrinsic self-benefit appeal worked worse than other-benefit appeal. No significant difference was found for the intrinsic self-benefit appeal. |
| | | Safety | S | I | | | | |
| | | Environment | O | A | + | | | |
| **Chen et al. 2024** | | Objective Well-Being | S | I | - | Sustainable food choice | B | Combined worked best, self-benefit second best. |
| | | Environment | O | A | + | | | |
| | | Combined | C | I/A | ++ | | | |
| **Edinger-Schons et al. 2018** | Sustainable Consumption Involvement SCI | Money | S | E | - | Intention to purchase a sustainable product: Organic bed linen, Fair Trade coffee, Energy-saving fridge, Drinking bottle | I | Other-benefit appeal worked better than self-benefit and combined appeals. For low levels of SCI, the effect of the combined appeal is positive; for medium levels, it is insignificant, and for a high level, is negative. |
| | | Image | S | E | - | | | |
| | | Environment | O | A | + | | | |
| | | Money + Environment | C | E/ A | -<br>+ (for low levels of SCI)<br>- (for high levels of SCI) | | | |
| | | Image + Environment | C | E/ A | - | | | |
| | | Social + Social | O+O | A+A | + | | | |
| **Green & Peloza 2014** | Public vs. Private | Money | S | E | +(private) | The decision to bring one's own cup, purchase intention | B | Other-benefit appeal worked better in public contexts. |
| | | Environment | O | A | +(public) | | I | Extrinsic self-benefit appeal worked better in private contexts. |
| **Herziger et al., 2020** | | Subjective Well-Being | S | I | + | Spending on non-essential items | B | Intrinsic self-benefit worked, other-benefit did not. |
| | | Environment | O | A | - | | | |
| **Kareklas et al. 2014** | | Objective Well-Being + Taste | S+S | I | + | Attitude to a new brand of organic meat | A | The combined appeal worked better than the intrinsic self-benefit appeal and equally well as the other-benefit appeal. |
| | | Environment + Social | O+O | A | ++ | Attitude to the company | A | |
| | | Objective Well-Being + Taste + Environment + Social | C | I/ A | ++ | Purchase intentions | I | |
| **Kim 2024** | Self-Deficit | Money / Subjective Well-Being | S | I/E | + (in a self-deficit state) | Purchase intent | I | Self-benefit appeal worked better in a self-deficit state, while other-benefit appeal worked better in no self-deficit state. |
| | | Environment | O | A | - (in self-deficit state) | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Subjective Well-Being | S | I | - (no self-deficit state) | | | |
| | | Environment | O | A | + (no self-deficit state) | | | |
| **Kramer & Petzoldt 2023** | | Environment | O | A | + | Perceived eco-driving worthiness, short-term eco-driving intentions | I | Other-benefit benefits of eco-driving were perceived worthier than extrinsic self-benefit benefits. Other-benefit benefits influenced eco-driving intention more strongly than extrinsic self-benefit benefits. |
| | | Environment / Social | O | A | + | | | |
| | | Money | S | E | - | | | |
| **Muralidharan et al. 2024** | Generation, Amount of Information | Objective Well-Being | S | I | | Intentions to visit a website | I | Other-benefit ad (environment) worked better for Gen-Z and Gen-Y. No difference for Gen-X and Baby Boomers, and no difference between the self-benefit and other-benefit (social) ads. |
| | | Social | O | A | | | | |
| | | Environment | O | A | +Gen-Z, Gen-Y | | | |
| | | Objective Well-Being | S | I | | Intentions to donate and to volunteer | I | No significant differences for Gen-ZY and Gen-XB. For Gen-ZY, the other-benefit ad provoked more willingness to donate with low information and willingness to volunteer with high information. |
| | | Environment | O | A | + Gen-ZY, donation, low information<br>+ Gen-ZY, volunteering, high information | | | |
| **Ryoo et al., 2020** | Materialism | Pleasure | S | E | + (high materialism) | Willingness to purchase Fair Trade jeans | I | Self-benefit worked better for highly materialistic consumers. Less materialistic consumers' responses did not depend on the appeal type. |
| | | Social | O | A | - (high materialism) | | | |
| | | Status | S | E | + (high materialism) | Willingness to support a campaign and engage in electronic word-of-mouth on online social sites (eWOM) | I | |
| | | Environment | O | A | - (high materialism) | | | |
| **Schwartz et al. 2015** | | Money | S | E | - | Willingness to enroll in energy-savings programs | I | Other-benefit worked better than extrinsic self-benefit or combined. |
| | | Environment | O | A | + | | | |
| | | Money + Environment | C | E/A | - | | | |
| **Sleboda et al. 2024** | | Objective Well-Being | S | I | | Choosing a plant-based food basket over one containing meat | B | Intrinsic self-benefit, other-benefit, and the combination worked equally well. |
| | | Environment | O | A | | | | |
| | | Objective Well-Being+ Environment | C | I/A | | | | |
| **Van den Broek et al. 2017** | Egoistic Value Score / Biospheric Value | Money | S | E | + (with egoistic values) | Willingness to sign a paper-saving petition | I | Appeals that matched the recipients' values were more persuasive than the combined appeal. |
| | | Environment | O | A | + (with biospheric values) | | | |
| | | Money + Environment | C | E/A | - | | | |
| **White & Peloza, 2009** | Public Self-Concern | Status, Pleasure | S | E/ I | + (private) | Intention to donate | I | Self-benefit appeal was more effective in private and the other-benefit appeal in public. |
| | | Social | O | A | + (public) | | | |
| **Zhang et al. 2024** | Message Type: Competence Vs. Warmth | Money | S | E | + (with competence message) | Willingness to purchase natural laundry detergent and organic milk. Green Willingness to Purchase Scale | I | Competence messages worked best with the self-benefit appeal and warmth messages with the other-benefit appeal. |
| | | Environment | O | A | + (with warmth message) | | | |
| **Zhao et al. 2024** | Virtues (Oat Flakes) vs. Vice (Ice Cream) | Objective Well-Being | S | I | + (with virtuous products) | Willingness to buy organic food | I | Intrinsic self-benefit appeal worked when aligned with virtuous products. Other-benefit appeals worked when matched with vice products. |
| | | Environment | O | A | + (with vice products) | | | |

* S=Self-benefit, O=Other-benefit, C=Combined
** I=intrinsic, E=extrinsic, A=ambiguous
***A=attitude, I=Intention, B=Behavior
Appeals are classified according to the definitions presented in this article, which might differ from those used in the original articles.

Finally, several studies have analyzed the effects of different self- and other-benefit appeals in combinations. In particular, a few studies have tested combining other-benefit appeals with extrinsic self-benefit appeals by stressing, for example, the environmental and individual monetary benefits of sustainable behaviors (Edinger-Schons et al., 2018; Schwartz et al., 2015; Van Den Broek et al., 2017). In these studies, the combined appeal worked better than the individual appeals only among consumers with low sustainable consumption involvement (Edinger-Schons et al., 2018). For others, the individual appeals worked better than the combined one (Edinger-Schons et al., 2018; Feiler et al., 2012; Van Den Broek et al., 2017). It seems that combining other-benefit appeals with extrinsic self-benefit appeals may cause consumers to doubt if the appeal is genuine (Edinger-Schons et al., 2018) and alert them to persuasive tactics, which can trigger psychological reactance (Feiler et al., 2012).

On the other hand, intrinsic self-benefit appeals have been analyzed in combination with other-benefit appeals in the context of sustainable food attitudes and choices by combining appeals focused on health and environmental benefits (Chen et al., 2024; Kareklas et al., 2014; Sleboda et al., 2024). In these cases, the combined appeals have worked at least as well as the individual appeals. It seems that when the self-benefit appeal combined with other-benefit appeal is intrinsic, as in the case of health, it does not affect the genuineness of the appeal or raise suspicions of persuasion in the same way as combining other-benefit appeals with extrinsic self-benefit appeals, such as with status or money (Edinger-Schons et al., 2018; Feiler et al., 2012). We therefore propose:

> **H4:** Intrinsic self-benefit appeal combined with other-benefit appeal is either more effective or as effective as individual appeals compared to a control appeal

### 2.5. The Moderating Role of Values in the Effect of Appeals on Sustainable Consumption

Furthermore, as mentioned, individuals put more effort into acts that are congruent with their personal goals and values (Sheldon & Elliot, 1999). Therefore, the effectiveness of self-benefit versus

other-benefit appeals seems to depend on the values of the consumers. For instance, Peifer et al. (2020) found a positive connection between altruism and voluntary simplicity only when the link between consumption and other-benefit consequences was made salient. If not, the connection was negative (Peifer et al., 2020). In Birkenbach and Egloff's (2024) study, other-benefit appeal worked only for respondents with strong self-transcendent values. In contrast, in the study by Sarpong et al. (2021), when the acquisition of water-saving appliances was framed as financially beneficial, egoistic values had a stronger connection to purchase intention. Ryoo et al. (2020) report that highly materialistic consumers were more responsive to self-benefit appeals to purchase Fair Trade jeans, to support a campaign, and engage in electronic word-of-mouth online. Egoistic values also intensified the effect of extrinsic self-benefit appeal on willingness to sign a paper-saving petition (Van Den Broek et al., 2017). In conclusion, it seems that consumers with high altruistic values are more easily persuaded by other-benefit appeals, while consumers with low altruistic values are more sensitive to self-benefit appeals.

Furthermore, as mentioned, values define whether an act and, thus, an appeal is intrinsic or extrinsic (Sheldon & Elliot, 1999). Therefore, an environmental other-benefit appeal may be intrinsic for someone with strong environmental values but extrinsic for someone who values pro-environmental behavior mainly for reputational reasons. Furthermore, if an other-benefit appeal is framed as either intrinsic or extrinsic, the intrinsic frame should be more persuasive for those with strong altruistic values and the extrinsic frame for those with low altruistic values. We therefore propose:

> **H5:** The effectiveness of consumption reduction appeals stressing the intrinsic versus extrinsic self- and other-benefits is moderated by the strength of the consumer's altruistic values. In particular, among consumers with low (high) altruistic values, the self-benefit (other-benefit) appeals are more effective than other-benefit (self-benefit) appeals, and extrinsic (intrinsic) other-benefit appeal is more effective than intrinsic (extrinsic) other-benefit appeal compared to a control appeal.

### 2.6. The Moderating Roles of Belief in and Perceived Prior Exposure to Information About the Consequences of Consumption

Whether self- or other-benefit or intrinsic or extrinsic appeals do not usually work with a single exposure, but repeated exposure to information is required to change attitudes and behaviors (Betts et al., 2019; Keating & Totzkay, 2024). Furthermore, social affirmation or reinforcement from multiple sources required (Centola & Macy, 2007). Repeated exposure increases the believability and ease of processing novel information by creating a sense of familiarity (Pennycook et al., 2018; Smelter & Calvillo, 2020; Unkelbach et al., 2019). Taken to the sustainable behavior context, Rizzi et al. (2020) found that perceived previous exposure to information influenced consumer intentions to adopt energy-saving technology after exposure to self-benefit (namely financial) appeal. This factor has not been taken into consideration in previous self-other-appeal studies. However, given that the majority of social marketing related to sustainable consumption has historically focused on spreading information on the environmental effects of overconsumption, while, in particular, the well-being effects of reduced consumption have gained less visibility, we suggest that these appeals are more unfamiliar to consumers. Furthermore, we propose that, as a result of differences in repeated exposure, belief in and perceived prior exposure to information about the consequences of consumption, whether self- or other-oriented, moderate the effect of different appeals. Consequently, we propose:

> **H6:** The effectiveness of self-benefit versus other-benefit appeals is moderated by the level of belief in the consequences of consumption and perceived prior exposure to information about the impacts of clothing consumption so that self-benefit appeals are more effective than other-benefit appeals compared to a control appeal among consumers with a high level of perceived prior exposure to information about the self-benefits of the target behavior.

The final research model, including the hypotheses, is illustrated in Figure 1.

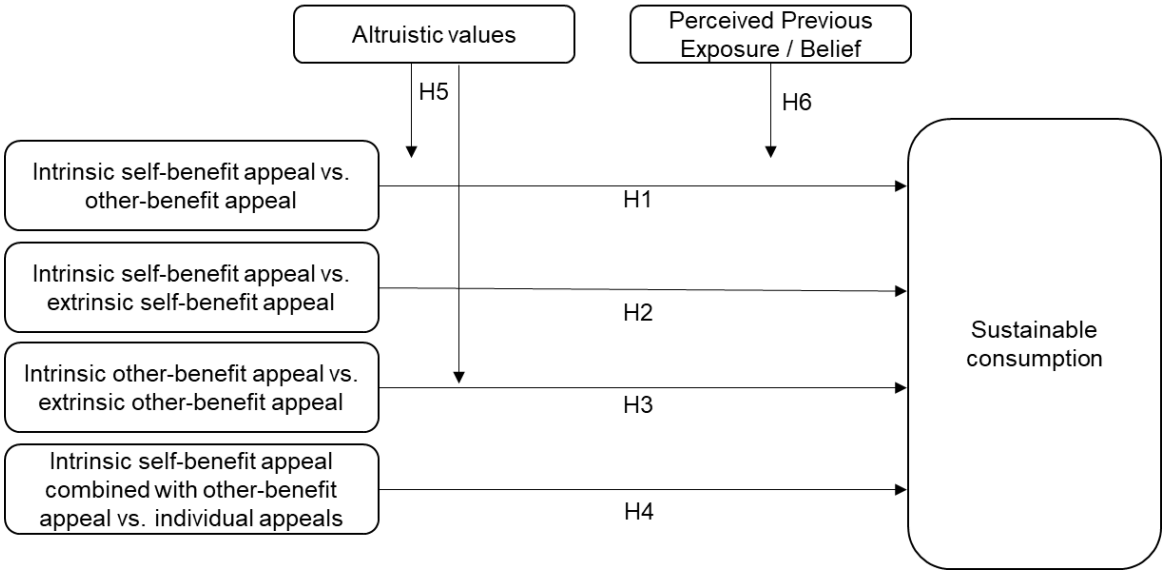



**Figure 1**. Research model

## 3. Study 1

### 3.1. Study 1: Procedures

Study one tested hypotheses H1, H4, H5, and H6 using a between-subjects experiment conducted via Zoom in the fall of 2023 among first-year marketing students of the University of [name of the university removed for blind evaluation]. Participation in the study was voluntary, and participants were assured that the collected data would be anonymous and that they could withdraw at any time. Written consent was collected from all volunteers, after which they were randomly assigned to one of four breakout rooms representing four different conditions: 1) intrinsic self-benefit, 2) other-benefit, 3) combined, and 4) control. In the first part of the experiment, claiming to be about testing gamified teaching, the participants played a digital educational game. The activity was carried out in groups of three or four players.

A pedagogical game was chosen as the stimulus for several reasons. First, we aimed to test the appeals in a context that is as realistic as possible and in a format that can be applied in real-life scenarios to educate consumers. Second, as discussed, a single exposure to an appeal is usually insufficient, and more nuanced contamination is required (Betts et al., 2019; Centola & Macy, 2007; Keating & Totzkay, 2024). In particular, mobile game-based learning has been shown to have a

significant and positive impact on student engagement (Krouska et al., 2022). It is a promising tool for engaging today's easily distracted learners with content while also serving as a platform for critical thinking, creativity, instant feedback, and collaboration (Misra et al., 2022).

In the first three groups, the game dealt with clothing economy and sustainable clothing consumption. The original game, *Pikamuodista hitaaseen* (From fast fashion to slow fashion), was produced in cooperation with two NGOs (Youth Academy and Pro Ethical Trade Finland), two education development initiatives (Josko Kollektiivi and Fuusio Learning), and two academic researchers, including the first author. For the experiment, the game was altered so that in the intrinsic self-benefit condition, the assignments focused on the benefits of clothing anti-consumption for individual well-being, while in the other-benefit condition, on benefits for the environment and society, and in the combined condition, on both. Minor adjustments were also made to the game board to accommodate the conditions. Otherwise, the three games were as identical as possible for all conditions. In particular, encouraging and discouraging messages (Grappi et al., 2024) were presented in equal measure in each condition. In the intrinsic self-benefit game, both well-being and happiness were used as operationalizations of subjective well-being. Happiness was used to ensure the comprehensibility of the content, as it was considered the most vernacular word for the construct. It is also widely used as a synonym for subjective well-being in the scientific literature (Diener, 2000; DiMaria et al., 2020; Veenhoven, 2012).

In the control condition, the game was unrelated to environment, well-being, or clothing consumption and instead dealt with taxation. This game (#*Verottaako*, or #Taxify) has also been produced by the Youth Academy in cooperation with the Association of Finnish Municipalities, the Finnish Tax Administration, Kela, the Church Council, and the Finnish Transport and Communications Agency Traficom.

In each game, the groups could choose exercises on the game board and collect points by completing different types of assignments together. The game boards and examples of the exercises can be found in Appendices 1 and 2. The game sessions lasted 30 minutes, after which the participants were asked to answer feedback (filler) questions individually about the session (Appendix 3).

In the second (ostensibly unrelated) part of the experiment, participants individually completed a survey on "Consumption habits, values, and well-being," where the dependent variable (intention to acquire clothing) and moderators (altruistic values and belief in the consequences of consumption) were measured. The moderators were measured only after the intervention, as we wanted to keep the manipulation as "clean" as possible. In particular, we did not want participants in the self-condition to be influenced by questions that hinted at sustainability or environmental concerns. The study procedure is illustrated in Appendix 4. Before the actual experiment, the research setting was pilot-tested with a student sample of 35 in the spring of 2023.

The Ethics Committee of the University of (name of the university removed for blind evaluation) assented to the study.

