REVIEW



Cross-cultural perspective on sustainable consumption: implications for consumer motivations and promotion

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Abstract

Firms in the past have based their marketing and promotion strategies on the assumption of infinite resources and zero environmental impact. With the growing importance of environmental costs associated with finite resources, firms need to revisit their marketing and promotion strategies. This study defines and conceptualizes horizontal/vertical individualism—collectivism (H/V I-C) cultural value orientations as antecedents of sustainable consumption. Drawing on H/V I-C value orientations, this study attempts to build a sustainable consumption model to better understand how horizontal/vertical individualism—collectivism cultural values are reflected in consumers' sustainable consumption motives and how they can be translated into persuasive advertising appeals tailored to specific cultural segments. This study contributes to provide new theoretical and managerial insights into understanding culturally relevant sustainable consumption motives and to establish appropriate strategies of sustainable consumption promotion in cross-cultural contexts. Most importantly, this study provides implications to companies for balancing more carefully their growth goals with the need to pursue sustainability across different cultures.

Keywords Culture · Horizontal/vertical individualism and collectivism · Consumer motivation · Sustainable consumption · Green marketing · Advertising appeals

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1 Introduction

According to the Global Risk Perception Survey, 'failure of climate change mitigation and adaptation has become the number one global risk, whereas biodiversity loss and extreme weather conditions are ranked third and fourth in the top five global risks by impact in 2020 (WEF, 2020). For the first time in this survey's history, three out of five long-term risks are environmental. It is vital and equally challenging to limit carbon emissions to 1.5–2 °C, as per the Paris Agreement goal (IPCC, 2018; Luderer et al., 2018; Niamir et al., 2020). Given this target, climate experts fear that this planet is only left with a carbon budget of less than ten years of emissions at the current rate of temperature rise (Carbon Brief, 2017). This calls for urgent and transformational actions from all stakeholders at different levels. Albeit the technology and regulatory push strategies are undoubtedly essential to pursue sustainable production and bring eco-efficient products/services to the market, pro-environmental behavioral change lies at the core of a more sustainable future (Evans, Browne, & Gortemaker, 2020; Bockarjova and Steg, 2014). Effective policymaking is impossible without understanding the determinants of consumption practices (Wilk, 2002), especially resource-intensive everyday consumption practices (Greene, 2018). Individuals are diverse in terms of their basic psychological processes and behaviors, and it is pertinent to study these dynamics for a successful implementation of climate change activities.

While consumers express environmental concerns and willingness to prevent environmental degradation, greening their consumption patterns has proven challenging as we failed to bridge 'the green gap' between pro-environmental attitudes and intentions and actual sustainable consumption¹ (Joshi & Rahman, 2015; Kumar, 2017; Wang et al., 2018; Tseng, 2016). To help bridge this gap, past studies focused on green marketing, characteristics of green products, and consumers' demographic and personality traits as potential drivers of sustainable consumption (Rahbar and Wahid, 2011; Borin and Lindsey-Mullikin, 2013; Davari and Strutton, 2014). They also identified several barriers that prevent consumers from buying green products, namely high prices of green products, product unavailability, the perceived inferior quality, brand loyalty to non-green products (Gleim and Lawson, 2014), and other non-monetary costs such as perceived sacrifice (Chwialkowska & Turkiewicz, 2020). Researchers also looked at the effectiveness of various advertising strategies (Chang et al., 2015; Whiteet al., 2011; Leonidou et al., 2011). However, existing research has so far failed to identify why consumers' pro-environmental attitudes, concerns, and intentions fail to convert into sustainable consumption (Chwialkowska and Flicinska, 2020; Gupta and Ogden, 2009; Joshi and Rahman, 2015).

An answer might lie in that as "human-environment interactions are culture-bound; a fuller understanding of such interactions requires sensitivity to the role of culture" (Tam & Milfont, 2020, p.1). Despite its importance, existing sustainability research has been limited in its attention to the cultural influences on pro-environmental values, motivations, and effectiveness of advertising strategies that help bridge the green gap (Chwialkowska et al., 2020; Milfont and Markowiz, 2016; Zagata, 2014). Therefore, researchers called for more research considering social and cultural aspects of sustainable consumption (Ceglia et al., 2015; Cho et al., 2013; Chwialkowska et al., 2020; Costa Pinto et al., 2016; Polonsky et al., 2014; Morren & Gristein, 2016).

[&]quot;Sustainable consumption encompasses a wide range of behaviors, from consumer purchase of eco-friendly products to household and municipal water use patterns." (Milfont & Markowitz, 2016, p. 112).



Preliminary research at the intersection of sustainability and culture suggests that consumers' pro-environmental behaviors indeed vary across nations and cultures (Ritter, Borchardt, and Vaccaro, 2015; Dermody, Hanmer-Llod, Lewis, and Zhao, 2015; Segev, 2015; Liu and Segev, 2017; Polonsky et al. 2014). For instance, culture shapes our relationship with the environment, the extent of environmental concerns and pro-environmental attitudes, and our responses to climate change (De-Groot and Steg, 2010; Nash et al., 2020; Price, Walker, and Bochetti, 2014; Schwartz, 1992; Hofstede, 1980). Consequently, it might encourage or discourage sustainable consumption (Chwialkowska, Bhatti, & Glowik, 2020). Previous research has also suggested that people engage in sustainability for different reasons, depending on their cultural background (e.g., McCarty & Shrum, 2001; Milfont et al., 2006; Kim & Choi, 2005; De Groot & Steg, 2008). However, we still do not know how to bridge the green gap both within and across countries (Memery et al., 2015), calling for further exploration of this topic.

The cultural dimension most commonly used to explain a variety of consumption behaviors, including sustainable consumption, is Hofstede's (1980) individualism vs. collectivism (Shavitt et al., 2011), which is considered the most important cultural dimension explaining cultural differences (Triandis, 1989; Morren & Grinstein, 2016). People with individualistic value orientation tend to prioritize personal benefits and desires over those of the group. On the other hand, people with collectivistic value orientation tend to behave per social norms and emphasize group benefits and desires (Hofstede, 1980). Previous cross-cultural research in the area of sustainability-focused mainly on this cultural dimension and suggested that consumers in individualistic countries tend to exhibit egocentric environmental concerns, whereas consumers from traditional collectivistic countries tend to exhibit altruistic environmental behaviors (McCarty & Shrum, 2001; Milfont et al., 2006). However, polarized opinions exist as to the extent to which individualistic or collectivistic value orientation translates into more sustainable consumption (Morren & Grinstein, 2016; Kim & Choi, 2005; Cho et al., 2013; Schmuck and Vlek, 2003; Schultz, 2001; Schultz et al., 2004; Kareklas et al., 2012; Rahman, 2019).

Accordingly, no consensus has been reached as to whether consumers consume sustainable products for individualistic (pro-self), collectivistic (pro-others), or other reasons (Mancha and Yoder, 2015; Milfont et al. 2006). The reason behind these contradictory findings lies in the limitations of the Hofstede's (1980) cultural framework and how cultural value orientations of individualism and collectivism are conceptualized. Hofstede's (1980) conceptualization fails to account for the multidimensionality of culture and the complexity of motivations for sustainable consumption (Morren and Grinstein, 2016). Thus, to increase our understanding of differences in sustainable consumption, we need to base our studies on theoretically and statistically rigorous conceptualization of cultural value orientations (Beugelsdijk, Kostova, and Roth, 2016; Rahman and Luomala, 2020; Price, Walker, and Boschetti, 2014).

An alternative to that can accommodate this complexity of sustainable consumption is offered by the multilevel perspective (Milfont and Markowiz, 2016; Cho et al., 2013; Rahman, 2019; Larson and Kinsey, 2019; Rahman and Luomala, 2020), providing a refined approach to the individualism–collectivism and construct and expands the independence-interdependence dimension from Hofstede's model (1980). The new dimension, i.e., vertical–horizontal dimension takes into account the hierarchical relationships, i.e., power distance (equality vs. hierarchy) within society (Singelis, Triandis, Bhawuk, & Gelfand, 1995; Triandis, 1995; Triandis & Gelfand, 1998). This multilevel horizontal and vertical individualism (H/V I-C) typology (Triandis and Gelfand, 1998) is a long-standing framework in consumer psychology (Shavitt and Barnes, 2019). For that matter, the present research



focuses on the suggestion of other types of H/V I-C considering equality and hierarchy as drivers for cross-cultural dissimilarities in cross-cultural sustainable consumption and promotion.

