



Attitude Without Action-What Really Hinders Ethical Consumption

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Abstract

This study examines the attitude–behavior gap in the context of ethical fashion consumption. Based on the theory of planned behavior we conduct a comparative analysis of $N=1000$ German consumers differentiated into two groups: (1) consumers showing an attitude–behavior gap and (2) consumers not showing a gap (ethical shoppers). A survey is employed including a best–worst scaling experimental methodology, and a logistic regression analysis is conducted to compare the relevance of previously identified ethical consumption barriers for consumers with and without an attitude–behavior gap. Our findings reveal that the majority of the previously attested barriers do not increase the likelihood of the attitude–behavior gap, and thus cannot be classified as purchase barriers. Additionally, we highlight the relevance of perceived social norms and a lack of personal benefit as important antecedents of the attitude–behavior gap. Our findings contribute to the ethical consumption discourse and general consumer research by differentiating the attitude–behavior gap both theoretically and empirically.

Keywords Attitude–behavior gap · Ethical consumption · Theory of planned behavior · Consumer decision-making · Ethical consumer · Ethical consumption barriers

Introduction

Substantial research attempts have been devoted to examining the role of ethics in consumers' purchase decisions (e.g., Haws et al., 2014; Hüttel et al., 2020; Lavuri et al., 2021). This discourse is largely characterized by the analysis of

ethical consumption failures (Littler, 2011), an attested attitude–behavior gap in consumer decision-making (Johnstone & Tan, 2015; Shaw et al., 2016; Zhang et al., 2021) as well as debates on the so-called “myth” of the ethical consumer (Carrigan & Attalla, 2001; Devinney et al., 2010). In this context, a classic definition of ethical consumption is “taking into account the public consequences of private consumption or attempting to use the purchasing power to bring about social change” (Webster, 1975, p. 188). Other scholars define ethical consumption as a practice “that simultaneously optimizes the environmental, social, and economic consequences of acquisition, use and disposition [of goods] in order to meet the needs of both current and future generations” (Phipps et al., 2013, p. 1227).

As several studies show, notwithstanding their articulated ethical attitudes (Markovic et al., 2015; Singh et al., 2012), consumers often fail to “walk their talk” (Carrington et al., 2010) and tend to disregard ethics in their daily consumption decisions (Johnstone & Tan, 2015; Lavuri et al., 2021). To address this puzzle, various studies have focused on identifying potential barriers to ethical consumption (e.g., Caruana et al., 2016; Gupta & Sen, 2013; Pelozo et al., 2013; Reczek et al., 2017). To this end, numerous studies have attributed consumers' reluctance to engage in ethical purchase to a range of factors, including lack of information, high prices,

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and inconvenience (e.g., Berberyan et al., 2018; Bray et al., 2011; Gleim et al., 2013; Gupta & Ogden, 2009). However, existing studies on ethical consumption barriers face two remarkable limitations. First, whether empirical samples are congruent with consumers showing an attitude–behavior gap is often unclear. This is because the methodological step of measuring the presence of an attitude–behavior gap in a sample has often been omitted in previous studies (Bray et al., 2011; Jacobs et al., 2018; Park & Lin, 2020; Yamoah & Acquaye, 2019). Hence, samples could have been composed of individuals who might not display an attitude–behavior gap, which can limit the validity of existing research results.

Second, although some studies explicitly investigated and controlled for the attitude–behavior gap in their samples, they have not systematically included ethical shoppers as a control group (see e.g., Johnstone & Tan, 2015). This constrains the possibility of differentiating barriers that are exclusively linked to consumers exhibiting an attitude–behavior gap from those that also affect ethical shoppers but do not increase the likelihood of a gap. For instance, one can perceive ethical consumption as inconvenient because of the necessity to invest additional time or effort and nevertheless consume ethically. In this vein, it is well known in the existing literature that consumers can overcome purchase barriers such as high prices (Kalra & Goodstein, 1998; Netemeyer et al., 2004) and limited availability (Amaldoss & Jain, 2005; Verhallen, 1982) if, for example, brand values are perceived as strong. However, in the field of ethical consumption, previously identified purchase barriers have rarely been tested on ethical shoppers to verify their validity.

To address this gap, our research aims to create a more nuanced understanding of the distinct barriers faced by consumers with an attitude–behavior gap as opposed to those that are perceived similarly by ethical shoppers but do not increase the likelihood of the gap. Against this background, our study undertakes a comparative analysis of two consumer groups, namely (1) those who have ethical attitudes but do not engage in ethical consumption and (2) those who share the positive attitude and purchase ethically. Our core research question is as follows: How do barriers to ethical consumption vary between consumers who show an attitude–behavior gap versus those who do not show a gap?

Pursuing this research question, we utilized a survey among a nationally representative sample of $N=1000$ German consumers conducted in the autumn of 2019. To measure ethical attitudes, we used a best–worst scaling (BWS) experiment (Auger et al., 2007) and subsequently applied a logistic regression analysis to determine the barriers that significantly vary between the two groups of consumers and therefore increase the likelihood of the attitude–behavior gap.

Our study is based on the theory of planned behavior (TPB) (Ajzen, 1991), which explains the path to behavior through attitudes, subjective norms as well as perceived behavioral control (PBC), and underpins most of the research on ethical consumption (Chatzidakis et al., 2007; Paul et al., 2016). We focus on the field of ethical fashion consumption, in which the gap between consumers' attitudes and their purchase decisions is particularly manifest (Lee et al., 2019). Consumption of clothing makes up a substantial share in consumer spending (McKinsey, 2017), and fashion production is well documented for its often negative impact on workers' rights, health, and safety, as well as extensive environmental pollution and greenhouse gas emittance (Brydges, 2021; Ellen MacArthur Foundation, 2017; International Labor Organization, 2017; McKinsey, 2019). Notwithstanding the documented negative impact of fast fashion (Brydges, 2021; Sun et al., 2021; United Nations Economic Commission for Europe, 2018), consumers' ethical concerns in terms of these issues often do not lead to corresponding ethical purchase behavior (Han et al., 2017). In this context, we define ethical fashion consumption as purchasing clothes from brands that have a fully integrated ethical value creation approach (for our more detailed definition, see Appendix A).

Our study makes three main contributions: First, our findings indicate that most of the previously attested ethical consumption barriers, specifically perceptions of higher price, low quality, limited availability, inconvenience, and lack of information (e.g., Bray et al., 2011; Frommeyer et al., 2022; Johnstone & Tan, 2015), do not increase the likelihood of the attitude–behavior gap. This is because they relate to a similar (not significantly different) extent to both groups—consumers who do not engage in ethical consumption despite ethical attitudes and those who shop ethically. Hence, these barriers alone cannot explain the difference in behavior between ethical shoppers and consumers with an attitude–behavior gap.