### 3.2. Study 1: Measures

The intention to acquire clothing was measured by asking participants to estimate the number of items of new and secondhand clothing (including underwear, socks, accessories, shoes, sports clothing, etc.) they would acquire over the next year for themselves (but not for their children). Altruistic values were measured using established scales: the self-transcendence altruism and environmental altruism scales by Steg, Perlaviciute et al. (2014) based on Schwartz (1973, 1992). The role of repeated exposure to information was operationalized by measuring belief in the effects of consumption habits on a person's well-being, others' well-being, and the well-being of the environment. Lastly, the participants were asked to answer background questions regarding their age, gender, region, education level, and income, as well as a control question to gauge their understanding of the study's purpose: "What kinds of things do you think this study is intended to analyze in more detail?"

A confirmatory factor analysis (CFA) was conducted using SPSS 28 to assess the reliability and validity of the multi-item measures. The measures for both self-transcendence and environmental-altruistic values yielded Cronbach alphas of an acceptable level (>.8). The exact items, scales, and Cronbach alphas for the measures are presented in Appendix 5. Regarding the control question, none of the respondents guessed the actual purpose of the study.

### 3.3. Study 1: Results

A total of 119 valid responses were obtained. The four groups—intrinsic self-benefit (n = 34), other-benefit (n = 30), combined (n = 27), and control (n = 28)—did not differ significantly in relation to the background variables of age, income, education, gender, and region, based on ANOVA and Chi-Square tests. The descriptive statistics for the participants, as well as the ANOVA and Chi-Square results, are illustrated in Appendix 6.

Next, a one-way ANOVA was run to test hypotheses H1 and H4. Significant differences were found between the four conditions in relation to the intention to acquire clothing [$F(3,115) = 7.035$, $p = <.001$, $\eta^2 = 0.115$]. According to Tukey's test, the intended number of clothing acquisitions was significantly higher for the control condition compared to the other (M=22.14, SD=17.94 versus M=9.77, SD=5.70, p=0.009), combined (M=22.14, SD=17.94 versus M=10.07, SD=5.40, p=.011), and intrinsic self (M=22.14, SD=17.94 versus M=12.65, SD=12.49, p=.009) conditions. In practice, it seems that intrinsic self-benefit appeal was as effective as other-benefit appeal compared to a control appeal, lending support to H1. In addition, intrinsic self-benefit appeal, combined with other-benefit appeal, was as effective as individual appeals compared to a control appeal, lending support to H4. The ANOVA results are presented in Figure 2 and in more detail in Appendix 7.

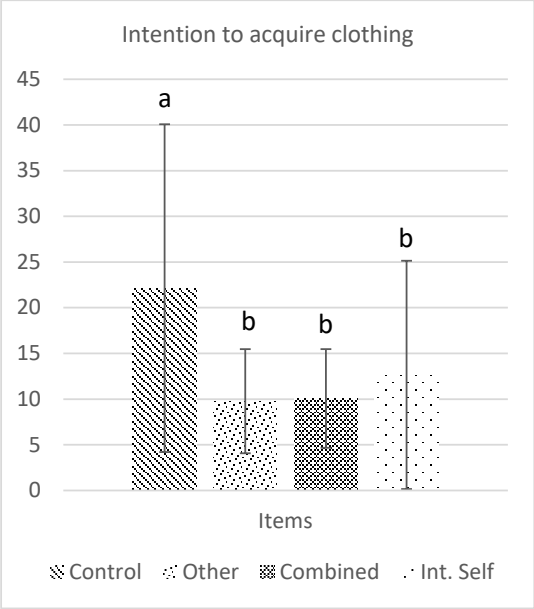



**Figure 2.** Direct effects on intention to acquire clothing. Bars represent means with standard deviations. Significant differences in main effects are denoted with different superscript letters.

The moderation effects were tested using Hayes' (2022) PROCESS Model 1 with 5,000 bootstrapped samples and a 95% confidence interval. No moderation effect was found for altruistic values; therefore, there is no support for H5. A significant interaction effect was observed between belief in the impact of consumption habits and self condition compared to the control condition on personal well-being on intention to acquire clothes; however, the model's explanatory power was not enhanced. In contrast, a significant interaction effect, which also led to a change in the model's explained variance, was identified between belief in environmental effects and all the conditions compared to the control condition on to the intention to acquire clothes (other: $b$ = -5.381, $t$(3,115) = -2.851, $p$ < .01, Combined: $b$ = -4.457, $t$(3,15) = -2.432, $p$ < .05, Self: $b$ = -6.636, $t$(3,115) = -3.465, $p$ < .001). Based on a simple slope analysis with observation points at -1 SD, Mean, and +1 SD the effect was significant with average or high levels of belief but not with low levels. However, in practice, it seems (see Figure 3) that the moderation effect in the combined and other conditions is due to increased intention to acquire clothing among participants with average or high levels of belief in the environmental consequences of their consumption habits in the control condition, and not a decrease in the intention in the combined and other conditions. The intention to acquire clothing seems to decrease among participants with average or high levels of belief in the environmental consequences of consumption only in the self-benefit condition. In practice, the more the participants believed that their consumption habits affect the environment's well-being, the less they intended to acquire clothes the next year in the self-benefit condition. Although interesting, in relation to hypothesis (H6), this result is only indicative at most and needs to be further investigated in Study 2. The moderation analysis results are presented in Figure 3 and in more detail in Appendix 8.

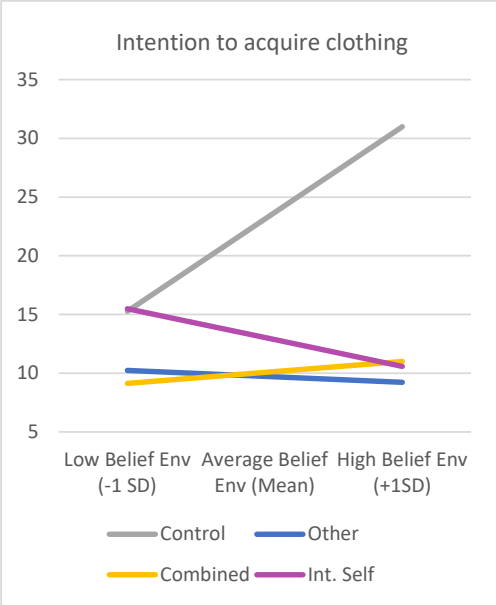



**Figure 3.** Moderating effects of belief in the effects of consumption habits on the environment on the intention to acquire clothing

## 4. Study 2

In summary, Study 1 provided support for H1 and H4, offered partial support for H6, and offered no support for H5. However, these results should only be regarded as indicative due to the limited sample size and representativeness, as well as the social role of the manipulation, which might have blurred the lines of the conditions. In addition, the role of the belief variable as a moderator can be questioned, as it was measured only after the intervention and might, therefore, have been contaminated by the intervention. Study two sought to confirm the results of Study 1 and to scrutinize the differences between intrinsic and extrinsic appeals and the moderating effect of perceived prior exposure to information. To that end, an external service provider was used to collect a sample representative of the Finnish population (n=600) in relation to age, gender, and region in the fall of 2024 by using quota sampling and a between-subject online experiment was conducted on that sample. Study 2 tested hypotheses H1, H2, H3, H5, and H6 in particular. Responses from 54 participants were incomplete regarding key variables (income) or included poor-quality answers (low variance) and were therefore removed. The final sample consisted of 546 valid responses. The

descriptive statistics for the participants, along with the related ANOVA and Chi-Square results regarding background variables between conditional groups, are presented in Appendix 9.

### 4.1. Study 2: Procedures

The participants were randomly assigned to one of six conditions: 1. Extrinsic Other-Benefit (Image) (n=97), 2. Intrinsic Other-Benefit (Values) (n=100), 3. Extrinsic Self-Benefit 1 (Money) (n=90), 4. Extrinsic Self-Benefit 2 (Image 2) (n=86), 5. Intrinsic Self-Benefit (SWB) (n=85), and 6. Control (No claim) (n=88). The questionnaire, claiming to be "a background survey for a campaign concerning clothing consumption habits, values, and well-being," began with questions measuring the moderators, namely perceived prior exposure to information and altruistic values. Next, the IV was manipulated by presenting the participants with one of six campaign posters. The posters were otherwise identical, except for the texts that differed according to each condition. The texts all started with "According to research, overconsumption is harmful…" and the sentence continued according to the condition (Control condition: blank, extrinsic and intrinsic other-Benefit:"…to the environment", extrinsic self-benefit 1: " to your personal financial situation," extrinsic self-benefit 2: "to your image," intrinsic self-benefit: "to your well-being") followed by a fact justifying the claim. Next, the self- versus other-orientation was emphasized with a request that read: "Think about your consumption!" (Control) versus "Think about others!" (Other-Benefit) versus "Think about yourself" (Self-Benefit). Finally, the intrinsic versus extrinsic motivation was emphasized with a request that read: "Consume less" (control), "Be an example and consume less" (extrinsic other-benefit), "Act according to your values and consume less" (intrinsic other-Benefit), "Consume less and save money" (extrinsic self-benefit 1), "Consume less and impress" (extrinsic self-benefit 2), and "Consume less and feel better" (intrinsic self-benefit). The posters can be found in Appendix 10. The participants were asked to familiarize themselves with the posters and to answer questions related to them. The first question related to the poster was a manipulation check to assess the focus of the poster (well-being, saving, environment, or image).

Next, the DV was measured, first in the form of attitudes to the poster and behavioral intention in response to it, then in the form of estimated change in clothing consumption compared

to the previous calendar year. Subsequently, participants were asked to answer background questions on age, gender, region, education level, and income, as well as a control question about guessing the purpose of the study, "What kind of things do you think this study is intended to analyze in more detail?". Finally, participants were given four options and core message of the poster. The Ethics Committee of the University of (name of the university removed for blind evaluation) has assented to the study.

The study procedure is illustrated in Appendix 11.

### 4.2. Study 2: Measures

The role of repeated exposure to information was operationalized by measuring perceived prior exposure to information about the impacts of the participants' clothing consumption habits on their own well-being, the environment, personal economy, and image, each assessed using a three-item measure based on Rizzi et al. (2020). This measure was chosen because, in addition to the amount of exposure, it also addresses the multitude of different sources of information and social affirmation required for behavioral change (Betts et al., 2019; Centola & Macy, 2007; Keating & Totzkay, 2024). Altruistic values were measured using the same two scales as in Study 1. Attitudes to the poster were measured using a 5-item measure, and behavioral intentions were assessed with a 3-item measure, both from Geeroms et al. (2008). The estimated change in clothing consumption was measured using a single-item measure adapted from de Koning et al. (2024). A CFA using SPSS 28 assessed the reliability and validity of the multi-item measures. All measures achieved acceptable Cronbach's alphas (>.7). The items, scales, and Cronbach's alphas for the measures are presented in Appendix 12. Regarding the control question, none of the respondents guessed the actual aim of the study.

### 4.3. Study 2: Manipulation Checks

The first manipulation check, adapted from Muralidharan et al. (2024), asked about the extent to which the campaign poster addressed the subjective well-being of the consumers, consumer savings, the environment, or consumers' image on a 7-point scale anchored with *not at all* (1) and *to a great*

*extent* (7). The second manipulation check asked participants to recall the core message of the campaign poster they had seen and to choose between the effects of clothing consumption on the subjective well-being of consumers, consumer savings, the environment, or consumers' image.

ANOVA and Chi-Square test results in relation to the manipulation checks indicated that the manipulations were perceived as intended. In the first test, compared to the control poster, the two other-benefit posters were perceived as focusing the most on the environment (M = 5.67; 5.54 versus M = 4.31; F (5,541) = 15.625, $p < 0.01$), the extrinsic self-benefit 1 (Money) poster, on consumer savings (M = 5.59 versus M = 4.18; F (5,541) = 12.403, $p < 0.01$), the extrinsic self-benefit 2 (Image 2) poster, on consumer image (M = 4.7 vs. M = 3.30; F (5,541) = 7.601, p < 0.01), and the intrinsic self-benefit (SWB) poster, on the effects of clothing consumption on consumer well-being (M = 5.03 vs. M = 3.59; F (5,541) = 12.001, $p < 0.01$). Similarly, in the second test, the other-benefit posters were perceived as focusing the most on the environment, the extrinsic self-benefit 1 (Money) poster on consumer savings, the extrinsic self-benefit 2 (Image 2) poster on consumer image, and the intrinsic self-benefit (SWB) poster on the effects of clothing consumption on consumer well-being [$X^2$ (1,15; N = 546) = 310.509, $p$ <0,001].

### 4.4. Study 2: Results

To ensure the representativeness of the data and the reliability of the results, the background variables – age, gender, education, and income – were added to the analysis as covariates, and an ANCOVA was run to test hypotheses H2 and H3 and to seek further support for H1. Significant differences were found between the six conditions in relation to both attitudes to the poster [F(5,545) = 6.186, $p < .001$, $\eta^2 = 0.155$] and behavioral intentions [F(5,545) = 4.493, $p = <.001$, $\eta^2 = 0.040$]. In terms of attitudes to the poster, significant differences were identified between the extrinsic other condition, where the attitude was the most positive, and both the control condition (M=4.805, SE=.147 vs. M=4.168, SE=,154, $p$=.045), and the extrinsic self 2 condition (M=4.805, SE=.147 vs. M=3.617, SE=.157, $p$<.001), where the attitude was the most negative. A significant difference was also identified between the extrinsic self 2 and intrinsic other (M=3,617, SE=.157 vs. M=4.246, SE=.144, $p$<.001), extrinsic self 1 (M=3.617, SE=.157 vs. M=4.327, SE=.153, $p$<.001), and intrinsic

self (M=3.617, SE=.157 vs. M=4.308, SE=.157, $p$=.030) conditions. In terms of behavioral intentions, a significant difference was identified between the extrinsic self 2 condition, where the intention was the weakest, and both the extrinsic other (M=3.179, SE=.169 vs. M=4.199, SE=.159, $p$<.001) and intrinsic self (M=3.179, SE=.169 vs. M=3.975, SE=.170, $p$<.015) conditions, where the intention was the strongest. In terms of estimated change in clothing consumption, although the intrinsic self-condition was the most effective in descriptive terms, no significant direct effects were found. The descriptive statistics and ANCOVA results are presented in Figure 4 and in more detail in Appendix 13.

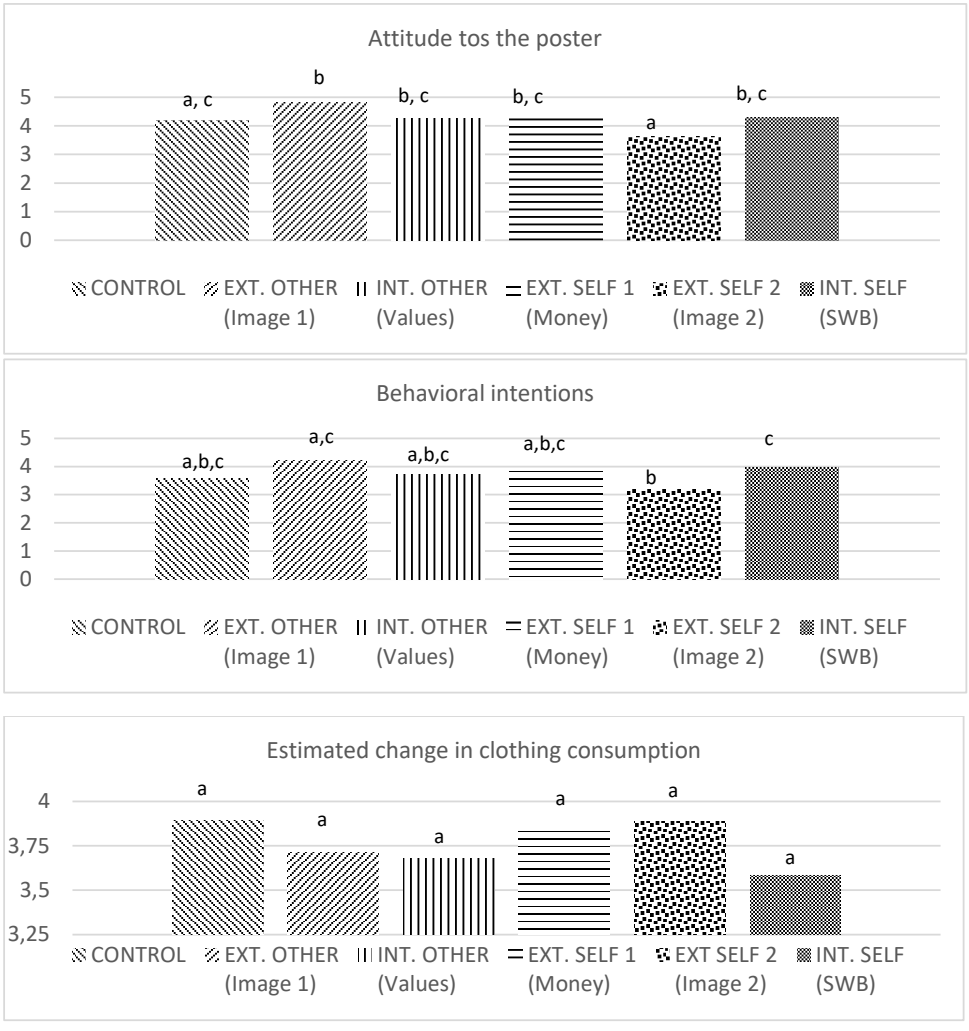



**Figure 4.** Direct effects on attitudes to the poster and behavioral intentions. Bars represent means. Significant differences in main effects are denoted using different superscript letters. The estimated change in clothing consumption was scored on a 7-point scale anchored with *decreases by 50% or more* (1) and *increases by 50% or more* (7).

