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Saniyat Islam,  
MIT University, Australia

## \*CORRESPONDENCE

Cecilia Solér  
cecilia.soler@handels.gu.se

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# Towards an embodied understanding of the sustainability of consumer choice—the case of fashion shopping

Cecilia Solér\*

School of Business, Economics and Law, University of Gothenburg, Gothenburg, Sweden

This conceptual article uses an embodied theoretical lens to describe how consumption and shopping are bodily activities shaped by marketplaces. This article contributes to research on sustainable consumption in general and research on sustainable shopping in particular. The social and situated embodiment perspective highlights how sociomaterial marketplace elements configure shopping outcomes. The context of fashion shopping is used, and this article shows how an embodied view of shopping can increase our understanding of unsustainable shopping practices and promote shopping for sustainable products. This article aims to enrich the structural strand of sustainable consumption research by describing how the sustainability of individual shopping can be understood as skills and dispositions acquired within, or in relation to, marketplace activities and discourses. This suggests that current Western unsustainable fashion shopping practices, characterized by excessive consumption, change only if supply and communication practices in the fashion marketplace change.

## KEYWORDS

shopping, fashion, marketplace, embodiment, learning

## Introduction

This conceptual article describes how the concept of embodiment can contribute to research on sustainable consumption by highlighting how shopping as an embodied experience is shaped by the shopping marketplace. An embodied view recognizes that shopping practices reflect consumer dispositions to purchase goods and services—dispositions that to a large extent are produced and sustained by social and material elements (such as marketing communication relating specific brands to specific lifestyles and the supply of specific goods) in marketplaces.

Using the example of fashion shopping, this article illuminates how an embodied view of shopping can enrich our understanding and competence in promoting the shopping of sustainable products and, as in the case of fashion, endorse reduced shopping of novel garments.

The fashion industry faces considerable sustainability challenges as a large polluter that causes contamination of water and soil, emissions of greenhouse gases, water shortages, and social injustices (Niinimäki et al., 2020). The characteristics of fashion marketplaces and those most recognized in fast-fashion marketplaces are combinations of low-priced items with frequent product updates (Ertekin and Atik, 2015). The literature on sustainable fashion (SF) as “a broad term for clothing and behaviors that are in some way less damaging to people and/or the planet” (Mukendi et al., 2020, p. 2,873) has identified the change in shopping habits as a key research topic that needs to be addressed.

The embodied conceptualization of fashion shopping as a learned bodily response to fashion marketplaces departs from assumptions of the bodily location of perception and knowledge (Merleau-Ponty, 1962; Claycomb and Mulberry, 2007). Shopper perception is based on previous marketplace experience in as much as previous experience conditions perception (Merleau-Ponty, 1962). In essence, an embodied view of fashion shopping represents a relational view of shopping and retail environments where skills needed to shop are acquired by shopper bodies in the marketplace (Gallagher, 2005)—both as thinking and doing and in terms of the sensory experiences of seeing, hearing, touching, and feeling. This view builds on assumptions of reciprocity between the activities/structures in such environments and how shopping is experienced by shoppers (Yakhlef, 2015).

Following from the embodied view, mind-focused research efforts to understand why consumers do or do not engage in SF shopping (such as behavioral gap studies, see Shove, 2010) are unlikely to succeed (Yakhlef, 2015). From an embodied perspective, efforts to promote sustainable garments through information provision, such as eco-labeling, will not lead to any major changes in fashion shopping (Iraldo et al., 2020). The sustainable consumption literature indicates that branding discourses and subsequent competition in design and valued subjectivities structure value creation in the fashion industry (Moisander et al., 2010; Sheth et al., 2011; Solér et al., 2015). This body of the literature rarely recognizes the combined effects of marketplace practices (such as product supply/design and advertising/branding) on the promotion of sustainable shopping.

This article contributes to the sustainable consumption literature by advancing the position that purchasing sustainable products is predominantly a matter of marketplace performativity as such purchasing is shaped and circumscribed by supply and market communication practices in the marketplace which create shopper dispositions to buy certain products. Here, it is important to note that the marketplace is defined in a broad sense, including commercial and social interactions related to purchasing. For fashion shopping contexts, social media interactions as well as popular culture-related interactions that provide fashion meanings and showcase novel outfits are part of the broadly defined fashion marketplace.