Second, we show that the two main barriers that contribute to the gap are a weaker perception of social pressure and a lack of personal benefit, as they are significantly linked to the likelihood of belonging to the group of consumers who exhibit an attitude–behavior gap.

These findings are relevant for the ethical consumption discourse as they suggest that previously identified ethical consumption barriers must be reevaluated in terms of their role as antecedents of the attitude–behavior gap. We inform scientific debates on the drivers and barriers of the attitude–behavior gap (e.g., Govind et al., 2019; Jacobs et al., 2018; Park & Lin, 2020), on the relationship between ethics and product preferences (e.g., Barbarossa & De Pelsmacker, 2016; Luchs & Kumar, 2017) as well as on cognitive/

situational triggers of unethical/ ethical consumption (e.g., Hosta & Zabkar, 2021; Yamoah & Acquaye, 2019).

Third, our study also yields managerial contributions by informing marketers on the relative importance of ethical consumption barriers and allowing them to focus their communication efforts on a narrower scope of relevant barriers.

The rest of the article is structured as follows: First, we describe the theoretical premise of the study and review the scientific literature on ethical consumption to derive our hypotheses. Then, we describe our empirical approach and subsequently discuss our main findings and contribution. The article concludes by presenting the implications of the study, its limitations, and a future research outlook.

State of the Literature and Hypotheses

Critical Review of Existing Studies

In the face of mounting environmental and social problems, obtaining a profound understanding of the impetus and constraints to ethical consumption and determining pathways toward more ethical purchasing represent major theoretical and practical tasks (Besharat et al., 2024; White et al., 2019). Several studies report that consumers are expressing an increasing appreciation of ethical products and a willingness to pay an extra price to consume ethically (Hüttel et al., 2020; Loureiro et al., 2002; Singh et al., 2012). Yet, such findings have been largely challenged because of the widespread observation of a discrepancy between consumers' words and actions (e.g., Bray et al., 2011; Carrigan & Attalla, 2001; Chatzidakis et al., 2007), which has been labeled in the literature as the attitude–behavior gap (e.g., Carrington et al., 2010; Park & Lin, 2020).

Puzzled by the gap between attitudes and behavior, past research has introduced different factors that can affect purchase behavior alongside ethical attitudes (e.g., Khan et al., 2024; Saari et al., 2021; Sánchez-García et al., 2021). These include, for instance, higher prices, limited availability, and a lack of information related to ethical consumption (e.g., Frommeyer et al., 2022; Yamoah & Acquaye, 2019). However, numerous existing studies have two major limitations.

First, in many cases authors chose samples with limited representativeness and study designs with no *ex ante* measurement of whether participants have ethical attitudes but fail to act on them. Hence, participants in those studies provide data about an attitude–behavior gap, which they may not exhibit. This issue concerns studies based on general samples of consumers discriminated neither by their ethical attitudes nor purchase behavior (e.g., Bray

et al., 2011; Carrigan & Attalla, 2001), or studies in which ethical attitudes, intentions or behavior were measured (see e.g., Claudy et al., 2013; Jacobs et al., 2018; Park & Lin, 2020; Yamoah & Acquaye, 2019) yet the verification of an attitude–behavior gap within samples was often omitted (see an exemplary overview in Table 1).

Accordingly, ElHaffar and colleagues state, based on their literature review on the attitude–behavior gap, that “the step of testing for the existence of the green gap in participants is neglected in many studies” (2020, p. 13). For instance, in the seminal paper by Bray et al. (2011), ethical consumption barriers including price, lack of information, and low quality were identified based on qualitative focus group discussions with a general sample of consumers, without testing whether participants exhibit an attitude–behavior gap. Such sampling limitations can lead to a limited validity of research findings when the attitude–behavior gap is not measured as part of the research design.

Second, although a few studies did test for an attitude–behavior gap among participants, they often included only those individuals with a gap and excluded ethical shoppers. For instance, a study by Johnstone and Tan (2015) focused on consumers with an attitude–behavior gap and identified ethical consumption barriers including high prices and inconvenience. However, since ethical shoppers were not systematically included in the sample, testing whether the identified barriers are exclusively linked to consumers exhibiting a gap or also with ethical shoppers who engage in ethical consumption despite barriers was not possible. In other words, a sample without a control group hinders a nuanced understanding of which barriers are distinctive to consumers who exhibit a gap versus those who act upon their ethical attitudes despite experiencing similar barriers.

In fact, substantial research has revealed that consumers can overcome perceived purchase barriers and engage in the intended behavior despite the existence of obstacles (e.g., Steinhart et al., 2013). For example, consumers were found to overcome negative perceptions of higher prices if they associate a brand with exclusive attributes (Kalra & Goodstein, 1998; Netemeyer et al., 2004), if they perceive emotional value from the brand (Li et al., 2012), or if higher prices are linked to a more favorable country of product origin (Koschate-Fischer et al., 2012). Moreover, research has shown that limited availability can strengthen the perceived value of products (Amaldoss & Jain, 2005; Verhallen, 1982) and ultimately lead to increased consumer involvement and purchase intentions (Steinhart et al., 2013).

In summary, despite rich existing insights into potential barriers to ethical consumption, it remains unclear which of these barriers are distinctively linked to the attitude–behavior gap. This uncertainty persists, considering that numerous studies aiming to identify barriers to ethical consumption

Table 1 Exemplary studies on the attitude-behavior gap

Study	Perceived barrier(s)	Context	Sample	Filtered for an attitude-behavior gap	Comparison between consumers with and without a gap	Methodology	Dependent variable(s)/ Research object(s)
Bray et al. (2011)	Price, quality, lack of information	Ethical consumption in general	Generic sample	No	No	Qualitative	Ethical purchase behavior
Yamoah and Acquaye (2019)	Price, availability	Sustainable food consumption	Sustainable shoppers	No	No	Quantitative	Retail sales value/ actual purchase behavior
Johnstone and Tan (2015)	Price, inconvenience	Green consumption	Sample with a gap	Yes	No	Qualitative	Purchase behavior
Gleim et al. (2013)	Price, quality, availability, inconvenience	Green consumption	Generic sample	No	No	Mixed	Purchase behavior, purchase intention
Shaw et al. (2006)	Information, availability	Ethical fashion consumption	Consumers with an ethical purchase intention	Unclear	No	Mixed	Purchase behavior
Carrigan and Attalla (2001)	Price, quality, inconvenience	Ethical consumption in general	Generic sample	No	No	Qualitative	Purchase behavior
Gleim and Lawson (2014)	Price, quality, availability, inconvenience	Green consumption	Generic sample	No	No	Mixed	Purchase behavior, purchase intention
Claudy et al. (2013)	Price	Renewable energy adoption	Homeowners	No	No	Mixed	Purchase intention
Jacobs et al. (2018)	Quality/durability	Ethical fashion consumption	Female German consumers	No	No	Quantitative	Purchase behavior
Park and Lin (2020)	Subjective norms, availability	Ethical fashion consumption	Young fashion conscious consumers	No	No	Quantitative	Purchase intention, purchase experience
Present study	High price, low quality, limited availability, inconvenience, lack of information, lack of personal benefit, lack of social norms	Ethical fashion consumption	Generic sample	Yes	Yes	Quantitative	Attitude-behavior gap