In practice, attitudes differed significantly from the attitudes in the control condition only in the extrinsic other-benefit condition, lending support to H3. Although the attitudes in the extrinsic self-benefit condition focusing on the effects of overconsumption on the consumers' image were significantly more negative than in the intrinsic self-benefit condition, attitudes to the intrinsic self-benefit appeal did not significantly differ from the other extrinsic self-benefit appeal focusing on financial benefits, nor the control condition, thus not lending support to H2. The behavioral intentions were the strongest in relation to both the extrinsic other-benefit poster focusing on the environment and the intrinsic self-benefit poster focusing on subjective well-being. The results differed significantly from those for the extrinsic self-benefit poster, focusing on the reputational benefits of reducing consumption, which was the weakest condition. However, neither of these conditions differed significantly from the control condition, thus not lending support for H2 and H3. No significant differences were found between intrinsic self-benefit appeal and the other-benefit appeals, indicating, in line with Study 1, that intrinsic self-benefit appeal is as effective as other-benefit appeal compared to the control appeal, therefore, lending further support for H1. However, in relation to attitudes to the posters, the extrinsic other-benefit condition differed significantly from the control condition, whereas the intrinsic self-benefit condition did not, which does not support H1.

The moderation effects—hypotheses H5 and H6—were tested using Hayes' (2022) PROCESS Model 1 with 5,000 bootstrapped samples and a 95% confidence interval. With regard to altruistic values, a significant interaction was detected between the intrinsic other (VAL) condition and environmental-altruistic values compared to the control condition in relation to behavioral intentions. However, this effect did not lead to a change in the model's explained variance, thereby indicating no support for moderation and H5. Similarly, in relation to perceived prior exposure to information about the impacts of clothing consumption habits on the environment, personal economy, and image, a significant interaction was identified in relation to the intrinsic self (SWB) condition and intention to acquire clothing compared to the control condition, albeit without increasing the model's explanatory power. However, a significant interaction effect, which also led to a change in the model's explained variance, was identified between prior exposure to information

about the impacts of clothing consumption habits on the participants' own well-being and the intrinsic self (SWB) condition compared to the control condition in relation to estimated change in clothing consumption ($b$ = -.383, $t$(16,529) = -3.056, $p$ < .01). In practice, the more the participants perceived they had prior exposure to information about the impact of clothing consumption habits on the participants' own well-being, the less they intended to acquire clothes the next year after being exposed to the poster dealing with the impact of clothing consumption on consumer well-being and encouraging participants to think about themselves and to consume less. Based on a simple slope analysis using observation points at -1 SD, Mean, and +1 SD, the effect of the intrinsic self-benefit appeal was significant, with high levels of prior exposure to information about the well-being effects of clothing consumption. This result lends support to H7. The moderation analysis results are presented in Figure 5 and in more detail in Appendix 14.

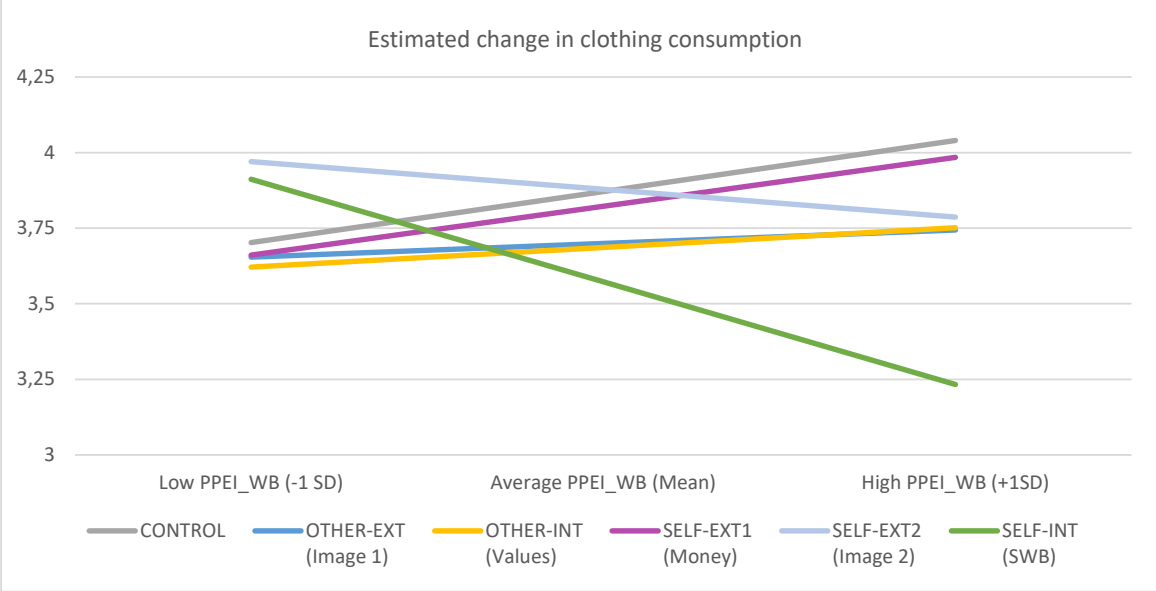



**Figure 5.** Moderating effects of perceived prior exposure to information about the well-being consequences of clothing consumption on estimated change in clothing consumption. PPEI_WB=Perceived Prior Exposure to Information about the impact of clothing consumption habits on own well-being.

## 5. Discussion

This study aimed to compare the impact of intrinsic self-benefit appeals (consume less to feel better), extrinsic self-benefit appeals (consume less to save money, consume less to improve your image),

and intrinsic and extrinsic other-benefit appeals (consume less to save the environment and act according to your values, consume less to save the environment and be an example) in the context of clothing. In addition, we investigated the moderating roles of belief in and perceived prior exposure to information about the impact of clothing consumption and altruistic values in the impact of these appeals.

**Table 3.** Summary of results

| **Hypotheses** | | **Results** |
|---|---|---|
| H1 | Intrinsic self-benefit appeal is either more effective or as effective as other-benefit appeal compared to a control appeal. | Supported |
| H2 | Intrinsic self-benefit appeal is more effective than extrinsic self-benefit appeal compared to a control appeal. | Not supported |
| H3 | Extrinsic other-benefit appeal is more effective than intrinsic other-benefit appeal compared to a control appeal. | Partially supported |
| H4 | Intrinsic self-benefit appeal combined with other-benefit appeal is either more effective or as effective as individual appeals compared to a control appeal. | Supported |
| H5 | The effectiveness of consumption reduction appeals stressing the intrinsic vs. extrinsic self- and other-benefits is moderated by the strength of the consumer's altruistic values. | Not supported |
| H6 | The effectiveness of self-benefit vs. other-benefit appeals is moderated by the level of belief in the consequences of consumption and perceived prior exposure to information about the impact of clothing consumption. | Partially supported |

Two experiments indicate that, when other factors were excluded, the most effective appeals were the extrinsic other-benefit appeal and the intrinsic self-benefit appeal. No statistically significant differences were identified between these two appeals in terms of intention to acquire clothing, although, in relation to attitudes to the appeals, the extrinsic other-benefit condition did differ significantly from the control condition, while the intrinsic self-benefit condition did not. No statistically significant differences were found between extrinsic and intrinsic other-benefit appeals nor between the intrinsic self-benefit condition and the extrinsic self-benefit condition focusing on financial benefits in terms of behavioral intentions and the intention to acquire clothing, although, in relation to attitudes to the appeals, the extrinsic other-benefit condition did differ significantly from the control condition, while the intrinsic other-benefit condition did not. The intrinsic self-benefit condition, however, did significantly differ from the extrinsic self-benefit condition, focusing on image in terms of both attitudes to the appeal and behavioral intentions.

These results lend support to our hypotheses (See Table 3), suggesting that intrinsic self-benefit appeals work at least as well as other-benefit appeals (H1) and more consistently than extrinsic self-benefit appeals (H2). We suggest that because individuals tend to put more effort into intrinsically motivated acts (Sheldon & Elliot, 1999). In particular, while extrinsic self-benefit appeals may result in short-term effects, in the long run, they may decrease the attractiveness of a behavior (Azarova et al., 2020). However, in regard to other-benefit appeals, we hypothesized (H3) that an extrinsic other-benefit appeal would be more effective than an intrinsic other-benefit appeal. In particular, we theorized that environmental appeals are intrinsic for individuals with strong environmental values, but due to the general tendency to self-interest, they primarily trigger extrinsic motivations for the majority through reputational benefits (Griskevicius et al., 2010). Our results, that the extrinsic other-benefit appeal worked slightly better than the intrinsic other-benefit appeal, offered partial support for this theory.

When the intrinsic self-benefit appeal was combined with other-benefit appeal, the combined appeal was as effective as the individual appeals in relation to the intention to acquire clothing. This result was in line with our hypothesis (H4). In particular, we theorized that in previous studies combining other-benefit appeal with extrinsic self-benefit appeal by stressing, for example, the environmental and individual monetary benefits of sustainable behaviors, has proven less effective than individual appeals (Edinger-Schons et al., 2018; Feiler et al., 2012, D. Schwartz et al., 2015; Van Den Broek et al., 2017), supposedly due to doubts about the genuineness of the appeal (Edinger-Schons et al., 2018) and psychological reactance to assumed attempts at persuasion (Feiler et al., 2012). These issues, we suggested, can be avoided with intrinsic self-oriented appeals, and therefore, these combinations would be at least as effective as individual appeals (Chen et al., 2024; Kareklas et al., 2014; Sleboda et al., 2024). Our results supported this hypothesis.

Contrary to our hypothesis (H5), no statistically significant moderation effect was found for altruistic values. We theorized that the effectiveness of self-benefit versus other-benefit appeals would depend on the values of the consumers due to the human tendency to put more effort into acts congruent with personal values (Sheldon & Elliot, 1999) and because the moderating effect of altruistic (versus egoistic) values has been found in previous studies (Birkenbach & Egloff, 2024;

Van Den Broek et al., 2017). However, such an effect was not found in our study. One possible explanation for our differing result could be the contexts of the previous studies. In Birkenbach and Egloff's (2024) study, the used appeals, in that case also represented on a poster, encouraged the participants to generally protect/save our/your planet and the measured dependent variable was the attitude to the appeal. In the study by Van Den Broek et al. (2017), the dependent variable was the willingness to sign a petition about saving paper. Both of these targeted behaviors are independent of the participants' previous behavior. In particular, even if the participants had already demonstrated pro-environmental behavior, they could still sign the petition or consider a poster effective and recognize the need to save the planet. However, in our study, the dependent variable was a specific individual behavior change, reducing clothing consumption. Therefore, if a participant already behaved in a prosocial way and was consuming clothes only moderately, they would not reduce their consumption even if they, in general, thought that the planet should be saved. In brief, we suggest that altruistic values did not have a moderating effect in our study because participants with altruistic values are likely already engaged in the anti-consumption of clothing (Nolan et al., 2008).

In contrast, a significant moderation effect was found for perceived prior exposure to information about the consequences of clothing consumption. In particular, with high levels of prior exposure to information about the effects of clothing consumption on the participant's own well-being, the intrinsic self-benefit appeal significantly reduced the intention to acquire clothes. No such effect was found for prior exposure to information about the environmental, financial or reputational effects of clothing consumption, nor for the other conditions. Our results lend support to our hypothesis (H6), suggesting that intrinsic self-oriented appeals are more effective than other-oriented appeals when the amount of prior exposure is taken into account.

Furthermore, we theorize that prior exposure to information about the environmental effects of clothing consumption did not have a moderating effect due to message fatigue. Although repeated exposure, as well as social affirmation or reinforcement from multiple sources, is required to increase credibility (Pennycook et al., 2018; Smelter & Calvillo, 2020; Unkelbach et al., 2019), and ultimately change attitudes and behaviors (Betts et al., 2019; Centola & Macy, 2007; Keating &

Totzkay, 2024), when taken too far, an inverted u-effect emerges and participants may start to perceive the overly repeated message as an attempt at persuasion that prompts psychological reactance and undermines the credibility of the message (Koch & Zerback, 2013; Lu et al., 2015; Reynolds-Tylus et al., 2021; Song & So, 2023). In other words, we suggest that consumers who could be reached using other-benefit appeals probably already engage in the targeted behavior (Nolan et al., 2008). For the rest, these messages are ineffective or even counteractive, especially among those skeptical of climate change or resistant to green narratives (Amos et al., 2016; Grapsas et al., 2023; Johnstone & Tan, 2015; Tan et al., 2016). On the contrary, intrinsic self-oriented appeals focusing on benefits for subjective well-being offer a novel, not yet worn out, leaver for change.

The indicative results in relation to belief in the consequences of consumption somewhat supported this theory. In particular, a moderation effect was identified for average and high levels of belief in the environmental consequences of consumption habits and the self-benefit condition. In practice, the more the participants believe their consumption habits affect the well-being of the environment, the lower their intention to acquire clothes over the next year in the self-benefit condition, but not in the combined and other conditions. Therefore, the self-benefit appeal, indeed, seemed to offer the needed leaver for change also for the ecologically aware consumers.

However, interestingly, belief in the effect of consumption on the well-being of others and the environment increased clothing consumption in the control condition. This might be related to the money priming in the control condition that could have increased the selfishness of the participants (Stajkovic et al., 2022). However, this result also aligns with research suggesting that ecologically aware consumers may be the ones who replace perceived obsolete products the quickest (Guillard et al., 2023), perpetuating the consumption cycle. In addition, as we formulated our question on the intended number of clothing acquisitions intentionally so that secondhand clothing and acquisition for free were included, this result might reflect the theory that current sustainability efforts often operate within the current system that encourages constant acquisition and disposal (even if it is more eco-efficient), reinforcing the need for more radical approaches to consumption reduction (Vesterinen & Syrjälä, 2022).

### 5.1. Theoretical Contributions

Our results contribute to the self versus other-benefit appeal literature, first by highlighting the difference between not only self-benefit and other-benefit appeals, but also between intrinsic and extrinsic self-benefit and other-benefit appeals. In particular, our study offers initial results on our theorization that the most effective appeal to sustainable consumption behavior is the intrinsic self-benefit appeal because it appeals not only to the fundamental selfishness of consumers but also the intrinsic motivations, which tend to lead to more devoted acts (Sheldon & Elliot, 1999) and have a higher probability of continuing (Ross, 2011) and even spilling over to other sustainable behaviors (Thøgersen & Crompton, 2009) than extrinsically motivated acts, such as when money is offered as compensation for actions considered as altruistic.

Second, we bring into the conversation the critical role of repeated exposure. In particular, we suggest that in order to be effective, the intrinsic self-oriented appeal focusing on subjective well-being needs to be repeated and spread widely to gain credibility and a sense of familiarity (Pennycook et al., 2018; Smelter & Calvillo, 2020; Unkelbach et al., 2019), and ultimately to change attitudes and behaviors (Betts et al., 2019; Centola & Macy, 2007; Keating & Totzkay, 2024). On the other hand, along with repeated exposure comes the phenomenon of message fatigue. In particular, we suggest that other-benefit appeals focusing on the environmental effects of consumption are ineffective because the effects of repeated exposure follow an inverted u-shape, meaning that when the repetition is taken too far, the appeal becomes ineffective or even counteractive.

The third theoretical implication of our study is our novel perspectives on the moderating role of altruistic values in the effectiveness of self and other-benefit appeals. Although previous studies have found that the most effective appeal is one that matches the values (egoistic versus altruistic) of the recipient (Birkenbach & Egloff, 2024; Van Den Broek et al., 2017), no such effect was found in our two studies. Instead, we suggest that although individuals tend to put more effort into acts that are congruent with their personal goals and values (Sheldon & Elliot, 1999), in the context of sustainable consumption behavior, altruistic values no longer necessarily moderate

the effect of self and other-benefit appeals because those with altruistic congruent values already engage in the target behaviors leading to no change in the target variables (Nolan et al., 2008). Furthermore, although environmental appeals have previously been considered intrinsic (Edinger-Schons et al., 2018; Kramer & Petzoldt, 2023; Schwartz et al., 2015; Van Den Broek et al., 2017), we suggest that for the majority, they are in fact extrinsic, as the behavior they trigger is not motivated by an intrinsic need to save the planet, but by the extrinsic reputational benefits gained from pro-environmental behavior (Griskevicius et al., 2010).

### 5.2. Practical Implications

The practical implications of our results stem from the novel understanding of appealing to consumers to engage in sustainable consumption behavior. In particular, our results offer further support for the approach that says increasing green attitudes in people is not necessarily the only path to sustainable consumption, but actual behavior is more and more driven by completely other motivations than those related to sustainability, mainly self-oriented motivations, such as well-being, status, or financial benefits. Moreover, it appears that long-term, consistent behavior change is possible only if the motivators are intrinsic; that is, the action is carried out for its own sake and not for some instrumental goal, such as status or financial gain. A group that is particularly unreachable with the current green narrative is the climate denialists. Information about climate change, even combined with post-materialist values, does not turn into sustainable behavior if a consumer does not believe that humans are accountable for climate change or could plausibly decelerate it (Vainio & Paloniemi, 2013). In fact, there is a growing number of people who do not accept the green ideology at all but form groups to resist it because they see it as threatening their identities (see, e.g., Amos et al., 2016). For example, the proportion of respondents in the EU between 2021 and 2023 who considered climate change “not a serious problem” increased in at least ten countries, while the proportion of those who considered climate change “a very serious problem” fell in at least 14 member states (European Commission, 2023). It is, therefore, more and more critical to consider other means of tackling overconsumption and climate change than preaching the green message to deaf ears.

In practice, our results offer further encouragement for companies to use the linkage between anti-consumption and well-being as an intrinsic self-oriented appeal when marketing sustainable products and services. Appeals of this kind could be used, for instance, to market slow fashion brands and timeless styles as well as repair and style services supporting the extended use of clothing, with slogans such as "Wear your pants out and be happy," "Find your style and stick to it," or simply "Be you and be happy." Furthermore, to gain the level of exposure and familiarity needed for actual behavioral change, it could be advisable for the companies to engage content marketers and other co-operators, such as NGOs, to spread the message.

