



# Is a specific claim always better? The double-edged effects of claim specificity in green advertising

Catherine Janssen<sup>a,\*</sup>, Valérie Swaen<sup>b,c</sup>, Shuili Du<sup>d</sup>

<sup>a</sup> CEBRIG, Solvay Brussels School of Economics and Management, Université libre de Bruxelles, Avenue F.D. Roosevelt 50, 1050 Brussels, Belgium

<sup>b</sup> Université catholique de Louvain, LouRIM, Place des Doyens 1, 1348 Louvain-la-Neuve, Belgium

<sup>c</sup> IESEG School of Management, Univ. Lille, CNRS, UMR 9221, LEM-Lille Economie Management, F-59000 Lille, France

<sup>d</sup> Peter T. Paul College of Business and Economics, University of New Hampshire, Durham, NH 03824, USA

## ARTICLE INFO

### Keywords:

Green advertising  
CSR communication  
Claim specificity  
Brand competence  
Brand warmth  
Manipulative intent

## ABSTRACT

Drawing upon the Brands as Intentional Agents Framework, this study investigates the impact of claim specificity of green advertising on consumers' reactions toward the brand, and reveals a double-edged effect of claim specificity that depends on the dimensions of the brand's image (perceived competence/warmth). Through two experiments, we show that the positive effect of claim specificity depends on the brand competence level, and that brand warmth interacts with brand competence, such that claim specificity can backfire and lower consumers' attitudes and purchase intentions when brand warmth and competence are both low. This interactive effect is serially mediated by the perceived manipulative intent and perceived environmental commitment of the brand. Our research contributes to the literature on corporate social responsibility (CSR) communication by providing a nuanced picture of the effects of claim specificity, and offers guidance for companies on how to communicate more effectively about their CSR activities.

## 1. Introduction

Effectively communicating corporate social responsibility (CSR) and environmental activities is of strategic importance for brands. A large part of the business benefits associated with being a good corporate citizen derives from favorable consumer reactions when they are made aware of the brand's CSR, such as stronger identification with the brand, greater brand trust, higher purchase intention, and loyalty (Sen et al., 2016). Unsurprisingly, the impact of CSR performance on firm value is highly contingent upon consumer awareness (Servaes & Tamayo, 2013). Yet, despite consumers' strong desire to know about the social and environmental activities of the brands they purchase from (Cone Communications, 2019) and the large body of research pointing to the importance of CSR communication (Du et al., 2010; Kim, 2019), many brands still lack a clear understanding of the factors that drive the effectiveness of CSR communication and, relatedly, how to design CSR ads that are credible and capable of generating favorable consumer responses (Ganz & Grimes, 2018).

A key challenge in CSR communication is to overcome consumer skepticism, which refers to consumers' tendency to doubt, disbelieve, or question the CSR message (Forehand & Grier, 2003; Skarmas &

Leonidou, 2013). Such skepticism toward CSR communication could backfire and result in a range of negative outcomes such as negative brand image and brand attitude, negative word of mouth, and reduced firm equity (Kim, 2019; Skarmas & Leonidou, 2013; Yoon et al., 2006). Consumer skepticism is exacerbated by the somewhat widespread practice of greenwashing—a tactic that misleads consumers regarding the brand's environmental practices or a product's environmental benefits (Parguel et al., 2011). Ganz and Grimes (2018), for example, highlight that the tendency of some companies to exaggerate and even fabricate the environmental qualities of their products rapidly reduced the credibility of green advertising in general. A 2020 study of green online claims from various business sectors by the European Commission and national consumer authorities (European Commission, 2021) highlighted that in 42% of cases the claims were exaggerated, false, or deceptive. In this context, many regulatory bodies (i.e., the European Commission, U.S. Federal Trade Commission) consider vague claims with suspicion and discourage or even ban the use of vague green claims that can mislead consumers (Orazi & Chan, 2020).

Drawing upon prior research on CSR communication (Atkinson & Rosenthal, 2014; Forehand & Grier, 2003; Ganz & Grimes, 2018; Yoon et al., 2006) and signaling theory (Berrone et al., 2017; Connelly et al.,

\* Corresponding author.

E-mail addresses: [catherine.janssen@ulb.be](mailto:catherine.janssen@ulb.be) (C. Janssen), [valerie.swaen@uclouvain.be](mailto:valerie.swaen@uclouvain.be) (V. Swaen), [Shuili.Du@unh.edu](mailto:Shuili.Du@unh.edu) (S. Du).

<https://doi.org/10.1016/j.jbusres.2022.07.005>

Received 6 September 2021; Received in revised form 24 June 2022; Accepted 1 July 2022

Available online 16 July 2022

0148-2963/© 2022 Elsevier Inc. All rights reserved.

2011), this research examines the potential double-edged effect of claim specificity of green advertising on CSR communication effectiveness, as measured by the effects of a green advertisement on consumers' reactions toward the brand. Prior research has provided equivocal results regarding the role of claim specificity in consumers' reactions to CSR communication: some studies document the benefits of a simple, general CSR message (Dickinson-Delaporte et al., 2010; Scandellius & Cohen, 2016), whereas others show that specific claims are more effective (Atkinson & Rosenthal, 2014; Burton et al., 2000; Ganz & Grimes, 2018; Pérez et al., 2020). Therefore, both specific and general claims can create favorable outcomes, but under different circumstances. Consider two brands, Patagonia, an epitome of businesses that are not only responsible and caring but also highly competent (i.e., it produces superior quality clothing), and Shein, a fast-fashion brand with low prices and dubious quality. It is reasonable to expect that these two diametrically different brands should leverage green advertising messages in different ways and that specific vs. vague green claims might trigger heterogeneous effects on consumer reactions toward these brands.

Accordingly, this research seeks to reconcile the mixed findings documented in the prior literature by examining the boundary condition of the effect of claim specificity on consumer responses to green advertising. Specifically, based on the Brands as Intentional Agents Framework (Kervyn et al., 2012), which classifies brands along the dimensions of competence and warmth, we examine whether and how brand competence and warmth interact with claim specificity to influence the effectiveness of green advertising. We posit that brand competence and warmth function as the overall evaluative context through which consumers process green claims in the advertisement and thus influence the effects of claim specificity (Brown & Dacin, 1997). Through two experiments, we show that specific green claims can backfire when brand warmth and competence are both perceived as lower (versus higher). Furthermore, we provide evidence for a serial mediating mechanism by which claim specificity influences the effectiveness of green advertising—that is, through its effect on the perceived manipulative intent and perceived environmental commitment of the brand.

This research contributes to the broad literature on CSR communication in several ways. First, we extend the research on claim specificity (e.g., Ganz & Grimes, 2018; Kim, 2019) by providing a nuanced picture of its effects on consumers' reactions toward the brand. Claim specificity is a key executional element of CSR communication and green advertising from the company's perspective and plays a critical role in communication effectiveness. Our results show that specific claims are not always beneficial to the brand but could backfire under certain circumstances. Second, and perhaps more importantly, our research links the literature on brand perceptions (i.e., warmth and competence) and CSR communication to demonstrate the interplay between brand competence and warmth on consumers' reactions to claim specificity. Our findings suggest that not only does brand competence influence the effect of claim specificity, but also that such an effect is contingent upon brand warmth. Brands thus need to take into consideration brand-level factors when crafting effective CSR ads. In doing so, we broaden the focus on green advertising research to include brand perceptions as the overall evaluation context for green claims and highlight that, to increase the overall effectiveness of green claims, companies need to improve their brand competence and warmth perceptions. A corollary of our research finding is that, to reap the benefits of effective green advertising, companies need to not only consider the nuanced, double-edged effects of green claim specificity, but also enhance their warmth and competence perceptions by, among others, embracing a caring and sustainable corporate culture and cultivating responsible innovation and product competency. Third, this research sheds light on the underlying mechanism of the effect of claim specificity by demonstrating the mediating roles of perceived manipulative intent and perceived brand environmental commitment.

## 2. Theoretical background and hypotheses development

### 2.1. Claim specificity in CSR communication

To overcome consumer skepticism toward CSR communication, managers must understand what to communicate in terms of message content in order to send strong signals about their brand's CSR performance and reduce information asymmetry between the brand and its stakeholders (Berrone et al., 2017). Prior research suggests that claim specificity may play a central role in reducing consumer skepticism toward CSR advertising (Ganz & Grimes, 2018; Pomeroy & Johnson, 2009). Specific claims are those that outline company performance and product benefits by way of detailed and useful information, whereas vague claims describe company performance and product benefits by way of abstract, general, or ambiguous wording, without factual support (Davis, 1993; Pomeroy & Johnson, 2009). In CSR communication, specific messages reveal information on how much money and resources a company contributes to social causes (Pérez et al., 2020), and the degree to which CSR activities make a real and meaningful impact on society (Alhouthi et al., 2016). Marketers manipulate the specificity of environmental claims in their advertisements (Leonidou et al., 2011), with some using specific claims while others use vague claims. In the aforementioned 2020 study, the European Commission and national consumer authorities examined 344 seemingly dubious claims and found that in 37% of cases, the claim included vague and general statements such as “conscious,” “eco-friendly,” and “sustainable” to convey the impression to consumers that a product had no negative impact on the environment (European Commission, 2021).

In the broad context of advertising, research has shown that more specific messages are easier to process (Bettman et al., 1998), attract more attention to the attributes mentioned in the ad (MacKenzie, 1986), and elicit a higher purchase intention (Fernandez & Rosen, 2000). Similarly, in the narrow context of CSR and green advertising, specific claims are often more effective than vague claims. Davis (1993), through an experimental study using fictitious ads, reports the superiority of specific environmental claims over vague claims. Using original brand names, Manrai and colleagues (1997) demonstrate that consumers prefer more detailed or specific information to support green claims, and the more tangible and concrete the claims, the more positive the consumer's assessment of the product. Similarly, Atkinson and Rosenthal (2014) and Ganz and Grimes (2018) find that consumers perceive specific green claims as more credible than vague green claims, and that specific green claims yield greater trust and more positive product attitudes.

On the other hand, however, several studies suggest that under certain circumstances, a general, vague, or ambiguous message may be more effective than a specific and concrete message in CSR communication. Using case studies and in-depth interviews, Scandellius and Cohen (2016) argue that, because CSR issues are typically complex and difficult to understand, keeping CSR messages strategically vague and ambiguous is a more effective way to unite the diverse interests of stakeholders and elicit more favorable stakeholder support. Similarly, through a series of in-depth interviews, Dickinson-Delaporte et al. (2010) find that CSR message ambiguity could reduce stakeholder tension and balance stakeholder interests. Robinson and Eilert (2018) document a boundary condition for the positive effect of claim specificity in CSR communication; they find that a specific CSR claim elicits greater consumer trust and more favorable brand evaluations when the brand supports a single social issue (e.g., health), but this positive effect of claim specificity disappears when the brand supports a diverse range of social issues.

We seek to extend this literature on claim specificity in CSR advertising and reconcile the mixed findings of claim specificity by examining the moderating role of an important brand-level factor, namely brand competence and warmth. Rather than focusing on the scope of a firm's CSR activities (e.g., supporting a single vs. multiple social causes;

Robinson & Eilert, 2018) or its complex relationships with stakeholder groups (e.g., Scandellius & Cohen, 2016), we focus on communicating a firm's environmental efforts (i.e., a single cause) to consumers (i.e., one stakeholder group), and examine how the effects of claim specificity are contingent upon consumer perceptions of brand competence and warmth, which are fundamental aspects of a brand and serve as an important evaluative context for processing green advertisements.