conducted research without testing the existence of the gap in their samples. Furthermore, in most studies, control groups of ethical shoppers were omitted creating concerns regarding the statistical significance of the identified barriers in contributing to an attitude–behavior gap.

Derivation of Hypotheses

Stemming from the aforementioned limitations of the current literature, in this section, we review the most commonly cited ethical consumption barriers and derive hypotheses to reassess their influence on two consumer groups: (1) consumers who show an attitude–behavior gap and (2) those who do not show a gap (ethical shoppers). We argue that reassessing the relative importance of the attested ethical consumption barriers based on two consumer groups will shed new light on the existing and future research by differentiating the barriers that significantly increase the likelihood of the attitude–behavior gap.

Rich accounts of studies on ethical consumption are based on the framework of the TPB (Kumar, 2021; Lin & Shi, 2022; Paul et al., 2016). According to this theory, behavior depends on intention as a function of three independent determinants: attitudes, subjective norms, and PBC (Ajzen, 1991). Despite strong evidence for the predictive power of the TPB, it has been shown that for some behaviors and contexts, the inclusion of context-specific factors may enhance the predictive utility of the model (e.g., Conner & Armitage, 1998). As noted by Ajzen (1991), the TPB is open to the addition of further variables if they capture a significant proportion of the variance in intention or behavior apart from the theory’s original determinants.

In this vein, a prevailing approach to explaining the puzzle of the attitude–behavior gap has been through the addition of ethical consumption barriers to the TPB exploring them as a component of PBC (e.g., Hassan et al., 2016; Yamoah et al., 2016). According to Ajzen (1991), the notion of PBC is based on the concept of perceived self-efficacy by Bandura (1977, 1982), which relates to a person’s perception of “how well one can execute courses of action required to deal with prospective situations” (1982, p. 122). PBC, hence, concerns beliefs that are related to difficulties in engaging in a certain behavior and has therefore been viewed in the context of ethical consumption research as a person’s perception of factors that may deter him/ her from purchasing ethically (Yamoah et al., 2016).

Against this background, we derive the following hypotheses that relate to core ethical fashion consumption barriers as identified by previous studies: high price, low quality, limited availability, inconvenience, lack of information, lack of personal benefit, and social norms.

High Price

Eckhardt et al. (2010) describe the economic rationalist argument against ethical consumption as the costs and benefits ratio due to which dominant attributes of products, such as their price, outweigh ethical credentials. It is, therefore, essential for consumers to perceive the ethical value of a product as being higher than or in accordance with the price they pay for it (Hinterhuber & Liozu, 2012). In this context, the term price premium refers to the amount consumers are prepared to spend for a product’s green attributes (Colasante & D’Adamo, 2021), social (Auger et al., 2008; McNeill & Venter, 2019), and/ or economic benefits (Gossen & Kropfeld, 2022).

Although limited evidence suggests that consumers are willing to pay a premium for ethical credentials (e.g., Aertsens et al., 2011), the prevailing view holds that high prices that are associated with ethical products serve as inhibitors to ethical consumption choices (Johnstone & Tan, 2015; Liobikienė et al., 2017; Yamoah & Acquaye, 2019). Against this background, we hypothesize that.

H1: *The higher the perceived price of ethical clothing, the higher the likelihood that consumers will show an attitude–behavior gap (see Figure 1 for the overview of hypotheses).*

Low Quality

Besides price, quality is known as a significant decision-making criterion in clothing consumption (Jacobs et al., 2018; Niinimäki, 2010). In this context, it has been revealed that consumers only opt for ethical clothing if the

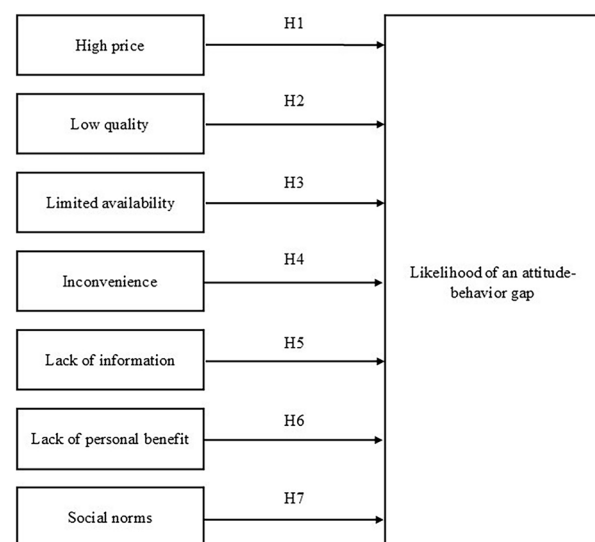


Fig. 1 Overview of hypotheses

functional aspects of the textiles, especially quality, meet their expectations (Carrigan & Attalla, 2001). As such, consumers' judgment of quality is influenced by various factors (e.g., Connor-Crabb & Rigby, 2019), and aesthetic appeals, such as form, style, and fashionableness, are crucial for consumers' evaluation of quality (e.g., De Klerk & Lubbe, 2008; Swinker & Hines, 2006). This leads us to the following hypothesis:

H2: *The lower the perceived quality of ethical clothing, the higher the likelihood that consumers will show an attitude–behavior gap.*

Limited Availability

Other than price and quality, studies have found that limited availability of ethical products can lead to consumer dissatisfaction (Gleim et al., 2013; Tanner & Kast, 2003), impede ethical purchase intentions (Hassan et al., 2016), and ultimately hinder consumers' purchase decisions (Hamilton et al., 2014, 2019; Yamoah & Acquaye, 2019). Hence, unless consumers are aware of where to buy ethical products, they are unlikely to engage in ethical consumption. This is particularly prevalent in niche markets including ethical fashion where consumers face higher uncertainties around accessing and identifying ethical clothing (Frommeyer et al., 2022). According to Hamilton et al. (2014, 2019), in the event of unavailability, individuals will either abstain from consumption or opt for an alternative within the same product category. Following this line of arguments, we derive the following hypothesis:

H3: *The stronger the perception of limited availability of ethical clothing, the higher the likelihood that consumers will show an attitude–behavior gap.*

Inconvenience

Besides limited availability, consumers perceive ethical consumption as inconvenient due to the necessity to invest time, effort, and cognitive resources, which can eventually lead to reluctance to purchase ethically (Barbarossa & De Pelsmacker, 2016; Gupta & Ogden, 2009). The common concept of inconvenience is based on the premise that experience is inferred from the efforts involved (Katan, 2022). In this vein, consumers' perceived inconvenience of purchasing ethical products has been described as their assessment of and reluctance to make personal efforts to buy ethically (Follows & Jobber, 2000, p. 727). Accordingly, Barbarossa and De Pelsmacker (2016) have revealed that perceived inconvenience reduces the intention of non-green

consumers to embark on buying ethically and negatively affects green consumers' ethical purchase behavior. Likewise, consumers have been shown to view ethical consumption as a time-intensive, economically detrimental, and stressful experience (Gupta & Ogden, 2009). Therefore, we assume the following relationship:

H4: *The higher the perceived inconvenience of purchasing ethical clothing, the higher the likelihood that consumers will show an attitude–behavior gap.*

Lack of Information

Moreover, a lack of information about ethical products has frequently been cited as an additional purchase barrier (Bray et al., 2011; Folkes & Kamins, 1999; Osburg et al., 2017). This lack is especially manifest when consumers are not aware of ethical standards and labels that allow them to differentiate ethical products from conventional alternatives (Bray et al., 2011). Considering this, research in the context of the TPB has found that information regarding products and sustainability issues significantly influence purchase intentions (Frommeyer et al., 2022) as well as ethical purchase behavior (Hosta & Zabkar, 2021). In this vein, numerous studies emphasize the role of environmental knowledge as a critical driver of ethical purchase decisions (e.g., Goh & Balaji, 2016; Rausch & Kopplin, 2021; Wang et al., 2014; Yadav & Pathak, 2016).

However, some studies have highlighted the potential negative effects of information on ethical consumption decisions. For instance, Bly et al. (2015) found that excessive information can overwhelm consumers, leading to decision paralysis. Yet, the broader body of research suggests that increased knowledge about ethical issues, particularly in the apparel industry, leads to greater consumer support for social causes (Dickson, 2000). Accordingly, Frommeyer et al. (2022) argue that rather than causing paralysis, a high level of perceived knowledge enhances consumers' sense of responsibility and competence, empowering them to contribute to socially responsible fashion production. The latter is closely related to PBC because when consumers lack sufficient information about ethical issues and are unaware of where to purchase ethical clothing, they may feel powerless to address social and environmental challenges through their choices. This in turn can hinder their ethical purchase behavior (Frommeyer et al., 2022; McNeill & Moore, 2015), which leads us to the following hypothesis:

H5: *The stronger the perception of a lack of information about ethical clothing, the higher the likelihood that consumers will show an attitude–behavior gap.*

Lack of Personal Benefit

Additionally, studies have attributed purchasing motives to consumers' judgments of personal value (e.g., Dodds et al., 1991; Sánchez-Fernández & Iniesta-Bonilla, 2007). In this context, consumption decisions are often triggered by individual rather than social interests. Even for consumers with ethical attitudes, purchase decisions were found to only be activated when the outcome had a direct effect on the self (Prakash et al., 2019; Ryoo et al., 2020; White & Peloza, 2009; Yadav, 2016). In this vein, individuals primarily strive to safeguard their personal interests (Kish-Gephart et al., 2014; Simpson et al., 2018) as self-centered impulses arise automatically, whereas other-centered impulses demand overcoming one's self-centered impulses (Baumeister & Bushman, 2020). This is particularly the case if personal costs related to a price premium or time expenditure are to be incurred (ibid; Besharat et al., 2024; DeWall et al., 2008).

For instance, studies have shown that consumers are ready to purchase premium, green products if these promote their self-interest such as improved health (e.g., Joergens, 2006; Orzai et al., 2021; Shaw et al., 2006). Self-centered decisions are particularly reinforced when a trade-off between self- and other-centered attributes is involved, with self-centered attributes emerging as more salient (Besharat et al., 2024). Following this body of research (see also Holmes et al., 2002; Ratner & Miller, 2001), we hypothesize the following relationship:

H6: *The stronger the perception of the lack of a personal benefit in ethical fashion consumption, the higher the likelihood that consumers will show an attitude–behavior gap.*

Social Norms

Finally, social norms or perceptions of what is socially acceptable and endorsed have been proven to have a significant impact on ethical consumer behavior (Abrahamse & Steg, 2013; Cialdini et al., 2006; White et al., 2019). For example, referring to social norms through the message that other guests in a hotel are taking part in an energy-saving project has been shown to have a greater impact on consumers' energy-saving than a regular environmental message (Goldstein, et al., 2008). Another study has found that publicizing information regarding the recycling of plastics reinforces social norms and enhances consumers' willingness to recycle (Mehmood et al., 2024). Therefore, social validation, or beliefs concerning what is socially acceptable, are considered to be crucial factors in ethical consumption

capable of evoking ethical consumer behavior (Abrahamse & Steg, 2013; Frommeyer et al., 2022; White et al., 2019).

Hence, despite ethical attitudes, many consumers are not motivated to change their behavior unless ethical consumption becomes a behavioral social norm within their circle (Kim & Chung, 2011; Niinimäki, 2010) or until there is societal pressure to purchase ethically (Biel & Thøgersen, 2007; Salmivaara & Lankoski, 2019). Accordingly, reference to social norms has been documented to elicit pro-environmental behaviors (Jaich, et al., 2022, 2023), including saving energy (Nolan et al., 2008), consuming ethical clothing (Kim et al., 2012), and recycling (White & Simpson, 2013). Notably, studies have concluded that social norms are especially relevant in the realm of fashion consumption as clothing is a means for consumers to express their social standing and receive social affirmation (Eastman et al., 2018; Kim et al., 2012). Thus, we derive the following hypothesis:

H7: *The stronger the perception of a lack of social norms, the higher the likelihood that consumers will show an attitude–behavior gap.*

By testing these hypotheses on consumer groups with and without an attitude–behavior gap, we aim to uncover whether and to what extent ethical consumption barriers vary between the two groups. If no significant distinctions emerge between the two consumer groups, these barriers do not inherently increase the likelihood of the attitude–behavior gap and, thus, should no longer be considered as general antecedents of the gap.