Second, our results offer valuable knowledge for NGOs and educators on how to impactfully engage consumers to behave sustainably. In particular, although previous research has indicated that simply educating consumers about the impacts of their consumption habits will not lead to behavior change (Eckhardt et al., 2010), our results suggest that, with the right content, it can. Based on our results, we argue that previous studies that assert the inefficacy of education and information dissemination have focused on other-oriented information, while self-oriented, and particularly intrinsic self-oriented information, can have different effects, as this and previous studies (Herziger et al., 2020) suggest. In particular, sustainable well-being could be an intrinsic self-benefit driver that bridges the green gap and effectively influences those possessing considerable knowledge about the environmental impact of consumption but who still do not act. However, our results also suggest that repeated exposure is a key factor in changing social norms and behaviors. In practice, when planning communication campaigns and global education on overconsumption, it seems advisable to highlight the intrinsic self-benefits of anti-consumption, specifically the link between reduced consumption and improved well-being. In particular, to create repeated exposure and social reinforcement, it is advisable for NGOs to focus on creating a variety of content and discourses between a range of audiences and spread it across different media. In terms of global education, the interactive pedagogical game used in our study can serve as an example of how to utilize the results of this study.

## 6. Limitations and Directions for Future Research

As with all academic research, our paper has limitations which, at the same time, invite further research. First, while our results lend support to the usefulness of subjective well-being as a driver for anti-consumption, we did not measure actual behavior or its continuance. Nevertheless, previous research has indicated that the motive base of individual sustainable action impacts the likelihood of further actions and, therefore, the continuity of sustainable behavior. Consequently, intrinsically motivated acts are more likely to continue than extrinsically motivated acts (Ross, 2011; Thøgersen & Crompton, 2009). Therefore, clothing anti-consumption, if motivated by an intrinsic driver for well-being, could be more likely to continue beyond a single act, compared to, for example, status or financially motivated acts. The continuation of the effect identified in this study would, therefore, be an interesting topic for future research.

A second limitation, although addressed in the second study, is related to the control condition in Study 1. In particular, the intention to acquire clothing was lower in all three study conditions in Study 1 compared to the control condition, while in Study 2, no significant difference was identified. One plausible explanation relates to repeated exposure: The intervention in Study 1 was probably more effective because it was longer and included active and repeated processing of the novel information. In addition, consumption reduction was not encouraged in the control condition in Study 1 at all, while in Study 2, it was encouraged in all conditions; only the arguments supporting the request differed. However, another potential explanation relates to the emphasis on finances in the control condition in Study 1. In particular, it may be that the acquisition intentions were not reduced in the study groups, but, instead, they were increased in the control group due to the money priming that could have increased the selfishness of the participants (Stajkovic et al., 2022). Future studies could test similar stimuli as used in Study 1 but with a more neutral control stimulus.

Third, the results of Study 1 might have also been influenced by the social nature of the game. Although pedagogically justified, it might have blurred the lines of the study groups. The group-based activity may have also resulted in socially desirable responses that do not necessarily reflect the true perceptions of individuals. Consequently, it could be useful for future studies to replicate our first experiment with individual games.

Fourth, future research could delve deeper into forms of motivation triggered by different forms of appeal by assessing whether they are extrinsic or intrinsic. In addition, it would be interesting to investigate how respondents understand the effects of consumption reduction on well-being and the well-being concept in general. However, in this study, the aim was to measure the general level of the respondent's prior exposure to the intrinsic and extrinsic self- and other-oriented benefits of clothing consumption. As such, this research did not require the respondents to think specifically of certain types of well-being impacts when asked about prior exposure to information related to the effects of clothing consumption on their well-being.

Fifth, we studied the effect of different types of appeals in the context of clothing. However, the effectiveness of self-benefit versus other-benefit appeals may depend on the type of product. In particular, Zhao et al. (2024) found that intrinsic self-benefit appeal worked when aligned with virtuous products (organic oats), while other-benefit appeal worked when matched with vice products (organic ice cream). Could this same logic be brought to the clothing context, for instance, by comparing the effect of the appeals on willingness to buy party tops versus outdoor clothing? This could be an interesting topic for future research.

Sixth, a limitation, but also a possibility for future research, is that this study only targeted adult consumers. Another particularly interesting target group, especially for our gamified approach to social marketing, could be youths and children, who are still adopting consumer behavior patterns and seeking their self-identities through clothing (Joy et al., 2012). We suggest future research tests our research setting, particularly that of Study 1, among youth and children.

Finally, although increased subjective well-being appears to be a promising driver of consumption reduction, at least when repeated exposure is taken into account, we acknowledge that education alone does not solve the problem of overconsumption, nor should the responsibility sit only on consumers' shoulders. Instead, the sustainability transformation requires normative and systemic change, which cannot be achieved without supporting policies. Using steering taxes can even be considered as appealing to self-oriented consumer motivations, although perhaps not intrinsic motivations. We, therefore, suggest future research tests policies such as limiting the number of collection launches, limiting fashion advertising, imposing steering taxes on ultra and fast

fashion products, and reducing VAT for repair services, following Sweden's example (Dalhammar et al., 2020).

**References:**

Amos, C., Spears, N., & Pentina, I. (2016). Rhetorical Analysis of Resistance to Environmentalism As Enactment of Morality Play between Social and Ecological Well-Being. *Journal of Consumer Affairs*, *50*(1), 224–259. https://doi.org/10.1111/joca.12081

Antinyan, A., & Corazzini, L. (2025). Breaking the bag habit: Testing interventions to reduce plastic bag demand. *Ecological Economics*, *228*, 108454. https://doi.org/10.1016/j.ecolecon.2024.108454

Aviste, R. P., & Niemiec, C. P. (2023). Antecedents of Environmental Values and Pro-Environmental Behavior Intentions: A Self-Determination Theory Approach. *Journal of Environmental Psychology*, *88*, 102023. https://doi.org/10.1016/j.jenvp.2023.102023

Azarova, V., Cohen, J. J., Kollmann, A., & Reichl, J. (2020). Reducing household electricity consumption during evening peak demand times: Evidence from a field experiment. *Energy Policy*, *144*, 111657. https://doi.org/10.1016/j.enpol.2020.111657

Becerra, E. P., Carrete, L., & Arroyo, P. (2023). A Study of the Antecedents and Effects of Green Self-Identity on Green Behavioral Intentions of Young Adults. *Journal of Business Research*, *155*, 113380. https://doi.org/10.1016/j.jbusres.2022.113380

Betts, K. R., Aikin, K. J., Kelly, B. J., Johnson, M., Parvanta, S., Southwell, B. G., Mack, N., Tzeng, J., & Cameron, L. (2019). Taking Repeated Exposure into Account: An Experimental Study of Direct-To-Consumer Prescription Drug Television Ad Effects. *Journal of Health Communication*, *24*(5), 503–511. https://doi.org/10.1080/10810730.2019.1609139

Birch, D., Memery, J., & De Silva Kanakaratne, M. (2018). The mindful consumer: Balancing egoistic and altruistic motivations to purchase local food. *Journal of Retailing and Consumer Services*, *40*, 221–228. https://doi.org/10.1016/j.jretconser.2017.10.013

Birkenbach, M., & Egloff, B. (2024). Effects of matching climate change appeals to personal values. *Scientific Reports*, *14*(1), 6128. https://doi.org/10.1038/s41598–024–56631-z

Bly, S., Gwozdz, W., & Reisch, L. A. (2015). Exit from the High Street: An Exploratory Study of Sustainable Fashion Consumption Pioneers. *International Journal of Consumer Studies*, *39*(2), 125–135. https://doi.org/10.1111/ijcs.12159

Bolderdijk, J. W., & Steg, L. (2015). Promoting sustainable consumption: The risks of using financial incentives. In L. A. Reisch & J. Thøgersen (Eds.), *Handbook of Research on Sustainable Consumption*. Edward Elgar Publishing. https://doi.org/10.4337/9781783471270.00033

Bolderdijk, J. W., Steg, L., Geller, E. S., Lehman, P. K., & Postmes, T. (2013). Comparing the Effectiveness of Monetary Versus Moral Motives in Environmental Campaigning. *Nature Climate Change*, *3*(4), 413–416. https://doi.org/10.1038/nclimate1767

Brown, P. M., & Cameron, L. D. (2000). What Can Be Done to Reduce Overconsumption? *Ecological Economics*, *32*(1), 27–41. https://doi.org/10.1016/S0921–8009(99)00093–2

Bruderer Enzler, H., Diekmann, A., & Liebe, U. (2019). Do Environmental Concern and Future Orientation Predict Metered Household Electricity Use? *Journal of Environmental Psychology*, *62*, 22–29. https://doi.org/10.1016/j.jenvp.2019.02.004

Campos, P. D. O., Lima, A. A. L. D. S., Costa, C. S. R., & Costa, M. F. D. (2023). The Influence of Voluntary Simplicity and Environmental Activism on Sustainable Fashion Purchase Intention. *Journal of Fashion Marketing and Management: An International Journal*, *27*(2), 352–369. https://doi.org/10.1108/JFMM-10–2021–0254

Centola, D., & Macy, M. (2007). Complex Contagions and the Weakness of Long Ties. *American Journal of Sociology*, *113*(3), 702–734. https://doi.org/10.1086/521848

Chen, M., Chen, Y., Qi, R., Hsiao, J. H., Lam, W. W. T., & Liao, Q. (2024). Testing the effects of health-benefit, environmental-benefit and co-benefit priming for promoting sustainable food choice and their psychological mechanisms: A randomized controlled trial combined with eye tracking. *Journal of Environmental Psychology*, *100*, 102485. https://doi.org/10.1016/j.jenvp.2024.102485

Cherrier, H., & Murray, J. B. (2002). Drifting Away from Excessive Consumption_ a New Social Movement Based on Identity Construction. *ACR North American Advances*.

Costa Pinto, D., Maurer Herter, M., Rossi, P., Meucci Nique, W., & Borges, A. (2019). Recycling Cooperation and Buying Status: Effects of Pure and Competitive Altruism on Sustainable

Behaviors. *European Journal of Marketing*, *53*(5), 944–971. https://doi.org/10.1108/EJM-09–2017–0557

Dalhammar, C., Richter, J., Almén, J., Anehagen, M., Enström, E., Hartman, C., Jonsson, C., Lindbladh, F., & Ohlsson, J. (2020). *Promoting the Repair Sector in Sweden*.

De Koning, J., Lavanga, M., & Spekkink, W. (2024). Exploring the Clothing Overconsumption of Young Adults: An Experimental Study with Communication Interventions. *Journal of Cleaner Production*, 142970. https://doi.org/10.1016/j.jclepro.2024.142970

Deci, E. L. (1976). Notes on the Theory and Metatheory of Intrinsic Motivation. *Organizational Behavior and Human Performance*, *15*(1), 130–145. https://doi.org/10.1016/0030–5073(76)90033–7

Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a national index. *American Psychologist*, *55*(1), 34–43. https://doi.org/10.1037/0003–066X.55.1.34

DiMaria, C. H., Peroni, C., & Sarracino, F. (2020). Happiness Matters: Productivity Gains from Subjective Well-Being. *Journal of Happiness Studies*, *21*(1), 139–160. https://doi.org/10.1007/s10902–019–00074–1

Eckhardt, G. M., Belk, R., & Devinney, T. M. (2010). Why Don't Consumers Consume Ethically? *Journal of Consumer Behaviour*, *9*(6), 426–436. https://doi.org/10.1002/cb.332

Edinger-Schons, L. M., Sipilä, J., Sen, S., Mende, G., & Wieseke, J. (2018). Are Two Reasons Better Than One? The Role of Appeal Type in Consumer Responses to Sustainable Products. *Journal of Consumer Psychology*, *28*(4), 644–664. https://doi.org/10.1002/jcpy.1032

ElHaffar, G., Durif, F., & Dubé, L. (2020). Towards closing the attitude-intention-behavior gap in green consumption: A narrative review of the literature and an overview of future research directions. *Journal of Cleaner Production*, *275*, 122556. https://doi.org/10.1016/j.jclepro.2020.122556

European Commission (Ed.). (2023). *Climate change: Fieldwork: May - June 2023*. European Union. https://doi.org/10.2834/653431

Feiler, D. C., Tost, L. P., & Grant, A. M. (2012). Mixed Reasons, Missed Givings: The Costs of Blending Egoistic and Altruistic Reasons in Donation Requests. *Journal of Experimental Social Psychology*, *48*(6), 1322–1328. https://doi.org/10.1016/j.jesp.2012.05.014

Folkes, V. S. (1988). Recent Attribution Research in Consumer Behavior: A Review and New Directions. *Journal of Consumer Research*, *14*(4), 548. https://doi.org/10.1086/209135

Forgeard, M. J. C., Jayawickreme, E., Kern, M. L., & Seligman, M. E. P. (2011). Doing the Right Thing: Measuring Well-Being for Public Policy. *International Journal of Well-being*, *1*(1). https://doi.org/10.5502/ijw.v1i1.15

Geeroms, N., Verbeke, W., & Kenhove, P. V. (2008). Health advertising to promote fruit and vegetable intake: Application of health-related motive segmentation. *Food Quality and Preference*, *19*(5), 481–497. https://doi.org/10.1016/j.foodqual.2008.02.004

Geiger, S. M., & Keller, J. (2018). Shopping for Clothes and Sensitivity to the Suffering of Others: The Role of Compassion and Values in Sustainable Fashion Consumption. *Environment and Behavior*, *50*(10), 1119–1144. https://doi.org/10.1177/0013916517732109

Grappi, S., Bergianti, F., Gabrielli, V., & Baghi, I. (2024). The effect of message framing on young adult consumers' sustainable fashion consumption: The role of anticipated emotions and perceived ethicality. *Journal of Business Research*, *170*, 114341. https://doi.org/10.1016/j.jbusres.2023.114341

Grapsas, S., Becht, A. I., & Thomaes, S. (2023). Self-Focused Value Profiles Relate to Climate Change Skepticism in Young Adolescents. *Journal of Environmental Psychology*, *87*, 101978. https://doi.org/10.1016/j.jenvp.2023.101978

Green, T., & Peloza, J. (2014). Finding the Right Shade of Green: The Effect of Advertising Appeal Type on Environmentally Friendly Consumption. *Journal of Advertising*, *43*(2), 128–141. https://doi.org/10.1080/00913367.2013.834805

Griskevicius, V., Cantú, S. M., & Van Vugt, M. (2012). The Evolutionary Bases for Sustainable Behavior: Implications for Marketing, Policy, and Social Entrepreneurship. *Journal of Public Policy & Marketing*, *31*(1), 115–128. https://doi.org/10.1509/jppm.11.040

Griskevicius, V., Tybur, J. M., & Van Den Bergh, B. (2010). Going Green to Be Seen: Status, Reputation, and Conspicuous Conservation. *Journal of Personality and Social Psychology*, *98*(3), 392–404. https://doi.org/10.1037/a0017346

Gupta, S., Gwozdz, W., & Gentry, J. (2019). The Role of Style Versus Fashion Orientation on Sustainable Apparel Consumption. *Journal of Macromarketing*, *39*(2), 188–207. https://doi.org/10.1177/0276146719835283

Hayes, A. F. (2022). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach* (Third edition). The Guilford Press.

Herziger, A., Berkessel, J. B., & Steinnes, K. K. (2020). Wean Off Green: On the (in)effectiveness of Biospheric Appeals for Consumption Curtailment. *Journal of Environmental Psychology*, *69*, 101415. https://doi.org/10.1016/j.jenvp.2020.101415

Hur, E. (2020). Rebirth fashion: Secondhand clothing consumption values and perceived risks. *Journal of Cleaner Production*, *273*, 122951. https://doi.org/10.1016/j.jclepro.2020.122951

Iran, S., & Geiger, S. (2018). Influences of values on the attitudes towards and the engagement in collaborative fashion consumption. In C. Becker-Leifhold & M. Heuer (Eds.), *Eco-Friendly and Fair: Fast Fashion and Consumer Behaviour* (pp. 153–162). Routledge, Taylor & Francis Group.