## 2.2. The roles of brand competence and brand warmth in CSR communication

Research in branding and brand relationships suggests that consumers relate to companies and brands in a similar way as they relate to other human beings (Aaker, 1997; Epley et al., 2007). According to the stereotype content model (Fiske et al., 2002), individuals perceive other people along the two dimensions of competence and warmth and use these perceptions to guide their decisions and interactions with other people. Warmth perceptions tap into the other party's intention toward an individual; a person with positive, cooperative intentions appears warm, whereas a person with negative, competitive, and self-serving intentions appears cold. Competence taps into the other party's ability to carry out his/her intentions; a person able to implement his/her intentions is competent, whereas a person unable to implement his/her intentions is incompetent. Kervyn and colleagues (2012) apply this stereotype content model to the context of brands and develop a framework of brands as intentional agents. Specifically, consumers' brand perceptions are organized along the dimensions of brand competence and warmth. Brand competence captures the extent to which a brand "has the ability to implement its intentions" and "is skilled and effective at achieving its goals," and brand warmth captures the extent to which a brand "has good intentions toward ordinary people" and "consistently acts with the public's best interests in minds" (Kervyn et al., 2012, p. 175).

In general, competence judgments refer to perceptions of a brand's capability, proficiency, and experience, and warmth judgments involve evaluations of whether a brand is genuine, trustworthy, and friendly (Aaker, 1997; Grandey et al., 2005; Judd et al., 2005). For example, according to the resource-based view (Barney, 1991; Teece et al., 1997), elements such as resources, assets, skills, and knowledge are the key building blocks of firm competence, reflecting a firm's ability to supply and deploy these elements to produce and deliver superior products and gain competitive advantage. On the other hand, warmth is related to a firm's values and CSR associations (Bolton & Mattila, 2015; Brown & Dacin, 1997). A brand's CSR activities are closely associated with warmth perceptions because CSR sends a strong signal that the brand is not merely concerned with maximizing profits but instead cares about the welfare of consumers, other stakeholders, and the environment. Du et al. (2011) show that, through CSR activities, a brand builds an image of being friendly, caring, and kind, which are all components of warmth perceptions.

Brand competence and warmth perceptions are relevant to how consumers process CSR messages. Aaker et al. (2010) demonstrate that judgments of warmth and competence play key roles in consumers' perceptions of companies. Consumers may use perceived brand competence and warmth as a filter, or evaluative context, through which they interpret information about a product or brand (Brown & Dacin, 1997). However, competence and warmth perceptions are likely to function differently in consumers' processing of CSR messages due to the qualitatively different nature of these two perceptions. Below we elaborate on their differential and interactive roles in influencing consumer reactions to claim specificity.

### 2.2.1. The moderating role of competence in the effect of claim specificity

When consumers evaluate CSR information, they do so in the context of prior information that they have about the brand (Torelli et al., 2012). Torelli et al. (2012) show that brand concepts create evaluation contexts

for CSR communication that may, in certain cases, trigger a motivational conflict with the CSR information and negatively influence consumer perceptions. We argue that brand competence, as a fundamental aspect of consumer brand perceptions, is likely to moderate the effects of claim specificity in green advertising.

Two streams of literature support the potential moderating role of brand competence. First, research on institutional theory suggests that firms should achieve both pragmatic legitimacy and moral legitimacy (Suchman, 1995). Indeed, empirical research demonstrates that consumers react more favorably to CSR initiatives when they perceive the company to be innovative and capable of producing high-quality products (e.g., Handelman & Arnold, 1999; Luo & Bhattacharya, 2006), while the favorable reactions become muted or even disappear when the firm is perceived as less innovative or offering poor-quality products. Thus, for firms with low competence (i.e., lacking expertise and innovative capabilities, producing inferior quality products), due to their lack of pragmatic legitimacy, even when their green claims are specific and informative, consumer reactions are likely to be muted, and thus specific green claims are unlikely to translate into positive responses.

Second, research on signaling suggests that the effectiveness of a signal depends on not only the quality of the signal itself, but also the characteristics of the signaler (Connelly et al., 2011). Green claim specificity constitutes a key aspect of the signal quality—more specific claims are likely to be more informative and more verifiable and hence a stronger signal of the brand's environmental stewardship. However, the positive effects of such signal quality (i.e., claim specificity) on consumer reactions are contingent upon who the signaler (i.e., the brand) is and the signaler's credibility and other relevant characteristics (Berrone et al., 2017; Davila et al., 2003). Given that consumers' primary motive is to evaluate brand performance and purchase from a brand that can best satisfy their needs, brand competence is a dominant and salient quality of the signaler (Aaker et al., 2010) that is likely to significantly influence the effectiveness of a signal. When brand competence is low, a specific green claim is inconsistent, or has a low fit, with the overall perceived low credibility of the signaler. When consumers perceive the CSR communication as being inconsistent or incongruent with the brand's associated concept (here, brand competence), this can potentially trigger the feeling that "something is not right," leading to unfavorable consumer reactions toward the brand (Labroo & Lee, 2006; Torelli et al., 2012). In other words, since the specificity of green claims is incompatible with the overall evaluative context of lower brand competence, consumers are likely to discount the informational value of such messages and may even attribute the brand's environmental initiatives to egoistic motives such as profit or image management (Sen et al., 2016; Skarmetas & Leonidou, 2013; Torelli et al., 2012). Consequently, for a brand with lower competence (e.g., the fast-fashion brand Shein), the attractive characteristics of a specific green claim (e.g., more informative and more believable) are less likely to translate into positive reactions toward the brand. The presence of specific claims may even trigger consumer skepticism, more so than the presence of vague claims that may appear less inconsistent with the brand's lower perceived level of competence. Therefore,

H1: When brand competence is higher, specific claims lead to more favorable consumer reactions toward the brand than vague claims, whereas when brand competence is lower, specific claims can backfire and lead to more negative consumer reactions toward the brand than vague claims.

### 2.2.2. The interplay between competence and warmth in the effect of claim specificity

We expect the above interaction between brand competence and green claim specificity to be qualified by brand warmth perceptions. Brand competence and warmth are two fundamentally different perceptions, with competence related to a brand's ability and expertise, and warmth related to the brand's intentions toward consumers and other

stakeholders (e.g., whether the brand acts in the best interests of its stakeholders and the society; Aaker et al., 2012; Kervyn et al., 2012). There has been little research examining the interplay between competence and warmth perceptions in consumers' information processing of CSR messages. We expect the moderating role of brand competence in the effect of green claim specificity on brand evaluations to be more prominent when brand warmth is low and to be diminished when brand warmth is high.

Consumers often make attributions of motives when processing CSR-related communications (Forehand & Grier, 2003; Sen et al., 2016), including intrinsic (e.g., the brand engages in CSR because it genuinely cares about social and environmental welfare) and extrinsic (e.g., the brand engages in CSR because it wants to improve its reputation and profit) attributions. When consumers doubt the sincerity of a brand's motive in CSR engagement and are skeptical about the brand's CSR communication, negative reactions often occur. Research on CSR suggests that a socially responsible brand is perceived as having enduring values and stakeholder-serving, benevolent intentions, and in general, as more trustworthy (Sen et al., 2016). Such a brand generates strong consumer identification and enjoys a range of benefits that derive from consumer identification, including more favorable CSR attributions and resilience to negative information (Du et al., 2007; Forehand & Grier, 2003; Vlachos et al., 2009). Similarly, for a brand ranked high on the warmth dimension, due to its reputation of being kind, sincere, and trustworthy (Bolton & Mattila, 2015; Kervyn et al., 2012), consumers are more likely to identify with it and less likely to be skeptical, and thus engage in heuristic processing of its green advertisement (Maheswaran & Chaiken, 1991) and consider the green message as credible and truthful regardless of the claim specificity. Therefore, both specific and vague green claims communicated by a high-warmth brand are likely to trigger similar, positive consumer reactions to the advertisement, diminishing the moderating role of brand competence in the effects of claim specificity.

On the other hand, a brand ranked low on warmth does not have a reservoir of "goodwill" (Godfrey et al., 2009) to tap into and does not enjoy a high level of consumer identification or trust; it thus faces a high barrier in overcoming consumer skepticism and establishing the effectiveness of its green advertising. Referring again to the example of Patagonia versus Shein, due to these two brands' differing levels of warmth and competence, it is very unlikely that consumers would react the same way to green claim specificity. For the high-warmth brand Patagonia, regardless of claim specificity, its green message is likely to be effective since the perceived credibility and truthfulness of the message will be high. In contrast, for the low-warmth brand Shein, the inconsistency between different cues (i.e., a brand with low warmth engaging in environmental protection) will trigger consumers' persuasion knowledge and arouse skepticism (Campbell & Kirmani, 2000; Forehand & Grier, 2003); accordingly, consumers will be more likely to engage in systematic processing of the claims in the advertisement (Maheswaran & Chaiken, 1991; Simmons & Becker-Olsen, 2006).

Nevertheless, for a low-warmth brand, the positive effects of specific CSR claims will depend on another key dimension of brand perceptions, that of brand competence. For a low-warmth, high-competence brand, since it has already achieved pragmatic legitimacy (Handelman & Arnold, 1999; Suchman, 1995) and can satisfy consumer expectations of product quality (Aaker et al., 2010), a specific green claim, by providing a strong signal of the brand's environmental stewardship efforts, could overcome consumer skepticism and be perceived as truthful and indicative of the brand's environmental consciousness. In turn, the effectiveness of specific green claims would result in favorable consumer responses.

In contrast, for a low-warmth, low-competence brand (e.g., Shein), due to its lack of both pragmatic and moral legitimacy, CSR claim specificity is likely to have a backfiring effect. When the green message is vague, consumers will easily discount the informational value of the claim and infer from the brand's overall lack of warmth and competence

that it is not genuinely concerned about environmental protection, thereby resulting in little change in consumers' reactions toward the brand. However, when the green message is specific, furnished with concrete details and quantitative indicators of the brand's environmental performance (Atkinson & Rosenthal, 2014), it is harder for consumers to discount the informational value of such green advertising. Since specific green claims are incongruent with the overall evaluative context of low warmth and low competence, this incongruity will trigger consumer perceptions of manipulative intent from the brand and make counterarguments more accessible and salient. Simmons and Becker-Olsen (2006) argue that low congruency will increase consumer elaboration because unexpected events engender thoughts, often in the form of an attributional search to understand the reasons for the event (Weiner, 1985; Yoon et al., 2006), and that such incongruity will make counterarguments and negative cognitive inputs more readily accessible. Thus, consumer reactions to specific green claims from a low-warmth, low-competence brand are likely to include suspecting ulterior motives in green advertising (Yoon et al., 2006), making detrimental, egoistic CSR attributions (Ellen et al., 2006; Vlachos et al., 2009), and perceiving high manipulative intent and greenwashing (Parguel et al., 2011), all resulting in negative consumer responses toward the brand.

Therefore, we hypothesize the following three-way interaction between claim specificity, brand competence, and brand warmth:

H2: When brand warmth is low, the effects of claim specificity on consumer reactions toward the brand are positive only when brand competence is high, but negative when brand competence is low; whereas when brand warmth is high, the effects of claim specificity on consumer reactions toward the brand do not vary based on the level of brand competence.