Data and Methods

Study Design and Sample

The empirical findings of this study are derived from a nationally representative dataset from a survey carried out in autumn 2019 among $N = 1000$ German consumers. Based on a questionnaire developed by our research team, participants were recruited, and the empirical data were collected by a professional market research agency that owns nationally representative survey panels across the globe. This allowed us to obtain a nationally representative sample from Germany in terms of gender, age, household income, and education. Through multiple compliance and validation checks as well as profiling across thousands of attributes in a range of categories, the trustworthiness of the overall sample and the accuracy of the data collected have been ensured by the agency.

Prior to running the survey at a large scale, a pilot study with approximately 100 participants was conducted by the commissioned research agency. The pilot study focused on ensuring that the questionnaire was well-designed, of adequate length and clarity, and easy to answer. When the questionnaire proved to be accurate and feasible, the survey was launched in full. The structure of the questionnaire as well as the applied measures and scales will be elaborated on in the next section.

Measures

The questionnaire was structured in three parts: In the first section, we measured whether respondents have ethical attitudes using a BWS experiment. In the second part, information on respondents' demographics was gathered, and in the third section, potential ethical consumption barriers, as well as respondents' ethical purchase behavior, were measured.

To measure attitudes, the BWS experiment was based on a unidimensional interval-level scale (Auger et al., 2007; Kim et al., 2019; Scarpa et al., 2011) to reduce the influence of the social desirability bias on consumer responses (Auger & Devinney, 2007; Carrington et al., 2010; King & Bruner, 2000). The BWS method has been proven by numerous studies to be superior to rating scales (Lee et al., 2007) and not susceptible to issues such as respondents' distinct response styles (Baumgartner & Steenkamp, 2001). Furthermore, BWS has been documented to be effective in validating consumer priorities by providing stronger discrimination between attributes (Yoonjoung Heo et al., 2022). As such, the method has been successfully employed to obtain reliable estimates of attitudes, values and preferences in numerous research contexts including consumer research (Louviere & Islam, 2008), personality studies (Lee et al., 2008), and health economics (Lancsar et al., 2007).

Our experiment was specifically designed to assess how respondents make trade-offs between four ethical attributes ([1] no child labor, [2] minimum environmental impact, [3] safe working conditions, and [4] paying minimum wages) and four traditional purchase attributes ([5] low price, [6] quality, [7] availability, and [8] fashionableness) (see Appendix A). The selection of ethical attributes (1–4) was grounded on the extant literature on corporate social responsibility and ethical consumption, which shows that consumers' concerns for the aforementioned issues can be considered as a proxy for ethical attitudes (e.g., Astous & Legendre, 2008; Barbarossa & Pelsmacker, 2016; Govind et al., 2019). The traditional purchase attributes (5–8) have been most frequently cited to be prioritized by consumers when faced with a trade-off between traditional and ethical

attributes (e.g., Carrington et al., 2010; Hiller & Woodall, 2018; Johnstone & Tan, 2015; Luchs & Kumar, 2017).

Compiling traditional and ethical attributes in the BWS experiment and prompting participants to make trade-off decisions made it possible to derive accurate measures of ethical attitudes. Participants were required to review 10 sets of four attributes and to select one attribute out of the four, which they perceived as "most important," and one, which they perceived as "least important." The attributes were the same for all respondents. Thereby, the likelihood of a social desirability bias was substantially reduced for estimates of attitudes since respondents had to make a discriminatory choice between ethical and traditional product attributes (Auger et al., 2007).

The measurement of attitudes was then based on the difference in the frequency that ethical attributes were chosen as "most important" versus "least important" (Finn & Louviere, 1992; Marley & Louviere, 2005). In this context, frequency indicates the number of times ethical attributes were selected as either "most important" or "least important". To calculate attitude measures, we subtracted the number of sets in which ethical attributes were chosen as least important from the number of sets in which ethical attributes were chosen as most important so that the final values ranged between -10 and 10 . When this difference was equal to or higher than 1 , indicating that ethical attitudes were selected as most important more often than least important it was considered a proxy for ethical attitudes and served as a cutoff limit. Therefore, all respondents whose ethical attitudes fell between -10 and 0 were removed from the final analysis.

When deriving measures for perceived ethical consumption barriers, we followed the recommendations of Ajzen (2002) and Fishbein and Ajzen (2015) on designing a TPB-based questionnaire and added context-specific items published in the ethical consumption literature (see, e.g., Shaw et al., 2000; Yamoah et al., 2016) (see the full list of measures and sources in Appendix B). Similar to other studies (e.g., Hassan et al., 2016; Yamoah et al., 2016), we measured the barriers as part of the TPB's PBC. To measure perceived social norms, a five-item scale designed by Chatzidakis et al. (2016) was utilized. To measure consumers' purchase behavior, the self-reported past purchase behavior of respondents was taken as a proxy, which is a common indicator and procedure in consumer behavior studies (e.g., Chatzidakis et al., 2016; Yamoah & Acquaye, 2019). All barriers were measured on a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The following section will elaborate on the data analysis.

Data Analysis

As we started data analysis, we first controlled for the common method bias by employing Harman's single-factor test. An exploratory factor analysis was applied to assess the unrotated factor solution including all variables of the study. The results proved that the study does not contain a common method bias since the first unrotated factor explained only 25.47% of the cumulative variance, which is considerably below the accepted 50% limit (Podsakoff et al., 2003).

Our main data analysis proceeded in four sequential steps. First, we measured the ethical attitudes of all respondents in the sample using the BWS method. Second, to focus on the attitude–behavior gap, we excluded all respondents whose ethical attitudes fell below the cutoff limit. Third, we categorized the remaining respondents into two groups based on their past purchase behavior: those with an attitude–behavior gap, who possess ethical attitudes but do not purchase ethically, and ethical shoppers who do not show a gap. Fourth, we compared the impact of the ethical consumption barriers on the two groups by performing a logistic regression to determine the barriers statistically associated with the likelihood of an attitude–behavior gap. The following paragraphs explain the process in further detail.

Steps 1–3: Measuring Attitudes and Deriving Two Consumer Groups

The first inclusion criterium for the overall sample was the presence of ethical attitudes among respondents (Step 1). After removing 272 respondents whose attitudes were below the cutoff limit, the final sample consisted of 728 respondents (Step 2). Next, we distinguished respondents based on their reported past purchase behavior resulting in two groups: one group composed of 429 consumers who have ethical attitudes but have not purchased ethically (consumers with an attitude–behavior gap) and a second group including 299 consumers who have purchased according to their ethical attitudes (consumers showing no gap) (Step 3). Appendix C discloses the key demographics of these two groups.

