REVIEW ARTICLE

When sustainability backfires: A review on the unintended negative side-effects of product and service sustainability on consumer behavior

Diletta Acuti[1] | Marta Pizzetti[2] | Sara Dolnicar[3]

[1]Department of Marketing, University of Portsmouth, Portsmouth, UK

[2]Emlyon Business School, Lifestyle Research Center, Écully, France

[3]Department of Tourism, The University of Queensland, St Lucia, Queensland, Australia

Correspondence
Diletta Acuti, Department of Marketing, University of Portsmouth, Portland St, Portsmouth PO1 3DE, UK.
Email: diletta.acuti@port.ac.uk

Abstract

The existential need for more sustainable production and consumption has attracted substantial scholarly interest, which has focused on the positive outcomes of corporate sustainability. Negative side-effects have been largely neglected. This study contributes (1) by synthesizing past research into such negative side-effects from a diverse set of business disciplines; (2) by conceptualizing—for the first time—unintended negative side-effects of product and service sustainability; and (3) by developing a research agenda guiding researchers in addressing the most important knowledge gaps. The synthesis of 94 articles identifies three main cognitive mechanisms (information elaboration, product perception bias, and self-perception) and several emotionally aversive states (anxiety, shame, guilt, regret, distress, reduced enjoyment, frustration, discomfort, stress, and embarrassment) that are responsible for unintended negative side-effects resulting from product and service sustainability. Immediate managerial implications from this study include the critical importance of simple corporate sustainable communication that does not require consumers to dedicate substantial cognitive resources. Important future research directions include the investigation of the effects of green hushing and the development and testing of practical ways to help companies to avoid the sustainability liability trap, which leads to reduced demand because of sustainable features of products or services.

KEYWORDS
information complexity, negative effect, product perception, self-perception, sustainability, sustainable consumption, systematic review

1 | INTRODUCTION

Sustainable business operations are necessary to ensure long-term planetary health and societal wellbeing (United Nations, 2015). Businesses have increased their efforts to operate in sustainable ways. Consumers have started to demand sustainable products. Scholars studying sustainable consumption (Ek Styvén & Mariani, 2020; Onel et al., 2018) assume that sustainability is positive, largely ignoring potential negative side-effects (Randle et al., 2019). Initial empirical evidence challenges this fundamental

assumption (Hyun et al., 2021; Sen & Bhattacharya, 2001) and reveals how sustainability can backfire; how it can negatively affect consumer behavior and undermine the commercial success of companies that manufacture or sell sustainable products (Deng & Xu, 2017; Janssen et al., 2014; Peng & Chen, 2019; Skarmeas & Leonidou, 2013). Corporate sustainability initiatives can negatively affect consumers' attitudes toward and evaluations of the company (Johnson-Young & Magee, 2019) and therefore reduce purchase intentions (Cho & Baskin, 2018) because consumers may associate sustainability with a compromise in product functionality (Essoussi & Linton, 2010), esthetics (Luchs et al., 2012), or healthiness (Rausch & Kopplin, 2021). Demand for sustainable laundry detergents, for example, can be reduced by consumers perceiving such detergents as less effective in solving their problem: cleaning stained clothes (Skard et al., 2020).

Sustainability can also elicit emotions and beliefs that negatively affect consumers. Consumers who buy sustainable products or services can be judged by peers, who label them as hippie or feminine (Johnstone & Tan, 2015). Such peer pressure can create uncertainty, discomfort, and apathy, cause psychological reactance (Hinsch et al., 2021), and even trigger unethical consumption (Sun & Trudel, 2017).

To achieve the United Nations Sustainable Development Goal 12 of ensuring sustainable consumption and production patterns, a thorough understanding of potential unintended negative side-effects of sustainability is essential. Such understanding enables the development of effective mitigation measures; companies can take action to avoid negative side-effects or even turn the risk of their sustainability action backfiring into a positive by leveraging it to increase demand. The required understanding of why negative-side effects of product or service sustainability occur, however, has not yet been developed. Many key questions about the mechanisms that lead to negative side-effects of sustainability remain unanswered in the existing literature, which is highly fragmented and spreads across a wide range of diverse business disciplines (Maon et al., 2019).

The present study addresses this problem by making three key contributions to the literature. First, it synthesizes empirical findings relating to unintended negative side-effects of product and service sustainability, which have emerged from research across a diverse set of business disciplines. This synthesis leads to a comprehensive and integrated picture of the research areas, identifying key components of cognitive mechanisms, aversive states, and negative side behaviors. Second, this paper—based on the synthesis of prior literature—offers the first conceptualization of *unintended negative side-effects of product and service sustainability*, where sustainability is understood to encompass both social and environmental sustainability. This conceptualization helps scholars to define the negative side-effect they may wish to investigate and to better position their research within the literature. Finally, we derive a research agenda that guides researchers in choosing to investigate the most pressing issues relating to unintended negative side-effects of product and service sustainability. We also discuss how managers can leverage the insight from this synthesis to improve their business operations in ways that are easy to implement, yet have the potential to substantially reduce the likelihood of product and service sustainability backfiring and causing unintended negative consequences.

2 | METHODOLOGY

We conducted a systematic literature review to identify existing work (Mukendi et al., 2020), reconcile conflicting evidence (Barczak, 2017), and identify critical gaps in knowledge (Paul & Criado, 2020), including the following five steps: question formulation; study location; study selection and evaluation; analysis and synthesis; and reporting and using findings (Di Domenico et al., 2021).

For the development of inclusion criteria, exclusion criteria, and keywords, we relied on 23 directly related articles published in marketing, ethics, economics, management, organizational studies, and innovation. We considered the social and environmental dimensions of sustainability (Gelhard & Von Delft, 2016) across a wide range of scholarly fields of research, including CSR, ethics, green marketing, and climate change, limiting the investigation to articles that focus on consumers (as opposed to other stakeholders). Twenty academics from the United Kingdom, France, Italy, Switzerland, Australia, and the United States—all experts in sustainability or systematic literature reviews—assessed the appropriateness of the selected keywords through a survey. In this survey, we first explained the research objectives and provided our definition of sustainability side-effects. Then, we asked the experts to assess the appropriateness of each keyword for capturing the concept of sustainability (9 keywords) and side-effects of sustainability (19 keywords) using a 7-point scale (1 = *not at all appropriate*; 7 = *very appropriate*). We also invited the experts to nominate any additional keywords we may have missed. All keywords provided to the experts were deemed appropriate as they received average ratings above 4. The authors discussed the appropriateness of the additional keywords provided by the experts and included 12 additional ones.

The final 16 keywords for *sustainability* were: "sustainab* OR ethic* OR responsib* OR green OR environmental consciousness OR recyc* OR reused OR environmental claims OR eco-friendly OR human rights OR triple-bottom line OR fair trade OR inclusion OR diversity OR child labor OR sweatshop." The final 24 keywords for *undesirable side-effects* were: "negative OR liability OR side effects OR conflict OR diminished OR decline OR avoid* OR inferiority OR trade-off OR incompatibility OR barrier OR risk OR stereotype OR decrease OR lower OR suspiciousness OR skepticism OR licensing effect OR contradiction OR dissonance OR dark side OR backfire OR inconsistencies OR paradox*." We searched all possible combinations of the two keyword categories as well as "consumer* OR customer*" using Business Source Premier database within titles, keywords, and abstracts. The identified publications are listed in the Supporting Information: Appendix.

We selected only scientific, peer-reviewed articles written in English and published between January 2000 and December 2021, resulting in 4702 papers. After eliminating duplicate results and

manually screening the remaining articles, 746 relevant papers remained. We studied these articles in detail and assessed their compliance with the selection process, resulting in a final set of 94 papers.

We manually coded the final 94 papers using descriptive and thematic analysis of the full texts. Coding occurred independently; individual classifications were then reviewed and compared. Inter-coder reliability based on 10 articles was 89%, which is deemed appropriate following Rust and Cooil (1994) recommendations. The descriptive analysis provided an overview of the current literature and focused on title, author, journal area (classified referring to the Academic Journal Guide of 2018), publication date, methodology, and the sustainability practice implemented by the company. The thematic analysis builds on two key dimensions: the psychological mechanism leading to the negative side-effect (both cognitive/perceptual, and emotional) and the negative side-effect of sustainability in terms of consumer behavior.