Iyer, R., & Muncy, J. A. (2016). Attitude toward Consumption and Subjective Well-Being. *Journal of Consumer Affairs*, *50*(1), 48–67. https://doi.org/10.1111/joca.12079

Jacobs, K., Petersen, L., Hörisch, J., & Battenfeld, D. (2018). Green thinking but thoughtless buying? An empirical extension of the value-attitude-behaviour hierarchy in sustainable clothing. *Journal of Cleaner Production*, *203*, 1155–1169. https://doi.org/10.1016/j.jclepro.2018.07.320

Johnson, O., & Chattaraman, V. (2019). Conceptualization and measurement of millennial's social signaling and self-signaling for socially responsible consumption. *Journal of Consumer Behaviour*, *18*(1), 32–42. https://doi.org/10.1002/cb.1742

Johnstone, M.-L., & Tan, L. P. (2015). Exploring the Gap Between Consumers' Green Rhetoric and Purchasing Behaviour. *Journal of Business Ethics*, *132*(2), 311–328. https://doi.org/10.1007/s10551–014–2316–3

Joy, A., Sherry, J. F., Venkatesh, A., Wang, J., & Chan, R. (2012). Fast Fashion, Sustainability, and the Ethical Appeal of Luxury Brands. *Fashion Theory*, *16*(3), 273–295. https://doi.org/10.2752/175174112X13340749707123

Joyner Armstrong, C. M., Kang, J., & Lang, C. (2018). Clothing style confidence: The development and validation of a multidimensional scale to explore product longevity. *Journal of Consumer Behaviour*, *17*(6), 553–568. https://doi.org/10.1002/cb.1739

Kareklas, I., Carlson, J. R., & Muehling, D. D. (2014). "I Eat Organic for My Benefit and Yours": Egoistic and Altruistic Considerations for Purchasing Organic Food and Their Implications for Advertising Strategists. *Journal of Advertising*, *43*(1), 18–32. https://doi.org/10.1080/00913367.2013.799450

Keating, D. M., & Totzkay, D. (2024). Theorizing about persuasive message repetition in communication research: A systematic review. *Review of Communication*, 1–18. https://doi.org/10.1080/15358593.2024.2373800

Kim, S. (2024). Going green to repair damaged self-concept: The interplay of self-deficit and benefit appeals on green consumer behavior. *Journal of Consumer Behaviour*, cb.2335. https://doi.org/10.1002/cb.2335

Koch, T., & Zerback, T. (2013). Helpful or Harmful? How Frequent Repetition Affects Perceived Statement Credibility: Helpful or Harmful. *Journal of Communication*, *63*(6), 993–1010. https://doi.org/10.1111/jcom.12063

Kopplin, C. S., & Rösch, S. F. (2021). Equifinal causes of sustainable clothing purchase behavior: An fsQCA analysis among generation Y. *Journal of Retailing and Consumer Services*, *63*, 102692. https://doi.org/10.1016/j.jretconser.2021.102692

Kramer, J., & Petzoldt, T. (2023). Environmental, altruistic, or monetary benefits? A longitudinal online experiment on how framed behavioral consequences affect self-reported eco-driving

of German vehicle owners. *Transportation Research Part F: Traffic Psychology and Behaviour*, *93*, 204–221. https://doi.org/10.1016/j.trf.2023.01.006

Kropfeld, M. I. (2023). Lifestyles of enough exploring sufficiency-oriented consumption behavior from a social practice theory perspective. *Journal of Consumer Culture*, *23*(2), 369–390. https://doi.org/10.1177/14695405221095008

Krouska, A., Troussas, C., & Sgouropoulou, C. (2022). Mobile game-based learning as a solution in COVID-19 era: Modeling the pedagogical affordance and student interactions. *Education and Information Technologies*, *27*(1), 229–241. https://doi.org/10.1007/s10639–021–10672–3

Lang, C., & Armstrong, C. M. J. (2018). Fashion Leadership and Intention Toward Clothing Product-Service Retail Models. *Journal of Fashion Marketing and Management: An International Journal*, *22*(4), 571–587. https://doi.org/10.1108/JFMM-12–2017–0142

Lee, M. S. W., & Fernandez, K. V. (2006). Anti-consumption: Rejecting, refusing, and resisting the market. *Advances in Consumer Research*, *7*, 73–76.

Liu, F., Johnson, Z., Massiah, C., & Lowrey, T. M. (2020). Nonmonetary and nonreciprocal freecycling: Motivations for participating in online alternative giving communities. *Journal of Consumer Behaviour*, *19*(4), 339–350. https://doi.org/10.1002/cb.1810

Lu, X., Xie, X., & Liu, L. (2015). Inverted U-shaped model: How frequent repetition affects perceived risk. *Judgment and Decision Making*, *10*(3), 219–224. https://doi.org/10.1017/S1930297500004629

Lundblad, L., & Davies, I. A. (2016). The Values and Motivations Behind Sustainable Fashion Consumption. *Journal of Consumer Behaviour*, *15*(2), 149–162. https://doi.org/10.1002/cb.1559

Makri, K., Schlegelmilch, B. B., Mai, R., & Dinhof, K. (2020). What We Know About Anticonsumption: An Attempt to Nail Jelly to the Wall. *Psychology & Marketing*, *37*(2), 177–215. https://doi.org/10.1002/mar.21319

Martin-Woodhead, A. (2023). Making wardrobe space: The sustainable potential of minimalist-inspired fashion challenges. *Area*, *55*(2), 274–283. https://doi.org/10.1111/area.12848

McNeill, L., & Moore, R. (2015). Sustainable Fashion Consumption and the Fast Fashion Conundrum: Fashionable Consumers and Attitudes to Sustainability in Clothing Choice. *International Journal of Consumer Studies*, *39*(3), 212–222. https://doi.org/10.1111/ijcs.12169

McNeill, L., & Venter, B. (2019). Identity, Self-Concept and Young Women's Engagement with Collaborative, Sustainable Fashion Consumption Models. *International Journal of Consumer Studies*, *43*(4), 368–378. https://doi.org/10.1111/ijcs.12516

Misra, R., Eyombo, L., & Phillips, F. T. (2022). Benefits and Challenges of Using Educational Games: In I. R. Management Association (Ed.), *Research Anthology on Developments in Gamification and Game-Based Learning* (pp. 1560–1570). IGI Global. https://doi.org/10.4018/978–1-6684–3710–0.ch075

Muralidharan, S., La Ferle, C., & Roth-Cohen, O. (2024). "Mirror, mirror, on the wall. Who is the greenest of them all?" the impact of green advertising cues on generational cohorts. *International Journal of Advertising*, *43*(1), 125–148. https://doi.org/10.1080/02650487.2023.2187192

Nogueira, M., Dias, F., & Santos, V. (2023). Sustainable Mobility Choices: Exploring the Impact of Consumers' Values, Attitudes, Perceived Behavioural Control and Subjective Norms on the Likelihood to Choose Sustainable Mobility Options. *Journal of Consumer Behaviour*, *22*(2), 511–528. https://doi.org/10.1002/cb.2144

Nolan, J. M., Schultz, P. W., Cialdini, R. B., Goldstein, N. J., & Griskevicius, V. (2008). Normative Social Influence is Underdetected. *Personality and Social Psychology Bulletin*, *34*(7), 913–923. https://doi.org/10.1177/0146167208316691

Onel, N. (2023). Transforming Consumption: The Role of Values, Beliefs, and Norms in Promoting Four Types of Sustainable Behavior. *Journal of Consumer Behaviour*, cb.2212. https://doi.org/10.1002/cb.2212

Osburg, V.-S., Akhtar, P., Yoganathan, V., & McLeay, F. (2019). The influence of contrasting values on consumer receptiveness to ethical information and ethical choices. *Journal of Business Research*, *104*, 366–379. https://doi.org/10.1016/j.jbusres.2019.07.022

Peifer, J. L., Chugani, S., & Roos, J. M. (2020). The Ethical Underpinnings of Nonmaterialistic Values and Voluntary Simplicity Behavior in the United States. *Psychology & Marketing*, *37*(2), 232–249. https://doi.org/10.1002/mar.21277

Peiró Signes, Á., Miret-Pastor, L., Tsiouni, M., Siggia, D., & Galati, A. (2023). Determinants of consumers' response to eco-labelled seafoods: The interaction between altruism, awareness and information demand. *Journal of Cleaner Production*, *433*, 139758. https://doi.org/10.1016/j.jclepro.2023.139758

Pennycook, G., Cannon, T. D., & Rand, D. G. (2018). Prior exposure increases perceived accuracy of fake news. *Journal of Experimental Psychology: General*, *147*(12), 1865–1880. https://doi.org/10.1037/xge0000465

Perera, C. R., Kalantari Daronkola, H., & Johnson, L. W. (2022). Anthropocentric, Biospheric and Egobiocentric Environmental Values and Green Product Purchase Intention: The Mediating Effect of Environmental Identity. *Journal of Consumer Behaviour*, *21*(6), 1334–1350. https://doi.org/10.1002/cb.2095

Perera, C. R., Kalantari, H. D., & Johnson, L. W. (2024). Environmental values and sustainable consumption. *Journal of Consumer Behaviour*, 1–6. https://doi.org/10.1002/cb.2322

Prakash, G., Choudhary, S., Kumar, A., Garza-Reyes, J. A., Khan, S. A. R., & Panda, T. K. (2019). Do altruistic and egoistic values influence consumers' attitudes and purchase intentions towards eco-friendly packaged products? An empirical investigation. *Journal of Retailing and Consumer Services*, *50*, 163–169. https://doi.org/10.1016/j.jretconser.2019.05.011

Reimers, V., Magnuson, B., & Chao, F. (2017). Happiness, altruism and the Prius effect: How do they influence consumer attitudes towards environmentally responsible clothing? *Journal of Fashion Marketing and Management: An International Journal*, *21*(1), 115–132. https://doi.org/10.1108/JFMM-07–2016–0053

Reynolds-Tylus, T., Lukacena, K. M., & Truban, O. (2021). Message Fatigue to Bystander Intervention Messages: Examining Pathways of Resistance among College Men. *Health Communication*, *36*(13), 1759–1767. https://doi.org/10.1080/10410236.2020.1794551

Rizzi, F., Annunziata, E., Contini, M., & Frey, M. (2020). On the effect of exposure to information and self-benefit appeals on consumer's intention to perform pro-environmental behaviours: A focus on energy conservation behaviours. *Journal of Cleaner Production*, *270*, 122039. https://doi.org/10.1016/j.jclepro.2020.122039

Ross, S. M. (2011). Egoism and the everyday consumer: Developing a new theory on prosocial behaviours in consumption contexts. In S. M. Noble (Ed.), *Delivering value in turbulent times; AMA educators' proceedings Volume 22* (pp. 165–172). Curran Associates.

Ryoo, Y., Sung, Y., & Chechelnytska, I. (2020). What Makes Materialistic Consumers More Ethical? Self-Benefit Vs. Other-Benefit Appeals. *Journal of Business Research*, *110*, 173–183. https://doi.org/10.1016/j.jbusres.2020.01.019

Saboya De Aragão, B., & Alfinito, S. (2021). The relationship between human values and conscious ecological behavior among consumers: Evidence from Brazil. *Cleaner and Responsible Consumption*, *3*, 100024. https://doi.org/10.1016/j.clrc.2021.100024

Sarpong, K. A., Amankwaa, G., Frimpong, O., Xu, W., Cao, Y., Ni, X., & Nkrumah, N. K. (2021). Consumers' purchasing intentions for efficient water-saving products: The mediating effects of altruistic and egoistic values. *Journal of Water Supply: Research and Technology-Aqua*, *70*(2), 226–238. https://doi.org/10.2166/aqua.2021.100

Say, A. L., Guo, R. A., & Chen, C. (2021). Altruism and Social Utility in Consumer Sharing Behavior. *Journal of Consumer Behaviour*, *20*(6), 1562–1574. https://doi.org/10.1002/cb.1967

Schuitema, G., & De Groot, J. I. M. (2015). Green consumerism: The influence of product attributes and values on purchasing intentions. *Journal of Consumer Behaviour*, *14*(1), 57–69. https://doi.org/10.1002/cb.1501

Schwartz, D., Bruine De Bruin, W., Fischhoff, B., & Lave, L. (2015). Advertising Energy Saving Programs: The Potential Environmental Cost of Emphasizing Monetary Savings. *Journal of Experimental Psychology: Applied*, *21*(2), 158–166. https://doi.org/10.1037/xap0000042

Scott, K., Martin, D. M., & Schouten, J. W. (2014). Marketing and the New Materialism. *Journal of Macromarketing*, *34*(3), 282–290. https://doi.org/10.1177/0276146714532471

Sheldon, K. M., & Elliot, A. J. (1999). Goal striving, need satisfaction, and longitudinal well-being: The self-concordance model. *Journal of Personality and Social Psychology*, *76*(3), 482–497. APA PsycArticles. https://doi.org/10.1037/0022–3514.76.3.482

Sleboda, P., Bruine De Bruin, W., Gutsche, T., & Arvai, J. (2024). Don't Say "Vegan" or "Plant-Based": Food Without Meat and Dairy Is More Likely to Be Chosen When Labeled as "Healthy" and "Sustainable". *Journal of Environmental Psychology*, *93*, 102217. https://doi.org/10.1016/j.jenvp.2023.102217

Smelter, T. J., & Calvillo, D. P. (2020). Pictures and repeated exposure increase perceived accuracy of news headlines. *Applied Cognitive Psychology*, *34*(5), 1061–1071. https://doi.org/10.1002/acp.3684

Song, H., & So, J. (2023). Message fatigue beyond the health message context: A replication and further extension of So et al. (2017). *Human Communication Research*, *49*(3), 339–344. https://doi.org/10.1093/hcr/hqad021

Stajkovic, A. D., Greenwald, J. M., & Stajkovic, K. S. (2022). The money priming debate revisited: A review, meta-analysis, and extension to organizations. *Journal of Organizational Behavior*, *43*(6), 1078–1102. https://doi.org/10.1002/job.2619

Steg, L. (2015). Environmental psychology and sustainable consumption. In L. A. Reisch & J. Thøgersen (Eds.), *Handbook of Research on Sustainable Consumption*. Edward Elgar Publishing. https://doi.org/10.4337/9781783471270.00012

Steg, L., Bolderdijk, J. W., Keizer, K., & Perlaviciute, G. (2014). An Integrated Framework for Encouraging Pro-environmental Behaviour: The role of values, situational factors and goals. *Journal of Environmental Psychology*, *38*, 104–115. https://doi.org/10.1016/j.jenvp.2014.01.002

Steg, L., Perlaviciute, G., Van Der Werff, E., & Lurvink, J. (2014). The Significance of Hedonic Values for Environmentally Relevant Attitudes, Preferences, and Actions. *Environment and Behavior*, *46*(2), 163–192. https://doi.org/10.1177/0013916512454730

Suri, D., Bongers, N., & Kube, S. (2025). Is pro-environmental effort affected by information about others' behavior? *Ecological Economics*, *228*, 108437. https://doi.org/10.1016/j.ecolecon.2024.108437

Tan, L. P., Johnstone, M.-L., & Yang, L. (2016). Barriers to Green Consumption Behaviours: The Roles of Consumers' Green Perceptions. *Australasian Marketing Journal*, *24*(4), 288–299. https://doi.org/10.1016/j.ausmj.2016.08.001

Tewari, A., Mathur, S., Srivastava, S., & Gangwar, D. (2022). Examining the Role of Receptivity to Green Communication, Altruism and Openness to Change on Young Consumers' Intention to Purchase Green Apparel: A Multi-Analytical Approach. *Journal of Retailing and Consumer Services*, *66*, 102938. https://doi.org/10.1016/j.jretconser.2022.102938

Thøgersen, J., & Crompton, T. (2009). Simple and Painless? The Limitations of Spillover in Environmental Campaigning. *Journal of Consumer Policy*, *32*(2), 141–163. https://doi.org/10.1007/s10603–009–9101–1

Touré-Tillery, M., & Fishbach, A. (2018). Three Sources of Motivation. *Consumer Psychology Review*, *1*(1), 123–134. https://doi.org/10.1002/arcp.1007

Unkelbach, C., Koch, A., Silva, R. R., & Garcia-Marques, T. (2019). Truth by Repetition: Explanations and Implications. *Current Directions in Psychological Science*, *28*(3), 247–253. https://doi.org/10.1177/0963721419827854

Vainio, A., & Paloniemi, R. (2013). Does Belief Matter in Climate Change Action? *Public Understanding of Science*, *22*(4), 382–395. https://doi.org/10.1177/0963662511410268

Van Den Broek, K., Bolderdijk, J. W., & Steg, L. (2017). Individual Differences in Values Determine the Relative Persuasiveness of Biospheric, Economic and Combined Appeals. *Journal of Environmental Psychology*, *53*, 145–156. https://doi.org/10.1016/j.jenvp.2017.07.009

Veenhoven, R. (2012). Happiness: Also Known as "Life Satisfaction" and "Subjective Well-Being". In K. C. Land, A. C. Michalos, & M. J. Sirgy (Eds.), *Handbook of Social Indicators and Quality of Life Research* (pp. 63–77). Springer Netherlands. https://doi.org/10.1007/978–94–007–2421–1_3

Vladimirova, K. (2021). Consumption Corridors in Fashion: Deliberations on Upper Consumption Limits in Minimalist Fashion Challenges. *Sustainability: Science, Practice and Policy*, *17*(1), 102–116. https://doi.org/10.1080/15487733.2021.1891673

White, K., & Peloza, J. (2009). Self-Benefit versus Other-Benefit Marketing Appeals: Their Effectiveness in Generating Charitable Support. *Journal of Marketing*, *73*(4), 109–124. https://doi.org/10.1509/jmkg.73.4.109

Yadav, M., Gupta, R., & Nair, K. (2024). Time for Sustainable Marketing to Build a Green Conscience in Consumers: Evidence from a Hybrid Review. *Journal of Cleaner Production*, *443*, 141188. https://doi.org/10.1016/j.jclepro.2024.141188

Yu, M., Cao, D., & Tan, J. Y. (2019). Csr-Consumption Paradox: Examination of Uk Apparel Companies. *Journal of Fashion Marketing and Management: An International Journal*, *23*(1), 124–137. https://doi.org/10.1108/JFMM-02–2018–0021

Zabkar, V., & Hosta, M. (2013). Willingness to Act and Environmentally Conscious Consumer Behaviour: Can Prosocial Status Perceptions Help Overcome the Gap? *International Journal of Consumer Studies*, *37*(3), 257–264. https://doi.org/10.1111/j.1470–6431.2012.01134.x

Zavestoski, S. (2002). The Social–Psychological Bases of Anticonsumption Attitudes. *Psychology & Marketing*, *19*(2), 149–165. https://doi.org/10.1002/mar.10007

Zhang, X., Chen, K., & Li, S. (2024). The effects of green advertising appeal and message type on purchase intention. *Journal of Retailing and Consumer Services*, *81*, 104007. https://doi.org/10.1016/j.jretconser.2024.104007