### 2.3. The mediating roles of manipulative intent and perceived environmental commitment

The preceding arguments suggest that consumers' cognitive processing drives their responses to a green advertisement. Indeed, consumers continuously interpret advertising and selling attempts and develop persuasion knowledge—that is, knowledge about the goals and tactics marketers use to persuade them (Campbell & Kirmani, 2000; Friestad & Wright, 1994). If consumers suspect that an advertiser intends to influence them using unfair tactics, an inference of manipulative intent is reached (Campbell, 1995; Lunardo & Roux, 2015).

The interactive effects of claim specificity and brand competence and warmth on consumer reactions toward the brand occur because different combinations of brand-level perceptions (i.e., perceived brand warmth and competence) and claim characteristics (i.e., claim specificity) engender different levels of perceived manipulative intent of the advertisement (Bartikowski & Berens, 2021). In turn, higher perceived manipulative intent of a green claim will inhibit favorable perceptions of the brand's environmental commitment and prompt unfavorable perceptions (e.g., greenwashing perceptions). In a study comparing the effect of large versus small CSR spending allocations, Tarabashkina et al. (2020) find that numerical information used in CSR communication (i.e., specific information) may trigger motive attributions via manipulative intent, which in turn negatively affects perceptions of corporate intentions. In the same vein, Bartikowski and Berens (2021) find that consumer perceived hypocrisy (Wagner et al., 2009) as well as CSR associations mediate the effects of attribute framing (positive versus negative framing) on consumer brand evaluations.

On the other hand, when perceived manipulative intent is low, the green claim will be more effective, due to its higher credibility and persuasive power, in generating favorable perceptions of the brand's environmental commitment (Campbell, 1995; Tarabashkina et al., 2020). Brand environmental commitment is an important driver of consumer reactions toward the brand; it addresses consumers' concern

for environmental conservation and sustainability (Olsen et al., 2014) and provides an opportunity for consumers to satisfy their social identity and self-definitional needs (i.e., I am environmentally conscious; Sen et al., 2016). Prior research suggests that positive beliefs about brand environmental commitment will enhance brand image (Chen, 2010; Jung et al., 2020), consumer brand attitude (Olsen et al., 2014), and purchase intention (Griskevicius et al., 2010).

Therefore, we contend that the interactive effects of claim specificity, brand competence, and brand warmth on consumers can activate persuasion knowledge and influence perceived manipulative intent, which will in turn impact consumers' perceptions of the brand's environmental commitment. Perceived brand environmental commitment, for its part, will affect consumers' reactions toward the brand. Thus, we expect the interactive effects of claim specificity, brand competence, and brand warmth to be serially mediated by manipulative intent and brand environmental commitment.

H3: The interactive effects of claim specificity, brand competence, and brand warmth on consumer reactions toward the brand are serially mediated by the perceived manipulative intent of the green claim and the perceived brand environmental commitment.

Fig. 1 summarizes our conceptual model where we expect the effects of claim specificity on consumer reactions toward the brand to be contingent on brand competence and brand warmth, with perceived manipulative intent and perceived brand environmental commitment as mediating variables.

### 3. Studies' methodology and results

Below, we report two studies that test our framework of consumers' responses to vague versus specific green claims. Study 1 tests our main, initial prediction about the interactive effect of claim specificity and brand competence on consumer reactions toward the brand, measured through consumers' brand attitude (H1). Study 2 investigates this effect further by testing the moderating effect of brand warmth (H2) and the serial mediating roles of perceived manipulative intent and brand environmental commitment (H3). In the second study, we also added purchase intentions as another measure of consumer reactions toward the brand.

We developed two sets of stimuli to test our predictions, with two different product categories: batteries (used in Study 1) and lightbulbs (used in Study 2). We selected search products as they are more easily evaluated prior to purchase and require less cognitive effort than experience or credence products (Franke et al., 2004). Furthermore, considering that the environmental relevance of the product advertised may influence the effect of claim specificity (Alniacik & Yilmaz, 2012), we took environmental relevance into account in selecting the product categories used in our stimuli. Specifically, we selected batteries and lightbulbs as they can both be naturally associated with environmental concerns in the minds of consumers (e.g., Ganz & Grimes, 2018), to ensure that the green claims related to these two product categories are realistic. Further, batteries and lightbulbs have similar levels of environmental association and consumer familiarity. An initial pretest ( $N =$

48) revealed that there were no significant differences between the lightbulb and battery product categories in terms of the extent to which people associate the product category to the environment ( $M_{\text{lightbulb}} = 4.55$  vs.  $M_{\text{battery}} = 3.81$ ,  $t(45.55) = 1.29$ ,  $p > .10$ ), product category familiarity ( $M_{\text{lightbulb}} = 3.11$  vs.  $M_{\text{battery}} = 3.19$ ,  $t(46) = -0.146$ ,  $p > .10$ ), and product involvement ( $M_{\text{lightbulb}} = 4.13$  vs.  $M_{\text{battery}} = 3.45$ ,  $t(46) = 1.483$ ,  $p > .10$ ).

#### 3.1. Pretest of the stimuli

##### 3.1.1. Pretest design and procedure

A pretest of our stimuli was conducted with a sample of 89 participants (34.8% male,  $M_{\text{age}} = 39$  years) recruited from the general population in the French-speaking part of Belgium to verify our specificity manipulation for the two product categories. We used a 2 (claim specificity: vague vs. specific claims)  $\times$  2 (product category: lightbulb vs. battery) between-subject design for this pretest. The participants were thus randomly assigned to one of four experimental conditions and saw an advertisement of a fictitious brand for one of the two product categories selected (lightbulb or battery). All advertisements featured a picture of the product and various statements about its environmental characteristics and performance (see Appendix A). We identified the type of information to provide in the ads for the two product categories by examining the claims made in various real advertisements for lightbulbs and batteries, such that the information provided would be expected and relevant for the product category. We then manipulated claim specificity by adapting the statements provided in the ads. In the specific claim conditions, we provided concrete and specific information about the product's environmental performance through the use of explicit percentages and numbers, which is similar to how Bartikowski and Berens (2021) manipulated claim specificity in their study. In the vague claim conditions, we replaced the percentages and numbers with vague quantifiers, such as those identified by the European Commission in its 2020 sweep of green online claims. For example, a concrete statement in the specific claim conditions was "our bulbs can last up to 15,000 h, and can be 95% recycled," while the vague counterpart was "our bulbs are respectful of the environment and last long" (see Appendix A for the complete stimuli). We asked two colleagues to read the different print ads created, and they confirmed the meaningfulness of our claim specificity manipulation for all pairs of statements.

Claim specificity was measured with three items on a seven-point scale ("the environmental information provided in this ad is": 1 = "vague", "general", "non-informative"; 7 = "specific", "detailed", "informative"; Cronbach's  $\alpha = 0.885$ ). As recommended in prior research on claim specificity (Ganz & Grimes, 2018), we also checked that our specificity manipulation was not confounded by related concepts, which were all measured on seven-point scales. Specifically, we measured claim extremity with one item ("the claims in this ad are": 1 = "accurate"; 7 = "exaggerated") and claim positivity with two items ("the claims in this ad are": 1 = "negative", "unfavorable"; 7 = "positive", "favorable";  $r = 0.875$ ) to verify that they did not vary across the two specificity conditions. We also checked that the vague and specific claims were as understandable, with one item ("the arguments in this ad

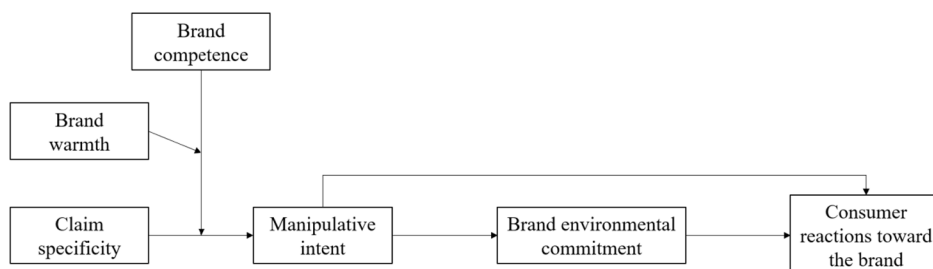


Fig. 1. Conceptual model.

are easy to understand”) (1 = Disagree completely; 7 = Agree completely).

### 3.1.2. Pretest results

The *t*-test results revealed that our claim specificity manipulation was successful: the participants in the specific condition perceived the claims to be more specific ( $M = 4.00$ ) than the participants in the vague condition ( $M = 2.77$ ,  $t(87) = -4.150$ ,  $p < .001$ ). Follow-up simple effects analysis revealed that this was the case for both the lightbulb product category ( $M_{\text{vague}} = 2.76$  vs.  $M_{\text{specific}} = 4.02$ ,  $F(1, 85) = 8.67$ ,  $p < .01$ ) and the battery product category ( $M_{\text{vague}} = 2.78$  vs.  $M_{\text{specific}} = 3.99$ ,  $F(1, 85) = 8.15$ ,  $p < .01$ ). The results also revealed that there were no significant differences between the vague and specific claim conditions in terms of claim extremity ( $M_{\text{vague}} = 4.47$  vs.  $M_{\text{specific}} = 4.02$ ;  $t(87) = -1.767$ ,  $p > .05$ ) and claim positivity ( $M_{\text{vague}} = 4.65$  vs.  $M_{\text{specific}} = 4.63$ ;  $t(87) = 0.064$ ,  $p > .05$ ). The vague and specific claim conditions were also similar in terms of understandability ( $M_{\text{vague}} = 5.02$  vs.  $M_{\text{specific}} = 5.07$ ;  $t(87) = -0.143$ ,  $p > .05$ ).

## 3.2. Study 1

### 3.2.1. Study 1 design and procedure

A total of 290 participants recruited via a Qualtrics panel in the French-speaking part of Belgium (50.7% male,  $M_{\text{age}} = 42.81$  years) completed this study online in exchange for a fee. The design was a 2 (claim specificity: vague vs. specific claims)  $\times$  2 (competence: low vs. high) between-subjects design, with brand evaluations as the dependent variable. The participants were randomly assigned to one of four experimental conditions. They first read information about ECO-Shine, a fictitious brand in the electrical sector that makes lightbulbs among other electrical products. We manipulated competence by adapting the background information about the brand. We adapted the manipulation of brand competence developed by Kervyn and colleagues (2012). In the high-competence condition, the brand was presented as being ranked first among 14 major brands in its sector in terms of competence and efficiency, whereas in the low-competence condition, the brand was presented as being ranked eighth. The brand was also presented as being known for its superior ability (high-competence condition) or lack of ability (low-competence condition) to implement its intentions. In the low-competence condition, we decided to mention that the brand was ranked eighth and not last (among the 14 major brands in the sector) so that we would not manipulate information extremity at the same time as our competence manipulation (Tan, 2002; see Appendix B for the detailed stimuli). After reading background information about the brand, the participants were presented with one of two advertisements for ECO-Shine, which was our claim specificity manipulation (see Appendix A and the pretest above).