Therefore, this study aims to conceptualize the *H/V I-C sustainable consumption* model of the role of horizontal/vertical individualistic-collectivistic value orientations (H/V I-C) in shaping consumer motivations for sustainable consumption and to translate these findings into persuasive advertising appeals that encourage sustainable consumption tailored to consumer's cultural background.

By doing so, we answer calls of research to examine the role of culture in sustainable consumption (Tam and Milfont, 2020; Chwialkowska, Bhatti, and Glowik, 2020) and show how taking into account H/V I-C cultural value orientations of consumers can help bridge the "green gap." Our contribution is threefold. First, unlike previous research, we account for the complexity of culture and multi-layered consumer values and motivations. We thus refine the predictions offered based on the limited individualism-collectivism difference therefore building on the H/V I-C typology (Singelis et al., 1995; Triandis and Gelfand, 1998) for better understanding of consumers' cultural relevant motivations to engage in sustainable consumption. Second, by building on this typology, we help explain contradictory findings of previous research that relied heavily on outdated and single-dimensional cultural approaches but also serve as a barrier to understanding sustainable consumption behavior across cultures (Morren & Grinstein, 2016; Rahman, 2019). Third, unlike previous sustainability research, we do not stop at exploring consumer motivations but connect them to effective advertising strategies that capitalize on these motivations and help bridge the gap between pro-environmental attitudes and intentions and actual behavior. As we do not stop at studying consumer motivations and develop specific propositions for persuasive advertising appeals congruent with each of the cultures within the framework, this study also bears significant managerial implications.

2 Literature review

On a national or societal level, cultural values constitute an agreement between people and provide a set of guidelines to follow, act upon, and implement in their lives as a group (Hofstede, 1980; Schwartz, 1992; House, 2004). They are guiding life principles that influence how people define and interpret situations and perceive objects and their attributes (Schwartz, 1992). While there are universal human motivations (namely biological needs, social interaction, and the demands of group functioning) shared by people across cultures and borders (Schwartz and Sagiv, 1995), values translate these universal human needs into actions, attitudes, and perceptions oriented towards self- or others- depending on the individual or collective interests (Pendergraft, 1998; Chwialkowska et al., 2020). These concepts have also been discussed in the sustainability research. Sustainability scholars have generally classified values into three types of environmental concerns: egoistic, humanistic altruism, and biospheric altruism (Schultz, 2001; Stern and Dietz, 1994) and relate these concerns relate pro-environmental values to behaviors. For instance, the value-beliefnorm (VBN) model suggests that individuals' ascription to these three values influences their environmental beliefs which in turn affect their awareness of consequences, feelings of responsibility, personal norm and finally pro-environmental behavior (Stern et al., 1999). Based on insights of households' encounter with a sustainable vehicle, Axsen and Kurani (2013) develop a framework that links individuals' values and self-concept to their



behaviors. They refer sustainability-oriented values as stable motivations guiding an individual "to enact behaviors that are perceived as supporting sustainability goals" (p. 70). As a result, these are useful concepts in examining the psychological similarities and differences of people within particular cultural areas.

2.1 Hofstede's individualism versus collectivism

While several cultural frameworks have been developed, for example, Inglehart's (1977) theory of materialism, Hofstede's (1980) cultural model, Schwartz's (1992) cultural value measurement scale, Trompenaars' (1993) seven dimensions of culture, and the House's et al. (2004) GLOBE model. However, scholars from various disciplines, including crosscultural psychology and international business have favored Hofstede's (1980) framework (Venaik and Brewer, 2013; Krikman et al., 2006; Stahl & Tung, 2014; Chwialkowska, Bhatti, & Glowik, 2020). Its popularity among researchers stems from clarity and parsimony in measuring culture, a robust number of evaluated countries, and extensive national samples (Soares et al., 2007).

While Hofstede's framework consists of several dimensions of culture, the dimension of individualism vs. collectivism gained most traction among cross-cultural consumer behavior, psychology, and business researchers (De Mooij, 2015; Fisher et al., 2009; Triandis, 1995; Sivadas et al., 2008; Shavitt et al. 2006; Venaik and B rewer, 2013; Krikman et al., 2006; Masuda et al., 2020). It is the dimension the most commonly used as the basis for explaining cross-cultural differences and motivations in social psychology (Shavitt & Barnes, 2019; Shavitt et al. 2006), group behaviors in any setting (Masuda et al., 2020), and a variety of sustainable consumer behaviors (Shavitt et al. 2011; Park, Russell, and Lee, 2007; Soyez, 2012; Nair and Little, 2016).

Hofstede's (1980) individualism–collectivism dimension reflects independence vs. interdependence values. For example, individualism is related to individuals' concerns such as self-enchantment and openness, and collectivism relates to values that serve collective concerns such as self-transcendence and conservation. More broadly, the emphasis of individualistic societies is "I" consciousness, which involves individual initiative, freedom, the need for specific friendship, emotional independence, seeking pleasure, the right to privacy, universalism, and financial security. The emphasis of collectivistic societies is "we" consciousness, which involves emotional dependence, collective identity, sharing, group solidarity, group decisions, obligations, and duties (Hofstede, 1980; Chen and West, 2008).

Sustainability research explored the influence of these cultural values. Still, it did not reach consensus in terms of the influence of individualism vs. collectivism on sustainable consumption, which throws into question the applicability of this conceptualization in this research context. One research stream suggests that collective and altruistic interests instead of individual ones increase sustainable consumption (Booysen, Guyvuriro, & Campher, 2021; Kim & Choi, 2005; Cho et al. 2013; Schmuck and Vlek, 2003) and thus, individuals in collectivistic countries are more likely to translate their pro-environmental attitudes and intentions into sustainable action (Bagozzi et al. 2000; Chan & Lau, 2001; Chwialkowska et al., 2020). This research stream also suggests that the social environment in collectivistic cultures is supportive of engaging in sustainable behaviors (Morren & Grinstein, 2016). Another research stream suggests that sustainable consumption is more likely to occur when it is believed to provide individual/self-benefits and is driven by egoistic considerations (Chwialkowska & Flicinska-Turkiewicz, 2020; De Groot & Steg, 2008;



Grebitus & Dumortier, 2015; Luchs et al., 2010), and altruistic concerns are not linked to actual behavior (Schultz, 2001; Schultz et al., 2004). Thus, individualistic cultures might be more prone to act upon their pro-environmental intentions as this helps them achieve their personal goals (Cho et al., 2013), with a stronger relationship between pro-environmental attitudes and intentions, which are "more likely to materialize to actual environmental behavior in individualistic than collectivistic countries" (Morren & Grinstein, 2016, p. 102). Contradictory findings as to the effectiveness of promotion-oriented appeals in collectivistic vs. individualistic societies were also reported (Kareklas et al., 2012; Chen et al., 2015; Onwezen et al., 2013; Rahman, 2019).

Consequently, researchers argue that it should not be taken for granted that culture is always congruent with individualism or collectivism dimension (Chwialkowska et al., 2020; Kim et al., 1994; Fiske, 2002), which might be oversimplifying culture (Singelis et al., 1995). Moreover, based on the norm-activation model of altruism (Schwartz's, 1977), environmental moral norms can be activated by both socio-altruistic and egoistic values (Stern and Dietz 1994; Milfont et al. 2006; Lee and Park, 2013). Thus, sustainable consumption can be considered a social dilemma, as consumers' weigh their collective and individual interests (Moisander, 2007; Gupta and Ogden, 2009). This adds an extra layer of complication to the consumer decision-making process and suggests the implications of individualism versus collectivism go beyond what Hofstede's (1980) conceptualization can explain (Oyserman et al., 2002). This might be the reason behind contradictory findings reported by the existing studies which compared countries based on this conceptualization of individualism vs. collectivism. These concerns were echoed in the field of advertising, where it was suggested that the individualism-collectivism distinction alone might be too general to rely on to create persuasive advertising appeals (Han and Shavitt, 1994). This dimension was also not sufficient to predict advertising contents (Chang, 2006). Thus, the reductionist individualism-collectivism perspective provides an insufficient basis for sustainable and green marketing research (McCarty and Shrum, 2001; Wang, 2014; Segev, 2015).