The relevant literature on sustainable shopping includes the study of both macrolevel structures and microlevel meaning making (Schor, 2005; Røpke, 2009; Moisander et al., 2010; Varey, 2010; e.g. Halkier, 2013; Welch and Warde, 2015). The consumer body is absent in these bodies of literature except for discussion of how consumption/work activities compete for bodily time (Røpke, 2009). This article fills this gap in the sustainable consumption literature by using the theoretical lens of embodiment, which provides a framework for situating shopping inside the shopping context experienced by shopper bodies. The aim of this article is 2-fold: to (1) conceptualize shopping (using the context of fashion shopping) as an embodied experience and (2) outline the implications of an embodied view for the promotion of sustainable shopping.

This article adds to a structural view on how individual shopping can change. Similar to nudging literature, the embodied understanding assigns agency to the material and social environment (Thaler and Sunstein, 2009). The nudging assumption of choice architecture refers to “the informational or physical structure of the environment which influences the way in which choices are made” (Lehner et al., 2016, p. 167). Nudging tools used to promote sustainable purchasing include changing the design of retail environments and drawing attention to social norms (Thaler and Sunstein, 2009). The embodiment of perception rests on assumptions about material and social agency that are different from those on which nudging theory rests. Nudging theory follows Kahneman’s (2011) theory of two different systems of thinking: one automatic and intuitive and one slow and deliberate. Based on this theoretical assumption, conclusions have been drawn that human behavior can change without changes in people’s minds (Lehner et al., 2016). From the non-dualist embodiment perspective, it follows that any human experience—of nudging or any other feature in social or physical environments—leads to body–mind learning and dispositions to act (Dreyfus, 2002). These differences in how social–material environments influence individual sustainable consumer behavior have consequences for understanding and promoting sustainable shopping.

The first contribution of this article is the conceptualization of (fashion) shopping as learned skills and dispositions. Fashion shopping is an activity that is learned in the fashion marketplace. Using embodiment vocabulary, sociomaterial retail environments “afford” certain individual actions (Gibson, 1979). This article suggests that fashion marketplace affordances and fashion shopper bodily skills develop in tandem.

The second contribution of this article adds to the scientific critique of the relevance of attitude–behavior gap research (Shove, 2010) for the purpose of promoting shopping for sustainable products. The relational view of the shopper and the shopping marketplace, represented by the embodied perspective, questions the potential uses of the behavioral gap body of sustainable consumption research (Lönqvist et al., 2013; Steg et al., 2014; Davies and Gutsche, 2016) and suggests

that it downplays research on marketplace structures. Thus, this article challenges the dominance of cognitive solution-oriented research, such as the SHIFT framework (White et al., 2019). Rather, it proposes that an embodied view that situates the responsibility for sustainable shopping in marketplaces is a powerful tool for realizing sustainable consumption (Sheth et al., 2011).

This article is organized as follows. First, a review of the research relevant to sustainable shopping outlines how the body is missing in these studies. In the second part, the ontological position of embodiment and how it has guided the literature that forms the basis for the embodied conceptualization of fashion shopping are described. Third, the results are presented as an embodied understanding of shopping using the example of fashion shopping. In the fourth section, implications for the promotion of sustainable shopping are discussed. In the concluding section, conclusion for the sustainable consumption literature in general is discussed.

## Literature review of embodied shopper experience in sustainable consumption literature

The literature relevant to sustainable shopping includes both the study of macrolevel structures and microlevel knowledge and meaning. The literature on dominant shopping marketplace structures, such as advertising, branding, and supply and pricing practices, and studies of structural lock-in mechanisms in consumer cultures (such as those related to the material intensity of consumption and working hours) provide valuable insights into why—despite climate change and increasing biodiversity losses—unsustainable shopping practices are sustained (e.g. Schor, 2005; Röpke, 2009; Moisander et al., 2010; Varey, 2010; Solér et al., 2015). Practice theory-oriented studies on sustainable consumption are categorized as macrolevel understandings of sustainable consumption, as “the practice turn” emphasizes the collective and routine character of consumption (Halkier, 2013). As theories of practice downplay individual agency and offer explanations of (un) sustainable consumption based on sociocultural and material systems of infrastructures, innovation, routines, and understandings (Welch and Warde, 2015), there is little room for bodily agency. Practice-oriented accounts of sustainable consumption discuss the body mainly in terms of bodily time spent performing various competing social practices, not as an organism acting within an experienced lifeworld (Röpke, 2009; Shove et al., 2012; Wilhite, 2012).