Step 4: Logistic Regression Analysis

As the last step, we conducted a logistic regression analysis (Gelper et al., 2018; Saxton & Neely, 2019) to explore the extent to which the previously attested ethical consumption barriers are statistically associated with the likelihood of an attitude–behavior gap. Thus, the dependent variable of the analysis was the odds ratio in favor of an attitude–behavior gap (or likelihood of consumers belonging to group one versus group two), and the independent variables were the ethical consumption barriers as well as the respondents'

demographics. Since all respondents without ethical attitudes were removed from the sample prior to conducting the analysis, attitudes are not part of the final model. Instead, attitudes served exclusively as a screening criterion to allow assessing the probability of consumers belonging to a group that exhibits an attitude–behavior gap, in comparison to the group that shows no gap.

The logistic regression analysis yields a discrete discriminant model and unlike discriminant analysis does not require assuring a joint multivariate normality (Aldrich & Nelson, 1984; Auger et al., 2007). This method is particularly suitable for our study as our dependent variable is binary (Hair et al., 2006; Lanis & Richardson, 2015). Furthermore, it is considered an appropriate statistical method for the analysis of unequal samples from two groups as the coefficients of the independent variables are not impacted by the disproportionate sampling rates (Maddala, 1991).

Findings

This section discusses the findings of the data analyses. The results of the logistic regression analysis allowed distinguishing the previously attested barriers of ethical consumption based on their statistical relevance for the attitude–behavior gap. Table 2 depicts the summary statistics of the data displaying the means, standard deviation, and variance of ethical consumption barriers for the overall consumer sample (after removing participants without ethical attitudes).

The estimates of the logistic regression analysis revealed the extent to which the previously identified ethical consumption barriers are statistically associated with the likelihood of the attitude–behavior gap. Table 3 shows the results of the logistic regression analysis. The table depicts the log-odds and standard errors concerning

Table 2 Summary statistics of the perceived ethical consumption barriers

Perceived barriers	Mean	Variance	St. deviation
High price	4.24	2.18	1.48
Limited availability	4.72	2.17	1.48
Lack of information	4.19	2.05	1.42
Low quality	4.11	1.81	1.35
Lack of personal benefit	3.60	2.09	1.44
Inconvenience	3.85	2.06	1.44
Perceived social norms ¹	4.02	1.32	1.15

Minimum score 1, maximum score 7

¹ The higher the value, the stronger the perceived social norms. Further details on the measurement can be found in Appendix B

Table 3 Logit estimates of attitude-behavior gap and no gap segments versus perceived barriers

Perceived barriers	B(Gap)	Exp(B)	St. error
High price	-0.040	0.961	0.071
Limited availability	0.049	1.051	0.080
Lack of information	0.129	1.138	0.087
Low quality	-0.027	0.973	0.091
Lack of personal benefit	0.234**	1.263	0.077
Inconvenience	0.001	1.001	0.081
Perceived social norms ¹	-0.955**	0.385	0.100
<i>Demographics</i>			
Gender	-0.162	0.851	0.178
Age	0.196*	1.216	0.069
Education	-0.273**	0.761	0.082
Income	-0.282**	0.754	0.082

Reference category no gap; ** $p < 0.005$, * $p < 0.05$

Total percent classified correctly: Gap: 82.5%; No Gap: 59.9%; Overall: 73.2%

Pseudo- R^2 : Cox and Snell: 0.25; McFadden: 0.21; Nagelkerke: 0.33

Model likelihood ratio test: χ^2 (df = 11) = 205.689, Prob > χ^2 = 0.000

¹ The higher the value, the stronger the perceived social norms. Further details on the measurement can be found in Appendix B

a consumer's belonging to the group that displays an attitude-behavior gap in comparison with the reference group that exhibits no gap, as a function of each barrier; 73.2% of the cases are classified correctly, and the model yielded a statistically significant likelihood ratio test with a χ^2 of 205.689 and the probability $> \chi^2 = 0.000$. The pseudo- R^2 exhibits a good fit with a Cox and Snell value of 0.25, a McFadden value of 0.21, and a Nagelkerke value of 0.33.

In this step, we have also controlled for the mean values of ethical attitudes between the two groups. The analysis showed that consumers showing no attitude-behavior gap have a slightly higher level of ethical attitudes (7.5 out of 10) in comparison with consumers showing a gap (6.9 out of 10). The latter is particularly noteworthy as it shows that contrary to what might be expected, there is not a large difference in positive attitudes between consumers who buy ethically and those who do not, which means that the strength of attitude is no crucial precondition for ethical purchases.

The calculated estimates imply that the perceived lack of personal benefit ($p < 0.005$) in ethical fashion consumption and the extent of perceived social norms ($p < 0.005$) are the only statistically relevant barriers differentiating the two consumer groups. Consumers showing an attitude-behavior gap perceive a stronger lack of personal benefit in ethical consumption as well as a significantly lower level of social norms. We also controlled for consumer demographics, which showed that the higher the respondents' educational level ($p < 0.005$) and

income ($p < 0.005$), the more likely they are to consume in line with their ethical attitudes. The analysis also revealed that age is an important differentiator: The older consumers are, the more likely they are to exhibit a discrepancy between attitude and behavior ($p < 0.05$). The other barriers as well as gender were found to have no statistical association with any of the two consumer groups.

In summary, the results provide supportive evidence for H6 and H7, whereas no supportive evidence is found for H1, H2, H3, H4, and H5. As such perceived high price, low quality, limited availability, inconvenience, and lack of information are found not to increase the likelihood of the attitude-behavior gap due to not yielding a discriminatory relationship with the consumer group showing a gap.

Discussion and Implications

This study presents novel insights into the discourse of ethical consumption and the attitude-behavior gap by elucidating the discriminatory power of presumed ethical consumption barriers. Although the gap between ethical attitudes and purchase behavior has been attributed to various barriers, prior research faced two main limitations. First, there remained a lack of clarity in terms of the extent to which the samples in previous studies were congruent with consumers showing an attitude-behavior gap. This ambiguity stemmed from the frequent omission of measures to verify the presence of an attitude-behavior gap among study participants (Bray et al., 2011; Claudy et al., 2013; Jacobs et al., 2018; Park & Lin, 2020; Yamoah & Acquaye, 2019). Second, although several studies specifically examined consumers exhibiting an attitude-behavior gap, they largely omitted ethical shoppers from their analyses (see, e.g., Johnstone & Tan, 2015). This constrained the capacity to discern, which barriers are uniquely associated with consumers exhibiting an attitude-behavior gap versus ethical shoppers whose purchase behavior is aligned with their ethical attitudes.