3 | RESULTS FROM THE DESCRIPTIVE ANALYSIS

The first articles on the negative side-effects of sustainable product offering and consumption emerged in 2009, concluding that incorporating sustainability into a company's offering can create competing priorities, paradoxical outcomes, and difficult compromises (Szmigin et al., 2009; Wagner et al., 2009).

The number of publications increased rapidly after 2012 (see Figure 1), and studying the negative impact of sustainability was increasingly identified as a key research agenda for the future (Font et al., 2017; Monnot et al., 2019). Yet, overall, the number of studies investigating this topic remains low: the maximum number of papers published in one single year across all disciplines was 11.

In terms of academic fields, more than half of the studies included in this review appeared in *marketing* journals. With consumers reporting an increased desire for sustainability, and sustainability being more frequently mentioned in marketing

communications, understanding potential negative side-effects is critically important.

With 23 papers, the field of *business ethics* also contributes substantially to the study of the negative side-effects of sustainability. These studies show how corporate efforts toward more ethical production can undermine their economic success. Studies from *sector-specific studies* (8 papers), *management* (8 papers), *economics* (2 papers), *innovation* (1 paper), and *organization* (1 paper) represent a small fraction of this body of work; they focus primarily on testing quantitatively how sustainability affects consumers.

Companies can implement different sustainable practices, including reducing gas emissions (Wiedmann et al., 2011), using recycled materials for manufacturing (Chang, 2011), and ensuring equitable trade relationships (Newman et al., 2014). Yet, the literature tends to treat sustainability "as a unidimensional construct, overlooking important differences and thwarting a better understanding of consumer response" (Catlin et al., 2017, p. 1). Fifty-eight articles refer to "sustainability" without precisely specifying the nature of the environmental or social practice under investigation.

Most studies that we reviewed focus on the environmental dimensions of sustainability, investigating consumer responses to eco-friendly initiatives (Cho & Baskin, 2018). A specific practice that has attracted much research attention is *recycling* (five papers). Recycled products are not always appreciated by consumers; some perceive recycled products as being of lower quality (Magnier et al., 2019). The fact that a recycled material has previously been used by other consumers evokes the perception of the product being contaminated, which, in turn, may trigger a sense of disgust (Meng & Leary, 2021). A similar effect can occur in the context of *second-hand* products (five papers): some consumers worry about bacteria from pre-owners, the transmission of diseases, odor, and dirtiness (Becker-Leifhold & Iran, 2018). *Packaging* (three papers) has only recently emerged as an area of research interest: governments are increasingly encouraging companies to reduce packaging, but less packaging can negatively affect the brand image, causing a dilemma for companies (Monnot et al., 2019). Only a limited number of papers studying negative side-effects of sustainability address the
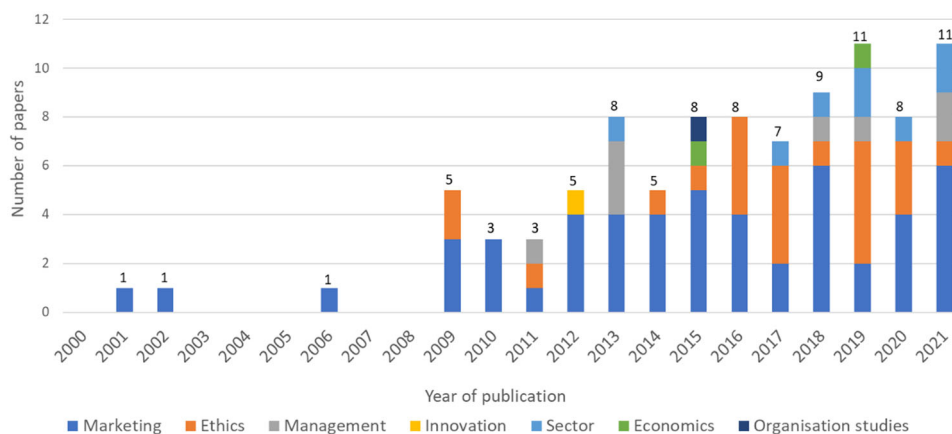

FIGURE 1 Academic field and year of publication of the reviewed articles

environmental impact of sustainability analyzing *energy efficiency* (3), *sustainable lifestyle* (3), *organic products* (2), and *suboptimal food* (1).

In terms of the social dimension of sustainability, three papers choose to focus on *fair trade* initiatives, concluding that the ethical attributes of "being fair trade" are not always viewed positively because consumers lack confidence in the real impact of fair-trade products on restoring social justice (White et al., 2012). Some papers explore the effect of social sustainability with a particular focus on the issues of *equality* (2), *philanthropy* (1), and *child labor* (1).

4 | RESULTS FROM THE THEMATIC ANALYSIS

From the systematic review, three cognitive mechanisms emerge (information elaboration, product perception biases, and self-perceptions) which elicit several different specific emotional aversive states. These aversive states, in turn, affect consumer behavior. We discuss the literature relating to each of these cognitive mechanisms in separate sections below, in which we also integrate the aversive states and behavioral consequences of each of those three cognitive mechanisms.

4.1 | Sustainability information elaboration

Companies make great efforts to communicate sustainability because information about sustainability can increase sustainable purchasing decisions (Gleim et al., 2013). Eco-labeling (Parguel et al., 2011), third-part certifications (Manget et al., 2009), and green advertising (Schmuck et al., 2018) are some of the strategies employed by companies to achieve this. Yet, when considering buying sustainable products and services, consumers process product information in different ways (Pancer et al., 2017; White & Willness, 2009), which can lead to unintended negative side-effects.

One explanation for this effect is that consumers see too much information that is ambiguous or contradictory (Orazi & Chan, 2020). In such situations, consumers are overloaded, which reduces knowledge acquisition (Ramirez, 2013) and ability to make sustainable consumption decisions (Longo et al., 2019), while at the same time increasing uncertainty when evaluating alternatives (Hassan et al., 2013). This effect is strongest when many attributes need to be evaluated, which involve trade-offs between personal ethical beliefs and traditional purchase criteria (Hiller & Woodall, 2019).

Another explanation is that consumers react negatively to exaggerated claims (Chang, 2011) and perceived incongruencies between communication messages and the brand image (Torelli et al., 2012; White & Willness, 2009). Such incongruencies disrupt the cognitive process (Torelli et al., 2012) and require greater cognitive elaboration, leading to negative brand evaluations (White & Willness, 2009). Consumers perceive incongruency when brands encourage lower consumption (White & Willness, 2009), when cosmetic brands promote "real beauty" (Johnson-Young &

Magee, 2019), or when luxury brands declare their CSR commitment (Torelli et al., 2012).

The elaboration of sustainable communication can also be affected by consumer skepticism, that is, consumer's attitude of doubt, questioning, or suspended judgment (Connors et al., 2017). Skepticism prevents sustainable consumption (Bray et al., 2011; Carrete et al., 2012; Gleim et al., 2013), and undermines brand credibility (Orazi & Chan, 2020), brand equity (Skarmeas & Leonidou, 2013), and brand attitude (Johnson-Young & Magee, 2019). Skeptical consumers adopt a low-level construal mindset when processing sustainable messages (Connors et al., 2017). Abstract communications, such as when they lack clarity regarding the beneficiaries of the initiative (Fagerstrøm et al., 2015), foster skepticism.

Skepticism is particularly fueled by greenwashing—misleading corporate communications about sustainability (Rausch & Kopplin, 2021; Skarmeas & Leonidou, 2013). Greenwash reduces consumer resilience to negative information about the company (Skarmeas & Leonidou, 2013) to the point where consumers may doubt brand sustainability even in the absence of actual misbehavior (Maon et al., 2019; Romani et al., 2016). This occurs when consumers feel that a company is acting hypocritically by pursuing selfish goals, pleasing stakeholders, or justifying mark-ups (Habel et al., 2016). Skepticism negatively affects sustainable communications elaboration when they use both extrinsic and intrinsic motives, for instance when they appeal both to saving money and saving the environment (Edinger-Schons et al., 2018). Its negative effect is exacerbated when communication occurs after a corporate crisis (Wagner et al., 2009), especially if CSR engagement was low before the crisis (Vanhamme & Grobben, 2009).