Given the complexity of cross-cultural studies for the globalized world nowadays, there has been a strong consensus by researchers that the individualism vs. collectivism orientations as two extreme ends are not sufficient to understand cultural orientation (de Morais et al., 2021). Addressing this limitation and recognizing that culture is a multidimensional construct (Richter et al., 2016), consumer psychology research has since expanded its conceptualization of individualism vs. collectivism (Shavitt et al., 2006; Shavitt et al., 2011) to take into account the complexity of human decisionmaking. Singelis et al. (1995) and Triandis and Gelfand (1998) expand the individualism-collectivism typology by incorporating a vertical/horizontal dimension which reflects different attitudes toward hierarchy and power within the culture - H/V I-C framework (Shavitt et al. 2006). Vertically oriented societies prefer authority and status whereas horizontally oriented societies seek equality (Triandis and Gelfand, 1998). Combining this dimension with the contrasting individualism-collectivism dimension can offer an in-depth analysis of cultural diversity in human values. The usability of the H/V I-C framework for consumer behavior and business research has been validated in multiple studies in the field. For example, it explains consumer responses to persuasive communication and advertising appeals (Lee and Choi, 2005; Shavitt, Johnson, and Zhang 2011). H/V I-C typology has also proven suitable in the context of sustainability, such as in predicting consumers' socially desirable responses (Lalwani, Shavitt, and Johnson 2006), their environmental attitudes and concerns (Cho et al., 2013), green and ethical beliefs (Lu et al., 2013), altruism (Booysen et al., 2021),



predisposition toward eco-tourism (Kaihatu et al., 2021), sustainable consumption (de Morais, Pinto, and Cruz-Jesus, 2021) and, environmental behavior and responsibility (Rahman and Luomala, 2021).

According to earlier research, sustainable behavior is a form of social behavior that involves not only buying socially responsible brands but also to make charity donation and perform pro-environmental behavior such as to buy ethical and sustainable products (e.g. Duclos & Barasch, 2014; Gandhi & Kaushik, 2016; Maniatis, 2015; Torelli, Monga, & Kaikati, 2012; Winterich & Zhang, 2014). Further, the features of sustainable products fulfill both individual and collective needs of consumers that include social and environmental status, image enhancement, security, and give pleasure of consumption (Birch et al., 2018; Griskevicius et al., 2010; Lee & Haley, 2018; Maniatis, 2015). Earlier research in marketing and advertising domains have mainly focused on such behavior at the cultural level through individualism versus collectivism and the power distance values (Hofstede, 1980; Shavitt, Lalwani, Zhang, & Torelli, 2006). Therefore, in what follows, we build on the H/V I-C typology to offer new insights into consumer motivations for sustainable consumption and corresponding advertising appeals.

3 H/V I-C typology and sustainable consumption – research propositions

To overcome the limitations of the traditional individualism vs. collectivism framework (Hofstede, 1980), which focuses only on independence-interdependence relationships within society, the H/V I-C typology adds an equality-inequality dimension addressing the importance of hierarchical relationships within a given society (Triandis and Gelfand, 1998). Singelis et al. (1995) and Triandis (1995) identified four distinct cultural patterns in H/V I-C typology (a) Horizontal individualistic; (b) Vertical individualistic; (c) Horizontal collectivistic; and (d) Vertical collectivistic orientation.

Figure 1 depicts the key values held by each of the four orientations. These horizontal/vertical individualism-collectivism orientations predict different personal values, goals, normative expectations, and power concepts beyond the traditional individualism-collectivism conceptualization (Triandis, 1995). They influence consumer motivations for engaging in sustainable consumption, as we propose in propositions 1a-d below.

Consumers evaluate products to the extent that the values associated with the characteristics, attributes, and attractiveness of the products are personally important to them (De Mooij and Hofstede, 2011). Accordingly, marketers target consumers with culturally appropriate advertising strategies congruent with particular consumer's cultural value orientation as they tend to be more effective than culturally incongruent messages (Oreg and Katz-Gerro, 2006; Han and Shavitt, 1994; Xue 2015; (Torelli & Shavitt, 2010; Torelli et al., 2012). Thus, in propositions 2a-d below, we propose persuasive advertising appeals targeted at each cultural group within the H/V I-C typology. The proposed relationships between four cultural patterns and sustainable consumption and advertising appeals are also shown in Figs. 2 and 3.



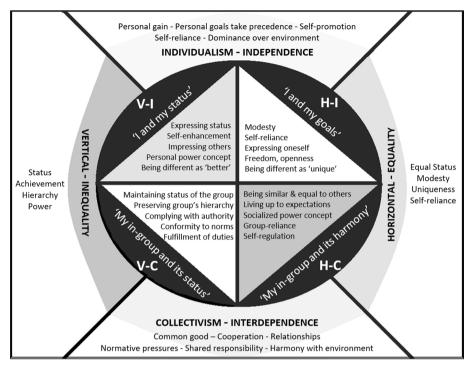


Fig. 1 Key Characteristics of H/V I-C orientations

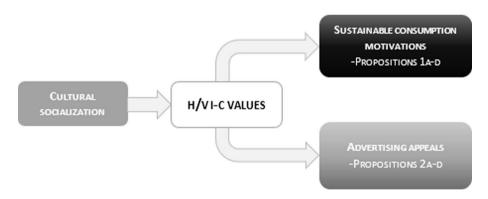


Fig. 2 Horizontal/vertical cultures, sustainable consumption motives and advertising appeals

3.1 Horizontal individualism (H-I-uniqueness)

Horizontal individualism (H-I), represented by countries such as Australia, Denmark, Norway, and Sweden (Khatri et al., 2006; Sivadas et al., 2008), is a cultural pattern emphasizing equality (reflected in valuing equal status and modesty) and independence (reflected in valuing the pursuit of uniqueness, individual goals, and self-reliance) (Triandis & Gelfand, 1998; Nelson & Shavitt, 2002).



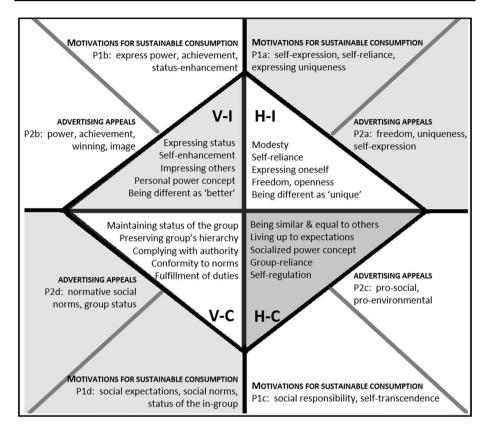


Fig. 3 H/V I-C sustainable consumption model

Horizontal individualistic people desire to be unique and do their own thing (Shavitt & Barnes, 2019). A person from an H-I society sees oneself as an autonomous self that is distinct from others (distinct as unique but not better or higher in status). Therefore, while being unique is valued, so is modesty. While being distinct and self-reliant is emphasized, enhancing one's status or boasting of one's accomplishments is frown upon and seen as bragging (Nelson & Shavitt, 2002; Triandis & Gelfand, 1998). Individuals in H-I cultures value doing what is best for them (Singelis et al., 1995; Shavitt & Cho, 2016) and make decisions based on their opinions and individual pursuits (Griskevicius et al., 2010; Stern & Dietz, 1994). It is taken for granted that one's personal goals take precedence over group goals (Singelis et al. 1995).

These motivations have implications for marketing and promotion. Ads in H-I societies put less emphasis on prestige than in vertical cultures (Triandis, 1995), and celebrity endorsements play a less profound role in advertising (Figge et al., 1998). Rather than brands that convey status (as in V-I cultures), brands conveying openness and freedom are favored (Torelli et al., 2012; Torelli, 2013). As expressing one's uniqueness is valued, consumption is a form of self-expression, thus in H-I cultures, advertising appeals emphasize that the product reflects one's personality, uniqueness, or is something novel (Shavitt & Johnson, 2011).

Accordingly, we propose the following:



Proposition 1a Consumers in H-I cultures are motivated to choose sustainable products for self-expression, self-reliance, and to express uniqueness.

Proposition 2a Advertising appeals emphasizing freedom, uniqueness, and self-expression positively influence consumers' sustainable consumption choices in H-I cultures.