Individualistic approaches to sustainable consumption, such as the cognitive-based environmental psychology literature, focus on attitudes and values to explain proenvironmental

consumer behavior (Stern, 2000; Tanner and Wölfling Kast, 2003; Bamberg and Möser, 2007). Cognitive constructs, such as attitudes and values, are contested as indicators of proenvironmental consumer choice, and this phenomenon has been labeled the attitude–behavior gap (Vermeir and Verbeke, 2006; Gupta and Ogden, 2009; Young and Middlemiss, 2012), the knowledge-to-action gap (Markkula and Moisander, 2012), or the value–action gap (Shove, 2010; Steg, 2015). One explanation for such gaps is put forward by Linda Steg: Only consumers whose proenvironmental values are activated and supported are likely to engage in sustainable consumption (Steg and Vlek, 2009; Steg, 2015).

The culturally informed strand of sustainable consumer research is concerned with consumers’ perceptions of sustainable consumption as part of identity making (Autio et al., 2009; Cherrier et al., 2012). This stream of research is equally based on cognitive/narrative constructs, such as meaning and discursively described emotion. This stream departs from consumer discourse and ideology and describes how consumers balance environmental awareness and social affiliation through consumption (Thompson and Haytko, 1997; Belk et al., 2003; Roux and Korchia, 2006; Connolly and Prothero, 2008; Autio et al., 2009; Markkula and Moisander, 2012; Mikkonen et al., 2013).

In both of these cognitively biased streams of research (focusing on macrolevel structures or microlevel knowledge and meaning), sustainable purchasing practices, including reduced or alternative consumption, are viewed as a means of identification or enacting proenvironmental values within the dominant cultural codification system (Prothero and Fitchett, 2000; Dolan, 2002; Connolly and Prothero, 2008; Autio et al., 2009; Prothero et al., 2010; Abrahamse and Steg, 2013; Steg, 2015). The body is missing as the site for thoughts and emotions. An embodied perspective on the sustainability of shopping has the potential to clearly outline how shopper bodies (including their minds) are influenced by marketplace structures and cultures through bodily encounters in marketplaces. This article fills an important gap in the sustainable consumption literature relevant to the purchasing of sustainable products and services by describing how, in the context of fashion shopping, marketplace supply and communicating practices shape the fashion shopper experience.

## Methods and materials

As noted above, the embodied conceptualization of fashion shopping implies an interactive relationship between this kind of shopping and the sociomaterial fashion marketplace that create shopper dispositions to act. Prior embodied shopping research strongly focuses on how retail environments shape shopper sensory experiences and invite imagination and meaning making (Penaloza, 1998; Kozinets et al., 2002;

Borghini et al., 2009; Stevens et al., 2019). For example, embodiment is the understanding of how “sensory attributes of products, advertisements, and retail spaces influence consumers’ thoughts, feelings, and decisions” (Krishna and Schwarz, 2014, p. 162). According to Gärtner (2013), these studies represent an intelligible embodiment approach that describes how bodily sensory encounters shape shopper perception. This article represents a situated and socially embodied approach (Gärtner, 2013) where marketplace material set-ups, sensory stimuli, *as well as* social norms shape shopper perception and product choice. In line with this thinking, two broad categories of literature—marketing literature *and* consumer studies relevant for fashion shopping—were collected and screened. First, bodies of marketing literature were screened for research on the sociomaterial characteristics of fashion shopping marketplaces (defined in the broad sense, including social interactions and consumer culture ideology). These bodies of marketing literature include branding, brandscapes, fashion marketing, retail marketing, experiential marketing, and critical marketing. Second, bodies of literature were screened for fashion shopper experiences, including consumer culture/material culture studies and retail therapy research, as well as a wide range of psychological studies on environmental psychology, materialism, information processing and information overload, compulsive consumption, and compensatory consumption. The screening process aimed to collect articles that contributed to an empirically based and/or fine-grained understanding of how fashion items are supplied and communicated in the fashion marketplace *and* how fashion marketplaces are experienced by fashion shoppers. Thus, articles were collected based on their relevance for an embodied analysis of *links* between marketing practices (the communication of a continuous supply of novel garments) in fashion marketplaces *and* fashion shopper experiences. The analysis of relevant articles follows the assumed relationship of reciprocity between shoppers’ direct experience in fashion marketplaces and their perception of such marketplaces. Hence, relevant articles were analyzed with the aim of *uncovering themes* regarding how (combinations of) marketing practices are linked to shopper experience and buying behavior. The embodied account of fashion shopping below is organized to bridge the sociomaterial characteristics of fashion shopping marketplaces *with* the shopper experience of socially valued and desirable novel fashion.