4.1.1 | Emotional aversive states related to information elaboration

The high effort associated with processing sustainability-related product information affects consumer emotions, reducing consumer energy and enthusiasm (Valor et al., 2016) and leading to consumers experiencing discomfort (Gistri et al., 2019; Hassan et al., 2013). Conflictual cognitive processing reduces post-purchase satisfaction (Thomas et al., 2002) and confidence while enhancing regret (Becker, 2021). These effects are highly detrimental because consumer satisfaction with sustainable products is critically important to a company's return on investments (Luo & Bhattacharya, 2006).

Aversive states can also result from making unsustainable consumption decisions, including guilt, self-resentment (Carrington et al., 2015), blame, and culpability (Fahlquist, 2009). To avoid or cope with such aversive states, consumers involuntarily morally distance themselves from the source of the discomfort (e.g., animal suffering caused by eating meat; Khara et al., 2021; Rothgerber, 2020) or ignore sustainable information during the evaluation of alternatives and activate their willfully ignorant memory (Reczek et al., 2018). In the presence of emotionally difficult ethical

information (such as the use of child labor), consumers prefer "to feel good by preventing emotionally difficult experiences" (Reczek et al., 2018, p. 186); they forget or misremember negative ethical information, thereby magnifying their conflicting values. For instance, when eating meat, consumers may revert to the willfully ignorant memory to reduce the cognitive dissonance activated by eating meat (Rothgerber & Rosenfeld, 2021).

4.1.2 | Side-effects on consumer behavior

When consumers are uncertain about what to buy, they experience apathy and paralysis (Ramirez, 2013), which leads to a reduced intention to purchase (White & Willness, 2009) and negative word of mouth (WOM) (Skarmeas & Leonidou, 2013). Even when consumers opt for a sustainable choice, subsequent decision-making processes can be negatively affected. In some cases, post-purchase aversive states facilitate opposite choices in subsequent sustainable consumer choice situations (Becker, 2021). In other cases, pride and the perceived goal progress (Karmarkar & Bollinger, 2015) trigger a perceived license to sin, legitimizing other, more indulgent, product purchases in the future (Sun & Trudel, 2017). Licensing behaviors cause a psychological conflict loop—the flexibility of the consumer's decision-making strategies related to sustainable (or nonsustainable) products creates a feeling of discomfort and inconsistency, making the consumer feel hypocritical (Szmigin et al., 2009).

4.2 | Product perception bias

A key motivation for buying sustainable products is their association with health benefits. Sustainable food is associated with healthy ingredients and high-quality standards (Davies & Gutsche, 2016). Sustainable products can also elicit perception biases (Frank & Brock, 2018), including *lay beliefs of consumers*—subjective and informal explanations for sustainable products (Hoffmann et al., 2019). Consumers may assume, for example, that manufacturing sustainable products implies compromising on other product attributes (Luchs et al., 2010) such as product quality, functionality, and design (Newman et al., 2014). This intuitive assumption—known as sustainability liability (Luchs et al., 2010) or "ethical = less strong" intuition (Mai et al., 2019)—extends to ancillary features, including customer service (Newman et al., 2014) and product packaging (Monnot et al., 2019; Skard et al., 2020). It strongly affects perceived functionality because sustainable products are associated with gentleness (Luchs et al., 2010), and lower performance (Luchs & Kumar, 2017; Visser et al., 2018). Sustainability liability is strengthened by prominent green attributes (Usrey et al., 2020) or green communications, especially from mainstream brands (Wood et al., 2018).

Sustainability liability is particularly detrimental for sophisticated products (Herédia-Colaço & Coelho do Vale, 2018), food, fashion, and luxury brands. Despite sustainable foods being perceived as healthier (Cho & Baskin, 2018), they are consumed less because they are perceived as less tasty (Raghunathan et al., 2006). Moreover, they may determine a competitive disadvantage for retailers (Ailawadi et al., 2014): selling foods that are edible but not perfect is interpreted as a low-quality signal reflecting poorly on the retailer (Aschemann-Witzel et al., 2020). In the case of luxury and fashion brands, sustainability undermines the perception of quality (Dekhili et al., 2019), esthetic appeal (Burke et al., 2014; Ramirez, 2013), trendiness (McNeill & Moore, 2015), and desirability (Sipila et al., 2020). Overall, luxury and sustainability are seen as incompatible (Dekhili et al., 2019; Sipila et al., 2020): luxury brands marketed as sustainable suffer from a lower brand attitude and decreased perceptions of luxury (Janssen et al., 2014; Kim et al., 2020).

Sustainable brands also elicit risk perceptions, especially about price (Kang & Kim, 2013; Sadiq et al., 2021) and contamination, including fear of disease transmission (Meenakshi, 2020; Meng & Leary, 2021). Contamination risk is particularly detrimental to foods (Monnot et al., 2019): for instance, rescue-based food can elicit the imagery of waste, spoilage, or deformation of food (de Visser-Amundson et al., 2021). Also, clothes and products that come in direct contact with the skin are perceived as risky and not hygienic (Meng & Leary, 2021), such as the case of second-hand products (Becker-Leifhold & Iran, 2018).

4.2.1 | Emotional aversive states related to product perception bias

Lay beliefs generate aversive states while lowering positive emotional outcomes usually associated with sustainable consumption (Medina et al., 2021; Rowe et al., 2019). For example, sustainability can decrease the perceived enjoyment of products (Herédia-Colaço & Coelho do Vale, 2018), and cause feelings of distress (which reduces individual well-being; Furchheim et al., 2020) as a result of perceived tensions between sustainability and functionality (Luchs & Kumar, 2017; Luchs et al., 2012). Such negative feelings occur less frequently when consumers seek hedonic benefits (Luchs & Kumar, 2017), gentleness-related attributes (e.g., baby shampoo; Luchs et al., 2010), or when basic human needs are relevant (e.g., in the case of food deprivation; Hoffmann et al., 2019).

4.2.2 | Side-effects on consumer behavior

Biased perceptions related to sustainable products can have several behavioral consequences: they can increase consumer preference for traditional products or services (Luchs et al., 2012), cause hesitation to buy sustainable brands, and lower willingness to pay (Essoussi & Linton, 2010). Consumers may, for example, hesitate to book a room in a green luxury hotel (Peng & Chen, 2019), or buy a luxury item made of recycled materials (Achabou & Dekhili, 2013).

Sustainability liability remains a relevant issue even after product usage because consumers may still be unable to evaluate the efficacy

of sustainable products (Cervellon & Carey, 2014). Consumers may compensate by excessively using the product because they assume it to be less effective, as is the case for green hand sanitizers, mouthwash, and glass cleaners (Lin & Chang, 2012). Such intensified usage of the product itself offsets the environmental benefits gained by the selection of a sustainable alternative (Grabs, 2015; Isenhour, 2010).

4.3 | Self-perceptions

Sustainable products are carefully managed by consumers to build their image in the eyes of others and enhance self-perceptions (Dermody et al., 2018). Consuming sustainable products can project altruism (White et al., 2019), potentially enticing consumers to spend additional money on sustainable products—especially those consumed or purchased publicly—to signal their social status (Griskevicius et al., 2010).

Conversely, stereotypes associated with sustainable consumers, namely *being feminine* (Brough et al., 2016; Maon et al., 2019) and *being a hippy*, still exert great influence on more traditional consumers, causing conflicts as people desire to maintain a positive social identity (Johnstone & Tan, 2015). Male consumers may experience psychological discomfort about what may be perceived as gender-inconsistent behavior, resulting in changes in self-perception. Ultimately, this can lead to men avoiding green products (Shang & Peloza, 2016). On the positive side—as traditional masculinity may be less attractive to heterosexual women today—sustainability can help with positioning and signal mating values and commitment to long-term relationships, making the sustainable man consumer more attractive in the eyes of women (Borau et al., 2021).

People also judge consumers behaving in alignment with ethical values as being unusual, attributing such behavior to marginalized hippies (Barnhart & Mish, 2017), limiting the attractiveness of responsible brands (Antonetti & Maklan, 2016) for personal use or as a gift (Green et al., 2016; Maon et al., 2019). Negative judgments are used and reinforced by consumers who deliberately ignore ethical product attributes and feel threatened by consumers who act ethically (Antonetti & Maklan, 2016).