3.2 Vertical Individualism (V-I- achievement)

Vertical individualism (V-I), represented by countries such as France, Great Britain, and the United States (Counihan, 1992), is a cultural pattern emphasizing inequality (reflected in valuing hierarchy, power, and competition) and independence (reflected in valuing the pursuit of uniqueness, individual goals, and competition) (Triandis et al., 1988; Singelis et al., 1995).

A person from a V-I society sees oneself as an autonomous self that is distinct from others (distinct as desirably better or higher in status) (Chirkov, Lynch, and Sora, 2005). Individuals in these countries emphasize on "getting ahead" in life (Moon et al., 2018). This independence combined with valuing inequality and status results in the environment encouraging individual competition (Chirkov et al., 2005) through which individuals seek opportunities to impress others (Torelli & Shavitt 2010). Individuals try to be recognized as 'the best' and 'the winner' (Markus & Kitayama, 1991; Triandis & Gelfand, 1998; Singelis et al., 1995), including establishing individual status when their achievements are recognized (Shavitt & Barnes, 2019). Therefore, in contrast to horizontal individualists, the status relative to others is more important to V-I than self-reliance or uniqueness per se, (Lalawani et al., 2006).

Power in V-I societies is often conceptualized as 'personalized power', i.e., it is used to advance one's position in the society (Torelli and Shavitt 2010). Sustainable consumption is often motivated by egoistic motives, such as status enhancement (Cho et al., 2013; Griskevicius et al., 2010; Stern & Dietz, 1994; Soyez, 2012), and other positive outcomes for oneself (Aaker & Lee, 2001; Agrawal & Maheswaran, 2005; Lee, Aaker, & Gardner, 2000; Wang & Lee, 2006).

These motivations have implications for marketing and promotion. As in V-I societies, 'it is natural to show off' or boast (de Mooij, 1998, p. 195), people in these societies are very brand-conscious (Zhang and Nelson, 2016) and seek value symbols that convey their achieved status or prestige to others (Shavitt, Lalwani, Zhang, & Torelli, 2006). Even if such status is not yet achieved, but because it is desirable, they might take actions to emulate those considered by the society as having high status (Shavitt, Lalwani, Zhang, & Torelli, 2006). Consequently, people with V-I orientation show liking toward brands that convey self-enhancement (Torellini et al., 2012) or reflect personalized power values (Torelli and Shavitt 2010) and prestige (Torelli 2013). Since, consumers with VI orientations are brand conscious, status orientated and hate lying (Rahman, 2019; Lu et al., 2013; Zhang and Nelson, 2016). Thus, it is more important that products emphasize the status and not just personal independence or goals, in contrast to H-I cultures (Shavitt et al., 2006). Products that reflect hierarchy are also more positively evaluated in vertical than in horizontal cultures (Giirhan-Canli and Maheswaran (2000). The most pervasive advertising appeals used in these societies tend to highlight luxury, prestige, or status, winning, being the best (Shavitt & Johnson 2011; Shavitt et al., (2006).

Accordingly, we propose the following:



Proposition 1b Consumers in V-I cultures are motivated to choose sustainable products to express power, achievement, and for status-enhancement.

Proposition 2b Advertising appeals emphasizing power, achievement, winning, and status-enhancement positively influence consumers' sustainable consumption choices in V-I cultures.

3.3 Horizontal Collectivism (H-C-cooperativeness)

Horizontal collectivism (H-C), represented by, e.g., Israeli Kibbutz or Brazil, is a cultural pattern emphasizing equality (reflected in equality within the group) and interdependence (reflected in sociability and maintaining benevolent relationships with others) (Singelis et al., 1995; Triandis and Gelfand, 1998; Albarracin and Shavitt, 2018).

An individual from an H-C society sees oneself not as an autonomous-self but as a part merged with the group (Singelis et al., 1995). As such, people consider others when making decisions, accept shared responsibility (Singelis et al., 1995), and act from the concern for others' welfare (Torelli & Shavitt 2010). This pro-social attitude, coupled with an emphasis on equality, is reflected in power being a 'socialized power' used as a tool for benefiting others rather than pursuing one's self-interest (Torelli & Shavitt 2010). It is taken for granted that if one's personal goals are in conflict with the goals of the group, the group's interests will take precedence (Singelis et al., 1995). These group-focused motivations might drive people in an H-C society to engage in sustainable consumption (Cho et al., 2013). Encouragement from the group can also reduce the costs associated with sustainable behavior (e.g., perceived sacrifice, psychological, monetary costs) and positively influence sustainable consumption (Morren & Grinstein, 2016). As sociability and maintaining good relationships are valued (Lalwani et al., 2006; Nelson and Shavitt; 2002; Shavitt & Barnes 2019; Triandis and Gelfand 1998), impression management is also very important (Lalwani et al., 2006). Therefore, an effort is made to appear socially and normatively appropriate (Lalwani et al. 2006).

In the context of marketing and promotion, consumers from this cultural group show preference toward brands reflecting self-transcendence values (Torellini et al., 2012), as well as those reflecting socialized power concept (associated with pro-social actions) (Torelli and Shavitt 2010). Earlier research further show that, HC individuals show positive environmental attitudes, are interested in cause-related marketing, show leisure attitudes, and give preference to products for religious reasons (Cho et al., 2013; Rahman and Luomala, 2020; Wang, 2014; Wong et al., 2014; Jamal and Sharifuddin, 2015). It was also suggested that relationship appeals with emphasis on interdependence and sociability (but not status or hierarchy like in V-C) might be persuasive in this cultural group (Shavitt et al., 2011; Shavitt and Barnes, 2019). Accordingly, we propose the following:

Proposition 1c Consumers in H-C cultures are motivated to choose sustainable products by social responsibility and self-transcendence.

Proposition 2c Advertising appeals emphasizing pro-social and pro-environmental themes positively influence consumers' sustainable consumption choices in H-C cultures.



3.4 Vertical Collectivism (V-C-dutifulness)

Vertical collectivism (V-C), represented by countries such as India, Japan, or South Korea (Shavitt and Barnes, 2019), is a cultural pattern emphasizing inequality (reflected in preservation of hierarchy, submission to authority) and interdependence (reflected in maintaining the status, cohesion, and unity of the in-group) (Triandis et al., 1988; Singelis et al., 1995).

Individuals from V-C societies focus on following social norms and seek approval, want to please others in their in-group, and readily sacrifice their self-interest for the benefit and interest of their in-group. Even when it comes at a cost or is a burden to themselves (Singelis et al., 1995), especially if it is to maintain or enhance the status of the in-group (Shavitt et al., 2011). As these societies value complying with authorities, submission to the in-group and living up to others' normative expectations is important (Cho et al., 2013; Riemer et al., 2014). The fulfillment of duties and preserving the harmony of hierarchical relationships is of critical importance (Triandis & Gelfand, 1998; Triandis, 1995; Lalwani et al., 2006). By fulfilling these obligations, one adheres to his/her position in the hierarchy (Shavitt and Barnes 2019) and minimizes social risks (Shavitt et al., 2006). Therefore, the normative subjective norms play an important role, e.g., in behavioral intentions for proenvironmental behavior (Morren & Grinstein 2016).

In the context of marketing and promotion, this group is also more likely to rely on the opinions of others, especially those higher in status (Shavitt et al., 2006; Singelis et al., 1995). Consumers in this cultural group show a preference for brands associated with conservatism values (Torellini et al., 2012) and products reflecting hierarchy. For instance, VC culture orientated consumers are pro-environmental, normative, prone to other directed symbolism and nomophobia, and choose organic food for family and taste reasons (Yi-Cheon Yim et al., 2014; Arpaci, 2017; Shukla et al., 2015; Waylen et al., 2012; Rahman and Luomala, 2020). It was also suggested that relationship appeals, e.g., emphasizing group identity, social relationships, and community, would play a more important role than in V-I cultures (Shavitt et al., 2011).

Accordingly, we propose the following:

Proposition 1d Consumers in V-C cultures are motivated to choose sustainable products to meet social expectations and conform to the social norms, and the benefit/status of their in-group.

Proposition 2d Advertising appeals emphasizing normative social norms and group status positively influence consumers' sustainable consumption choices in V-C cultures.