This article adds a performative understanding to the sustainable consumption and sustainable shopping literature. Such a view essentially describes that marketing activities have formative effects on shopper motivation. The embodied understanding of fashion shopping can be used to inform the promotion of sustainable shopping using combinations of supply and communication practices. However, there is a need to empirically validate the exact links between combinations of marketing practices and outcomes in

terms of shopper experience and buying behavior. The limitations of this novel theoretical perspective adhere to the variations in individual shopper experiences inherent in the phenomenological view on perception. The methods suitable for studying links between marketing practice and shopper perception and buyer behavior in shopping marketplaces are limited.

## Results

The context of fashion shopping provides ample scientific evidence of *links* between fashion shopping marketplace characteristics, such as communication of a continuous supply of novel garments in fashion marketplaces, *and* fashion shopper experiences.

### Fashion shopping marketplace characteristics

Fashion marketplaces are characterized by seasonal trends and frequent style modifications through launches of new collections or products (Ertekin and Atik, 2015). Product replacement, as a specific type of product development, is used by the fashion industry to create consumers’ desire to constantly update their wardrobes (Moisander et al., 2010). Fast-fashion brands work intensively with product replacement, and the number of clothing collections compared with that in pre-2000 has doubled, resulting in a 2% yearly increase in clothing production (Niinimäki et al., 2020).

Most recognized in fast-fashion marketplaces, but an intimate part of all fashion marketplaces is the communication of fashion items using idealized ideals. Fashion updates are represented as part of new and up-to-date lifestyles that create a desire in consumers to continuously update their fashion arsenal (Cline, 2012). The psychological literature provides evidence of the impact of such marketplace practices on shopper motivation. Marketplaces endowed with culturally valued continuous product updates, such as fashion marketplaces, trigger a restless search for the “right outfit” or the “right arsenal of products” (Clarke and Miller, 2002; Woodward, 2006). In the fashion shopping marketplace, which in a broad sense includes not only retail environments but also social interactions related to what fashion items to shop for (including social media as well as in printed and broadcasted media), the social and cultural values of novel fashion items are constantly presented. The social value of novelty can take the form of vintage or remade garments but is most commonly represented in fast-fashion marketplaces. Conventional advertising practices and influencers, popular culture representatives, and journalists play an important role in performing novel fashion shopping as an intimate part of

a socially and culturally updated lifestyle (e.g. [Shin and Lee, 2021](#)). The performative character of branding and advertising practices in the fashion shopping marketplace shapes the shopper experience by engaging shoppers in a constant search for novel, idealized identities materialized as novel fashion items ([Arvidsson, 2005](#); [Caruana and Crane, 2008](#)). Theoretically, such marketing practices are built on the governance of shopper free will by positioning novel fashion garments as socially valued ideals ([Arvidsson, 2005](#); [Moisander et al., 2010](#)).

The frequency with which novel fashion items are launched on the market and the use of idealized imagery and digital marketing techniques create an intense sensory atmosphere. The sensory input-rich properties of physical fashion retail environments, including music, color, scent, personnel, and other customers, provide shoppers' bodies with sensory experiences that have overloading properties ([Solér, 2018](#)). In digital retail environments, brands engage in constant efforts to increase consumers' brand-related activities ([Cova et al., 2011](#)). The use of tailored and algorithm-based pop-up/pop-under advertising is an example of how intense sensory information is provided in fashion marketplaces ([Schmitt, 1999](#); [Tynan and McKechnie, 2009](#)) "in forms with which our senses and prior experiences are ill-equipped to deal" ([Bawden and Robinson, 2009](#), p. 5).

## Fashion shopper experience: Overload and shop for social survival

The frequent supply of novel fashion items, the use of idealized imagery, and the sensory information load in fashion marketplaces are paralleled by fashion shoppers' experiences of feelings of information overload and anxiety-driven social survival shopping.

Fashion shopping includes seeing (and touching in physical marketplaces), listening to in-store music and advertisements, smelling, and meeting and interacting with fellow shoppers, influencers, and staff, all of which contribute to potential shopper sensory overload. Sensory overload load means "receiving too much information" and is recognized as an experiential circumstance that can cause stress at the individual level ([Pearlin, 1989](#)). Receiving too much information means that the information perceived has exceeded the limits of humans' information-processing capacity ([Scammon, 1977](#); [Malhotra, 1982](#); [Luce, 1998](#)). From an embodied perspective, sensory overload is accompanied by bodily experiences of elevated arousal. Bodily arousal is "the degree to which a person feels excited, stimulated, alert, or active in the situation" ([Donovan and Rossiter, 1982](#), p. 38). The literature suggests that retail environments that involve intense stimuli cause higher levels of arousal and produce feelings of

overload, such as confusion, anxiety, and stress ([Donovan and Rossiter, 1982](#); [Groeppe-Klein, 2005](#); [Van Rompay et al., 2012](#)).