Zhao, J., Huo, H., Wei, S., Han, C., Yang, M., Gupta, B. B., & Arya, V. (2024). Research on the matching effect between advertising appeal and product type on the purchase intention of organic food. *British Food Journal*, *126*(13), 162–181. https://doi.org/10.1108/BFJ-11–2023–1016

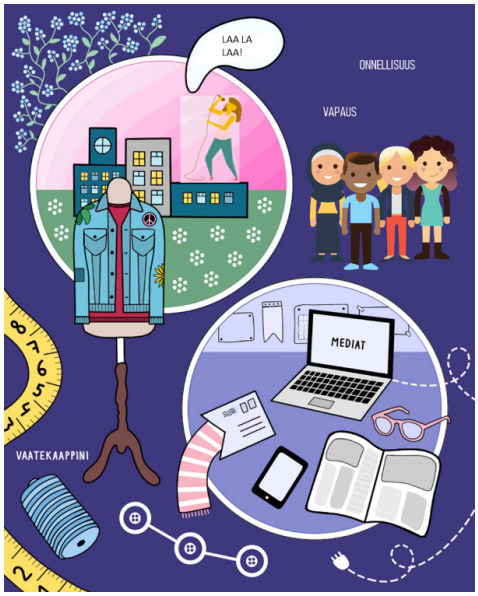
Ziesemer, F., Hüttel, A., & Balderjahn, I. (2021). Young People as Drivers or Inhibitors of the Sustainability Movement: The Case of Anti-Consumption. *Journal of Consumer Policy*, *44*(3), 427–453. https://doi.org/10.1007/s10603–021–09489-x

## Appendix 1: Game boards

### A. Game board Self

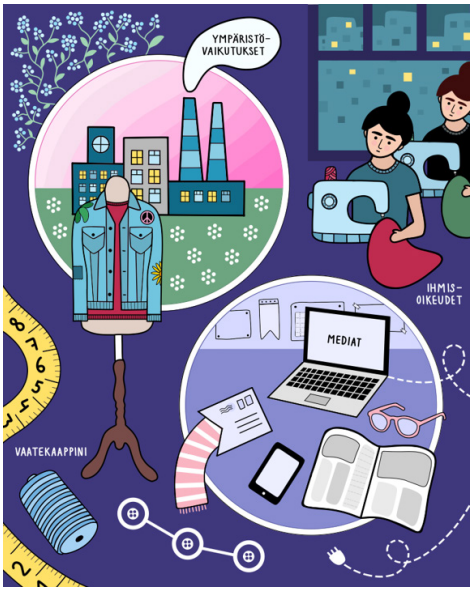
English translations of the texts:

(My wardrobe, happiness, freedom, media)




### B. Game board Other

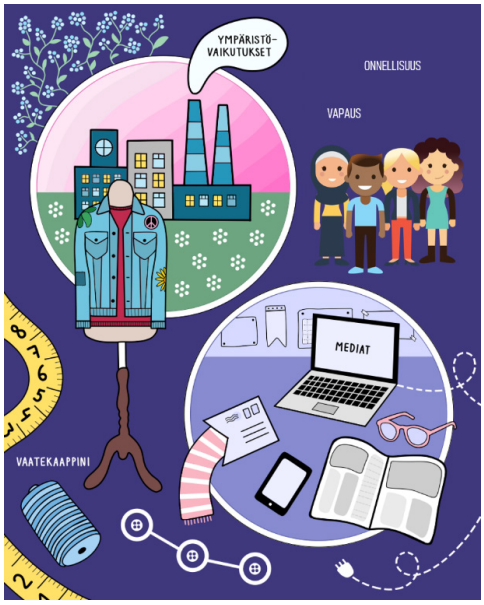
(My wardrobe, human rights, environment, media)




### C. Game board Combined

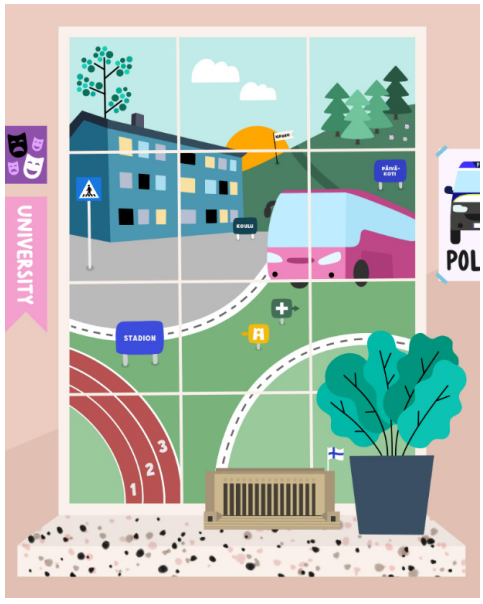
English translations of the texts:

(My wardrobe, happiness, freedom, environment, media)



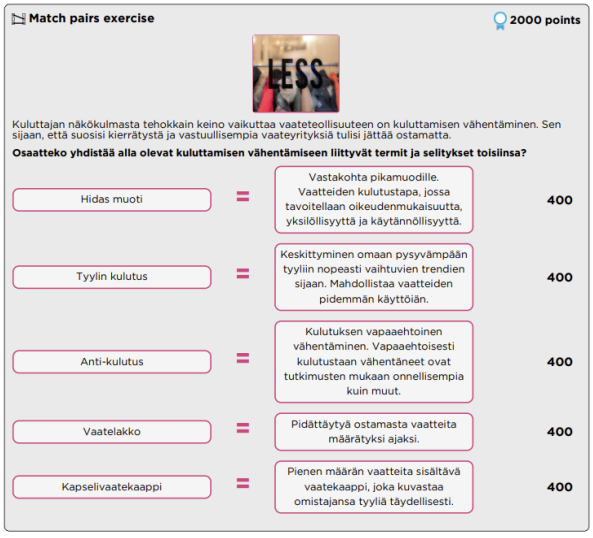

### D. Game board Control

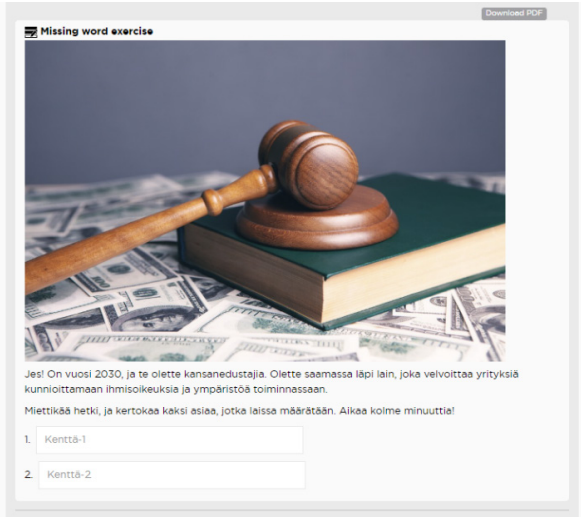
(Day-care center, church, school, stadium)



## Appendix 2: Examples of game exercises

### Other condition:

**English translation:**

There is a huge number of online stores that sell clothes. More and more clothes are bought online, but what are the advantages or disadvantages of ordering online? The pros and cons of ordering from online stores are listed below in random order.

Think about the statements and choose the ones that are negative aspects of online shopping.

• Easy to get anything you need

• Too easy to make unnecessary purchases

**• The environmental effects of transporting and returning orders**

• Ease of ordering (enables a shopping experience for many)

• Addictive pastime

From the consumer's point of view, the most effective way to **influence the clothing industry's issues is to reduce consumption.** Instead of favoring recycling and more responsible clothing companies, you should skip buying altogether.

Can you connect the terms and explanations below related to reducing consumption?

Slow fashion =

The opposite of fast fashion. A way of consuming clothes that strives for fairness, individuality, and practicality.

Consumption of style =

Focusing on your own more permanent style instead of fast-changing trends. Enables longer life of clothes.

Anti-consumption =

**Voluntary reduction of consumption.**

Clothes shopping detox=

Refraining from buying clothes for a certain period of time.

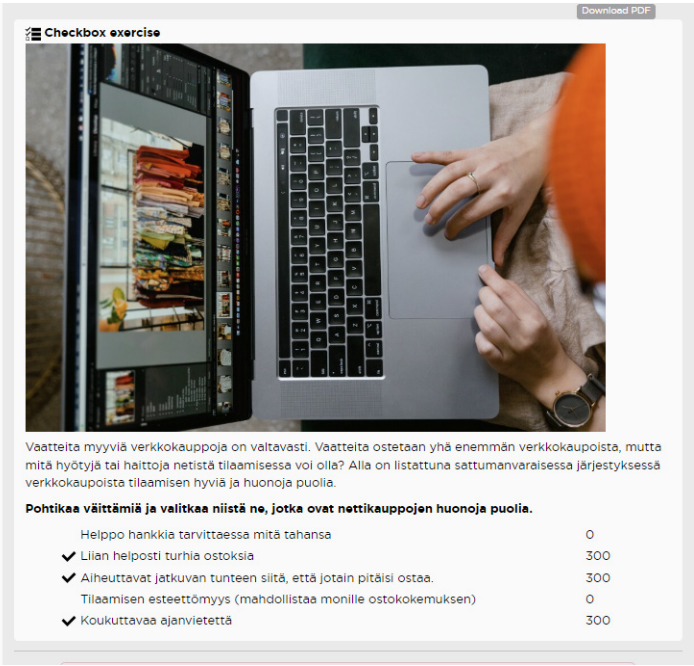
Capsule wardrobe =

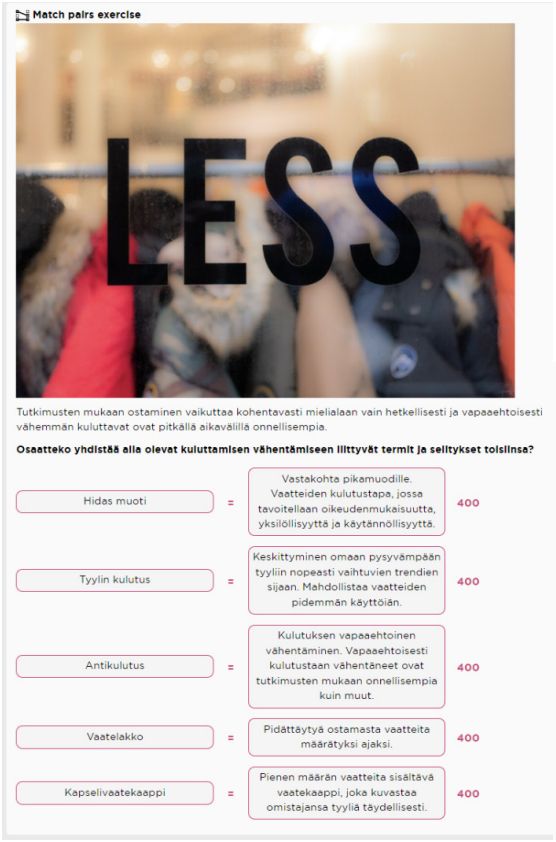
A wardrobe with a small amount of clothes that perfectly reflects the style of its owner.

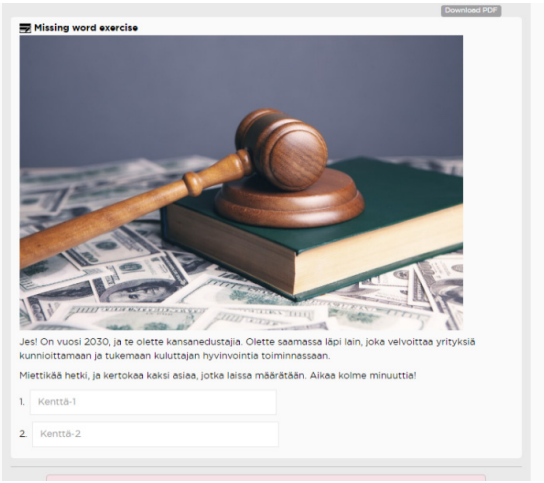
Yes! It is the year 2030, and you are MPs. You are about to pass a law that obliges companies to respect **human rights and the environment** in their operations.

Think for a moment, and come up with two things that you want to be regulated by the law. You have three minutes!

**Self-condition:**



**English translation:**

There is a huge number of online stores that sell clothes. More and more clothes are bought online, but what are the advantages or disadvantages of ordering online? The pros and cons of ordering from online stores are listed below in random order.

Think about the statements and choose the ones that are negative aspects of online shopping.

• Easy to get anything you need

• Too easy to make unnecessary purchases

**• Causes a constant feeling that something should be bought.**

• Ease of ordering (enables a shopping experience for many)

• Addictive pastime

**According to research, shopping improves mood only momentarily, and those who voluntarily consume less are happier in the long run.**

Can you connect the terms and explanations below related to reducing consumption?

Slow fashion =

The opposite of fast fashion. A way of consuming clothes that strives for fairness, individuality, and practicality.

Consumption of style =

Focusing on your own more permanent style instead of fast-changing trends. Enables longer life of clothes.

Anti-consumption =

Voluntary reduction of consumption. **According to studies, those who voluntarily reduced their consumption are happier than others.**

Clothing strike =

Refrain from buying clothes for a certain period of time.

Capsule wardrobe =

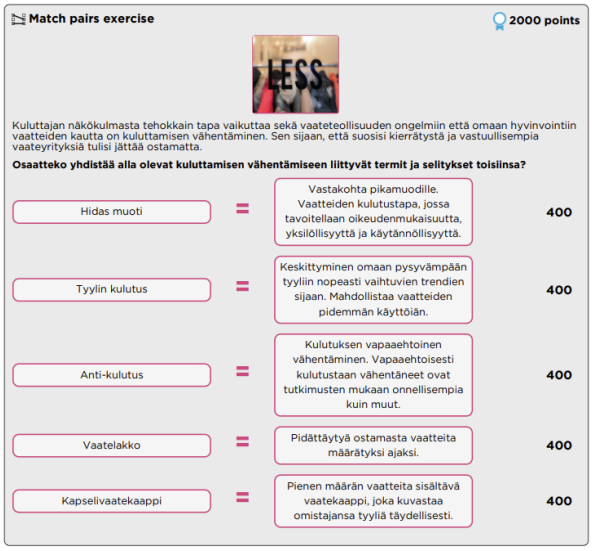
A wardrobe with a small amount of clothes that perfectly reflects the style of its owner.

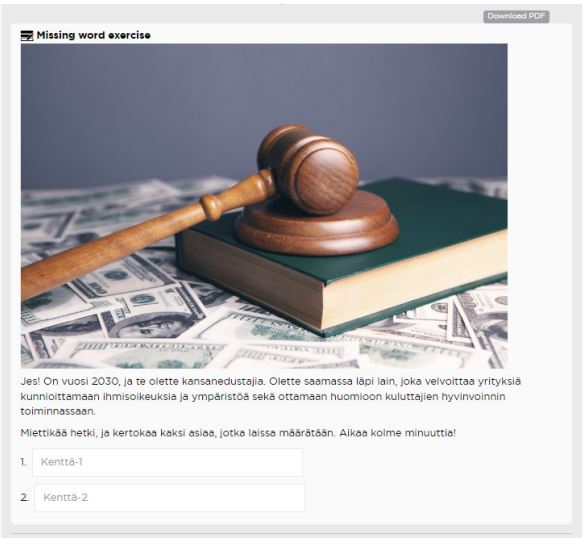
Hold companies responsible! (B)

Yes! It is the year 2030, and you are MPs. You are about to pass a law that obliges companies to respect and **support the well-being of consumers** in their operations.

Think for a moment, and come up with two things that are regulated by law. You have three minutes!

## Combined condition

**English translation:**

There is a huge number of online stores that sell clothes. More and more clothes are bought online, but what are the advantages or disadvantages of ordering online? The pros and cons of ordering from online stores are listed below in random order.

Think about the statements and choose those that are negative aspects of online shopping.

• Easy to get anything you need

• Too easily unnecessary purchases

**• The environmental effects of transporting and returning orders**

• Ease of ordering (enables a shopping experience for many)

**• Causes a constant feeling that something should be bought.**

According to research, **the most effective way to influence the problems of the clothing industry is to reduce consumption. According to studies, those who voluntarily consume less are also happier. Instead of favoring recycling and more responsible clothing companies, you should skip buying altogether.**

Can you connect the terms and explanations below related to reducing consumption?

Slow fashion =

The opposite of fast fashion. A way of consuming clothes that strives for fairness, individuality, and practicality.

Consumption of style =

Focusing on your own more permanent style instead of fast-changing trends. Enables longer life of clothes.

Anti-consumption =

Voluntary reduction of consumption. **According to studies, those who voluntarily reduced their consumption are happier than others.**

Clothing strike =

Refraining from buying clothes for a certain period of time.