4 Discussion and conclusions

Previous research suggested that consumers' pro-environmental behaviors vary depending on their cultural background (Ritter et al., 2015; Dermody et al., 2015; Segev, 2015; Liu and Segev, 2017). This research stream opens a debate into cross-cultural differences in sustainable consumption. It arrived at contradictory findings as to the influence of specific cultural orientations (Morren & Grinstein, 2016; Kim & Choi, 2005; Cho et al. 2013; Schmuck and Vlek, 2003; Schultz, 2001; Schultz et al., 2004; Kareklas et al., 2012;



Rahman, 2019) and did not offer the solution to closing the 'the green gap' (Memery et al., 2015). It might be due to that, cultural framework commonly used to study the differences in sustainable consumption (such as discussed in length in this paper Hofstede's (1980) cultural dimension of individualism—collectivism) fall short of their ability to grasp fully the complexity of culture (Richter et al., 2016) and sustainable decision-making process.

To address these gaps in our understanding, we present a conceptual *H/V I-C sustainable consumption* model by conceptualizing the role of an alternative and a multilevel cultural perspective (Milfont and Markowitz, 2016; Cho, Thyroff, Rapert, Park, and Lee, 2013; Rahman, 2019; Larson and Kinsey, 2019; Rahman and Luomala, 2020) the horizontal/vertical individualism–collectivism value orientations (H/V I-C) in shaping consumer motivations for sustainable consumption. Further, it translates these findings into persuasive advertising appeals tailored to particular consumer's H/V I-C cultural background. Therefore, the novelty of this research lies in helping marketers not only understand consumers' motives to sustainable consumption across different cultures but also develop relevant advertising appeals to target such consumers considering H/V I-C cultural values (equality-inequality value dimension within the independence-interdependence framework).

Further, using H/V I-C cultural values, we answer calls by environmental psychologists in existing research to examine the role of culture in sustainable consumption (Tam and Milfont, 2020; Chwialkowska, Bhatti, and Glowik, 2020). By doing this, our study show how taking into account H/V I-C cultural value orientations of consumers can help bridge the attitude-behavior gap (the "green gap") pointed out by existing research on the topic. The contribution of this study is threefold. First, as discussed in above-mentioned literature, unlike previous research, we account for the complexity of culture and multi-layered consumer motivations for sustainable consumption. Therefore, this study refine the predictions offered based on the limited individualism—collectivism in the field of sustainable consumption research. Using the H/V I-C typology (Singelis et al., 1995; Triandis and Gelfand, 1998), this study offers important research insights and managerial implications for better understanding of consumers' cultural relevant motivations to engage in sustainable consumption.

Second, by building on H/V I-C typology, we help explain contradictory findings of previous research (e.g., Kim & Choi, 2005; Chwialkowska & Flicinska, 2020; De Groot & Steg, 2008; Grebitus & Dumortier, 2015; Luchs et al., 2010; Schultz, 2001; Schultz et al., 2004) which not only relied heavily on outdated and single-layered cultural dimension but also serve as a barrier to understanding sustainable consumption behavior across cultures (Morren & Grinstein, 2016; Rahman, 2019). For instance, these reported contradictory findings might be explained by that the pro-self-appeals used in the previous studies did not address what matters for the vertical cultures, i.e., status or power over uniqueness (valued in vertical cultures), the latter being more important for horizontal cultures. An important distinction also lies in terms of pro-social motives and appeals as these can again differ in focus from conforming to normative social norms and fulfilling one's duty as defined by the place in the hierarchy (valued by vertical cultures) to self-transcendental motivations for the welfare of the community (valued by horizontal cultures). Therefore, the question is not whether that someone is independence or dependence oriented, but is his/her relationship to others in terms of hierarchy (equality/inequality). We thus show that the broad individualism-collectivism framework (Hofstede 1980) does not lend itself to predictions about consumers' motivations for sustainable consumption or the persuasiveness of advertising appeals encouraging this behavior. Therefore, the consideration of the horizontal/ vertical dimension from the H/V I-C typology is viable in helping us explain and understand differences in consumer motivations.



Third, unlike previous sustainability research, we do not stop at exploring consumer motivations but connect them to persuasive advertising strategies that capitalize on these motivations. We thus increase our understanding of closing the 'green gap' – as we argue, the key to closing the intention-behavior gap and encouraging sustainable consumption lies in developing advertising strategies congruent with consumer motivations and cultural value orientations. Our conceptualization can also help clarify contradictory findings from previous research focusing on the effectiveness of advertising appeals. For instance, Rahman (2018) contradicts Kareklas et al. (2012), Chen et al., (2015), Onwezen et al., (2014) by showing that promotion-orientated environmental appeals are more effective than prevention-orientated environmental appeals for consumers with independent rather than interdependent self-views. As we argue, this can be explained by the V-C orientation, as Rahman's (2018) sample was from a vertical society (Pakistan). This highlights the importance of considering the vertical–horizontal dimension of culture in addition to collectivism-individualism.

Several managerial implications emerge from this conceptual study. As health, a better quality of life, food, and a clean environment are gaining traction in many countries; consumers are looking for sustainable consumption options. In response to this increasing demand, many companies focus on sustainability as the key selling point by introducing environmental innovations and products to target the 'green consumer' across different contexts and cultures. When there is the congruency between one's culture and motives, and the advertising appeals used, consumers are more responsive to advertising efforts (Torelli & Shavitt, 2010; Torelli et al., 2012). Thus, marketers need to understand the motivations of people in these cultures. Accordingly, our study give recommendations to manufacturers and marketers of sustainable products to develop relevant advertising strategies for different consumer segments across cultures (Rahman & Luomala, 2020; Grebitus & Dumortier, 2015; Nair & Little, 2016) rooted in their H/V I-C cultural value orientations. This study concluded that solely pro-self (individualistic) vs. pro-others (collectivistic) motivations are not enough to explain the complexity of this sustainable consumption behavior. Therefore, companies using horizontal/vertical individualistic vs. collectivistic values-congruent green advertising appeals can market their products better to such consumers. Propositions 2 a-d offer specific recommendations for developing culturally congruent persuasive communications. Specifically, marketers promoting sustainability in H-I cultures such as Australia, Denmark and Norway (Khatri et al., 2006; Sivadas et al., 2008), should use advertising appeals emphasizing freedom, uniqueness, and self-expression. In V-I countries represented by the United States, Great Britain, or France (Counihan, 1992), the most effective marketing strategy will involve associating sustainable consumption behaviors with power, achievement, winning, and status-enhancement. Marketers advertising to H-C cultures should emphasize pro-social and pro-environmental values, and those in V-C countries such as India, South Korea, or Japan (Shavitt & Barnes, 2019) will be most effective when they capitalize on subjective norms regarding pro-environmental behaviors. This study also has implications for existing sustainable consumption policies that will help fill the attitude-behavior gap and eventually make global and local climate activities successful. It suggests that policymakers should go beyond individualistic-rationalistic approaches based on orthodox economic assumptions to understand consumers' proenvironmental value orientations and motivations.

This review of the importance of horizontal/vertical cultural distinctions in sustainable consumption opens the debate of the cultural factors influencing sustainable consumption and encourages further research in several areas. We show that the broad individualism–collectivism framework (Hofstede 1980) does not lend itself to predictions about



consumers' motivations for sustainable consumption or the effectiveness of advertising appeals encouraging this behavior. We thus show the importance of incorporating the vertical–horizontal dimension into the cross-cultural analysis based on individualism–collectivism. Unfortunately, when we look at the samples in existing research, we can see that studies reporting that they study individualistic or collectivist countries have mostly focused on vertical-individualistic and vertical-collectivistic countries, which should not have been generalized to horizontal-individualistic and horizontal-collectivistic societies (Shavitt et al., 2006; Oyserman et al., 2002). We encourage future researchers to incorporate these value orientations in future studies conducting cross-cultural comparisons and attempting to bridge 'the green gap'. Moreover, our H/V I-C sustainable consumption model (including both motivations for sustainable consumption and the effectiveness of the proposed advertising appeals) should be tested empirically in quantitative studies. Moreover, the proposed model can be further improved by considering moderating and mediating factors such as pro-environmental attitudes and concerns on the proposed relationships.