Next, to assess consumer reactions toward the brand, the participants indicated their attitude toward it on a two-item seven-point scale (1 = “unfavorable”, “unpleasant”; 7 = “favorable”, “pleasant”). The two items were averaged to create a brand attitude index ( $r = 0.707$ ,  $p < .001$ ). We checked our competence manipulation with two items: “ECO-Shine has the ability to implement its intentions” and “ECO-Shine is skilled and effective at achieving its goals” (1 = Disagree completely; 7 = Agree completely;  $r = 0.648$ ,  $p < .001$ ), borrowed from Kervyn and colleagues (2012). We also measured warmth perceptions using two items from Kervyn and colleagues (2012): “ECO-Shine has good intentions toward people” and “ECO-Shine consistently acts with the public’s best interests in mind” (1 = Disagree completely; 7 = Agree completely;  $r = 0.782$ ,  $p < .001$ ). At the end of the survey, the participants provided their age and gender information.

### 3.2.2. Study 1 results

Confirming the effectiveness of our competence manipulation, a *t*-test with competence perceptions as the dependent variable revealed that people in the high-competence condition perceived the brand to be

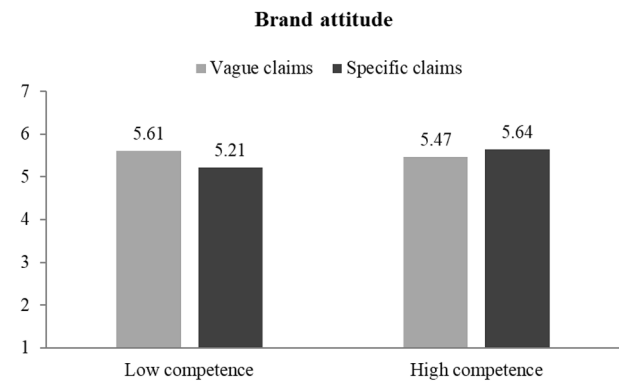


Fig. 2. Brand attitude as a function of claim specificity and competence (Study 1).

more competent ( $M = 5.3$ ) than in the low-competence condition ( $M = 4.92$ ,  $t(288) = -2.965$ ,  $p < .013$ ). There were no differences in terms of warmth perceptions between the two experimental conditions ( $M_{\text{high competence}} = 5.15$  vs.  $M_{\text{low competence}} = 4.92$ ,  $t(288) = -1.76$ ,  $p > .05$ ).

Next, we tested H1 using a two-way ANOVA with claim specificity and competence as the independent variables, attitude toward the brand as the dependent variable, and warmth perceptions as the covariate. The results revealed a significant main effect of warmth perceptions on brand attitude ( $F(1, 285) = 55.69$ ,  $p < .001$ ) and a significant competence  $\times$  claim specificity interactive effect ( $F(1, 285) = 3.89$ ,  $p = .050$ ). As expected, contrast analyses revealed that when competence is low, specific claims lead to a more negative brand attitude ( $M = 5.21$ ) than vague claims ( $M = 5.61$ ,  $F(1, 285) = 4.801$ ,  $p < .05$ ). When competence is high, no significant difference in brand attitude emerges between vague and specific claims ( $M_{\text{vague}} = 5.47$  vs.  $M_{\text{specific}} = 5.64$ ;  $F(1, 285) = 0.331$ ,  $p > .05$ ). These results are illustrated in Fig. 2.

Study 1 provides partial support for H1 regarding the moderating role of brand competence in the effect of claim specificity. As expected, we find a backfire effect of claim specificity when brand competence is low. However, when brand competence is high, the hypothesized positive effect of claim specificity is not significant. Since Study 1 only examines the role of brand competence, keeping brand warmth constant across conditions, Study 2 explicitly manipulates brand warmth to investigate the interplay between the two dimensions of brand associations, namely brand warmth and brand competence. Meanwhile, Study 2 has several additional objectives. We examine both brand attitude and purchase intention as key dependent variables and investigate the underlying process of the two-way and three-way interactions. We also seek to increase the generalizability of our findings by using a different product category, namely batteries.

## 3.3. Study 2

### 3.3.1. Study 2 design and procedure

A total of 586 participants recruited via a Qualtrics panel in the French-speaking part of Belgium (49.3% male,  $M_{\text{age}} = 41.23$  years) completed this study online in exchange for a fee. We increased our sample size in anticipation of the reduced effect sizes in the sequential mediation pathway (Cone & Ferguson, 2015). The design was a 2 (claim specificity: vague vs. specific claims)  $\times$  2 (brand competence: low vs. high)  $\times$  2 (brand warmth: low vs. high) between-subjects design. The participants were randomly assigned to one of the eight experimental conditions.

As in Study 1, the participants first read background information about a fictitious brand and then viewed an advertisement for the brand’s product. In this study, we used a brand specializing in the battery sector, named EcoMax, to test our predictions with a different product category. We manipulated claim specificity and brand

competence in a similar way as in Study 1 (see Appendices A and B). Our warmth manipulation was adapted from Kervyn and colleagues (2012)'s manipulation of brand warmth. Specifically, we provided the study participants with additional background information about the brand concerning its intentions toward its consumers and the extent to which it acts in the public's best interest (see Appendix B for the detailed manipulation).

We measured brand attitude with the same two items as in Study 1 ( $r = 0.863, p < .001$ ). We also measured purchase intention with one item ("To what extent are you likely to buy a product from the brand EcoMax if you need such a product in the near future?"; 1 = Not at all likely; 7 = Extremely likely) in order to obtain a more behavior-oriented measure of the participants' reactions toward the brand. We measured the brand's perceived environmental commitment with three items ("the brand is ecological"; "the brand is making a real difference for the natural environment through its actions"; "the brand is reducing pollution") on a seven-point Likert scale (1 = Disagree completely; 7 = Agree completely). These three items were averaged to form a brand environmental commitment index ( $\alpha = 0.94$ ). Manipulative intent was measured with three items ("the way this advertisement attempts to convince people seems acceptable to me" (reverse-coded); "this advertisement tries to manipulate consumers in a way that I don't like"; "this ad does not bother me; the brand tries to be persuasive without being excessively manipulative" (reverse-coded)) derived from existing measures of manipulative intent (Campbell, 1995). Cronbach's alpha for the three-item manipulative intent scale was relatively low ( $\alpha = 0.53$ ), which could be due to the reverse-coded items that respondents can find confusing (Bartikowski & Berens, 2021; Weijters & Baumgartner, 2012). We therefore decided to keep one item to measure manipulative intent and selected the one that best reflects the notion of manipulative intent without explicitly mentioning the term "manipulation" in its formulation (i.e., "the way this advertisement attempts to convince people seems acceptable to me", reverse-coded)<sup>1</sup>. Finally, to check our warmth and competence manipulation, we used the same manipulation check items as in Study 1 (warmth perceptions:  $r = 0.917, p < .001$ ; competence perceptions:  $r = 0.809, p < .001$ ). At the end of the questionnaire, the participants indicated their age and gender information.

### 3.3.2. Study 2 results

The *t*-test results indicate that our competence manipulation was successful: the participants in the high-competence condition perceived the company to be significantly more competent ( $M = 5.18$ ) than the participants in the low-competence condition ( $M = 4.36, t(544.67) = -6.432, p < .001$ ). Our warmth manipulation was also successful: the participants in the high-warmth condition perceived the company to be significantly warmer ( $M = 5.25$ ) than the participants in the low-warmth condition ( $M = 3.82, t(493.16) = -10.528, p < .001$ ).

To test H2, we ran an ANOVA with claim specificity, brand warmth, brand competence, and all their interactions on attitude toward the brand first. We found a significant main effect of warmth ( $F(1, 578) = 28.913, p < .001$ ), such that the participants had an overall more positive attitude toward the brand when the brand was perceived as warm ( $M_{\text{high warmth}} = 5.5$  vs.  $M_{\text{low warmth}} = 4.8$ ). More importantly, we found a significant three-way interactive effect ( $F(1, 578) = 8.17, p < .01$ ). Follow-up planned simple two-way interaction analyses reveal that, as expected, the interaction between claim specificity and competence is significant in the low-warmth condition ( $F(1, 578) = 8.501, p < .01$ ), but not in the high-warmth condition ( $F(1, 578) = 1.281, p > .1$ ). Specifically, contrast analyses reveal that when warmth is low, the participants have significantly lower attitudes toward the lower-competence brand when its claims are specific ( $M = 4.42$ ) than when they are vague ( $M = 5.12; F(1, 578) = 7.353, p < .01$ ); they have similar attitudes

toward the more competent brand regardless of whether the claims are vague or specific ( $M_{\text{vague}} = 4.65$  vs.  $M_{\text{specific}} = 5.02, F(1, 578) = 2.042, p > .1$ ). In addition, when the claims are specific, the participants have significantly lower attitudes toward the low-competence brand than the high-competence brand ( $F(1, 578) = 5.214, p < .05$ ). On the other hand, when the claims are vague, the participants have marginally more favorable attitudes toward the low-competence brand than the high-competence brand ( $F(1, 578) = 3.364, p = .067$ ). These results are illustrated in Fig. 3 and the treatment cell means are reported in Table 1.

Next, we ran an identical ANOVA on purchase intention. We found a positive main effect of warmth ( $M_{\text{high warmth}} = 5.65$  vs.  $M_{\text{low warmth}} = 5.03; F(1, 578) = 26.025, p < .001$ ) as well as a positive main effect of competence ( $M_{\text{high competence}} = 5.51$  vs.  $M_{\text{low competence}} = 5.18; F(1, 578) = 7.564, p < .01$ ). More importantly, we found a significant three-way interaction effect ( $F(1, 578) = 7.163, p < .01$ ). Follow-up planned simple two-way interaction analyses reveal that the interaction between claim specificity and competence is significant in the low-warmth condition ( $F(1, 578) = 9.626, p < .01$ ), but not in the high-warmth condition ( $F(1, 578) = 0.475, p > .1$ ). As expected, contrast analyses show that when warmth is low, purchase intention toward the high-competence brand is significantly lower when its claims are vague ( $M = 4.94$ ) than when its claims are specific ( $M = 5.49; F(1, 578) = 5.068, p < .05$ ); whereas purchase intention toward the low-competence brand is significantly higher when its claims are vague ( $M = 5.11$ ) than when its claims are specific ( $M = 4.6; F(1, 578) = 4.56, p < .05$ ). In addition, the results indicate that when the claims are specific, purchase intention is significantly lower toward the low-competence brand than the high-competence brand ( $F(1, 578) = 13.091, p < .001$ ).

Together, these results confirm our second hypothesis and indicate that for a brand perceived as low on warmth, consumers' reactions toward the brand are positively influenced by claim specificity when the brand is perceived as competent; in contrast, if perceived competence is lacking, claim specificity can backfire, and specific claims lead to lower brand evaluations than vague claims. Claim specificity seems to matter less for warm brands, as we did not find any interactive effect between claim specificity and competence for these brands.

To test H3, we adopted a two-step procedure to establish the serial mediation of this three-way interactive effect through, sequentially, manipulative intent and brand environmental commitment. First, we ran ANOVA analyses to establish the three-way interactive effects of claim specificity, brand warmth, and brand competence on the two mediators. Then, we ran an analysis with PROCESS (Hayes, 2018) to test the serial mediating roles of manipulative intent and brand environmental commitment.