4.3.1 | Emotional aversive states related to self-perception

Sustainable choices can elicit positive emotions (e.g., pride, Antonetti & Maklan, 2016; warm glow, Giebelhausen et al., 2016), but social judgments may jeopardize such positive effects and generate a psychological conflict between ethical values and social pressure (Frank, 2018; Valor et al., 2018). Consumers can be less satisfied or regretful about their sustainable choice (Antonetti & Maklan, 2014). In other cases, sustainable consumers may feel forced to revert to less sustainable products, leading to a sense of discomfort and moral anxiety (Carrington et al., 2015), and the self-perceptions of being

hypocritical (Szmigin et al., 2009). Clashes between consumption choices are exacerbated by denigration from other consumers that may compromise social relationships (Carrero et al., 2020), causing stress and frustration in the short term, and even lower satisfaction with life and psychological well-being (Carrero et al., 2020) in the long term.

4.3.2 | Side-effects on consumer behavior

To cope with stereotypes and denigration, consumers reduce their willingness to demonstrate their moral virtue: they tend to avoid or delay their sustainable choice to limit distress and prefer suboptimal choices (Becker, 2021). Consumers experience a reduction in post-choice confidence, or use sustainable products secretly to avoid embarrassment, shame, or disapproval, and, in some cases, abandon their sustainable activities (Antonetti & Maklan, 2014; Carrero et al., 2020; Meenakshi, 2020). Unsustainable consumers also compromise their own subsequent choices (Zane et al., 2016): when consumers compare themselves with more ethical consumers and denigrate them, they ultimately become less committed to their own ethical values, which decreases the likelihood of them consuming sustainable brands in the future.

5 | CONCEPTUALIZING UNINTENDED NEGATIVE SIDE-EFFECTS OF PRODUCT AND SERVICE SUSTAINABILITY

A side-effect is an unpleasant effect that happens in addition to the main intended effect or an unexpected result of a situation (Cambridge Dictionary, 2022). In the context of sustainability, the concept of unintended negative side-effects refers to an undesired consequence for a company of behaving sustainably.

Figure 2 summarizes the key factors that have the potential of causing unintended negative side-effects of product and service sustainability, which have emerged from the systematic review. The box at the top depicts products and services that consumers are able to identify as being more environmentally sustainable. The green box on the left signals that the sustainability of products and services will lead to many positive outcomes for the organization producing and selling them. Most existing works fall into this area. The three black boxes summarize the negative consequences which have been identified through the literature review.

The typical mechanism of how negative consequences occur is by sustainable products and services triggering aversive emotional states, which, in turn, have behavioral or wellbeing consequences. Each of these dimensions can, however, also be triggered directly by the sustainable product or service.

Although we present drivers of negative side-effects in a linear way in our conceptual model in Figure 2, we emphasize that they influence each other, with emotional states and behaviors reinforcing and affecting cognitive mechanisms in a more circular pattern.
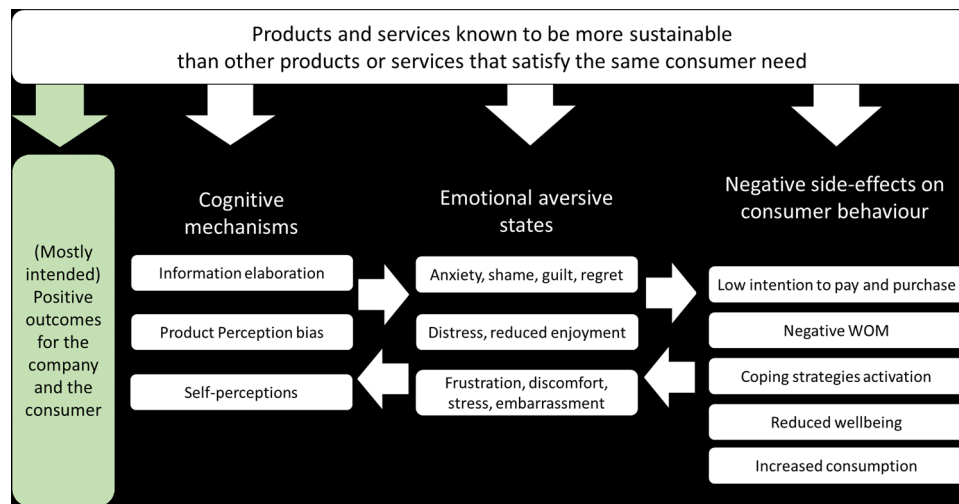
FIGURE 2 Key factors leading to negative side-effects of product and service sustainability

Moreover, we present the identified side-effects in contrast to the positive effects so far discussed by the existing literature.

6 | PRACTICAL IMPLICATIONS AND SUGGESTED RESEARCH DIRECTIONS

6.1 | Sustainable information elaboration

The critical role of corporate sustainable communication emerges clearly from our review. Poor corporate communication can increase consumer uncertainty. To foster sustainable consumption, cognitive complexity must be reduced. While some studies have identified ways to make sustainable actions easier (White et al., 2019), little attention has been paid to facilitating information processing. The difficulty companies might face is illustrated by the literature on virtue and vice goods (Wertenbroch, 1998). Processing information about virtue products—including sustainable products—requires higher levels of cognitive effort than processing information about vice products (Hofmann et al., 2008). As a result, impulse purchasing of virtue products is less common than impulse purchasing of vice products. Guiding consumers and facilitating a smooth cognitive elaboration of the information related to sustainable features could change their behavior considerably. We are currently witnessing a proliferation of platforms and mobile apps such as Goodonyou or Greenapes that are designed to facilitate the understanding of sustainability and the assessment of brand sustainability. It remains unclear, however, how these new tools can improve the information search process for consumers and whether there is a risk for them to confuse, stress, or even disempower consumers. We, therefore, recommend a closer investigation of communication instruments that allow consumers to mobilize their sustainable knowledge instead of being trapped by uncertainty and apathy.

Little is known about the effect of sustainability messaging on reducing undesirable effects of sustainable information processing (Invernizzi et al., 2022). Framing the sustainable option through a more tangible impact may trigger more emotional—rather than analytical—information processing (White et al., 2019) and reduce skepticism (Pizzetti et al., 2021). This would also contribute to reducing the perception of the inability to make a difference through consumption choices (Burke et al., 2014). Future work should investigate communication strategies that shift consumers from analytical processing (preventing sustainable consumption) to more emotionally and experienced-oriented communications.

6.2 | Product perception biases

An important f,uture research direction is to investigate strategies that allow companies to avoid the sustainability liability trap. Companies are finding new ways to (not) communicate sustainability to increase customer appeal. Some companies try to take advantage of the sustainability liability phenomenon by deliberately leveraging the gentleness attributed to sustainable products (Luchs et al., 2010). For instance, the communication of Smart Sheep Wool Dryer Balls describes the core performances of the product (i.e., shortening drying time, softening the fabric, and reducing static) as being functionally superior to that of plastic dryer balls, while emphasizing that the product is gentle on the dryer. Gucci, the world's most sustainable fashion corporation (Vasil, 2019), avoids communicating its use of eco-friendly textiles or its commitment to social values at the point of sale, while extensively discussing these aspects on its website. In other cases, companies resort to greenhushing—a strategic under-communication of sustainability (Ginder et al., 2021). In extreme cases, the unsustainability of the product is promoted to attract customers. For example, Persil sells a detergent line labeled as "non-bio," as it does not contain specific enzymes (contained in bio-detergents) that can harm sensitive skin, thus sacrificing sustainability for the sake of consumer acceptance. How such communication strategies affect consumer behavior is not understood. Future studies

are needed to understand how *new communication strategies, such as greenhushing, influence consumer behavior*, and if a potential inconsistency between company communication and actions can lead to consumers' hypocrisy judgments.

The negative effect of sustainability liability on product perceptions may be mitigated by product positioning. Marketers struggle to find ways to gain a competitive advantage and elicit consumer interest by taxonomic alterations of the product: for example, color or materials of the packaging (Noseworthy et al., 2010). Sustainability may stem from such peripheral attributes, but consumers better evaluate sustainable products when the green features are associated with the core attributes of the product (Gershoff & Frels, 2015). Limiting sustainability to peripheral features of the product may increase the perception that sustainability is an abstract characteristic of the product (Connors et al., 2017), negatively affecting sustainable behaviors (Johnstone & Tan, 2015). Another way of positioning products is to stress the thematic similarities between products (Noseworthy et al., 2010). Instead of emphasizing the concrete similarities between products belonging to the same product category, thematic positioning aims at making prominent the associations between diverse and even distant product categories. This positioning allows the consumer to identify a particular context in which products can be successfully used. In the sustainability context, green products can be positioned to promote sustainable consumption occasions. To illustrate, tablecloths made of recycled cotton, wooden cutlery, and vegan cheese do not share similar features, but they are thematically related and can perform a different role in a common scenario, that is, a sustainable dinner. Notably, marketers have started to exploit the opportunities offered by thematic positioning, by, for instance, presenting vegan food belonging to different product categories on the same shelves. Future research should explore whether and how thematic positioning can be successfully used to decrease product perception bias.