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References

- Aaker, J., & Lee, A. Y. (2001). "I" seek pleasures and "we" avoid pains: The role of self-regulatory goals in information processing and persuasion. *Journal of Consumer Research*, 28(1), 33–49.
- Agrawal, N., & Maheswaran, D. (2005). The effects of self-construal and commitment on persuasion. *Journal of Consumer Research*, 31(4), 841–849.
- Albarracin, D., & Shavitt, S. (2018). Attitudes and attitude change. Annual Review of Psychology, 69, 299–327.
- Arpaci, I. (2017). Culture and nomophobia: The role of vertical versus horizontal collectivism in predicting nomophobia. *Information Development*, *35*(1), 96–106.
- Axsen, J., & Kurani, K. S. (2013). Developing sustainability-oriented values: Insights from households in a trial of plug-in hybrid electric vehicles. *Global Environmental Change*, 23(1), 70–80.
- Bagozzi, R. P., Wong, N., Abe, S., & Bergami, M. (2000). Cultural and situational contingencies and the theory of reasoned action: application to fast food restaurant consumption. *Journal of Consumer Psychology*, 9(2), 97–106.
- Beugelsdijk, S., Kostova, T., & Roth, K. (2016). An overview of Hofstede-inspired country-level culture research in international business since 2006, *Journal of International business studies*, 1–18.
- Bockarjova, M., & Steg, L. (2014). Can Protection Motivation Theory predict pro-environmental behavior? Explaining the adoption of electric vehicles in the Netherlands. *Global environmental change*, 28, 276–288.
- Booysen, F., Guvuriro, S., & Campher, C. (2021). Horizontal and vertical individualism and collectivism and preferences for altruism: A social discounting study. *Personality and Individual Differences*, 178, 110856.
- Borin, N., Lindsey-Mullikin, J., & Krishnan, R. (2013). An analysis of consumer reactions to green strategies". *Journal of Product & Brand Management*, 22(2), 118–128.
- Carbon, B. (2017). Analysis: Just four years left of the 1.5 C carbon budget. URL https://www.carbonbrief.org/analysis-four-years-left-one-point-five-carbon-budget.



- Ceglia, D., Lima, O., Henrique, S., & Leocádio, Á. L. (2015). An Alternative Theoretical Discussion on Cross-Cultural Sustainable Consumption". Sustainable Development, 23(6), 414–424.
- Chang, C. (2006). Seeing the small picture: Ad-self versus ad-culture congruency in international advertising". *Journal of Business and Psychology*, 20(3), 445–465.
- Chang, H., Zhang, L., & Xie, G. X. (2015). Message framing in green advertising: the effect of construal level and consumer environmental concern. *International Journal of Advertising*, 34(1), 158–176.
- Chen, F. F., & West, S. G. (2008). Measuring individualism and collectivism: The importance of considering differential components, reference groups, and measurement invariance". *Journal of Research in Personality*, 42(2), 259–294.
- Chen, N. H., Lee, C. H., & Huang, C. T. (2015). Why buy organic rice? Genetic algorithm-based fuzzy association mining rules for means-end chain data". *International Journal of Consumer Studies*, 39(6), 692–707.
- Chirkov, V. I., Lynch, M., & Niwa, S. (2005). Application of the scenario questionnaire of horizontal and vertical individualism and collectivism to the assessment of cultural distance and cultural fit. *Interna*tional Journal of Intercultural Relations, 29(4), 469–490.
- Cho, Y. N., Thyroff, A., Rapert, M. I., Park, S. Y., & Lee, H. J. (2013). To be or not to be green: Exploring individualism and collectivism as antecedents of environmental behaviour. *Journal of Business Research*, 66(8), 1052–1059.
- Chwialkowska, A., Bhatti, W., & Glowik, M. (2020). The Influence of Cultural Values on Pro-environmental behavior. *Journal of Cleaner Production*, 268, https://doi.org/10.1016/j.jclepro.2020.122305 (published online/in print).
- Chwialkowska, A., Flicinska, & Joanna (2020). Overcoming perceived sacrifice as a barrier to the adoption of green behavior. *International Journal of Consumer Studies*. https://doi.org/10.1016/j.jclepro.2020. 122305(Published online/in print)
- Counihan, C. (1992). Food Rules in the United States: Individualism, control, and hierarchy. Anthropological Quarterly, 65(2), 55–66.
- Costa Pinto, D., Nique, W. M., Herter, M., M., & Borges, A. (2016). Green consumers and their identities: How identities change the motivation for green consumption. *International Journal of Consumer Studies*, 40, 742–753.
- Davari, A., & Strutton, D. (2014). Marketing mix strategies for closing the gap between green consumers' pro-environmental beliefs and behaviours. *Journal of Strategic Marketing*, 22(7), 563–586.
- De Groot, J. I., & Steg, L. (2008). Value orientations to explain beliefs related to environmental significant behavior: How to measure egoistic, altruistic, and biospheric value orientations. *Environment and behavior*, 40(3), 330–354.
- De Groot, J. I., & Steg, L. (2010). Relationships between value orientations, self-determined motivational types and pro-environmental behavioural intentions. *Journal of Environmental Psychology*, 30(4), 368–378.
- De Mooij, M. (2015). Cross-cultural research in international marketing. Clearing up some of the confusion. *International Marketing Review*, 32(6), 646–662.
- De Mooij, M., & Hofstede, G. (2011). Cross-cultural consumer behaviour: A review of research findings. *Journal of International Consumer Marketing*, 23(3-4), 181–192.
- de Morais, L. H. L., Pinto, D. C., & Cruz-Jesus, F. (2021). Circular economy engagement: Altruism, status, and cultural orientation as drivers for sustainable consumption. Sustainable Production and Consumption, 27, 523–533.
- Dermody, J., Hanmer-Lloyd, S., Koenig-Lewis, N., & Zhao, A. L. (2015). Advancing sustainable consumption in the UK and China: the mediating effect of pro-environmental self-identity. *Journal of Marketing Management*, 31(13-14), 1472–1502.
- Dolnicar, S., Cvelbar, L. K., & Grün, B. (2017). Do Pro-environmental Appeals Trigger Pro-environmental behavior in Hotel Guests? *Journal of Travel Research*, 56(9), 988–997.
- Evans, D. M., Browne, A. L., & Gortemaker, I. A. (2020). Environmental leapfrogging and everyday climate cultures: sustainable water consumption in the Global South. *Climatic Change*, 163, 83–97.
- Figge, M., Shavitt, S., & Lowrey, P. M. (1998). Direction of gaze as a measure of cultural dimensions in advertising. *Advances in Consumer Research*, 26, 266267.
- Fiske, A. P. (2002). Using individualism and collectivism to compare cultures—A critique of the validity and measurement of the constructs: Comment on Oyserman. *Psychological Bulletin*, 128, 78–88.
- Garbarino, E., Lee, J., & Soutar, G. (2014). Vertical and horizontal individualism as determinants of materialism within and across cultures. Advances in Consumer Research, 42, 486–486.
- Giirhan-Canli, Z., & Maheswaran, D. (2000). Cultural variations in country of origin effects. *Journal of Marketing Research*, 37(3), 309–317.