As expected, we found a significant three-way interactive effect ( $F(1, 578) = 8.598, p < .01$ ) on manipulative intent. Planned simple two-way interaction analyses indicate that the interaction effect between claim specificity and competence on manipulative intent is significant in the low-warmth condition ( $F(1, 578) = 7.414, p < .01$ ), but not in the high-warmth condition ( $F(1, 578) = 2.039, p > .1$ ). When warmth is low, the participants perceive significantly less manipulative intent of the low-competence brand when its claims are vague than when its claims are specific ( $M_{\text{vague}} = 2.99$  vs.  $M_{\text{specific}} = 3.49; F(1, 578) = 4.301, p < .05$ ), whereas manipulative intent perceptions are marginally higher for the high-competence brand when its claims are vague instead of specific ( $M_{\text{vague}} = 3.15$  vs.  $M_{\text{specific}} = 2.71; F(1, 578) = 3.172, p = .075$ ). In addition, when claims are specific, the participants perceive significantly more manipulative intent from the low-competence brand than from the high-competence brand ( $F(1, 578) = 9.764, p < .01$ ), whereas this difference is not significant when claims are vague ( $F(1, 578) = 0.481, p > .1$ ).

We found a similar pattern of results for perceived brand environmental commitment. When brand environmental commitment is set as the dependent variable, we find a significant main effect of brand warmth ( $M_{\text{high warmth}} = 5.48$  vs.  $M_{\text{low warmth}} = 4.84; F(1, 578) = 29.747, p < .001$ ) and brand competence ( $M_{\text{high competence}} = 5.27$  vs.  $M_{\text{low}}$

<sup>1</sup> The results using the three-item scale of manipulative intent are similar to this one-item measure.

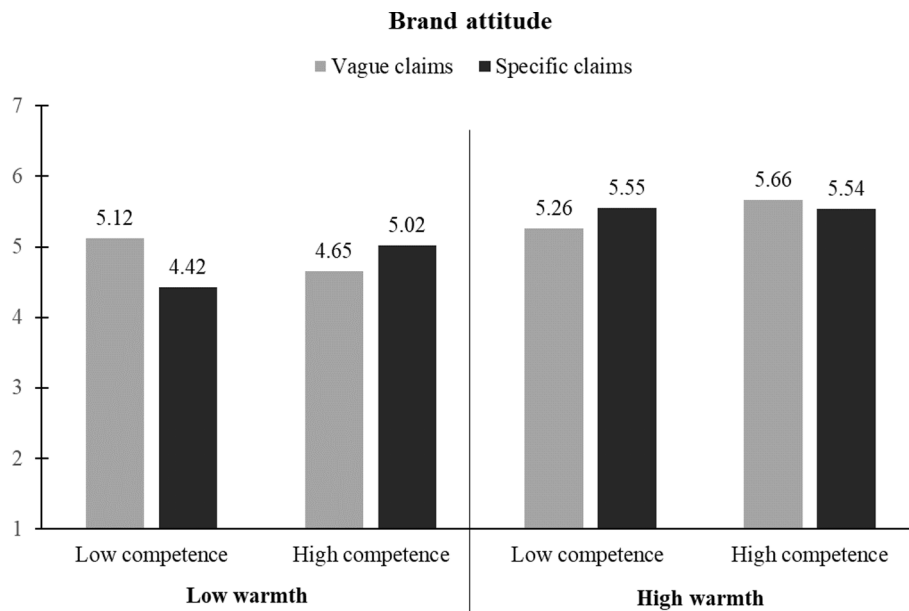


Fig. 3. Brand attitude as a function of claim specificity, competence, and warmth (Study 2).

Table 1

Treatment cell means (Study 2).

| Warmth      | Competence      | Claim specificity | N  | Brand attitude |      | Purchase intention |      | Manipulative intent |      | Brand environmental commitment |      |
|-------------|-----------------|-------------------|----|----------------|------|--------------------|------|---------------------|------|--------------------------------|------|
|             |                 |                   |    | M              | SD   | M                  | SD   | M                   | SD   | M                              | SD   |
| Low warmth  | Low competence  | Vague             | 73 | 5.12           | 1.69 | 5.11               | 1.70 | 2.99                | 1.69 | 4.91                           | 1.57 |
|             |                 | Specific          | 78 | 4.42           | 1.90 | 4.60               | 1.78 | 3.49                | 1.75 | 4.40                           | 1.83 |
|             | High competence | Vague             | 78 | 4.65           | 1.76 | 4.94               | 1.64 | 3.15                | 1.57 | 4.79                           | 1.62 |
|             |                 | Specific          | 66 | 5.02           | 1.59 | 5.48               | 1.32 | 2.71                | 1.40 | 5.25                           | 1.27 |
| High warmth | Low competence  | Vague             | 70 | 5.26           | 1.50 | 5.39               | 1.22 | 3.00                | 1.44 | 5.37                           | 1.19 |
|             |                 | Specific          | 78 | 5.55           | 1.43 | 5.60               | 1.48 | 2.69                | 1.49 | 5.48                           | 1.42 |
|             | High competence | Vague             | 75 | 5.66           | 1.26 | 5.81               | 1.18 | 2.41                | 1.21 | 5.48                           | 1.08 |
|             |                 | Specific          | 68 | 5.54           | 1.30 | 5.79               | 1.10 | 2.60                | 1.17 | 5.57                           | 1.06 |

competence = 5.04;  $F(1, 578) = 3.954, p < .05$ ). Furthermore, we find a two-way interaction between claim specificity and competence ( $F(1, 578) = 4.032, p < .05$ ) as well as a significant three-way interactive effect ( $F(1, 578) = 4.522, p < .05$ ). Planned simple two-way interaction analyses reveal that the interaction between claim specificity and competence is significant when warmth is low ( $F(1, 578) = 8.598, p < .01$ ), but not when warmth is high ( $F(1, 578) = 0.007, p > .1$ ). Contrast analyses reveal that when warmth is low, the participants perceive the high-competence brand as significantly more environmentally committed when its claims are specific ( $M = 5.25$ ) than when they are vague ( $M = 4.79$ ;  $F(1, 578) = 3.801, p = .05$ ); whereas they perceive the low-competence brand as significantly less environmentally committed when its claims are specific ( $M = 4.4$ ) than when they are vague ( $M = 4.91, F(1, 578) = 4.845, p < .05$ ). Furthermore, when the claims are specific, the less competent brand is perceived as significantly less environmentally committed than the more competent brand ( $F(1, 578) = 12.784, p < .001$ ), whereas this difference is not significant when the claims are vague ( $F(1, 578) = 0.282, p > .1$ ).

Having established the interactive effects of claim specificity, brand warmth, and brand competence on manipulative intent and brand environmental commitment, we next ran a mediated moderation analysis with the two mediators modeled in a causal sequence using PROCESS (custom model, 10,000 bootstrap samples; Hayes, 2018) on brand attitude and purchase intention. Specifically, the model included the three factors, which, along with their interactions, predicted, in sequence, manipulative intent, brand environmental commitment, and brand attitude or purchase intention. The detailed results are shown in Table 2A and Table 2B and confirm that the three-way interaction

between claim specificity, competence, and warmth has a significant impact on manipulative intent ( $\beta = 0.18, t(578) = -2.932, p < .01$ ). Further, when manipulative intent is included in the model predicting brand environmental commitment, manipulative intent has a significant negative effect ( $\beta = -0.676, t(577) = -24.114, p < .001$ ) but the three-way interaction between claim specificity, competence, and warmth is non-significant ( $\beta = -0.003, t(577) = -0.069, p > .1$ ).

In the model predicting the dependent variable brand attitude, which includes the effects of manipulative intent and brand environmental commitment, both manipulative intent ( $\beta = -0.249, t(576) = -5.724, p = .000$ ) and brand environmental commitment ( $\beta = 0.589, t(576) = 12.896, p < .001$ ) have significant effects. Importantly, and as expected, the conditional indirect effect of the three-way interaction on brand attitude through, sequentially, manipulative intent and brand environmental commitment is significant (i.e., the 10,000 bootstraps 95% confidence interval (CI95) excluded zero;  $\beta = -0.072, SE = 0.025, CI95: -0.123$  to  $-0.024$ ) as is the indirect effect of the three-way interaction on brand attitude directly through manipulative intent (i.e., the portion of the indirect effect through manipulative intent that is not further mediated by brand environmental commitment;  $\beta = -0.045, SE = 0.018, CI95: -0.084$  to  $-0.014$ ).

In the model predicting the dependent variable purchase intention, which includes the effects of manipulative intent and brand environmental commitment, both manipulative intent ( $\beta = -0.234, t(576) = -5.76, p < .001$ ) and brand environmental commitment ( $\beta = 0.531, t(576) = 12.338, p < .001$ ) have significant effects. Importantly, and as expected, the conditional indirect effect of the three-way interaction on purchase intention through, sequentially, manipulative intent and brand

**Table 2A**

Serial mediation analysis: Main effects and interactive effects.

|                                                                    | $\beta$ | SE    | <i>t</i> | <i>p</i> |
|--------------------------------------------------------------------|---------|-------|----------|----------|
| <b>Dependent variable: Manipulative intent</b>                     |         |       |          |          |
| Model Summary: $R^2 = 0.047$ ( $F(7, 578) = 4.063$ , $p < .001$ )  |         |       |          |          |
| Specificity                                                        | -0.007  | 0.061 | -0.120   | >0.05    |
| Competence                                                         | -0.160  | 0.061 | -2.614   | <0.01    |
| Warmth                                                             | -0.204  | 0.061 | -3.321   | 0.001    |
| Specificity $\times$ Competence                                    | -0.056  | 0.061 | -0.907   | >0.05    |
| Specificity $\times$ Warmth                                        | -0.022  | 0.061 | -0.361   | >0.05    |
| Warmth $\times$ Competence                                         | -0.009  | 0.061 | -0.139   | >0.05    |
| Specificity $\times$ Warmth $\times$ Competence                    | 0.180   | 0.061 | 2.932    | <0.01    |
| <b>Dependent variable: Brand environmental commitment</b>          |         |       |          |          |
| Model summary: $R^2 = 0.538$ ( $F(8, 577) = 84.067$ , $p < .001$ ) |         |       |          |          |
| Manipulative intent                                                | -0.676  | 0.028 | -24.114  | <0.001   |
| Specificity                                                        | 0.014   | 0.041 | 0.334    | >0.05    |
| Competence                                                         | 0.008   | 0.042 | 0.192    | >0.05    |
| Warmth                                                             | 0.182   | 0.042 | 4.349    | <0.001   |
| Specificity $\times$ Competence                                    | 0.079   | 0.041 | 1.932    | >0.05    |
| Specificity $\times$ Warmth                                        | 0.015   | 0.041 | 0.369    | >0.05    |
| Warmth $\times$ Competence                                         | -0.070  | 0.041 | -1.699   | >0.05    |
| Specificity $\times$ Warmth $\times$ Competence                    | -0.003  | 0.042 | -0.069   | >0.05    |
| <b>Dependent variable: Brand attitude</b>                          |         |       |          |          |
| Model Summary: $R^2 = 0.548$ ( $F(9, 576) = 77.457$ , $p < .001$ ) |         |       |          |          |
| Manipulative intent                                                | -0.249  | 0.044 | -5.724   | <0.001   |
| Brand environmental commitment                                     | 0.589   | 0.046 | 12.896   | <0.001   |
| Specificity                                                        | -0.031  | 0.045 | -0.690   | >0.05    |
| Competence                                                         | -0.044  | 0.046 | -0.958   | >0.05    |
| Warmth                                                             | 0.111   | 0.047 | 2.374    | <0.05    |
| Specificity $\times$ Competence                                    | -0.002  | 0.046 | -0.038   | >0.05    |
| Specificity $\times$ Warmth                                        | 0.038   | 0.046 | 0.832    | >0.05    |
| Warmth $\times$ Competence                                         | 0.068   | 0.046 | 1.496    | >0.05    |
| Specificity $\times$ Warmth $\times$ Competence                    | -0.067  | 0.046 | -1.477   | >0.05    |
| <b>Dependent variable: Purchase intention</b>                      |         |       |          |          |
| Model Summary: $R^2 = 0.536$ ( $F(9, 576) = 73.879$ , $p < .001$ ) |         |       |          |          |
| Manipulative intent                                                | -0.234  | 0.041 | -5.760   | <0.001   |
| Brand environmental commitment                                     | 0.531   | 0.043 | 12.338   | <0.001   |
| Specificity                                                        | 0.018   | 0.043 | 0.426    | >0.05    |
| Competence                                                         | 0.066   | 0.043 | 1.538    | >0.05    |
| Warmth                                                             | 0.090   | 0.044 | 2.050    | <0.05    |
| Specificity $\times$ Competence                                    | 0.027   | 0.043 | 0.626    | >0.05    |
| Specificity $\times$ Warmth                                        | -0.002  | 0.043 | -0.043   | >0.05    |
| Warmth $\times$ Competence                                         | 0.021   | 0.043 | 0.491    | >0.05    |
| Specificity $\times$ Warmth $\times$ Competence                    | -0.053  | 0.043 | -1.225   | >0.05    |