6.3 | Self-perceptions

Products and service sustainability can induce reduced consumer well-being caused when it results in conflict with important others or creates value conflict. For instance, reducing one's own level of consumption to protect the environment might be threatening to a materialistic consumer who considers possessions as a central source of happiness (Evers et al., 2018; Furchheim et al., 2020). Therefore, it is important to understand which values are compromised by sustainability and which ones are reinforced. This would help companies to adopt strategies that reconcile sustainability with other values that lead to happiness and well-being in consumption.

Research shows that consumers can be judged by others as feminine or hippie if they consume sustainable products or services and these negative judgments cause consumers embarrassment and inhibit sustainable consumption. Only few studies have investigated how such stereotypes can be changed and shaped. Greenebaum and Dexter (2018), for example, show how vegan men embody hybrid masculinity by rebranding veganism from its feminine association and emphasizing how veganism requires courage and self-control—features typically associated with masculinity. Similarly, companies, policymakers, and institutions could help sustainable consumers in reshaping associations specific to sustainable consumption. The research in the realm of stigmatized groups of consumers (i.e., fatfashionistas and stay-at-home fathers) has examined the role of mainstream media in legitimizing and de-stigmatizing a behavior previously perceived as being deviant from dominant norms (Coskuner-Balli & Thompson, 2013; Scaraboto & Fischer, 2013). Considering the role of stereotypes in sustainable consumption, further research can examine whether and *how representations of the sustainable consumer by companies and media may legitimize this group of consumers*. For example, future studies may explore how aspirational others such as influencers, brand ambassadors, and athletes may contribute to cultivating a more socially accepted and legitimate image of the sustainable consumer.

From a consumer perspective, it is still unclear *to what extent consumers want to show or hide their sustainable purchases from others*. Generally, conspicuous and sustainable consumption are considered contradictory (Hammad et al., 2019). Some studies have proposed a positive relationship between conspicuous and sustainable consumption, and claim that, under specific conditions, conspicuous motives can actually promote sustainable consumption (Griskevicius et al., 2010). Relatedly, future studies could examine which are such conditions. Some fashion brands have started to embed sustainability cues into products, such as Adidas which includes the sign "this shoe alone will not save the planet" in its sneakers made with recycled plastic. Other brands have chosen visual signals for sustainable products, placing animals' images or co-branding logos to communicate the sustainability features of the sneakers (see the brand Cariuma in collaboration with 4Oceans). Do consumers like to embed sustainability cues in their products? Do sustainability signals elicit a positive or negative association with products' fashionability? What cues are preferred by consumers? Do consumers prefer explicit or implicit signals? Having insight into these matters could help companies to find an effective strategy to improve their sales.

Finally, research in the past has primarily focused on coping strategies that consumers enact to cope with the stress caused by reduced self-perception and social stereotypes. Such literature suggests that the frustrated sustainable consumer overcomes the stress by self-distancing from sustainable products and changing his sustainable habits to contain the negative emotions. Such compromised choices, however, are palliative remedies that may lead the consumer to frustration because of the inability to live in accordance with sustainability standards. A notable exception shows that conflict with others caused by sustainable choice may provide a strong motivation to further engage in a sustainable lifestyle, being the conflict perceived as positive stress instead of distress (Frank, 2018). A repeated sustainable choice may help the consumer to reassert his self-identity and reinforce his self-confidence, but the conditions for repeated sustainable purchases should be further investigated. *Further contributions are needed to unpack coping mechanisms for*

overcoming aversive states to re-direct the consumer towards a sustainable path. What kind of support can be provided to better elaborate and overcome the stress? What can improve the resilience of the sustainable consumer? Mindfulness has been suggested as a guiding principle for sustainable consumption and well-being (Bahl et al., 2013; Sheth et al., 2011). Future research might find it worthwhile to investigate whether and how mindfulness can be an aid to alleviate aversive states deriving from social pressure.

6.4 | Additional areas for research

The areas for future research presented thus far are specifically related to the three mechanisms we identified in our thematic analysis. However, ample and more transversal opportunities also exist to examine negative side effects.

First, a stream of research emerged from our review that is explicitly concerned with consumer emotions towards companies selling sustainable products. These emotional reactions are diverse and complex (Antonetti & Maklan, 2014), ranging from disgust to frustration and distress (Luchs et al., 2012; Meenakshi, 2020). Studies exploring consumer negative emotions focus predominantly on environmental issues. Research on emotions related to social sustainability initiatives remains scarce. Despite calls for companies to make greater efforts regarding social issues (Bhagwat et al., 2020), such issues are often controversial—for example, gender equality or immigration—and not supported by all consumers (Catlin et al., 2017). *Future research should develop a deeper understanding of the potential undesirable emotions elicited by corporate social commitments.* How do consumers react to companies communicating controversial social sustainability issues? Do the identity and culture of the company change their perceptions? Do consumers want to explicit their support for controversial causes through consumption? Answering these research questions might prove useful to managers and scholars.

Another research context that has received less attention, relative to undesirable side-effects of sustainability, pertains to pro-environmental behaviors (PEB), that is, behaviors that do not necessarily involve an interaction between a company and a consumer, or the purchase of sustainable products and services, such as reducing food waste, reducing energy consumption, sorting garbage, taking public transportations, or taking shorter showers. To cause an improvement in environmental conditions, such behaviors need to be constantly repeated so to form a habit (White et al., 2019). However, alike buying sustainable products, PEBs can be stigmatized or induce subsequent licensing behaviors. A potential undesirable effect of PEB could be the perceived inefficacy or disempowerment felt by individuals who struggle to pursue such conducts because of life constraints, which may generate a negative psychological loop. Notably, our examination of the literature did not reveal any article dealing with the undesirable side-effects of PEBs. Therefore, we call for research that investigates individuals' behaviors and practices of public

interest that go beyond a consumer–company dyad. The identification of undesirable effects is indeed much needed to provide policymakers with strategies meant at fostering sustainable habits and at breaking the loop of unsustainability.

Finally, our review shows how the inclusion of sustainability in purchase behavior can lead to unsustainable behaviors in the long run. Indeed, although consumers buy sustainably, they can perceive a reduced efficacy of the product thus falling into excessive usage, or they temporarily feel self-fulfillment and consequently are more likely to purchase more indulgent products in the future. Thus, although the short-term effect is positive (choice of the sustainable product) the consequences in the long-term can be negative (excessive usage and indulgent purchases). This outcome is probably magnified when the consumer choice is not based on strong moral motivations or when the consumer is not really committed to sustainable consumption. As such, examining how companies can educate consumers and make sustainability a repeated, continuous choice—instead of a sporadic one—would be valuable. Relatedly, future research could examine *which antecedents of sustainable consumption reinforce the inclusion of sustainability in the long period decision making.*

CONFLICT OF INTEREST
The authors declare no conflict of interest.

DATA AVAILABILITY STATEMENT
The data that support the findings of this study are available from the corresponding author upon reasonable request.

ORCID
Diletta Acuti http://orcid.org/0000-0002-4609-6736

REFERENCES

Achabou, M. A., & Dekhili, S. (2013). Luxury and sustainable development: Is there a match? *Journal of Business Research*, 66(10), 1896–1903.

Ailawadi, K. L., Neslin, S. A., Luan, Y. J., & Taylor, G. A. (2014). Does retailer CSR enhance behavioral loyalty? A case for benefit segmentation. *International Journal of Research in Marketing*, 31, 156–167.

Antonetti, P., & Maklan, S. (2014). Exploring postconsumption guilt and pride in the context of sustainability. *Psychology & Marketing*, 31(9), 717–735.

Antonetti, P., & Maklan, S. (2016). Hippies, greenies, and tree huggers: How the "warmth" stereotype hinders the adoption of responsible brands. *Psychology & Marketing*, 33(10), 796–813.