- Gleim, M., & Lawson, J., S (2014). Spanning the gap: an examination of the factors leading to the green gap. *Journal of Consumer Marketing*, 31(6/7), 503–514.
- 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.
- Grebitus, C., & Dumortier, J. (2015). Effects of values and personality on demand for organic produce. Agribusiness, 32(2), 189–202.
- Greene, M. (2018). Socio-technical transitions and dynamics in everyday consumption practice. Global Environmental Change, 52, 1–9.
- Gupta, S., & Ogden, D. T. (2009). To buy or not to buy? A social dilemma perspective on green buying. Journal of Consumer Marketing, 26(6), 376–391.
- Han, S. P., & Shavitt, S. (1994). Persuasion and culture: Advertising appeals in individualistic and collectivistic societies. *Journal of Experimental Social Psychology*, 30(4), 326–350.
- Hofstede, G. (1980). Motivation, leadership, and organization: do American theories apply abroad? Organizational Dynamics, 9(1), 42–63.
- House, R. J. (2004). An Overview of the GLOBE research program. Transformative Organizations: A Global Perspective, 483.
- Inglehart, R. (1977). The silent revolution: Changing values and political styles among western publics. Princeton, NJ: Princeton University Press.
- IPCC (Intergovernmental Panel on Climate Change) (2018). Summary for Policymakers. In Global Warming of 1.5°C: An IPCC Special Report. Geneva: World Meteorological Organization. https://www.ipcc.ch/site/assets/uploads/sites/2/2018/07/SR15_SPM_version_stand_alone_LR.pdf; https://www.ipcc.ch/sr15/.
- Joshi, Y., & Rahman, Z. (2015). Factors affecting green purchase behaviour and future research directions. International Strategic Management Review, 3(1), 128–143.
- Kareklas, I., Carlson, J. R., & Muehling, D. D. (2012). The role of regulatory focus and self-view in "green" advertising message framing. *Journal of Advertising*, 41(4), 25–39.
- Kaihatu, T. S., Spence, M. T., Kasim, A., Gde Satrya, I. D., & Budidharmanto, L. P. (2021). Millennials' predisposition toward ecotourism: the influence of universalism value, horizontal collectivism and user generated content. *Journal of Ecotourism*, 20(2), 145–164.
- Khatri, N., Tsang, E. W., & Begley, T. M. (2006). Cronyism: A cross-cultural analysis. *Journal of International Business Studies*, 37(1), 61–75.
- Kim, Y., & Choi, S. M. (2005). Antecedents of Green Purchase Behaviour: An Examination of Collectivism, Environmental Concern, and PCE. Advances in Consumers Research, 32, 592–599.
- Kim, U., Triandis, H. C., Kagitcibasi, C., Choi, S., & Yoon, G. (Eds.). (1994). *Individualism and Collectivism: Theory, Method, and Applications*. Newbury Park, CA: Sage.
- Kirkman, B. L., Kevin, B., Lowe, & Gibson, C. B. (2006). A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework. *Journal of Interna*tional Business Studies, 37(3), 285–320.
- Kumar, B., Manrai, A. K., & Manrai, L. A. (2017). Purchasing behaviour for environmentally sustainable products: A conceptual framework and empirical study. *Journal of Retailing and Consumer Services*, 34, 1–9.
- Lalwani, A. K., Shavitt, S., & Johnson, T. (2006). What is the relation between cultural orientation and socially desirable responding? *Journal of Personality and Social Psychology*, 90(1), 165–178.
- Larson, R. B., & Kinsey, J. (2019). Culture and sampling issues with "Green" attitude research. Social Marketing Quarterly, 25(2), 91–106.
- Lee, A. Y., Aaker, J., & Gardner, W. L. (2000). The pleasures and pains of distinct self-construals: The role of interdependence in regulatory focus. *Journal of Personality and Social Psychology*, 78(6), 1122–1134.
- Lee, W. N., & Choi, S. M. (2005). The role of horizontal and vertical individualism and collectivism in online consumers' responses toward persuasive communication on the Web. *Journal of Computer-Mediated Communication*, 11(1), 317–336.
- Leonidou, L., & Leonidou, C. N. (2011). Research into environmental marketing/management: a bibliographic analysis. European Journal of Marketing, 45(1/2), 68–103.
- Liu, Y., & Segev, S. (2017). Cultural orientations and environmental sustainability in households: A comparative analysis of Hispanics and non-Hispanic Whites in the United States. *International Journal of Consumer Studies*, 41(6), 587–596.
- Lu, L. C., Chang, H. H., & Yu, S. T. (2013). Online shoppers' perceptions of eretailers' ethics, cultural orientation, and loyalty: An exploratory study in Taiwan. *Internet Research*, 23(1), 47–68.
- Luderer, G., Vrontisi, Z., Bertram, C., Edelenbosch, O. Y., Pietzcker, R. C., Rogelj, J. ... Kriegler, E. (2018).
 Residual fossil CO 2 emissions in 1.5–2 C pathways. *Nature Climate Change*, 8(7), 626–633.



- Mancha, R. M., & Yoder, C. Y. (2015). Cultural antecedents of green behavioural intent: An environmental theory of planned behaviour. *Journal of Environmental Psychology*, 43, 145–154.
- Masuda, T., Ito, K., Lee, J., Suzuki, S., Yasuda, Y., & Akutsu, S. (2020). Culture and business: How can cultural psychologists contribute to research on behaviors in the marketplace and workplace?. Frontiers in Psychology, 11.
- McCarty, J. A., & Shrum, L. J. (2001). The influence of individualism, collectivism, and locus of control on environmental beliefs and behaviour. *Journal of Public Policy & Marketing*, 20(1), 93–104.
- Memery, J., Angell, R., Megicks, P., & Lindgreen, A. (2015). Unpicking motives to purchase locally produced food: analysis of direct and moderation effects. *European Journal of Marketing*, 49(7/8), 1207–1233.
- Milfont, T. L., & Markowitz, E. (2016). Sustainable consumer behaviour: a multilevel perspective". Current Opinion in Psychology, 10, 112–117.
- Milfont, T. L., Duckitt, J., & Cameron, L. D. (2006). A cross-cultural study of environmental motive concerns and their implications for pro-environmental behaviour. *Environment and Behaviour*, 38(6), 745–767.
- Moisander, J. (2007). Motivational complexity of green consumerism". International Journal of Consumer Studies, 31(4), 404–409.
- Moisander, J., & Pesonen, S. (2002). Narratives of sustainable ways of living: constructing the self and the other as a green consumer. *Management Decision*, 40(4), 329–342.
- Moon, C., Travaglino, G. A., & Uskul, A. K. (2018). Social value orientation and endorsement of horizontal and vertical individualism and collectivism: An exploratory study comparing individuals from North America and South Korea. *Frontiers in Psychology*, *9*, 2262.
- Morren, M., & Grinstein, A. (2016). Explaining environmental behaviour across borders: A meta-analysis. *Journal of Environmental Psychology*, 47, 91–106.
- Nair, S. R., & Little, V. J. (2016). Context, Culture and Green Consumption: A New Framework. *Journal of International Consumer Marketing*, 28(3), 169–184.
- Nash, N., Whitmarsh, L., Capstick, S., Gouveia, V., Araújo, R. D. C. R., Santos, D. ... Wang, M., X (2020). Local climate change cultures: climate-relevant discursive practices in three emerging economies. Climatic Change, 163(1), 63–82.
- Nelson, M. R., & Shavitt, S. (2002). Horizontal and vertical individualism and achievement values a multimethod examination of Denmark and the United States. *Journal of Cross-Cultural Psychology*, 33(5), 439–458.
- Niamir, L., Kiesewetter, G., Wagner, F., Schöpp, W., Filatova, T., Voinov, A., & Bressers, H. (2020). Assessing the macroeconomic impacts of individual behavioral changes on carbon emissions. Climatic change, 158(2), 141–160.
- Onwezen, M. C., Antonides, G., & Bartels, J. (2013). The Norm Activation Model: An exploration of the functions of anticipated pride and guilt in pro-environmental behaviour. *Journal of Economic Psychology*, 39, 141–153
- Oreg, S., & Katz-Gerro, T. (2006). Predicting pro-environmental behaviour cross-nationally values, the theory of planned behaviour, and value-belief-norm theory". *Environment and Behaviour*, 38(4), 462–483.
- Oyserman, D., Coon, H. M., & Kemmelmeier, M. (2002). Rethinking individualism and collectivism: evaluation of theoretical assumptions and meta-analyses. *Psychological Bulletin*, 128(1), 3.
- Park, H., Russell, C., & Lee, J. (2007). National culture and environmental sustainability: A cross-national analysis. *Journal of Economics and Finance*, 31(1), 104–121.
- Parker, A. G., & Grinter, R. E. (2014). Collectivistic health promotion tools: Accounting for the relationship between culture, food and nutrition. *International Journal of Human-Computer Studies*, 72(2), 185–206.
- Pendergraft, C. A. (1998). Human dimensions of climate change: Cultural theory and collective action. *Climatic Change*, 39(4), 643–666.
- Perlaviciute, G., & Steg, L. (2015). The influence of values on evaluations of energy alternatives. Renewable Energy, 77, 259–267.
- Polonsky, M., Kilbourne, W., & Vocino, A. (2014). Relationship between the dominant social paradigm, materialism and environmental behaviours in four Asian economies. *European Journal of Marketing*, 48(3/4), 522–551.
- Price, J. C., Walker, I. A., & Boschetti, F. (2014). Measuring cultural values and beliefs about environment to identify their role in climate change responses. *Journal of Environmental Psychology*, 37, 8–20.
- Rahbar, E., & Abdul Wahid, N. (2011). Investigation of green marketing tools' effect on consumers' purchase behaviour. *Business Strategy Series*, 12(2), 73–83.