Fashion shopping for new versions of products that are valued and bought for reasons of social desirability and acceptance ([Moisander et al., 2010](#); [Niinimäki and Hassi, 2011](#)) points to threat-like qualities of refraining from such shopping. The literature recognizes that fashion shopping positively affects insecurity and self-esteem ([Clarke, 2001](#); [Ling and Yttri, 2002](#); [Gram-Hanssen and Bech-Danielsen, 2004](#); [Katz and Sugiyama, 2006](#); [Atalay and Meloy, 2011](#); [Rafferty, 2011](#); [Mikkonen et al., 2013](#)). Shopping for novel fashion items is understood as a form of anxiety reduction, as such shopping makes you the person who you are expected to be, thus making you feel better ([Miller, 2001, 2009](#); [Woodruffe-Burton and Elliott, 2005](#); [Dittmar, 2008](#)). Shopping for fashion objects is linked to a multitude of identity meanings, sometimes causing confusion related to what fashionable garments to buy ([Clarke and Miller, 2002](#); [Halliwell et al., 2007](#); [Dittmar, 2008](#); [Burroughs et al., 2013](#)). Negative emotions, such as confusion and anxiety, spur the acquisition and use of products, such as fashionable garments for self-construction and self-maintenance purposes ([Burroughs et al., 2013](#); [Richins, 2013](#); [Shrum et al., 2014](#)). Studies on fashion consumption clearly show that fashion meanings and feelings are related to insecurity, anxiety, and self-assurance, and the fashion marketplace is a sphere in which individual identification and social differentiation are negotiated ([Thompson and Haytko, 1997](#); [Banister and Hogg, 2004](#)).

The mechanism behind the threat-like qualities of not buying novel fashion items is described in psychological studies on shoppers' "think ideal, feel bad" sequence that is shaped and sustained by the promotion of commoditized idealized identities in marketing practices ([Halliwell and Dittmar, 2004](#); [Halliwell et al., 2007](#)). Evidence suggests that idealized product-related images produce negative self-images and identity deficits among consumers ([Dittmar, 2008](#)). For example, idealized models in advertising increase the discrepancies between ideal and actual self-perceptions ([Sobol and Darke, 2014](#)). The intense use of idealized imagery and social media to communicate the social desirability of novel fashion in fashion marketplaces makes it highly probable that "think ideal, feel bad" mechanisms produce fashion shopping for reasons of social survival.

## Discussion—implications for the promotion of sustainable shopping

The embodied conceptualization of fashion shopping has important implications for the promotion of sustainable products in shopping marketplaces. As previously discussed, an embodied understanding of shopping that is firmly situated in a phenomenology of perception ([Merleau-Ponty,](#)

1962) makes the promotion of shopping for sustainable products a matter of how shopping marketplace practices can support such shopping. From this position, the promotion of sustainable shopping (which in the case of fashion shopping entails shopping less and shopping sustainable products) is more about how marketing practices can be reconfigured to support sustainable shopping (Solér et al., 2015) and less about the responsabilization of shoppers through information provision.

## Marketplace learning instead of information provision as a route to SF shopping

According to the embodied understanding of fashion shopping, excessive and unsustainable levels of (fashion) shopping can be curbed if marketplace supply and communication practices change (Sheth et al., 2011). The philosophical foundation of embodiment emphasizes how human experience is culturally specific and learned (Gallagher, 2005; Yakhlef, 2015). From the insight that fashion shopping is a learned activity based on skills acquired in fashion marketplaces, the concept of learning how to shop in a sustainable manner becomes a route toward changing the current unsustainable fashion consumption. Fashion marketplace learning is material and social. To this end, fashion marketplace learning would entail substantial changes in current marketing practices. Marketplace learning implies a responsabilization of fashion producers and retailers as well as influential norm providers in fashion marketplaces. Changing fashion supply practices, such as heavily reducing the number of novel product updates and collections launched on the market, coupled with market communication practices that create meanings of beauty and function through classical and long-lasting design (possibly by the use of idealized imaginary), would be a possible route toward the acquisition of shopper skills aligned with a sustainability agenda.