NOTE: Specificity was coded -1 for vague claims and 1 for specific claims. Competence and warmth were coded -1 for low and 1 for high.

environmental commitment is significant ( $\beta = -0.065$ ,  $SE = 0.023$ ,  $CI95: -0.111$  to  $-0.022$ ) as is the indirect effect of the three-way interaction on purchase intention directly through manipulative intent ( $\beta = -0.043$ ,  $SE = 0.018$ ,  $CI95: -0.082$  to  $-0.012$ ). H3 is therefore supported.

#### 4. Discussion

Claim specificity is a key executional element of green advertising that is easy to manipulate and incurs little additional cost for marketers. The conventional wisdom is that specific claims reduce perceptions of greenwashing and generate favorable outcomes (Atkinson & Rosenthal, 2014; Ganz & Grimes, 2018). This research paints a nuanced picture of the effects of green claim specificity and reveals a new boundary condition of the positive impact of claim specificity. Across two studies, we show that the effects of green claim specificity hinge on brand competence and warmth perceptions. Specifically, when brand warmth is low, specific green claims backfire for low-competence brands but not for high-competence ones. On the other hand, when brand warmth is high, claim specificity has no effect regardless of the brand competence level. This study contributes to CSR communication research in several ways and has timely and relevant managerial implications.

#### 4.1. Theoretical contributions

This study contributes to the CSR communication literature (Du et al., 2010; Green & Peloza, 2014; Robinson & Eilert, 2018) by highlighting the conditions under which the level of claim specificity of CSR information positively or negatively influences consumer reactions toward a brand. The literature on claim specificity in CSR communication has mainly demonstrated the importance of using specific green claims to avoid accusations of greenwashing. More and more public and non-governmental actors are also pushing for the use of concrete, specific green and CSR claims. However, to date, the literature has not examined the circumstances in which specific green messages might backfire. Our study addresses this gap and extends the theory on the effectiveness of green message specificity (Ganz & Grimes, 2018) by implicating brand-level associations, namely brand competence and warmth. In particular, the results of Study 2 show that specific green messages can be detrimental to a brand when the brand is perceived as having low levels of warmth and competence.

Second, this research bridges the CSR communication and brand associations literature and establishes the critical role of brand competence and brand warmth in influencing the effectiveness of CSR communication. While prior research has looked at the role of brand reputation and brand concepts in consumer reactions to CSR (Torelli et al., 2012; Yoon et al., 2006), we dig deeper into brand associations by differentiating between brand competence and warmth and examine how different combinations of competence and warmth influence the effectiveness of CSR communication (e.g., green claim specificity). Our findings suggest that, in the case of low warmth and low competence, a brand's specific (versus vague) green claims can trigger consumer persuasion knowledge and more suspicion of manipulative intent, leading consumers to perceive the brand as less environmentally committed, which in turn leads to less positive brand attitudes and less positive purchase intentions. Thus, brands should consider their brand associations when designing green advertising messages, and in some cases, vague green claims are more effective than specific ones. We thus extend the research on CSR message tactics (Perks et al., 2013; Vanhamme et al., 2015; White & Peloza, 2009) by showing that the type of message strategy (specific vs. general) interacts with brand associations (i.e., warmth and competence) to influence the effectiveness of green advertising in generating favorable consumer responses. More importantly, our research suggests that the effectiveness of green advertising depends on not only message tactics but also brand perceptions. Therefore, companies should work on enhancing their brand competence and warmth perceptions (e.g., developing product competency and innovative capabilities, and embracing a sustainable and socially conscious corporate culture) to reap the benefits of effective green advertising.

Third, this study deepens understanding of the effectiveness of green claims by shedding light on the underlying process of perceived manipulative intent and brand environmental commitment. This cognitive process, which informs consumers' attitudes and purchase intentions, suggests that, for CSR communication to be effective and enhance consumer brand attitude, it is critical to inhibit the activation of consumer persuasion knowledge and the corresponding arousal of suspicion and perceived manipulative intent. Further, our results suggest that both message-related (i.e., specificity) and brand-related (i.e., competence and warmth) characteristics affect consumers' cognitive processing of green advertising.

#### 4.2. Practical implications

Our study provides relevant insights into the debate over "how" companies should communicate on CSR (Du et al., 2010). The current findings show that practitioners can expect to significantly improve the effectiveness of their advertising by developing claims that are congruent with their brand profile, depending therefore on the level of

**Table 2B**

Serial mediation analysis: Indirect effects.

| Conditional indirect effects of claim specificity × Competence on brand evaluations |        |        |                  |                  |
|-------------------------------------------------------------------------------------|--------|--------|------------------|------------------|
|                                                                                     | Warmth | β      | SE               | CI <sub>95</sub> |
| <b>Brand attitude</b>                                                               |        |        |                  |                  |
| Mediator: Manipulative intent                                                       | Low    | 0.059  | 0.027            | 0.011 to 0.118   |
|                                                                                     | High   | -0.031 | 0.021            | -0.075 to 0.007  |
| Mediator: Brand environmental commitment                                            | Low    | 0.049  | 0.039            | -0.024 to 0.129  |
|                                                                                     | High   | 0.045  | 0.029            | -0.012 to 0.105  |
| Serial mediation                                                                    | Low    | 0.094  | 0.038            | 0.019 to 0.170   |
|                                                                                     | High   | -0.049 | 0.032            | -0.115 to 0.012  |
| <b>Purchase intention</b>                                                           |        |        |                  |                  |
| Mediator: Manipulative intent                                                       | Low    | 0.056  | 0.027            | 0.011 to 0.115   |
|                                                                                     | High   | -0.029 | 0.020            | -0.071 to 0.007  |
| Mediator: Brand environmental commitment                                            | Low    | 0.044  | 0.036            | -0.023 to 0.118  |
|                                                                                     | High   | 0.041  | 0.027            | -0.011 to 0.095  |
| Serial mediation                                                                    | Low    | 0.085  | 0.034            | 0.019 to 0.152   |
|                                                                                     | High   | -0.045 | 0.029            | -0.103 to 0.011  |
| <b>Index of moderated moderated mediation on Brand attitude</b>                     |        |        |                  |                  |
|                                                                                     | Index  | SE     | CI <sub>95</sub> |                  |
| Mediator: Manipulative intent                                                       | -0.045 | 0.018  | -0.084 to -0.014 |                  |
| Mediator: Brand environmental commitment                                            | -0.002 | 0.024  | -0.050 to 0.045  |                  |
| Serial mediation: Manipulative intent → Brand environmental commitment              | -0.072 | 0.025  | -0.123 to -0.024 |                  |
| <b>Index of moderated moderated mediation on Purchase intention</b>                 |        |        |                  |                  |
|                                                                                     | Index  | SE     | CI <sub>95</sub> |                  |
| Mediator: Manipulative intent                                                       | -0.043 | 0.018  | -0.082 to -0.012 |                  |
| Mediator: Brand environmental commitment                                            | -0.002 | 0.022  | -0.047 to 0.041  |                  |
| Serial mediation: Manipulative intent → Brand environmental commitment              | -0.065 | 0.023  | -0.111 to -0.022 |                  |

NOTE: The 95% confidence intervals that do not include zero indicate statistical significance ( $p < 0.05$ ).

brand warmth and competence. Surprisingly perhaps, the use of a specific claim is not always the best choice for brands to impact consumer reactions. We show that managers need to pay more attention to their general brand positioning in the minds of consumers before deciding on their message framing strategy. While the use of a specific CSR message strategy is particularly important in the context of a high-competence, low-warmth brand, we demonstrate that consumers respond less favorably to such specific green claims when they are communicated by a low-competence, low-warmth brand, due to increased perceptions of manipulative intent.

Second, since our study reveals perceived manipulative intent and brand environmental commitment as the critical intermediate responses that lead to brand attitude and purchase intention, managers should measure and monitor perceived manipulative intent in copy-testing research and changes in perceived brand environmental commitment in pre- and post-campaign research. Measuring these perceptions among the target audience will provide diagnostic information regarding the potential effects of a green advertisement and generate important and immediately actionable information that can be used to modify the perceived specificity of the claim and, thus, its perceived credibility.

Finally, consumers view the environmental impact of products as an important criterion in their purchase choice (Cone Communications, 2019) and want to know more about the CSR and environmental performance of the brands they purchase from. Accordingly, government and other regulatory bodies want to better monitor and regulate CSR communication and green advertising to empower consumers to make informed purchase decisions. Up to now, government and watchdog organizations have focused mainly on greenwashing or deceptive/exaggerated advertising and encouraged more specific, evidence-based CSR communication. Our results suggest that claim specificity is indeed critical in gauging greenwashing perceptions (e.g., perceived manipulative intent). Furthermore, our study suggests that when monitoring and regulating green advertising, a one-size-fits-all approach does not work well. Our results indicate, for instance, that while it could be in the interest of low-warmth and low-competence brands to provide vague messages, such messages may not be informative and would most likely not be beneficial for consumers. Government and policy makers are thus well-advised to examine green message strategy in the context of overall company characteristics and encourage green advertising that

is both truthful and tailored to each company's unique characteristics. Research on what constitutes truthful CSR communication with messages of varying specificity is urgently needed.

#### 4.3. Limitations and future research

This research is subject to several limitations and opens the door to many potential avenues for research. First, while we manipulate the specificity of the claims by the presence (or not) of numbers and percentages, further research could extend the notion of specificity to other kinds of specificity, for instance by stating a brand's specific actions and quantitative impacts in the environmental domain. Moreover, past research on relative numbers has shown that percentages may be challenging to process, prompting consumers to make computational shortcuts by focusing on sheer numerical values (Olsen et al., 2003). In addition, previous work by Tarabashkina and colleagues (2020) suggests that smaller (versus bigger) numbers in CSR communication may be appraised less favorably and generate inferences of manipulation. Thus, investigating other ways for a brand to communicate specific information in its green advertisements represents a relevant avenue for further research.