Aschemann-Witzel, J., Giménez, A., & Ares, G. (2020). Suboptimal food, careless store? Consumer's associations with stores selling foods with imperfections to counter food waste in the context of an emerging retail market. *Journal of Cleaner Production*, 262, 121252.

Bahl, S., Milne, G. R., Ross, S. M., & Chan, K. (2013). Mindfulness: A long-term solution for mindless eating by college students. *Journal of public policy & marketing*, 32(2), 173-184.

Barczak, G. (2017). From the editor: Writing a review article. *Journal of Product Innovation Management*, 34(2), 120–121.

Barnhart, M., & Mish, J. (2017). Hippies, hummer owners, and people like me: Stereotyping as a means of reconciling ethical consumption values with the DSP. *Journal of Macromarketing*, 37(1), 57–71.

Becker, D. (2021). Feeling right about doing right, even if it was difficult? Emotional and behavioral consequences of conflict during ethical consumer decision-making. *Journal of Consumer Behaviour*, *20*(3), 817–826.

Becker-Leifhold, C., & Iran, S. (2018). Collaborative fashion consumption—Drivers, barriers, and future pathways. *Journal of Fashion Marketing and Management*, *22*(2), 189–208.

Bhagwat, Y., Warren, N. L., Beck, J. T., & Watson, G. F IV (2020). Corporate sociopolitical activism and firm value. *Journal of Marketing*, *84*(5), 1–21.

Borau, S., Elgaaied-Gambier, L., & Barbarossa, C. (2021). The green mate appeal: Men's pro-environmental consumption is an honest signal of commitment to their partner. *Psychology & Marketing*, *38*(2), 266–285.

Bray, J., Johns, N., & Kilburn, D. (2011). An exploratory study into the factors impeding ethical consumption. *Journal of Business Ethics*, *98*(4), 597–608.

Brough, A. R., Wilkie, J. E., Ma, J., Isaac, M. S., & Gal, D. (2016). Is eco-friendly unmanly? The green-feminine stereotype and its effect on sustainable consumption. *Journal of Consumer Research*, *43*(4), 567–582.

Burke, P. F., Eckert, C., & Davis, S. (2014). Segmenting consumers' reasons for and against ethical consumption. *European Journal of Marketing*, *48*(11/12), 2237–2261.

Cambridge Dictionary. (2021). Available at https://dictionary.cambridge.org/dictionary/learner-english/side-effect

Carrero, I., Valor, C., & Redondo, R. (2020). Do all dimensions of sustainable consumption lead to psychological well-being? Empirical evidence from young consumers. *Journal of Agricultural and Environmental Ethics*, *33*, 145–170.

Carrete, L., Castano, R., Felix, R., Centeno, E., & Gonzalez, E. (2012). Green consumer behavior in an emerging economy: Confusion, credibility, and compatibility. *Journal of Consumer Marketing*, *29*(7), 470–481.

Carrington, M. J., Neville, B., & Canniford, R. (2015). Unmanageable multiplicity: Consumer transformation towards moral self coherence. *European Journal of Marketing*, *49*(7/8), 1300–1325.

Catlin, J. R., Luchs, M. G., & Phipps, M. (2017). Consumer perceptions of the social vs. environmental dimensions of sustainability. *Journal of Consumer Policy*, *40*(3), 245–277.

Cervellon, M. C., & Carey, L. I. (2014). Sustainable, hedonic and efficient: Interaction effects between product properties and consumer reviews on post-experience responses. *European Journal of Marketing*, *48*(7/8), 1375–1394.

Chang, C. (2011). Feeling ambivalent about going green. *Journal of Advertising*, *40*(4), 19–32.

Cho, Y. N., & Baskin, E. (2018). It's a match when green meets healthy in sustainability labeling. *Journal of Business Research*, *86*, 119–129.

Connors, S., Anderson-MacDonald, S., & Thomson, M. (2017). Overcoming the 'window dressing' effect: Mitigating the negative effects of inherent scepticism towards corporate social responsibility. *Journal of Business Ethics*, *145*(3), 599–621.

Coskuner-Balli, G., & Thompson, C. J. (2013). The status costs of subordinate cultural capital: At-home fathers' collective pursuit of cultural legitimacy through capitalizing consumption practices. *Journal of Consumer Research*, *40*, 19–24.

Davies, I. A., & Gutsche, S. (2016). Consumer motivations for mainstream "ethical" consumption. *European Journal of Marketing*, *50*(7/7), 1326–1347.

Dekhili, S., Achabou, M. A., & Alharbi, F. (2019). Could sustainability improve the promotion of luxury products? *European Business Review*, *31*(4), 488–511.

Deng, X., & Xu, Y. (2017). Consumers' responses to corporate social responsibility initiatives: The mediating role of consumer–company identification. *Journal of Business Ethics*, *142*(3), 515–526.

Dermody, J., Koenig-Lewis, N., Zhao, A. L., & Hanmer-Lloyd, S. (2018). Appraising the influence of pro-environmental self-identity on sustainable consumption buying and curtailment in emerging markets: Evidence from China and Poland. *Journal of Business Research*, *86*, 333–343.

Di Domenico, G., Sit, J., Ishizaka, A., & Nunan, D. (2021). Fake news, social media and marketing: A systematic review. *Journal of Business Research*, *124*, 329–341.

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.

Ek Styvén, M., & Mariani, M. M. (2020). Understanding the intention to buy secondhand clothing on sharing economy platforms: The influence of sustainability, distance from the consumption system, and economic motivations. *Psychology & Marketing*, *37*(5), 724–739.

Essoussi, L. H., & Linton, J. D. (2010). New or recycled products: How much are consumers willing to pay? *Journal of Consumer Marketing*, *27*(5), 458–468.

Evers, U., Gruner, R. L., Sneddon, J., & Lee, J. A. (2018). Exploring materialism and frugality in determining product end-use consumption behaviors. *Psychology & Marketing*, *35*, 948–956.

Fagerstrøm, A., Stratton, J. P., & Foxall, G. R. (2015). The impact of corporate social responsibility activities on the consumer purchasing situation. *Journal of Organizational Behavior Management*, *35*(3-4), 184–205.

Fahlquist, J. N. (2009). Moral responsibility for environmental problems—Individual or institutional? *Journal of Agricultural and Environmental Ethics*, *22*(2), 109–124.

Font, X., Elgammal, I., & Lamond, I. (2017). Greenhushing: The deliberate under communicating of sustainability practices by tourism businesses. *Journal of Sustainable Tourism*, *25*(7), 1007–1023.

Frank, P. (2018). Me, my family or the public good? Do inter-role conflicts of consumer–citizens reduce their ethical consumption behaviour. *International Journal of Consumer Studies*, *42*(3), 306–315.

Frank, P., & Brock, C. (2018). Bridging the intention–behavior gap among organic grocery customers: The crucial role of point-of-sale information. *Psychology & Marketing*, *35*(8), 586–602.

Furchheim, P., Martin, C., & Morhart, F. (2020). Being green in a materialistic world: Consequences for subjective well-being. *Psychology & Marketing*, *37*(1), 114–130.

Gelhard, C., & Von Delft, S. (2016). The role of organizational capabilities in achieving superior sustainability performance. *Journal of Business Research*, *69*(10), 4632–4642.

Gershoff, A. D., & Frels, J. K. (2015). What makes it green? The role of centrality of green attributes in evaluations of the greenness of products. *Journal of Marketing*, *79*, 97–110.

Giebelhausen, M., Chun, H. H., Cronin Jr, J. J., & Hult, G. T. M. (2016). Adjusting the warm-glow thermostat: How incentivizing participation in voluntary green programs moderates their impact on service satisfaction. *Journal of Marketing*, *80*(4), 56-71.

Ginder, W., Kwon, W. -S., & Byun, S. -E. (2021). Effects of internal−external congruence-based CSR positioning: An attribution theory approach. *Journal of Business Ethics*, *169*, 355–369.

Gistri, G., Corciolani, M., & Pace, S. (2019). Does the perception of incongruence hurt more? Customers' responses to CSR crises affecting the main reputation dimension of a company. *Journal of Marketing Management*, *35*(7–8), 605–633.

Gleim, M. R., Smith, J. S., Andrews, D., & Cronin, Jr. J. J. (2013). Against the green: A multi-method examination of the barriers to green consumption. *Journal of Retailing*, *89*(1), 44–61.