In this context, our study offers novel perspectives by demonstrating that among the numerous barriers commonly assumed to trigger an attitude-behavior gap, only a perceived lack of personal benefit and social norms significantly increase the likelihood of the gap. These results offer both theoretical and managerial implications.

Theoretical Implications

It has been widely believed that manifold ethical consumption barriers underlie the existence of an attitude-behavior gap. Yet, our study generated some remarkable findings by comparing the strength of

previously identified barriers on two ethically minded consumer groups differentiated by their ethical purchase behavior. Our main contributions to the literature are twofold with several implications for research and theory:

First, our study indicates that many of the previously attested barriers to ethical consumption, specifically perceptions of higher price, low quality, limited availability, inconvenience, and a lack of information (e.g., Frommeyer et al., 2022; Gupta & Ogden, 2009; Johnstone & Tan, 2015), do not significantly increase the likelihood of the attitude–behavior gap. This finding suggests that although these barriers are frequently cited as deterrents to ethical consumption (Bray et al., 2011; Frommeyer et al., 2022), their presence alone does not account for inconsistencies between ethical attitudes and behavior. This contribution is crucial as it sheds new light on existing research findings and calls for more targeted approaches to further understanding and differentiating the root causes of the attitude–behavior gap.

Second, we reveal that the emergence of the gap is predominantly related to a weaker perception of social pressure and a perceived lack of personal benefit. Being embedded in society and seeking to conform to institutionalized social norms (White et al., 2019; Zollo et al., 2021), consumers prefer products that enable them to meet the expectations of their peers and receive social recognition. Hence, one of the main distinctions between the two groups in our study relates to consumers with an attitude–behavior gap perceiving weaker social pressure to purchase ethical clothing.

Additionally, a lack of personal benefit has been identified as a major barrier to ethical consumption, and because of the growing body of research concluding that self-centered lifestyles proliferate worldwide (Cleveland et al., 2009; Kilbourne & Pickett, 2008), the findings are consistent in that they reveal that consumers are unwilling to engage in ethical consumption if they do not see a personal benefit in doing so. The latter indicates that egoistic motives implicated in the purchase of clothing can hardly be superseded by altruistic values (Jacobs et al., 2018). As such, our findings augment the current discourse by substantially refining the presumed scope of barriers associated with the attitude–behavior gap. Furthermore, these insights underscore the importance of control groups within ethical consumption research and of comparing the impact of purchasing barriers between consumers with and without a gap.

From the lens of the TPB (Ajzen, 1991) our study emphasizes that social (subjective) norms, along with perceived personal benefit as a component of PBC, are crucial in bridging the attitude–behavior gap. These findings significantly reduce the scope of the so far attested barriers leading to the

attitude–behavior gap and pave the way for more targeted future research as well as more robust predictions of the gap.

Our study has further minor contributions: By controlling for the impact of demographics this study reveals that consumers with higher levels of education and household income are less likely to exhibit an attitude–behavior gap, which is in line with previous research (see, e.g., Atlason et al., 2017; Barnett et al., 2005). Our results further indicate that gender does not play a role in driving the gap. Nevertheless, we found that as consumers age, their likelihood to manifest an attitude–behavior gap increases, contradicting previous studies that argued the opposite (e.g., De Pelsmacker et al., 2006; Hines & Ames, 2000). This might be explained by the fact that as consumers age, they tend to develop more ingrained consumption habits, which makes it harder for them to embrace new behaviors (Schwendtner et al., 2024). Additionally, with increased life experience consumers tend to become more skeptical regarding the ethical claims of companies as well as the impact of their individual actions (Mahé, 2010), which might also hinder their willingness to engage in ethical consumption.

When discussing these findings, it must be considered that our study has been carried out in a predominantly individualistic context (Hofstede, 1983, 2011), which might have shaped our results. However, in contrast to earlier research demonstrating that factors such as price, availability, and inconvenience hinder ethical consumption in individualistic contexts, such as in the United States (Gleim et al., 2013) or Italy (Barbarossa & De Pelsmacker, 2016), our study challenges this assumption by proving them as statistically not relevant in Germany. Yet, in contexts that rank high on individualism (vs. collectivism) (Hofstede, 1983, 2011), in the absence of strong social pressure, individuals are more likely to focus on their own preferences, which may not correspond with ethical fashion choices. In this regard, our results on the crucial role of social norms are in line with Hofstede's findings (Ibid.). Furthermore, in such contexts, individuals focus on personal rather than collective well-being (Hofstede, 1983), which explains our finding that a perceived lack of personal benefit emerged as one of the two core barriers underlying the attitude–behavior gap. Besides these theoretical implications, our study offers valuable managerial insights.

Managerial Implications

From a managerial perspective these findings yield significant implications for businesses, especially for marketers as well as for policymakers seeking to stimulate ethical consumption. Existing research has identified various barriers assumed to be linked to consumers' avoidance of ethical purchasing, however, as our results reveal, not

all of these presumed barriers significantly increase the likelihood of the attitude–behavior gap. By differentiating the barriers that genuinely contribute to the gap, our results allow businesses to allocate resources more strategically, focusing on interventions that effectively target the barriers associated with the gap. Instead of addressing broad barriers, businesses can utilize our findings to refine their communication and consumer engagement strategies to mitigate the barriers that hinder the translation of ethical attitudes into purchase behavior.

For instance, although brands tend to invest substantial resources in disseminating information regarding ethical products, such as distributing newsletters or running educational campaigns, our results indicate that a lack of information on ethical products is not a significant barrier to ethical consumption. Instead, our findings show that consumers holding ethical attitudes refrain from ethical purchasing mainly due to a perceived lack of personal benefit and weaker social pressure. This indicates that in the context of ethical fashion, consumers are not yet willing to prioritize social or environmental benefits over their personal interests and self-benefit. The latter highlights the need for more effective communication about ethical consumption attributes that are perceived as personally advantageous. For instance, campaigns could stress the advantages of wearing organic fabrics free from harmful chemicals, toxins, and dyes. Given that personal benefit in the fashion industry often carries a symbolic nature, communication can be tailored around the opportunities to earn admiration and reinforce a favorable self-image through ethical clothing.

Furthermore, as consumers are more likely to translate their ethical attitudes into behavior if they perceive stronger social pressure, working with influencers who endorse ethical claims could be beneficial. Designing social media campaigns that stress the ethical fashion choices of celebrities and opinion leaders can amplify this effect.