- Rahman, S. U. (2019). Differences in horizontally individualist and vertically collectivist consumers' environmental behaviour: A regulatory focus perspective. *International Journal of Business and Emerging Markets*, 11(1), 73–88.
- Rahman, S. U., & Luomala, H. (2020). A comparison of motivational patterns in sustainable food consumption between Pakistan and Finland: Duties or Self-Reliance? *Journal of International Food & Agribusiness Marketing*, 1–28.
- Rahman, S. U., & Luomala, H. (2021). Demystifying Horizontal/Vertical Cultural Difference in Green Consumption: A Cross-Cultural Comparative Study. *Journal of International Consumer Marketing*, 33(5), 543–558.
- Richter, N. F., Hauff, S., Schlaegel, C., Gudergan, S., Ringle, C. M., & Gunkel, M. (2016). Using Cultural Archetypes in Cross-cultural Management Studies. *Journal of International Management*, 22(1), 63–83.
- Riemer, H., Shavitt, S., Koo, M., & Markus, H. R. (2014). Preferences don't have to be personal: Expanding attitude theorizing with a cross-cultural perspective. *Psychological Review*, 141(4), 619–648.
- Ritter, Á. M., Borchardt, M., Vaccaro, G. L., Pereira, G. M., & Almeida, F. (2015). Motivations for promoting the consumption of green products in an emerging country: exploring attitudes of Brazilian consumers. *Journal of Cleaner Production*, 106, 507–520.
- Russell, D. W., & Russell, C. A. (2010). Here or there? Consumer reactions to corporate social responsibility initiatives: Egocentric tendencies and their moderators. *Marketing Letters*, 21(1), 65–81.
- Schmuck, P., & Vlek, C. (2003). Psychologists can do much to support sustainable development. European Psychologist, 8(2), 66.
- Schultz, P. W. (2001). The structure of environmental concern: Concern for self, other people, and the biosphere. *Journal of Environmental Psychology*, 21(4), 327–339.
- Schultz, P. W., Shriver, C., Tabanico, J. J., & Khazian, A. M. (2004). Implicit connections with nature. *Journal of Environmental Psychology*, 24(1), 31–42.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. Advances in Experimental Social Psychology, 25, 1–65.
- Schwartz, S. H., & Sagiv, L. (1995). Identifying culture-specifics in the content and structure of values. *Journal of Cross-cultural Psychology*, 26(1), 92–116.
- Segev, S. (2015). Modelling household conservation behaviour among ethnic consumers: the path from values to behaviours. *International Journal of Consumer Studies*, 39(3), 193–202.
- Shavitt, S., & Barnes, A. J. (2019). Cross-cultural consumer psychology. Consumer Psychology Review, 2(1), 70–84.
- Shavitt, S., & Cho, H. (2016). Culture and consumer behaviour: the role of horizontal and vertical cultural factors. *Current Opinion in Psychology*, 8, 149–154.
- Shavitt, S., Johnson, T. P., & Zhang, J. (2011). Horizontal and vertical cultural differences in the content of advertising appeals. *Journal of International Consumer Marketing*, 23(3-4), 297–310.
- Shavitt, S., Lalwani, A. K., Zhang, J., & Torelli, C. J. (2006). The horizontal/vertical distinction in cross-cultural consumer research. *Journal of Consumer Psychology*, 16(4), 325–342.
- Shukla, P., Singh, J., & Banerjee, M., (2015). They are not all same: Variations in Asian consumers' value perceptions of luxury brands. *Marketing Letters*, 26(3), 265–278.
- Singelis, T. M., Triandis, H. C., Bhawuk, D. P., & Gelfand, M. J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement". Cross-cultural Research, 29(3), 240–275.
- Sivadas, E., Bruvold, N. T., & Nelson, M. R. (2008). A reduced version of the horizontal and vertical individualism and collectivism scale: A four-country assessment. *Journal of Business Research*, 61(3), 201–210.
- Soares, A., Maria, M., Farhangmehr, & Aviv Shoham. (2007). Hofstede's dimensions of culture in international marketing studies. *Journal of Business Research*, 60(3), 277–284.
- Soyez, K. (2012). How national cultural values affect pro-environmental consumer behaviour. *International Marketing Review*, 29(6), 623–646.
- Stahl, G. K., & Tung, R. L. (2014). Towards a more balanced treatment of culture in international business studies: The need for positive cross-cultural scholarship. *Journal of International Business Studies*, 46(4), 391–414.
- Stern, P. C., & Dietz, T. (1994). The value basis of environmental concern. *Journal of Social Issues*, 50, 65–84.
- Stern, P. C., Dietz, T., Abel, T., Guagnano, G. A., & Kalof, L. (1999). A value-belief-norm theory of support for social movements: The case of environmentalism. *Human Ecology Review*, 81–97.



- Tam, K. P., & Milfont, T. L. (2020). Towards cross-cultural environmental psychology: A state-of-the-art review and recommendations. *Journal of Environmental Psychology*, 71, 101474.
- Torelli, C. J. (2013). Globalization, culture, and branding: How to leverage cultural equity for building iconic brands in the Era of globalization. Palgrave Macmillan: New York, NY.
- Torelli, C. J., & Shavitt, S. (2010). Culture and concepts of power. Journal of Personality and Social Psychology, 99(4), 703–723.
- 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.
- Triandis, H. C. (1989). The self and social behaviour in differing cultural contexts. *Psychological review*, 96(3), 506.
- Triandis, H. C. (1995). Individualism & collectivism. Westview press.
- Triandis, H. C., & Gelfand, M. J. (1998). Converging measurement of horizontal and vertical individualism and collectivism. *Journal of Personality and Social Psychology*, 74(1), 118.
- Triandis, H. C., Brislin, R., & Hui, C. H. (1988). Cross-cultural training across the individualism-collectivism divide. *International Journal of Intercultural Relations*, 12(3), 269–289.
- Trompenaars, F. (1993). Riding the Waves of Culture. London, UK: The Economist Books.
- Tseng, C. H. (2016). The effect of price discounts on green consumerism behavioral intentions. *Journal of Consumer Behaviour*, 15(1), 325–334.
- Wang, J., & Lee, A. Y. (2006). The role of regulatory focus in preference construction. *Journal of Marketing Research*, 43(1), 28–38.
- Wang, S., Wang, J., Wang, Y., Yan, J., & Li, J. (2018). Environmental knowledge and consumers' intentions to visit green hotels: the mediating role of consumption values. *Journal of Travel & Tourism Market*ing, 35(9), 1261–1271.
- Wang, Y. (2014). Individualism/collectivism, charitable giving, and cause-related marketing: a comparison of Chinese and Americans. *International Journal of Non-profit and Voluntary Sector Marketing*, 19(1), 40–51.
- Waylen, K. A., Fischer, A., McGowan, P. J., & Milner-Gulland, E. J. (2012). Interactions between a collectivist culture and Buddhist teachings influence environmental concerns and behaviors in the Republic of Kalmykia, Russia. Society & Natural Resources, 25(11), 1118–1133.
- WEF (2020). World Economic Forum report's top 5 global risks for 2020 are all to do with climate. https://theprint.in/world/world-economic-forum-reports-top-5-global-risks-for-2020-are-all-to-do-with-climate/349965/.
- Venaik, S., & Brewer, P. (2013). Critical issues in the Hofstede and GLOBE national culture models. *International Marketing Review*, 30(5), 469–482.
- 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 Behaviors. *Journal of Marketing Research*, 48(3), 472–485.
- Wilk, R. (2002). Consumption, human needs, and global environmental change. *Global Environmental Change*, 12(1), 5–13.
- Xue, F. (2015). Message framing and collectivistic appeal in green advertising: a study of Chinese consumers". *Journal of International Consumer Marketing*, 27(2), 152–166.
- Yi-Cheon Yim, M., Sauer, L. P., Williams, J., Lee, S. J., & Macrury, I. (2014). Drivers of attitudes toward luxury brands: A cross-national investigation into the roles of interpersonal influence and brand consciousness. *International Marketing Review*, 31(4), 363–389.
- Zagata, L. (2014). Towards conscientious food consumption: exploring the values of Czech organic food consumers". *International Journal of Consumer Studies*, 38(3), 243–250.
- Zhang, J., & Nelson, M. R. (2016). The effects of vertical individualism on status consumer orientations and behaviors. *Psychology Marketing*, *33*(5), 318–330.
- Zhang, J., Nelson, M. R., & Mao, E. (2009). Beyond de Tocqueville: The roles of vertical and horizontal individualism and conservatism in the 2004 US presidential election. *Journal of Consumer Psychol*ogy, 19(2), 197–214.

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