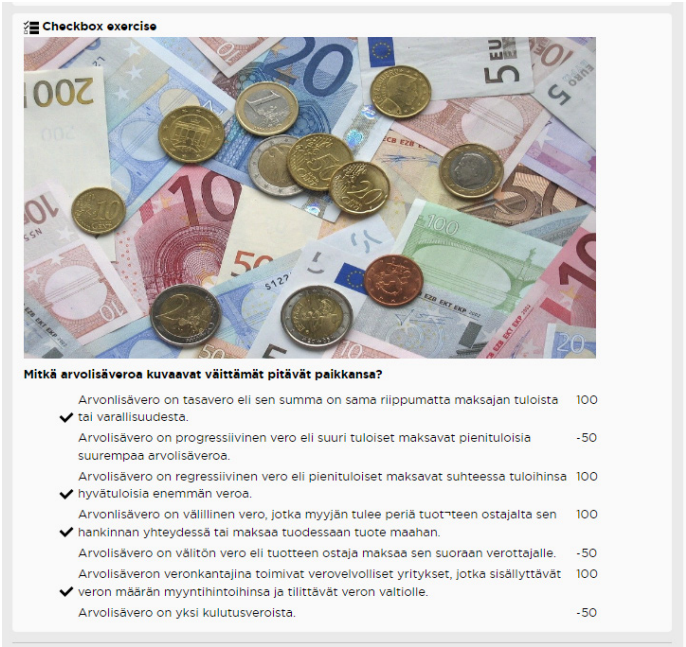
Capsule wardrobe =

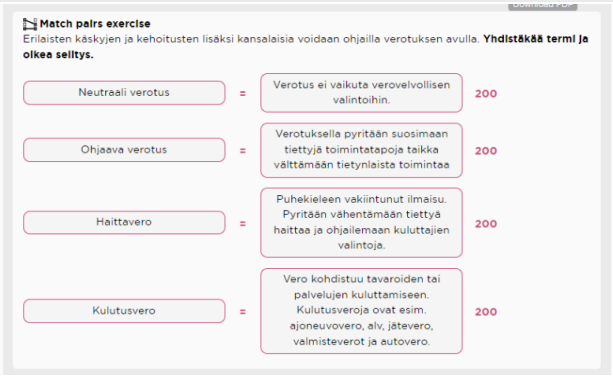
Hold companies responsible! (B)

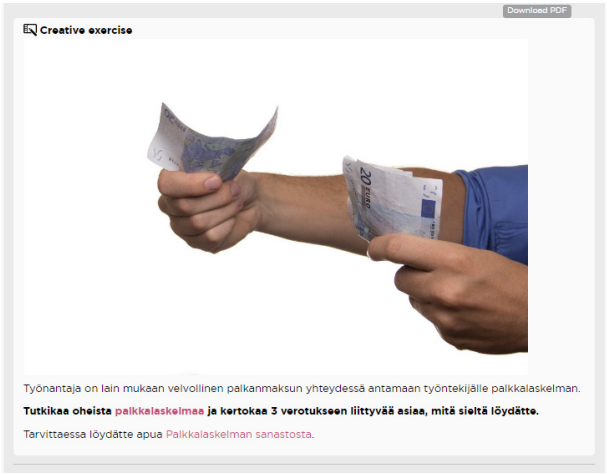
Yes! It is the year 2030, and you are MPs. You are about to pass a law that obliges companies to respect **human rights and the environment and to take into account the well-being of consumers** in their operations.

Think for a moment, and come up with two things that are regulated by law. You have three minutes!

## Control condition



**English translation:**

Which statements describing value-added tax are true?

• Value-added tax is a flat tax, i.e., the amount is the same regardless of the payer's income or wealth.

• Value-added tax is a progressive tax, i.e., high-income earners pay higher value-added tax than low-income earners.

• Value-added tax is a regressive tax, meaning low-income earners pay more tax than high-income earners relative to their income.

• Value-added tax is an indirect tax that the seller must collect from the buyer of the product when purchasing it or pay when importing the product into the country.

• Value-added tax is a direct tax, i.e., the buyer of the product pays it directly to the taxman.

• VAT taxpayers are taxable companies that include the amount of the tax in their sales prices and account for the tax to the state.

• Value-added tax is a consumption tax.

Directive and neutral taxation

In addition to various orders and exhortations, citizens can be guided by means of taxation. Match the term with the correct explanation.

Neutral taxation =

Taxation does not affect the taxpayer's choices.

Directive taxation =

Taxation aims to favor certain ways of operating or to avoid certain types of activities.

Impairment tax =

An established colloquial expression. Aims at reducing certain harm and at guiding consumers' choices.

Consumption tax =

The tax applies to the consumption of goods or services. Consumption taxes include, for example, vehicle tax, VAT, waste tax, excise duties and car tax.

Payroll and taxes

By law, the employer is obliged to give the employee a salary slip when paying the salary.

Study the attached salary slip and report three things related to taxation that you find.

If necessary, you can find help in the pay slip glossary.

**Appendix 3: Game feedback/filler questions**

Gamification in teaching / Feedback

1. How much do you agree or disagree with the following statements?

I strongly disagree=1 2 3 4 5 6 7=I strongly agree

The tasks were interesting

I learned new things through assignments

The assignments increased my interest in the issues covered

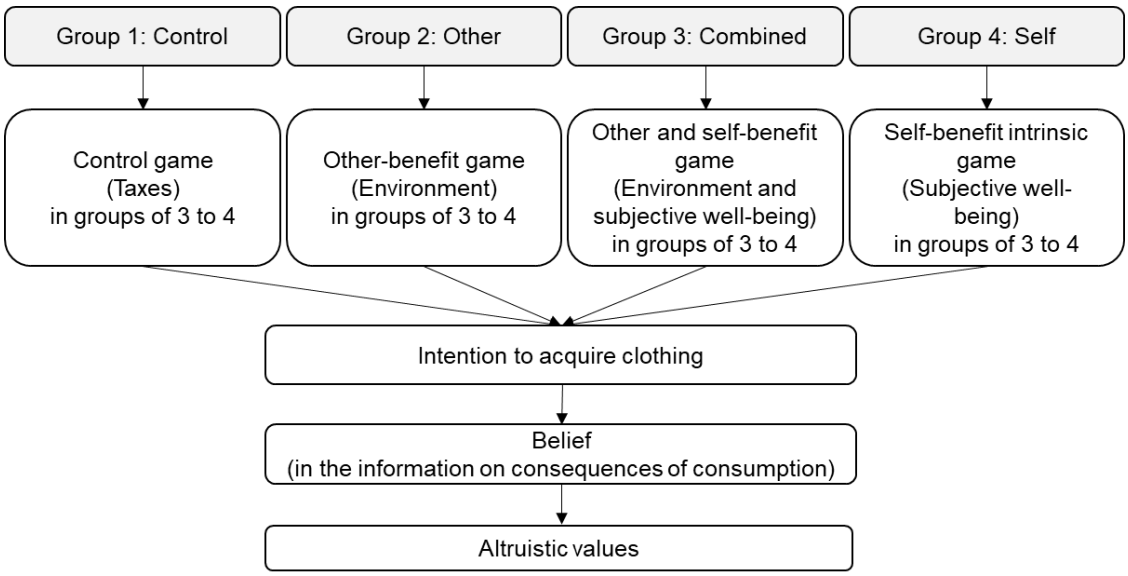
Learning in the form of a game was fun

Learning in the form of a game was difficult

The game platform was easy to use

Thank you for your feedback!

**Appendix 4: Study 1 Procedure**



## Appendix 5. Measurement Scales for Study 1

| ITEMS | *b* | α |
|---|---|---|
| INTENTION TO ACQUIRE CLOTHING | (Single item) | |
| **Estimate how many items you will acquire in the next year.** (Also include items purchased secondhand. Only include items purchased for yourself, not, for example, purchases for children.)<br>**Clothing** (including shoes, but not underwear, socks, accessories) | | |
| BELIEF | | |
| To what extent do you believe your consumption habits affect… (1=not at all, 7=To a great extent) | | |
| …your own well-being? | (Single item) | |
| …well-being of others? | (Single item) | |
| …well-being of the environment? | (Single item) | |
| SELF-TRANSCENDENCE ALTRUISTIC VALUES | | .833 |
| How important are the following values to you? (1=Not at all important, 7=Very important) | | |
| Equality: equal opportunity for all | .732 | |
| A world at peace: free of war and conflict | .68 | |
| Social justice: care for the weak | .822 | |
| Helpful: working for the welfare of others | .751 | |
| ENVIRONMENTAL-ALTRUISTIC VALUES | | .905 |
| How important are the following values to you? (1=Not at all important, 7=Very important) | | |
| Preventing pollution: protecting natural resources | .904 | |
| Respecting the earth: harmony with other species | .787 | |
| Unity with nature: fitting into nature | .769 | |
| Protecting the environment: preserving nature | .90 | |

## Appendix 6. Descriptive statistics for Study 1

| | Control | Other | Combined | Self | Total | | |
|---|---|---|---|---|---|---|---|
| **N** | **28** | **30** | **27** | **34** | **119** | | |
| | **Mean (SD)** | **Mean (SD)** | **Mean (SD)** | **Mean (SD)** | **Mean (SD)** | **F** | **Sig.** |
| **Year of Birth** | 2001.86 | 2001.37 | 2002.07 | 2002.24 | 2001.89 | 1.172 | 0.32 |
| | (1.82) | (2.88) | (1.14) | (1.44) | (1.9) | | |
| **Rurality** | 4.57 | 4.87 | 4.96 | 4.56 | 4.73 | .954 | 0.42 |
| | (1.1) | (1.28) | (1.02) | (1.13) | (1.1) | | |
| | **Freq.** | **Freq.** | **Freq.** | **Freq.** | **Freq.** | **Chi-Sq.** | **Sig.** |
| **Income** | | | | | | 17.551 | 0.49 |
| – 9 999 | 18 | 11 | 14 | 17 | 60 | | |
| 10 000–19 999 | 7 | 13 | 8 | 11 | 39 | | |
| 20 000–29 999 | 1 | 1 | 1 | 3 | 6 | | |
| 30 000–39 999 | 0 | 2 | 0 | 0 | 2 | | |
| 40 000–49 999 | 1 | 0 | 1 | 0 | 2 | | |
| 50 000–59 999 | 0 | 0 | 0 | 0 | 0 | | |
| 60 000–69 999 | 0 | 1 | 0 | 0 | 1 | | |
| 70 000– | 0 | 0 | 0 | 0 | 0 | | |
| Do not want to answer | 1 | 2 | 3 | 3 | 9 | | |
| **Education** | | | | | | 9.155 | 0.42 |
| Upper secondary school | 27 | 24 | 23 | 30 | 104 | | |
| Vocational school | 0 | 1 | 0 | 0 | 1 | | |
| University of Applied Sciences | 0 | 0 | 1 | 0 | 1 | | |
| University | 1 | 5 | 3 | 4 | 13 | | |
| **Gender** | | | | | | 0.111 | 0.99 |
| Female | 13 | 13 | 12 | 16 | 54 | | |
| Male | 15 | 17 | 15 | 18 | 65 | | |
| **Region** | | | | | | 4.254 | 0.89 |
| Helsinki and Uusimaa region | 3 | 3 | 3 | 3 | 12 | | |
| Southern Finland | 0 | 1 | 1 | 0 | 2 | | |
| Western Finland | 24 | 22 | 20 | 27 | 93 | | |
| Northern and Eastern Finland | 1 | 4 | 3 | 4 | 12 | | |

## Appendix 7. ANOVA results of Study 1

| | Control | | Other | | Com bined | | Int. Self | | Total | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| N | 28 | | 30 | | 27 | | 34 | | 119 | | | | |
| | Mean | SD | Mean | SD | Mean | SD | Mean | SD | Mean | SD | F | Sig. | df |
| INTENTION TO ACQUIRE CLOTHING | a 22.14 | 17.94 | b 9.77 | 5.70 | b 10.07 | 5.40 | b 12.65 | 12.49 | 13.57 | 12.48 | 7.04 | <.001 | 3 |

a, b = Significant difference between means

## Appendix 8.

Moderation analyses results by Moderator*Condition, Study 1

| Dependent variable | Moderator | *Other (*b*) | *Combined (*b*) | *Self (*b*) | $R^2$ change |
|---|---|---|---|---|---|
| **Intention to acquire clothes** | **Belief: Self** | -1.2916$^{ns}$ | -1.3654$^{ns}$ | **-4.6917*** | 0.0389$^{ns}$ |
| | **Belief: Env.** | **-5.3813**** | **-4.4548*** | **-6.6359***** | **0.0919**** |
| | **ST** | -.3083$^{ns}$ | -1.6824$^{ns}$ | -3.6618$^{ns}$ | 0.113$^{ns}$ |
| | **EA** | -3.7216$^{ns}$ | -4.0179$^{ns}$ | -2.1903$^{ns}$ | .0279$^{ns}$ |

$^{ns}$ = non-significant, * = p ≤ .05, ** = p ≤ .01, *** = p ≤ .001,

Decomposition of the moderation effects of Study 1

| | Other | | | Combined | | | Self | | |
|---|---|---|---|---|---|---|---|---|---|
| **Dependent variable / Moderator** | **-1SD** | **Mean** | **+1SD** | **-1SD** | **Mean** | **+1SD** | **-1SD** | **Mean** | **+1SD** |
| **Intention to acquire clothes / Belief: Env.** | -5.03$^{ns}$ | **-13.40***** | **-21.76***** | -6.14$^{ns}$ | **-13.07***** | **-19.99***** | 0.22$^{ns}$ | **-10.10***** | **-20.41***** |
| | [-1.28] | [-4.58] | [-5.02] | [-1.53] | [-4.36] | [-4.70] | [0.052] | [-3.54] | [-5.00] |

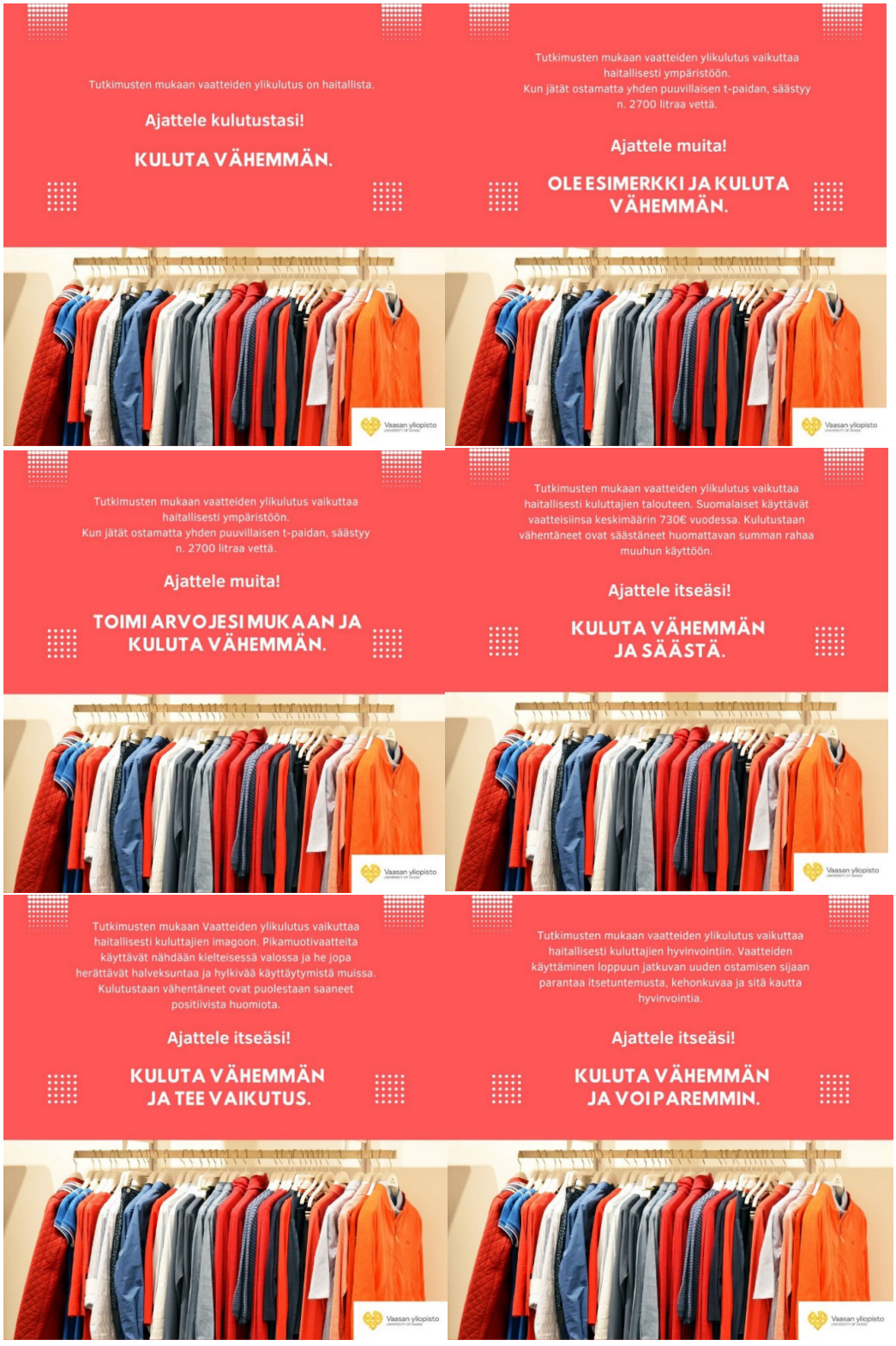
Observation points – 1 SD, Mean, + 1 SD.

[] = T statistics; ns = non-significant, * = p ≤ .05, *** = p ≤ .001.