Grabs, J. (2015). The rebound effects of switching to vegetarianism. A microeconomic analysis of Swedish consumption behavior. *Ecological Economics*, *116*, 270–279.

Green, T., Tinson, J., & Peloza, J. (2016). Giving the gift of goodness: An exploration of socially responsible gift giving. *Journal of Business Ethics*, 134, 29–44.

Greenebaum, J., & Dexter, B. (2018). Vegan men and hybrid masculinity. *Journal of Gender Studies*, 27(6), 637–648.

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.

Habel, J., Schons, L. M., Alavi, S., & Wieseke, J. (2016). Warm glow or extra charge? The ambivalent effect of corporate social responsibility activities on customers' perceived price fairness. *Journal of Marketing*, 80(1), 84–105.

Hammad, H., Muster, V., El-Bassiouny, N. M., & Schaefer, M. (2019). Status and sustainability: Can conspicuous motives foster sustainable consumption in newly industrialized countries? Journal of Fashion Marketing and Management: An International Journal.

Herédia-Colaço, V., & Coelho do Vale, R. (2018). Seize the day or save the world? The importance of ethical claims and product nature congruity. *Journal of Business Ethics*, 152(3), 783-801.

Hassan, L., Shaw, D., Shiu, E., Walsh, G., & Parry, S. (2013). Uncertainty in ethical consumer choice: A conceptual model. *Journal of Consumer Behavior*, 12, 182–193.

Hiller, A., & Woodall, T. (2019). Everything flows: A pragmatist perspective of trade-offs and value in ethical consumption. *Journal of Business Ethics*, 157(4), 893–912.

Hinsch, C., Tang, Y., & Lund, D. J. (2021). Compulsion and reactance: Why do some green consumers fail to follow through with planned environmental behaviors? *Psychology & Marketing*, 38, 2209–2226.

Hoffmann, S., Mai, R., Lasarov, W., Krause, J. S., & Schmidt, U. (2019). Hungry bellies have no ears. How and why hunger inhibits sustainable consumption. *Ecological Economics*, 160, 96–104.

Hofmann, W., Gschwendner, T., Friese, M., Wiers, R. W., & Schmitt, M. (2008). Toward an individual differences perspective on behavior determination by automatic versus controlled processes. *Journal of Personality and Social Psychology*, 95, 962–977.

Hyun, J., Lee, K., & Kim-Vick, J. (2021). Consumer responses to trade-offs in eco-friendly clothing: The moderating effects of fashion leadership and regulatory focus. *Journal of Retailing and Consumer Services*, 59, 102365.

Invernizzi, A. C., Bellucci, M., Acuti, D., & Manetti, G. (2022). Form and substance: Visual content in CSR reports and investors' perceptions. *Psychology & Marketing*, 39(5), 974–989.

Isenhour, C. (2010). On conflicted Swedish consumers, the effort to stop shopping and neoliberal environmental governance. *Journal of Consumer. Behaviour*, 9(6), 454–469.

Janssen, C., Vanhamme, J., Lindgreen, A., & Lefebvre, C. (2014). The catch-22 of responsible luxury: Effects of luxury product characteristics on consumer's perception of fit with corporate social responsibility. *Journal of Business Ethics*, 119, 45–57.

Johnson-Young, E., & Magee, R. G. (2019). The CSR paradox: When a social responsibility campaign can tarnish a brand. *Corporate Communication: An International Journal*, 24(1), 179–196.

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.

Kang, J., & Kim, S. -H. (2013). What are consumers afraid of? Understanding perceived risk toward the consumption of environmentally sustainable apparel. *Family and Consumer Science Research Journal*, 41(3), 267–283.

Karmarkar, U. R., & Bollinger, B. (2015). BYOB: How bringing your own shopping bags leads to treating yourself and the environment. *Journal of Marketing*, 79(4), 1–15.

Khara, T., Riedy, C., & Ruby, M. B. (2021). A cross cultural meat paradox: A qualitative study of Australia and India. *Appetite*, 164, 105227.

Kim, J., Park, J., & Septianto, F. (2020). The impact of socioeconomic status on preferences for sustainable luxury brands. *Psychology & Marketing*. 39, 1563–1578. https://doi.org/10.1002/mar.21671

Lin, Y. -C., & Chang, C. A. (2012). Double standard: The role of environmental consciousness in green product usage. *Journal of Marketing*, 76, 125–134.

Longo, C., Shankar, A., & Nuttall, P. (2019). "It's not easy living a sustainable lifestyle": How greater knowledge leads to dilemmas, tensions and paralysis. *Journal of Business Ethics*, 154(3), 759–779.

Luchs, M. G., Brower, J., & Chitturi, R. (2012). Product choice and the importance of aesthetic design given the emotion-laden trade-off between sustainability and functional performance. *Journal of Product and Innovation Management*, 29(6), 903–916.

Luchs, M. G., & Kumar, M. (2017). "Yes, but this other one looks better/works better": How do consumers respond to trade-off between sustainability and other valued attributes? *Journal of Business Ethics*, 140, 567–584.

Luchs, M. G., Naylor, R. W., Irwin, J. R., & Raghunathan, R. (2010). The sustainability liability: Potential negative effects of ethicality on product preference. *Journal of Marketing*, 74(5), 18–31.

Luo, X., & Bhattacharya, C. B. (2006). Corporate social responsibility, customer satisfaction, and market value. *Journal of Marketing*, 70(4), 1–18.

Manget, J., Roche, C. and Munnich, F. (2009), Capturing the Green Advantage for Consumer Companies. The Boston Consulting Group.

Magnier, L., Mugge, R., & Schoormans, J. (2019). Turning ocean garbage into products—Consumers' evaluations of products made of recycled ocean plastic. *Journal of Cleaner Production*, 215, 84–98.

Mai, R., Hoffmann, S., Lasarov, W., & Buhs, A. (2019). Ethical products = less strong: How explicit and implicit reliance on the lay theory affects consumption behaviors. *Journal of Business Ethics*, 158, 659–677.

Maon, F., Vanhamme, J., De Roeck, K., Lindgreen, A., & Swaen, V. (2019). The dark side of stakeholder reactions to corporate social responsibility: Tensions and micro-level undesirable outcomes. *International Journal of Management Reviews*, 21(2), 209–230.

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, 212–222.

Medina, C. A. G., Martínez-Fiestas, M., Aranda, L. A. C., & Sánchez-Fernández, J. (2021). Is it an error to communicate CSR strategies? Neural differences among consumers when processing CSR messages. *Journal of Business Research*, 126, 99–112.

Meenakshi, N. (2020). Taboo in consumption: Social structure, gender and sustainable menstrual products. *International Journal of Consumer Studies*, 44(3), 243–257.

Meng, M. D., & Leary, R. B. (2021). It might be ethical, but I won't buy it: Perceived contamination of, and disgust towards, clothing made from recycled plastic bottles. *Psychology & Marketing*, 38, 298–312.

Monnot, E., Reniou, F., Parguel, B., & Elgaaied-Gambier, L. (2019). "Thinking outside the packaging box": Should brands consider store shelf context when eliminating overpackaging? *Journal of Business Ethics*, 154(2), 355–370.

Mukendi, A., Davies, I., Glozer, S., & McDonagh, P. (2020). Sustainable fashion: Current and future research directions. *European Journal of Marketing*, 54(11), 2873–2909.

Newman, G. E., Gorlin, M., & Dhar, R. (2014). When going green backfires: How firm intentions shape the evaluation of socially beneficial product enhancements. *Journal of Consumer Research*, 41(3), 823–839.

Noseworthy, T. J., Finlay, K., & Islam, T. (2010). From a commodity to an experience: The moderating role of thematic positioning on congruity-based product judgement. *Psychology & Marketing*, 27(5), 465–486.

Onel, N., Mukherjee, A., Kreidler, N. B., Díaz, E. M., Furchheim, P., Gupta, S. ..., & Wang, Q. (2018). Tell me your story and I will tell you who you are: Persona perspective in sustainable consumption. *Psychology & Marketing*, 35(10), 752–765.

Orazi, D. C., & Chan, E. Y. (2020). "They did not walk the green talk!": How information specificity influences consumer evaluations of disconfirmed environmental claims. *Journal of Business Ethics*, 163, 107–123.

Pancer, E., McShane, L., & Noseworthy, T. J. (2017). Isolated environmental cues and product efficacy penalties: The color green and eco-labels. *Journal of Business Ethics*, 143, 159–177.