In addition, understanding the nature and the antecedents of the attitude–behavior gap enables policymakers to design more impactful regulatory frameworks and incentivization mechanisms that tackle the true causes deterring consumers from acting upon their ethical attitudes. As such policies can focus on incentivization schemes, such as tax benefits for ethical consumption to emphasize personal benefit. In addition, leveraging perceived social norms, policymakers can promote ethical purchasing by showcasing consumers who already make ethical consumption choices.

Limitations and Future Research

Besides its contributions, our study entails limitations that open up future research avenues. Although the survey design allows for gathering large amounts of data and ensures

representative samples, a limitation of such methods is that respondents' answers can incorporate their desire to reflect a positive self-image. This risk of a social desirability bias is present in all self-reported research designs. We did, however, mitigate this limitation by applying a BWS experiment for the measurement of attitudes, which had widely been endorsed for its power to reduce the likelihood of biased answers. Nevertheless, our survey involved some self-reported measures for ethical consumption behavior and respective barriers, which could have been impacted by a social desirability bias. Therefore, it would be interesting to apply real-time consumption observations and experimental designs and compare results with our findings.

Additionally, given that our sample was composed exclusively of German consumers and focused on the context of ethical fashion, this can constrain the generalizability of our findings. Therefore, future research can replicate the analysis in other national contexts and consumption areas to explore potential differences in the barriers that contribute to the attitude–behavior gap. This would allow identifying any variations that may occur due to economic, social, or cultural factors across different populations.

Appendix A: Procedure of the Best-Worst Scaling Experiment

Please, read the following definition of 'ethical fashion consumption' to continue with the survey.

We define ethical fashion consumption as purchasing clothes from brands which have a fully integrated ethical approach. This includes promoting fair wages, working conditions and workers' rights, avoiding harmful substances, such as toxic pesticide, using eco-friendly materials, supporting sustainable standards for fashion, promoting animal rights and environmental welfare, raising awareness on ethical behavior, etc. for all their products. Thereby we exclude brands which have only small collections of ethical fashion and offer primarily conventional clothing.

In the following, we present different attributes organized in groups of four. For each group, please select one attribute among the four that is least important to you when purchasing clothing and one attribute that is most important to you when shopping for clothes.

We have included the description of the attributes below. Please keep them in mind throughout this section.

1. No child labor—means that fashion producers do not employ workers under the minimum working age in the country(ies) in which they operate.
2. Minimum environmental impact—means that fashion brands minimize their impact on the environment by using recycled sources and recyclable materials to create less waste.

3. Safe working conditions—signifies that fashion producers create a safe working environment for their workers.
4. Paying minimum wages—signifies that fashion producers pay their workers the minimum wage standards of the country(ies) in which they operate.
5. Low price—indicates that the price of clothing is cheap.
6. Quality—indicates that the clothing has high quality.
7. Availability—indicates that the clothing can be easily accessed without investing additional time and efforts.
8. Fashionableness—indicates that the clothing corresponds with the current fashion trends.

Question number	Which attribute among the four is least important to you when shopping for clothing?	Attributes	Which attribute among the four is most important to you when shopping for clothing?
1		No child labor Low price Fashionableness Minimum environmental impact	
2		Availability Safe working conditions Paying minimum wages Quality	
3		Safe working conditions Fashionableness Paying minimum wages Availability	
4		Low price Quality No child labor Availability	
5		Fashionableness No child labor Availability Minimum environmental impact	
6		Paying minimum wages Fashionableness Safe working conditions Low price	
7		Minimum environmental impact Paying minimum wages Quality No child labor	
8		Quality Low price Minimum environmental impact Safe working conditions	
9		Quality Paying minimum wages No child labor Fashionableness	
10		Safe working conditions Minimum environmental impact Availability Low price	

Appendix B: Measures and Sources

Construct and Scale Items	Sources
1. Perceived social norms*	Adapted from Chatzidakis et al. (2016)
1.1 Most people who are important to me purchase ethical clothing	
1.2 Most people who are important to me think that I should purchase ethical clothing	
1.3 The people in my life whose opinions I value would approve of my purchasing of ethical clothing	
1.4 The people in my life whose opinions I value purchase ethical clothing	
1.5 It is expected of me that I purchase ethical clothing in the near future	
Perceived behavioral control	
2. High price	Adapted from the standard TPB questionnaire by Ajzen (2002) and Fishbein and Ajzen (2015)
2.1 It is difficult to afford purchasing ethical clothing	
3 Limited availability	Adapted from Yamoah et al. (2016)
3.1 It is difficult to know where ethical clothing is available	
4 Lack of information	Adapted from Yamoah et al., 2016
4.1 Information about ethical clothing is difficult to understand	
5 Low quality	Adapted from Yamoah et al., 2016
5.1 Ethical clothing is of poorer quality compared to conventional alternatives	
6 Lack of personal benefit	Adapted from the standard TPB questionnaire by Ajzen (2002) and Fishbein and Ajzen (2015)
6.1 It is difficult to find a personal benefit in purchasing ethical clothing	
7 Inconvenience	Adapted from the standard TPB questionnaire by Ajzen (2002) and Fishbein and Ajzen (2015)
7.1 It is difficult to invest additional time and efforts to purchase ethical clothing	
8 Purchasing behavior	Adapted from the standard TPB questionnaire by Ajzen (2002) and Fishbein and Ajzen (2015)
8.1 Have you purchased ethical clothing in the course of the last 6 months?	

*Cronbach's alpha = 0.890

Appendix C: Summary Statistics of Demographics

Demographics	Consumers with an attitude-behavior gap <i>N</i> = 429	Consumers without a gap (ethical shoppers) <i>N</i> = 299	Total <i>N</i> = 728
<i>Gender</i>			
Male	50.1%	48.8%	49.5%
Female	49.9%	51.2%	50.5%
<i>Age</i>			
16–19	0.9%	1.9%	1.4%
20–29	5.4%	14%	8.9%
30–39	17%	19.6%	18.1%
40–49	21%	15.5%	18.9%

Demographics	Consumers with an attitude-behavior gap N=429	Consumers without a gap (ethical shoppers) N=299	Total N=728
50–59	31.5%	30%	30.6%
60–69	24.2%	19%	22.1%
<i>Monthly household income</i>			
≤€1000	14.4%	6.3%	11.2%
€1001–€1500	19.6%	13.4%	17%
€1501–€2500	31.7%	30.8%	31.3%
€2501–€4000	22.4%	31.8%	26.2%
>€4000	11.9%	17.7%	14.3%
<i>Education</i>			
Primary school	0.9%	0.7%	0.8%
Secondary school	26.6%	11.7%	20.5%
High school	41.3%	36.1%	39.1%
College/ University	31.2%	51.5%	39.6%

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Declarations

Conflict of interest The authors confirm that there are no conflicts of interest involved in this study.

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