Second, we only examined print advertisements. To enhance the generalizability of our findings, future studies could seek to replicate our findings using other advertising media such as television or the Internet. Future research could, for instance, examine frequent online shoppers' skepticism toward online green advertisements by focusing on manipulative intent and mistrust, since extant studies have found that trust is particularly important in Internet commerce (Culnan & Armstrong, 1999; Hoffman et al., 1999).

Third, we used two hypothetical brands for the purpose of our studies to avoid any confounding effects that brand familiarity may have on consumer responses. It will be important for future research to examine the effects observed in this research using real brands within a real-world context. Future research could also examine potential differences in consumer responses to familiar versus unfamiliar brands. This would allow us to determine whether brand familiarity would influence skepticism and perceptions of manipulative intent. In addition, brand names might include some cues that influence consumer perceptions. Zhang et al. (2021) notably show that brand names that include size cues

(e.g., Mini Cooper, Grand Cherokee) affect consumers' perceived warmth and competence of the brand through gender associations. Brand names that include social or environmental cues, such as Ecover, or the brand names EcoMax and ECO-Shine used in this research, might therefore also influence consumers' perceived warmth and competence levels of the target brand. Further research should consider these possible associations that consumers make with brand names and how they influence warmth and competence perceptions.

Fourth, future research might investigate individual preferences for different green claim strategies and consider the influence of individual characteristics on our results. Prior research has demonstrated individual differences in how consumers process abstract vs. concrete information and suggested that it is important to tailor green messages to individual preferences (Connors et al., 2017; Lee et al., 2010; White et al., 2011). Past research also shows that gender may moderate the effect of warmth perceptions on purchase intentions (Xue et al., 2020). Thus, investigating further the interplay of claim specificity, brand warmth, and brand competence by taking into account consumer individual characteristics, such as gender, represents a relevant avenue for further research.

Finally, future research should try to replicate our results using different product categories (Bartikowski & Berens, 2021). It would be

interesting to examine the potential backfire effect of specific claims for products that are more expensive and have a higher level of consumer involvement compared to batteries and lightbulbs. There might be a moderating effect of product category characteristics in the double-edged effects of green claim specificity.

#### Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

#### CRediT authorship contribution statement

**Catherine Janssen:** Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Conceptualization. **Valérie Swaen:** Writing – review & editing, Writing – original draft, Methodology, Conceptualization. **Shuili Du:** Writing – review & editing, Writing – original draft, Methodology, Conceptualization.

#### Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Appendix:. Stimuli used in Study 1 and Study 2

### A. Claim specificity manipulation (translated from French)

|                | Specific claim                                                                                                                                                                                                                                                                                                                                                                                                                                   | Vague claim                                                                                                                                                                                                                                                                                                                        |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Study 1</b> | Our low-energy lightbulbs need <b>5 times less</b> power to provide a lighting level similar to incandescent lightbulbs.<br>Our bulbs can last up to <b>15,000 h</b> and can be <b>95% recycled</b> .<br>Our lightbulbs contain:<br>– <b>0%</b> dangerous materials such as mercury or lead<br>– <b>0%</b> polluting gas.<br>Reduced energy consumption by <b>75%</b> .                                                                          | Our low-energy lightbulbs need <b>less</b> power to provide a lighting level similar to other lightbulbs.<br>Our bulbs are <b>RESPECTFUL of the environment</b> and last long.<br>Our lightbulbs:<br>- have a <b>low environmental impact</b><br>- are <b>not dangerous</b> for the planet.<br>Reduced energy consumption.         |
| <b>Study 2</b> | Our eco-friendly EcoMax batteries are <b>4 times more</b> powerful than traditional batteries of similar capacity.<br>Our batteries discharge <b>3 times slower</b> than traditional batteries and can be <b>95% recycled</b> .<br>Our batteries contain:<br>– <b>0%</b> dangerous materials such as lead, cadmium, or mercury<br>– <b>0%</b> harmful products such as cobalt or nickel.<br>Reduced energy consumption by <b>75%</b> during use. | Our eco-friendly EcoMax batteries are more powerful than traditional batteries of similar capacity.<br>Our batteries are <b>RESPECTFUL of the environment</b> and last long.<br>Our batteries:<br>have a <b>low environmental impact</b><br>are <b>not dangerous</b> for the planet.<br><br>Reduced energy consumption during use. |

### B. Warmth and competence manipulation (translated from French)

#### Background brand information

**Lightbulb (Study 1):** ECO-Shine is a brand specialized in the electricity domain that offers a wide range of products, such as lightbulbs, batteries, chargers... available in many stores.

**Battery (Study 2):** EcoMax is a brand specialized in the batteries sector that offers a wide range of batteries available in many stores.

#### Competence manipulation (Study 1 and Study 2)

**Low competence:** The brand ECO-Shine [EcoMax] was recently ranked 8th among 14 major brands in the electricity sector [major batteries brands] in terms of **competence and efficiency** for the realization of its objectives. The brand is also known for its **lack of ability to implement its intentions**.

**High competence:** The brand ECO-Shine [EcoMax] was recently ranked 1st among 14 major brands in the electricity sector [major batteries brands] in terms of **competence and efficiency** for the realization of its objectives. The brand is also known for its **superior ability to implement its intentions**.

#### Warmth manipulation (Study 2 only)

**Low warmth:** Through its business practices, EcoMax proved that it was **not acting in the public's best interest** and did not have **good intentions**

towards consumers. According to a Trends Tendances<sup>2</sup> article, EcoMax is infamous for its **lack of attention and kindness** towards its stakeholders (employees, consumers, suppliers...).

**High warmth:** Through its business practices, EcoMax proved its worth by acting in the **public's best interest** and by demonstrating **good intentions** towards consumers. According to a Trends Tendances article, EcoMax is an **exemplary of attention and kindness** towards its stakeholders (employees, consumers, suppliers...).

## References

- Aaker, J. L. (1997). Dimensions of brand personality. *Journal of Marketing Research*, 34(3), 347–356.
- Aaker, J., Vohs, K. D., & Mogilner, C. (2010). Nonprofits are seen as warm and for-profits as competent: Firm stereotypes matter. *Journal of Consumer Research*, 37(2), 224–237.
- Aaker, J. L., Garbinsky, E. N., & Vohs, K. D. (2012). Cultivating admiration in brands: Warmth, competence, and landing in the “golden quadrant”. *Journal of Consumer Psychology*, 22(2), 191–194.
- Alhouthi, S., Johnson, C. M., & Holloway, B. B. (2016). Corporate social responsibility authenticity: Investigating its antecedents and outcomes. *Journal of Business Research*, 69(3), 1242–1249.
- Alniacik, U., & Yilmaz, C. (2012). The effectiveness of green advertising Influences of Claim Specificity, Product's Environmental Relevance and Consumers' Pro-environmental Orientation. *The Amfiteatru Economic Journal*, 14(31), 207–222.
- Atkinson, L., & Rosenthal, S. (2014). Signaling the green sell: The influence of eco-label source, argument specificity, and product involvement on consumer trust. *Journal of Advertising*, 43(1), 33–45.
- Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), 99–120.
- Bartikowski, B., & Berens, G. (2021). Attribute framing in CSR communication: Doing good and spreading the word – But how? *Journal of Business Research*, 131, 700–708.
- Berrone, P., Fosfuri, A., & Gelabert, L. (2017). Does greenwashing pay off? Understanding the relationship between environmental actions and environmental legitimacy. *Journal of Business Ethics*, 144(2), 363–379.
- Bettman, J. R., Luce, M. F., & Payne, J. W. (1998). Constructive consumer choice processes. *Journal of Consumer Research*, 25(3), 187–217.
- Bolton, L. E., & Mattila, A. S. (2015). How does corporate social responsibility affect consumer response to service failure in buyer–seller relationships? *Journal of Retailing*, 91(1), 140–153.
- Brown, T. J., & Dacin, P. A. (1997). The company and the product: Corporate associations and consumer product responses. *Journal of Marketing*, 61(1), 68–84.
- Burton, S., Andrews, J. C., & Netemeyer, R. G. (2000). Nutrition ad claims and disclosures: Interaction and mediation effects for consumer evaluations of the brand and the ad. *Marketing Letters*, 11(3), 235–247.
- Campbell, M. C. (1995). When attention-getting advertising tactics elicit consumer inferences of manipulative intent: The importance of balancing benefits and investments. *Journal of Consumer Psychology*, 4(3), 225–254.
- Campbell, M. C., & Kirmani, A. (2000). Consumers' use of persuasion knowledge: The effects of accessibility and cognitive capacity on perceptions of an influence agent. *Journal of Consumer Research*, 27(1), 69–83.
- Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, 93(2), 307–319.
- Cone Communications (2019), 2019 Porter Novelli/Cone Purpose Biometrics Study, available on <https://www.conecomm.com/research-blog/purpose-biometrics>, accessed August 13, 2021.
- Cone, J., & Ferguson, M. J. (2015). He did what? The role of diagnosticity in revising implicit evaluations. *Journal of Personality and Social Psychology*, 108(1), 37–57.
- Connelly, B. L., Certo, S. T., Ireland, R. D., & Reutzel, C. R. (2011). Signaling theory: A review and assessment. *Journal of management*, 37(1), 39–67.
- Connors, S., Anderson-MacDonald, S., & Thomson, M. (2017). Overcoming the ‘window dressing’ effect: Mitigating the negative effects of inherent skepticism towards corporate social responsibility. *Journal of Business Ethics*, 145(3), 599–621.
- Culnan, M. J., & Armstrong, P. M. (1999). Information Privacy Concerns, Procedural Fairness, and Impersonal Trust: An Empirical Investigation. *Organization Science*, 10(1), 104–115.
- Davila, A., Foster, G., & Gupta, M. (2003). Venture capital financing and the growth of startup firms. *Journal of Business Venturing*, 18(6), 689–708.
- Davis, J. J. (1993). Strategies for environmental advertising. *Journal of Consumer Marketing*, 10(2), 19–36.
- Dickinson-Delaporte, S., Beverland, M., & Lindgreen, A. (2010). Building corporate reputation with stakeholders. *European Journal of Marketing*, 44(11/12), 1856–1874.
- Du, S., Bhattacharya, C. B., & Sen, S. (2007). Reaping relational rewards from corporate social responsibility: The role of competitive positioning. *International Journal of Research in Marketing*, 24(3), 224–241.
- Du, S., Bhattacharya, C. B., & Sen, S. (2010). Maximizing business returns to corporate social responsibility (CSR): The role of CSR communication. *International Journal of Research in Marketing*, 12(1), 8–19.
- Du, S., Bhattacharya, C. B., & Sen, S. (2011). Corporate social responsibility and competitive advantage: Overcoming the trust barrier. *Management Science*, 57(9), 1528–1545.
- Ellen, P. S., Webb, D. J., & Mohr, L. A. (2006). Building corporate associations: Consumer attributions for corporate socially responsible programs. *Journal of the Academy of Marketing Science*, 34(2), 147–157.
- Epley, N., Waytz, A., & Cacioppo, J. T. (2007). On seeing human: A three-factor theory of anthropomorphism. *Psychological review*, 114(4), 864–886.
- European Commission (2021), Screening of websites for ‘greenwashing’: half of green claims lack evidence. Press release of 28/01/2021, available on [https://ec.europa.eu/cyprus/news/20210128\\_2\\_en](https://ec.europa.eu/cyprus/news/20210128_2_en), accessed on August 13, 2021.
- Fernandez, K. V., & Rosen, D. L. (2000). The effectiveness of information and color in yellow pages advertising. *Journal of Advertising*, 29(2), 61–73.
- Fiske, S. T., Cuddy, A. J., Glick, P., & Xu, J. (2002). A model of (often mixed) stereotype content: Competence and warmth respectively follow from perceived status and competition. *Journal of Personality and Social Psychology*, 82(6), 878–902.
- Forehand, M. R., & Grier, S. (2003). When is honesty the best policy? The effect of stated company intent on consumer skepticism. *Journal of Consumer Psychology*, 13(3), 349–356.
- Franke, G. R., Huhmann, B. A., & Mothersbaugh, D. L. (2004). Information content and consumer readership of print ads: A comparison of search and experience products. *Journal of the Academy of Marketing Science*, 32(1), 20–31.
- Friestad, M., & Wright, P. (1994). The persuasion knowledge model: How people cope with persuasion attempts. *Journal of Consumer Research*, 21(1), 1–31.
- Ganz, B., & Grimes, A. (2018). How claim specificity can improve claim credibility in Green Advertising: Measures that can boost outcomes from environmental product claims. *Journal of Advertising Research*, 58(4), 476–486.
- Godfrey, P. C., Merrill, C. B., & Hansen, J. M. (2009). The relationship between corporate social responsibility and shareholder value: An empirical test of the risk management hypothesis. *Strategic Management Journal*, 30(4), 425–445.
- Grandey, A. A., Fisk, G. M., Mattila, A. S., Jansen, K. J., & Sideman, L. A. (2005). Is “service with a smile” enough? Authenticity of positive displays during service encounters. *Organizational Behavior and Human Decision Processes*, 96(1), 38–55.
- Green, T., & Peloza, J. (2014). Finding the right shade of green: The effect of advertising appeal type on environmentally friendly consumption. *Journal of Advertising*, 43(2), 128–141.
- 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.
- Handelman, J. M., & Arnold, S. J. (1999). The role of marketing actions with a social dimension: Appeals to the institutional environment. *Journal of Marketing*, 63(3), 33–48.
- Hayes, A. F. (2018). Partial, conditional, and moderated moderated mediation: Quantification, inference, and interpretation. *Communication Monographs*, 85, 4–40.
- Hoffman, D., Novak, T. P., & Peralta, M. A. (1999). Building consumer trust online. *Communications of the ACM*, 42(4), 80–85.
- Judd, C. M., James-Hawkins, L., Yzerbyt, V., & Kashima, Y. (2005). Fundamental dimensions of social judgment: Understanding the relations between judgments of competence and warmth. *Journal of Personality and Social Psychology*, 89(6), 899–913.
- Jung, J., Kim, S. J., & Kim, K. H. (2020). Sustainable marketing activities of traditional fashion market and brand loyalty. *Journal of Business Research*, 120, 294–301.
- Kervyn, N., Fiske, S. T., & Malone, C. (2012). Brands as Intentional Agents Framework: How perceived intentions and ability can map brand perception. *Journal of Consumer Psychology*, 22(2), 166–176.
- Kim, S. (2019). The process model of corporate social responsibility (CSR) communication: CSR communication and its relationship with consumers' CSR knowledge, trust, and corporate reputation perception. *Journal of Business Ethics*, 154(4), 1143–1159.
- Labroo, A. A., & Lee, A. Y. (2006). Between Two Brands: A Goal Fluency Account of Brand Evaluation. *Journal of Marketing Research*, 43(3), 374–385.
- Lee, A. Y., Keller, P. A., & Sternthal, B. (2010). Value from regulatory construal fit: The persuasive impact of fit between consumer goals and message concreteness. *Journal of Consumer Research*, 36(5), 735–747.
- Leonidou, L. C., Leonidou, C. N., Paliawadana, D., & Hultman, M. (2011). Evaluating the green advertising practices of international firms: A trend analysis. *International Marketing Review*, 28(1), 6–33.
- Lunardo, R., & Roux, D. (2015). In-store arousal and consumers' inferences of manipulative intent in the store environment. *European Journal of Marketing*, 49(5/6), 646–667.
- Luo, X., & Bhattacharya, C. B. (2006). Corporate social responsibility, customer satisfaction, and market value. *Journal of marketing*, 70(4), 1–18.
- MacKenzie, S. B. (1986). The role of attention in mediating the effect of advertising on attribute importance. *Journal of Consumer Research*, 13(2), 174–195.