Parguel, B., Benoît-Moreau, F., & Larceneux, F. (2011). How sustainability ratings might deter 'greenwashing': A closer look at ethical corporate communication. *Journal of business ethics*, 102(1), 15-28.

Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, 29, 101717.

Peng, N., & Chen, A. (2019). Luxury hotels going green—The antecedents and consequences of consumer hesitation. *Journal of Sustainable Tourism*, 27(9), 1374–1392.

Pizzetti, M., Gatti, L., & Seele, P. (2021). Firms talk, suppliers walk: Analyzing the locus of greenwashing in the blame game and introducing 'vicarious greenwashing'. *Journal of Business Ethics*, 170(1), 21–38.

Raghunathan, R., Naylor, R. W., & Hoyer, W. D. (2006). The unhealthy= tasty intuition and its effects on taste inferences, enjoyment, and choice of food products. *Journal of Marketing*, 70(4), 170–184.

Ramirez, E. (2013). The consumer adoption of sustainability-oriented offerings: Toward a middle-range theory. *Journal of Marketing Theory and Practice*, 21(4), 415–428.

Randle, M., Kemperman, A., & Dolnicar, S. (2019). Making cause-related corporate social responsibility (CSR) count in holiday accommodation choice. *Tourism Management*, 75, 66–77.

Rausch, T. M., & Kopplin, C. S. (2021). Bridge the gap: Consumers' purchase intention and behavior regarding sustainable clothing. *Journal of Cleaner Production*, 278, 123882.

Reczek, R. W., Irwin, J. R., Zane, D. M., & Ehrich, K. R. (2018). That's not how I remember it: Willfully ignorant memory for ethical product attribute information. *Journal of Consumer Research*, 45, 185–207.

Romani, S., Grappi, S., & Bagozzi, R. P. (2016). Corporate socially responsible initiatives and their effects on consumption of green products. *Journal of Business Ethics*, 135, 253–264.

Rothgerber, H. (2020). Meat-related cognitive dissonance: A conceptual framework for understanding how meat eaters reduce negative arousal from eating animals. *Appetite*, 146, 104511.

Rothgerber, H., & Rosenfeld, D. L. (2021). Meat-related cognitive dissonance: The social psychology of eating animals. *Social and Personality Psychology Compass*, 15(5), e12592.

Rowe, Z. O., Wilson, H. N., Dimitriu, R., Charnley, F. J., & Lastrucci, G. (2019). Pride in my past: Influencing sustainable choices through behavioral recall. *Psychology & Marketing*, 36(4), 276–286.

Rust, R. T., & Cooil, B. (1994). Reliability measures for qualitative data: Theory and implications. *Journal of Marketing Research*, 31, 1–14.

Sadiq, M., Adil, M., & Paul, J. (2021). An innovation resistance theory perspective on purchase of eco-friendly cosmetics. *Journal of Retailing and Consumer Services*, 59, 102369.

Scaraboto, D., & Fischer, E. (2013). Frustrated fatshionistas: An institutional theory perspective on consumer quests for greater choice in mainstream markets. *Journal of Consumer Research*, 39, 1234–1257.

Schmuck, D., Matthes, J., & Naderer, B. (2018). Misleading consumers with green advertising? An affect–reason–involvement account of greenwashing effects in environmental advertising. *Journal of Advertising*, 47(2), 127–145.

Sen, S., & Bhattacharya, C. B. (2001). Does doing good always lead to doing better? Consumer reactions to corporate social responsibility. *Journal of Marketing Research*, 38(2), 225–243.

Sheth, J. N., Sethia, N. K., & Srinivas, S. (2011). Mindful consumption: a customer-centric approach to sustainability. *Journal of the Academy of Marketing Science*, 39(1), 21-39.

Shang, J., & Peloza, J. (2016). Can "real" men consume ethically? How ethical consumption leads to unintended observer inference. *Journal of Business Ethics*, 139(1), 129–145.

Sipila, J., Alavi, S., Edinger-Schons, L. M., Dorfer, S., & Schmitz, C. (2020). Corporate social responsibility in luxury contexts: Potential pitfalls and how to overcome them. *Journal of the Academy of Marketing Science*, 49, 280–303.

Skard, S., Jorgensen, S., & Pedersen, L. J. T. (2020). When is sustainability a liability, and when is it an asset? Quality inferences for core and peripheral attributes. *Journal of Business Ethics*. 173(1): 109-132. https://doi.org/10.1007/s10551-019-04415-1

Skarmeas, D., & Leonidou, C. N. (2013). When consumers doubt, watch out! The role of CSR skepticism. *Journal of Business Research*, 66, 1831–1838.

Sun, M., & Trudel, R. (2017). The effect of recycling versus trashing on consumption: Theory and experimental evidence. *Journal of Marketing Research*, 54(2), 293–305.

Szmigin, I., Carrigan, M., & McEachern, M. G. (2009). The conscious consumer: Taking a flexible approach to ethical behaviour. *International Journal of Consumer Studies*, 33(2), 224–231.

Thomas, J. L., Vitell, S. J., Gilbert, F. W., & Rose, G. M. (2002). The impact of ethical cues on customer satisfaction with service. *Journal of Retailing*, 78(3), 167–173.

Torelli, C. J., Monga, A. B., & Kaikati, A. M. (2012). Doing poorly by doing good: Corporate social responsibility and brand concepts. *Journal of Consumer Research*, 38, 948–963.

United Nations (2015). Transforming our world: The 2030 agenda for sustainable development. https://sdgs.un.org/sites/default/files/publications/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf.

Usrey, B., Palihawadana, D., Saridakis, C., & Theotokis, A. (2020). How downplaying product greenness affects performance evaluations: Examining the effects of implicit and explicit green signals in advertising. *Journal of Advertising*, 49, 125–140.

Valor, C., Antonetti, P., & Carrero, I. (2018). Stressful sustainability: A hermeneutic analysis. *European Journal of Marketing*, 52(3/4), 550–574.

Vanhamme, J., & Grobben, B. (2009). "Too good to be true!" The effectiveness of CSR history in countering negative publicity. *Journal of Business Ethics*, 85, 273–283.

Vasil, A. (2019). *How Gucci gang became the world's most sustainable fashion corporation*. Corporate Knights. https://www.corporateknights.com/channels/leadership/gucci-gang-most-sustainable-fashion-corporation-15482401/

Visser, M., Schoormans, J., & Vogtländer, J. (2018). Consumer buying behaviour of sustainable vacuum cleaners—Consequences for design and marketing. *Journal of Cleaner Production*, 195, 664–673.

de Visser-Amundson, A., Peloza, J., & Kleijnen, M. (2021). How association with physical waste attenuates consumer preferences for rescue-based food. *Journal of Marketing Research*, 58(5), 870–887.

Wagner, T., Lutz, R. J., & Weitz, B. A. (2009). Corporate hypocrisy: Overcoming the threat of inconsistent corporate social responsibility perceptions. *Journal of Marketing*, 73(6), 77–91.

Wertenbroch, K. (1998). Consumption self-control by rationing purchase quantities of virtue and vice. *Marketing Science*, 17(4), 317–337.

White, K., Habib, R., & Hardisty, D. J. (2019). How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, 83(3), 22–49.

White, K., MacDonnell, R., & Ellard, J. H. (2012). Belief in a just world: Consumer intentions and behaviors toward ethical products. *Journal of Marketing*, 76(1), 103–118.

White, K., & Willness, C. (2009). Consumer reactions to the decreased usage message: The role of elaborative processing. *Journal of Consumer Psychology*, *19*, 73–87.

Wiedmann, K. P., Hennigs, N., Pankalla, L., Kassubek, M., & Seegebarth, B. (2011). Adoption barriers and resistance to sustainable solutions in the automotive sector. *Journal of Business Research*, *64*(11), 1201–1206.

Wood, S., Robinson, S., & Poor, M. (2018). The efficacy of green package cues for mainstream versus niche brands. How mainstream green brands can suffer at the shelf. *Journal of Advertising Research*, *58*(2), 165–176.

Zane, D. M., Irwin, J. R., & Reczek, R. W. (2016). Do less ethical Shethconsumers denigrate more ethical consumers? The effect of willful ignorance on judgments of others. *Journal of Consumer Psychology*, *26*(3), 337–349.

SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.