## Appendix 9. Descriptive statistics for Study 2

| Condition | Control | Other-Ext (IM) | Other-Int (VAL) | Self-Ext1 (FIN) | Self-Ext2 (IM) | Self-Int (SWB) | Total | | |
|---|---|---|---|---|---|---|---|---|---|
| **N** | **88** | **97** | **100** | **90** | **86** | **85** | **546** | | |
| | **Freq.** | **Freq.** | **Freq.** | **Freq.** | **Freq.** | **Freq.** | **Freq.** | **Chi-Sq.** | **Sig.** |
| **Age** | | | | | | | | 10.401 | .960 |
| 18–24 | 12 | 10 | 12 | 14 | 8 | 8 | 64 | | |
| 25–34 | 18 | 24 | 19 | 20 | 19 | 18 | 118 | | |
| 35–44 | 21 | 245 | 23 | 18 | 21 | 19 | 126 | | |
| 45–54 | 15 | 21 | 23 | 13 | 17 | 23 | 112 | | |
| 55–65 | 22 | 18 | 23 | 25 | 21 | 17 | 126 | | |
| **Income** | | | | | | | | 58.413 | .351 |
| – 9 999 | 12 | 9 | 8 | 12 | 7 | 4 | 52 | | |
| 10 000–19 999 | 18 | 13 | 16 | 15 | 15 | 17 | 94 | | |
| 20 000–29 999 | 7 | 10 | 20 | 13 | 15 | 14 | 79 | | |
| 30 000–39 999 | 18 | 25 | 24 | 22 | 21 | 20 | 130 | | |
| 40 000–49 999 | 15 | 10 | 9 | 14 | 14 | 14 | 76 | | |
| 50 000–59 999 | 13 | 16 | 11 | 5 | 4 | 6 | 55 | | |
| 60 000–69 999 | 0 | 7 | 2 | 2 | 3 | 5 | 19 | | |
| 70 000–79 999 | 3 | 2 | 2 | 3 | 2 | 2 | 14 | | |
| 80 000–89 999 | 1 | 0 | 3 | 2 | 2 | 3 | 11 | | |
| 90 000- | 1 | 5 | 5 | 2 | 3 | 0 | 16 | | |
| **Education** | | | | | | | | 49.484 | .002 |
| No education | 0 | 0 | 1 | 0 | 0 | 0 | 1 | | |
| Comprehensive/ elementary school | 7 | 5 | 8 | 8 | 11 | 4 | 43 | | |
| Upper secondary school | 14 | 14 | 10 | 4 | 19 | 5 | 66 | | |
| Vocational school | 37 | 31 | 46 | 41 | 26 | 48 | 229 | | |
| University of Applied Sciences | 20 | 21 | 15 | 24 | 20 | 13 | 113 | | |
| University | 10 | 26 | 20 | 13 | 10 | 15 | 94 | | |
| **Gender** | | | | | | | | 4.819 | .4 |
| Female | 46 | 50 | 52 | 51 | 49 | 36 | 284 | | |
| Male | 42 | 47 | 48 | 39 | 37 | 49 | 262 | | |
| **Region** | | | | | | | | 13.638 | .553 |
| Helsinki and Uusimaa region | 30 | 38 | 27 | 24 | 24 | 33 | 176 | | |
| Southern Finland | 13 | 22 | 22 | 22 | 21 | 18 | 118 | | |
| Western Finland | 24 | 18 | 25 | 26 | 26 | 19 | 138 | | |
| Northern and Eastern Finland | 21 | 19 | 26 | 18 | 15 | 15 | 114 | | |

## Appendix 10. The posters




**Translation to English**

**Control:**

According to research, overconsumption is harmful.
-
Think about **your consumption**!
Consume less.

**Extrinsic Other-Benefit:**

According to research, overconsumption is harmful **to the environment.**
**By not buying one cotton t-shirt, you save approximately 2700 liters of water.**
Think about **others!**
**Be an example** and Consume less.

**Intrinsic Other-Benefit:**

According to research, overconsumption is harmful **to the environment.**
**By not buying one cotton t-shirt, you save approximately 2700 liters of water.**
Think about **others!**
**Act according to your values** and consume less.

**Extrinsic Self-Benefit 1:**

According to research, overconsumption is harmful **to your personal economy.**
**Finns spend an average of €730 per year on clothing. Those who have reduced their consumption have saved a significant amount of money for other uses.**
Think about **yourself!**
Consume less and **save money.**

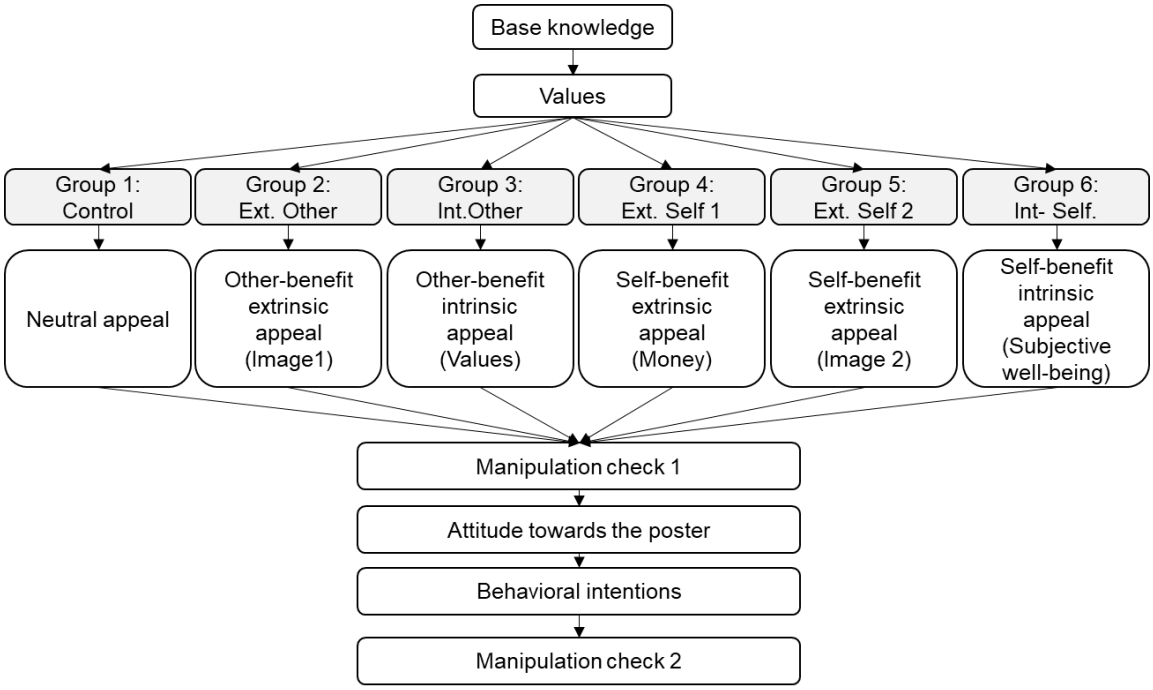
**Extrinsic Self-benefit 2:**

According to research, overconsumption is harmful **to your image.**
**People who wear fast fashion are seen in a negative light and even provoke contempt and rejection from others. Those who have reduced their consumption, on the other hand, have received positive attention.**
Think about **yourself!**
Consume less and **impress.**

**Intrinsic Self-Benefit:**

According to research, overconsumption is harmful **to your well-being.**
**Using clothes until they are worn out instead of constantly buying new ones improves self-awareness, body image, and thereby well-being.**
Think about **yourself!**
**Consume less and** feel better.

**Appendix 11: Procedure Study 2**


Base knowledge
Values
Group 1: Control
Group 2: Ext. Other
Group 3: Int.Other
Group 4: Ext. Self 1
Group 5: Ext. Self 2
Group 6: Int- Self.
Neutral appeal
Other-benefit extrinsic appeal (Image1)
Other-benefit intrinsic appeal (Values)
Self-benefit extrinsic appeal (Money)
Self-benefit extrinsic appeal (Image 2)
Self-benefit intrinsic appeal (Subjective well-being)
Manipulation check 1
Attitude towards the poster
Behavioral intentions
Manipulation check 2

## Appendix 12. Measurement scales for Study 2

| ITEMS | *b* | *α* |
|---|---|---|
| **PRIOR EXPOSURE TO INFORMATION: WELL-BEING (1=Not at all, 7=A lot)** | | .822 |
| Rate the amount of information about the effects of clothing consumption to your own well-being you have been exposed until today from mass media (mass media includes television, radio, newspaper and the Internet) | .838 | |
| Rate the amount of information about the effects of clothing consumption to your own well-being you have been exposed until today from clothing companies | .823 | |
| How often did you discuss about the effects of clothing consumption to your own well-being with family, friends or acquaintances | .689 | |
| **PRIOR EXPOSURE TO INFORMATION: ENVIRONMENT (1=Not at all, 7=A lot)** | | .771 |
| Rate the amount of information about the effects of clothing consumption to the environment you have been exposed until today from mass media (mass media includes television, radio, newspaper and the Internet) | .811 | |
| Rate the amount of information about the effects of clothing consumption to the environment you have been exposed until today from clothing companies | .657 | |
| How often did you discuss about the effects of clothing consumption to the environment with family, friends or acquaintances | .723 | |
| **PRIOR EXPOSURE TO INFORMATION: SAVING (1=Not at all, 7=A lot)** | | .783 |
| Rate the amount of information about the effects of clothing consumption to your financial situation you have been exposed until today from mass media (mass media includes television, radio, newspaper and the Internet) | .941 | |
| Rate the amount of information about the effects of clothing consumption to your financial situation you have been exposed until today from your clothing companies | .711 | |
| How often did you discuss about the effects of clothing consumption to your financial situation with family, friends or acquaintances | .603 | |
| **PRIOR EXPOSURE TO INFORMATION: IMAGE (1=Not at all, 7=A lot)** | | .862 |
| Rate the amount of information about the effects of clothing consumption to your image you have been exposed until today from mass media (mass media includes television, radio, newspaper and the Internet) | .878 | |
| Rate the amount of information about the effects of clothing consumption to your image you have been exposed until today from clothing companies | .866 | |
| How often did you discuss about the effects of clothing consumption to your image with family, friends or acquaintances | .726 | |
| **SELF-TRANSCENDENCE ALTRUISTIC VALUES** | | .804 |
| **How important to you are the following values? (1=Not at all important, 7=Very important)** | | |
| Equality: equal opportunity for all | .702 | |
| A world at peace: free of war and conflict | .631 | |
| Social justice: care for the weak | .820 | |
| Helpful: working for the welfare of others | .700 | |
| **ENVIRONMENTAL-ALTRUISTIC VALUES** | | |
| **How important to you are the following values? (1=Not at all important, 7=Very important)** | | .884 |
| Preventing pollution: protecting natural resources | .828 | |
| Respecting the earth: harmony with other species | .804 | |
| Unity with nature: fitting into nature | .772 | |
| Protecting the environment: preserving nature | .833 | |
| **MANIPULATION CHECK 1** | | |
| **While looking at the campaign poster, to what extent does it address (1=not at all, 7=To a great extent)** | | |
| subjective well-being of the consumers | (Single item) | |
| consumer savings | (Single item) | |
| the environment | (Single item) | |
| consumers' image | (Single item) | |
| **ATTITUDE TO THE POSTER** | | .932 |
| **While looking at the campaign poster, to what extent do you agree or disagree on a scale of 1 to 7 with the following claims** | | |
| I liked this poster's message | .900 | |
| I think the message of this poster is good | .848 | |
| The message of this poster appeals to me | .864 | |
| The message of this poster is believable to me | .820 | |
| I find this poster's message relevant to me | .850 | |
| **BEHAVIORAL INTENTIONS** | | .889 |
| **While looking at the campaign poster, to what extent do you agree or disagree on a scale of 1 to 7 with the following claims** | | |
| This poster's message could make me reduce my clothing consumption | .797 | |
| I could forward the poster's message to my friends | .848 | |
| This poster's message could make me recommend my friends to reduce their clothing consumption | .917 | |
| **ESTIMATED CHANGE IN CLOTHING CONSUMPTION** | | |
| **Estimate how much your consumption in the following product groups will change compared to the previous calendar year. (1=Decreases by 50% or more, 2= -25%, 3= -10%, 5=No change, 5+10%, 6=+20%, 7=Increases by 50% or more)** | | |
| Clothes (including shoes, excluding underwear, socks, accessories) | (Single item) | |
| **MANIPULATION CHECK 2** | | |
| **Please tell/ Do you still recollect what the core message of the campaign poster you saw was?** | (Choose one) | |
| **The effects of clothing consumption on…** | | |
| subjective well-being of the consumers | | |
| consumer savings | | |
| the environment | | |
| consumers' image | | |

## Appendix 13. ANCOVA results of Study 2

| Condition | Control | Ext. Other (Image 1) | Int. Other (Values) | Ext. Self 1 (Money) | Ext. Self 2 (Image 2) | Int.Self (SWB) | | | |
|---|---|---|---|---|---|---|---|---|---|
| N | 88 | 100 | 101 | 90 | 86 | 87 | | | |
| | Mean [SE] | Mean [SE] | Mean [SE] | Mean [SE] | Mean [SE] | Mean [SE] | F | Sig. | df |
| ATTITUDE | 4.168 [.154] | 4.805 [.147] | 4.246 [.144] | 4.327 [.153[ | 3.617 [.157] | 4.308 [.157] | 6.186 | <.001 | 5, 536 |
| BEHAVIORAL INTENTION | 3.566 [.167] | 4.199 [.159] | 3.733 [.156] | 3.871 [.165] | 3.179 [.169] | 3.975 .[17] | 4.493 | <.001 | 5, 536 |
| ESTIMATED CHANGE IN CLOTHING CONSUMPTION | 3.891 [.118] | 3.710 [.113] | 3.677 [.11] | 3.839 [.117] | 3.886 [.12] | 3.581 .[12] | 1.145 | .336 | 5, 536 |

## Appendix 14.

Moderation analyses results of Study 2 by Moderator*Condition

| Dependent variable | Moderator | Ext. Other (IM1) (*b*) | Int. Other (VAL) (*b*) | Ext. Self 1 (FIN) (*b*) | Ext. Self 2 (IM2) (*b*) | Int. Self (SWB) (*b*) | $R^2$ change |
|---|---|---|---|---|---|---|---|
| ATTITUDE | **PPEI: WB** | -.2595$^{ns}$ | .0548$^{ns}$ | -.1494$^{ns}$ | -.0752$^{ns}$ | -.0938$^{ns}$ | .0085$^{ns}$ |
| | **PPEI: ENV** | -.2098$^{ns}$ | .0771$^{ns}$ | -.1912$^{ns}$ | -.1245$^{ns}$ | .1354$^{ns}$ | .0133$^{ns}$ |
| | **PPEI: FIN** | -.0365$^{ns}$ | -.0902$^{ns}$ | -.0519$^{ns}$ | -.0583$^{ns}$ | .0788$^{ns}$ | .0021$^{ns}$ |
| | **PPEI: IM** | -.1149$^{ns}$ | .0093$^{ns}$ | -.0249$^{ns}$ | -.0625$^{ns}$ | .0148$^{ns}$ | .0021$^{ns}$ |
| | **ST** | .1710$^{ns}$ | .1528$^{ns}$ | 0259$^{ns}$ | -.0656$^{ns}$ | .0343$^{ns}$ | .0058$^{ns}$ |
| | **EA** | .0089$^{ns}$ | .1467$^{ns}$ | -.0080$^{ns}$ | .0749$^{ns}$ | -.0114$^{ns}$ | .0044$^{ns}$ |
| BEHAVIORAL INTENTION | **PPEI: WB** | -.1602$^{ns}$ | .0421$^{ns}$ | -.0407$^{ns}$ | -.0542$^{ns}$ | -.0703$^{ns}$ | .0029$^{ns}$ |
| | **PPEI: ENV** | -.0429$^{ns}$ | .0940$^{ns}$ | .0799$^{ns}$ | -.0105$^{ns}$ | .1904$^{ns}$ | .0042$^{ns}$ |
| | **PPEI: FIN** | -.0396$^{ns}$ | -.1703$^{ns}$ | .0889$^{ns}$ | -.0552$^{ns}$ | .0771$^{ns}$ | .0054$^{ns}$ |
| | **PPEI: IM** | -.1430$^{ns}$ | -.0941$^{ns}$ | .0592$^{ns}$ | .0518$^{ns}$ | -.0097$^{ns}$ | .0035$^{ns}$ |
| | **ST** | .1429$^{ns}$ | .2879$^{ns}$ | .1867$^{ns}$ | -.0115$^{ns}$ | .2042$^{ns}$ | .0091$^{ns}$ |
| | **EA** | .0695$^{ns}$ | **.2850*** | .1489$^{ns}$ | .1526$^{ns}$ | .0827$^{ns}$ | .0092$^{ns}$ |
| **ESTIMATED CHANGE IN CLOTHING CONSUMPTION** | **PPEI: WB** | -.0935$^{ns}$ | -.0782$^{ns}$ | -.0055$^{ns}$ | -.1965$^{ns}$ | **-.3833**** | **.0210*** |
| | **PPEI: ENV** | .0172$^{ns}$ | -.0741$^{ns}$ | .0732$^{ns}$ | -.0702$^{ns}$ | **-.2521*** | .0134$^{ns}$ |
| | **PPEI: FIN** | -.0175$^{ns}$ | -.1447$^{ns}$ | -.0204$^{ns}$ | -.1064$^{ns}$ | **-.2709*** | .0109$^{ns}$ |
| | **PPEI: IM** | .0013$^{ns}$ | -.1192$^{ns}$ | -.0256$^{ns}$ | -.0827$^{ns}$ | **-.2242*** | .0106$^{ns}$ |
| | **ST** | -.1515$^{ns}$ | -.1386$^{ns}$ | -.0872$^{ns}$ | .0887$^{ns}$ | -.1246$^{ns}$ | .0102$^{ns}$ |
| | **EA** | -.0475$^{ns}$ | -.1339$^{ns}$ | .0370$^{ns}$ | .0467$^{ns}$ | -.1014$^{ns}$ | .0098$^{ns}$ |

$^{ns}$ = non-significant, * = p ≤ .05, ** = p ≤ .01, *** = p ≤ .001,
PPEI=Perceived Prior Exposure to Information
Covariantes: age, gender, education, income

Decomposition of the moderation effects of prior exposure to information about well-being effects of clothing consumption

| Self-Int (WB) | -1SD | Mean | +1SD |
|---|---|---|---|
| **PEI: WB** | .210$^{ns}$ | -.299$^{ns}$ | **-.807***** |
| | [.882] | [-1.780] | [-3.435] |

Observation points – 1 SD, Mean, + 1 SD.
[] = T statistics; ns = non-significant, * = p ≤ .05, *** = p ≤ .001
PEI=Prior Exposure to Information
Covariantes: age, gender, education, income