## Why does information not help promote the shopping of sustainable products?

The proposed embodied framework enriches the understanding of value–attitude–behavior gaps in the context of fashion shopping by assuming that shopping motivations reflect the sociomaterial features of fashion marketplaces. From an embodied perspective, shopping motivations are “prereflective and non-deliberative, matching our perceptual capacities with the demands and calls for action of the environment” (Yakhlef, 2015, p. 9). This position challenges dualist understandings of

shopper cognition conceptualized as attitudes and/or values and studied as phenomena separated from the context of experience.

A relational embodied view of the shopper and the shopping marketplace questions the efficacy of using information to change shopper attitudes and values to make them engage in sustainable consumption practice (Steg et al., 2014; Davies and Gutsche, 2016; White et al., 2019). In the fashion context, shoppers’ thinking about green fashion and shopping behavior is inconsistent (Jacobs et al., 2018). The embodiment perspective does not contest the value in knowing about behavioral gaps per se but, similar to Shove (2010) in her critique of ABC studies in the sustainable consumption realm, such cognitive-based studies obscure sociomaterial measures that can have a real impact on sustainable consumption.

Given the previously provided embodied account of the links between acquired dispositions to shop for novel fashion items and fashion marketplaces affordances, it is problematic to conceptualize the sustainability of fashion shopping as a matter of gaps between attitudes/values and behavior. In the value–attitude–behavior body of sustainable consumption research, conflicting values, such as proenvironmental values (Dunlap et al., 1983; Lönnqvist et al., 2013) and self-transcendence/self-enhancement values (e.g. Steg et al., 2014)—for which, for example, fashion shopping is seen as enhancing social status (e.g. Davies and Gutsche, 2016)—are seen as explanations of why consumer attitudes as indicators of knowledge do not always lead to behavior. Additionally, the lack and cost of sustainable apparel (e.g. Hassan et al., 2016) and personal sacrifices in fashionable appearance and lifestyle when buying sustainable apparel (Jägel et al., 2012) are hypothesized to explain such behavioral gaps. From an embodied perspective, explaining and trying to understand the gaps between cognitive constructs and behavior in shopping contexts is inefficient and costly. Fashion shoppers do not walk their talk (Jacobs et al., 2018), and it is time to start focusing on the real change agents in shopping marketplaces: business owners, marketing managers, and supply chain officers.

## Conclusion

The example of fashion shopping as an embodied consumer experience presented in this article has implications for sustainable consumption research in general. It suggests that consumption is a bodily endeavor that cannot change without changing bodily experiences in marketplaces. Hence, changing what products are supplied with the support of market communication normalizing and possibly idealizing such products—will result in changing consumer skills and product choice. A change in fashion shopping norms that includes buying clothes less often would make room for the higher costs of producing garments made in an environmentally and socially sustainable manner. Such price

increases will motivate support policies for the financially disadvantaged for reasons of social sustainability in the affluent West.

Consumption of sustainably made garments will increase if such garments are widely available, relatively cheaper than unsustainable garments, and fashionable (representing socially valued identity positions). Reduced consumption of novel clothing will be made possible by access to pre-owned clothing and/or upgraded clothing at a larger scale and to significantly lower price compared with novel clothing. Market infrastructures such as support for garment upgrading and clothes repair and political measures to reverse the price differentials between sustainably made and upgraded clothes on the one hand (in most cases are more expensive than unsustainable alternatives), unsustainable clothes on the other hand, will actively promote sustainable clothes consumption. The adverse climate and environmental impact of non-organic cotton farming (Delate et al., 2021) would justify price increases enabled by a climate-related tax or similar mechanisms that increase the relative price of climate-intensive products. Further measures that need to be taken to promote sustainable clothing consumption are the regulation of sustainability certification schemes of textiles. Such certification schemes have an important impact on the supply of sustainably produced garments in fashion marketplaces. The Better Cotton Initiative (BCI) is a sustainability certification scheme that exemplifies a very successful large-scale certification of cotton that includes the use of pesticides and GMO seeds (BCI, 2022). The price differential between BCI cotton and organic certified cotton (no pesticides or GMO seed allowed) is advantageous for fashion producers and retailers that supply and sell sustainable cotton garments certified according to

the BCI scheme as fashion consumers lack the ability to distinguish between different interpretations of sustainable cotton (Horne, 2009).

## Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding authors.

## Author contributions

The author confirms being the sole contributor of this work and has approved it for publication.

## Conflict of interest

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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