<sup>2</sup> Trends Tendances is a well-known economic and financial magazine published in the French-speaking part of Belgium where data was collected.

- Maheswaran, D., & Chaiken, S. (1991). Promoting systematic processing in low-motivation settings: Effect of incongruent information on processing and judgment. *Journal of Personality and Social Psychology*, 61(1), 13–25.
- Manrai, L. A., Manrai, A. K., Lascu, D. N., & Ryans, J. K., Jr (1997). How green-claim strength and country disposition affect product evaluation and company image. *Psychology & Marketing*, 14(5), 511–537.
- Olsen, G. D., Pracejus, J. W., & Brown, N. R. (2003). When profit equals price: Consumer confusion about donation amounts in cause-related marketing. *Journal of Public Policy & Marketing*, 22(2), 170–180.
- Olsen, M. C., Slotegraaf, R. J., & Chandukala, S. R. (2014). Green claims and message frames: How green new products change brand attitude. *Journal of Marketing*, 78(5), 119–137.
- Orazi, D. C., & Chan, E. Y. (2020). “The did not walk the talk!” How information specificity influences consumer evaluations of disconfirmed environmental claims. *Journal of Business Ethics*, 163(1), 107–123.
- 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.
- Pérez, A., de los Salmones, M., & Liu, M.T. (2020). Information specificity, social topic awareness and message authenticity in CSR communication. *Journal of Communication Management*, 24(1), 31–48.
- Perks, K. J., Farache, F., Shukla, P., & Berry, A. (2013). Communicating responsibility-practicing irresponsibility in CSR advertisements. *Journal of Business Research*, 66(10), 1881–1888.
- Pomeroy, A., & Johnson, L. W. (2009). Advertising corporate social responsibility initiatives to communicate corporate image. *Corporate Communications: An International Journal*, 14(4), 420–439.
- Robinson, S., & Eilert, M. (2018). The role of message specificity in corporate social responsibility communication. *Journal of Business Research*, 90(September), 260–268.
- Scandellius, C., & Cohen, G. (2016). Achieving collaboration with diverse stakeholders—The role of strategic ambiguity in CSR communication. *Journal of Business Research*, 69(9), 3487–3499.
- Sen, S., Du, S., & Bhattacharya, C. B. (2016). Corporate social responsibility: A consumer psychology perspective. *Current Opinion in Psychology*, 10, 70–75.
- Servaes, H., & Tamayo, A. (2013). The impact of corporate social responsibility on firm value: The role of customer awareness. *Management Science*, 59(5), 1045–1061.
- Simmons, C. J., & Becker-Olsen, K. L. (2006). Achieving marketing objectives through social sponsorships. *Journal of Marketing*, 70(4), 154–169.
- Skarmas, D., & Leonidou, C. N. (2013). When consumers doubt, watch out! The role of CSR skepticism. *Journal of Business Research*, 66(10), 1831–1838.
- Suchman, M. C. (1995). Managing legitimacy: Strategic and institutional approaches. *Academy of Management Review*, 20(3), 571–610.
- Tan, S. J. (2002). Can consumers’ skepticism be mitigated by claim objectivity and claim extremity? *Journal of Marketing Communications*, 8(1), 45–64.
- Tarabashkina, L., Tarabashkina, O., & Quester, P. (2020). Using numbers in CSR communication and their effects in motive attributions. *Journal of Consumer Marketing*, 37(7), 855–868.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509–533.
- 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(5), 948–963.
- Vanhamme, J., Swaen, V., Berens, G., & Janssen, C. (2015). Playing with fire: Aggravating and buffering effects of ex ante CSR communication campaigns for companies facing allegations of social irresponsibility. *Marketing Letters*, 26(4), 565–578.
- Vlachos, P. A., Tsamakos, A., Vrechopoulos, A. P., & Avramidis, P. K. (2009). Corporate social responsibility: Attributions, loyalty, and the mediating role of trust. *Journal of the Academy of Marketing Science*, 37(2), 170–180.
- 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.
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548–573.
- Weijters, B., & Baumgartner, H. (2012). Misresponse to reversed and negated items in surveys: A review. *Journal of Marketing Research*, 49(5), 737–747.
- White, K., Macdonnell, R., & Dahl, D. W. (2011). It’s the mind-set that matters: The role of construal level and message framing in influencing consumer efficacy and conservation behavior. *Journal of Marketing Research*, 48(3), 472–485.
- White, K., & Pelozo, J. (2009). Self-benefit versus other-benefit marketing appeals: Their effectiveness in generating charitable support. *Journal of Marketing*, 73(4), 109–124.
- Xue, J., Zhou, Z., Zhang, L., & Majeed, S. (2020). Do brand competence and warmth always influence purchase intention? The moderating role of gender. *Frontiers in Psychology*, 11, 248.
- Yoon, Y., Gürhan-Canli, Z., & Schwarz, N. (2006). The effect of corporate social responsibility (CSR) activities on companies with bad reputations. *Journal of Consumer Psychology*, 16(4), 377–390.
- Zhang, K., Li, S. K., & Ng, S. (2021). Sizes are gendered: The effect of size cues in brand names in brand stereotyping. *Journal of Consumer Research*. in press.

**Catherine Janssen** is Professor of Marketing at the Université libre de Bruxelles (SBS-EM, Belgium). She obtained her PhD in Management Sciences from the Louvain School of Management of the Université catholique de Louvain (Belgium). Her main research interests include consumer responses to corporate social responsibility, corporate crises and corporate social irresponsibility, and consumers’ socially responsible behaviors. She has published articles in international peer-reviewed journals including *Journal of Business Ethics*, *Journal of Business Research*, *Marketing Letters*, and *Business Horizons*.

**Valérie Swaen** is Full Professor of Marketing and Corporate Social Responsibility (CSR) at the Université catholique de Louvain (Louvain School of Management, Belgium) and at IESEG School of Management (France). Since September 2019, she is the president of the Louvain Research Institute in Management and Organizations (LouRIM, UCLouvain). She is also the head of the Louvain CSR network that gathers and supports researchers and practitioners who seek to put responsible leadership and sustainable production and consumption at the heart of their research and strategy. Prof. Swaen’s research focuses on the reactions of stakeholders to CSR activities and communications. She has published academic papers in international journals such as *Journal of Management*, *Journal of Management Studies*, *Journal of Organizational Behavior*, *Journal of Business Ethics*, *Journal of Business Research*, and *Marketing Letters*, among others.

**Shuili Du** is Professor of Marketing at the Peter T. Paul College of Business and Economics, University of New Hampshire. She got her PhD in marketing from Questrom School of Business, Boston University. Her research expertise lies in understanding various ways corporate social responsibility (CSR) and sustainability initiatives create business value. Specifically, she has examined CSR communication and the impact of CSR on consumer perceptions and behaviors, firm innovation, stock price, and other business outcomes. Dr. Du’s research has appeared in *Journal of Consumer Research*, *Management Science*, *International Journal of Research in Marketing*, *Journal of Business Ethics*, *Journal of Business Research*, *Harvard Business Review*, and others.