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SCHOOL OF BUSINESS AND SOCIAL SCIENCES
AARHUS UNIVERSITY

THINK GLOBAL, ACT LOCAL:

The Role of Global Consumer Identity

in Food- and Sustainability-Related Consumer Behavior

PhD dissertation

Ekaterina Salnikova

Aarhus BSS
Aarhus University
Department of Management
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For my dear parents.

Your eternal love, continued support, and

devotion to helping me with everything

have made my success possible.

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Executive Summary

How can multinational global and small local companies interpret the results of ongoing globalization and adapt their business practices to the changing consumer identities and orientations such as global or local? The overall goal of this research is to identify the effect of consumer identity and consumption orientation on food- and sustainability-related consumer behavior. The primary postulation of this dissertation is that consumer identity and consumption orientation, play an essential role in understanding consumer response to a variety of business practices used by both multinational global and domestic local companies. The findings from three research articles presented in this work support this idea and provide insights into how these companies can operate in a globalized market, with consumers with different cultural identities.

The results of this dissertation provide evidence that consumer identity and subsequent consumption orientation, impact consumer attitudinal and behavioral responses to the firm's communication of different food product attributes and of messages regarding the firm's sustainability efforts and initiatives. First, I find that the consumption orientation of individuals in a particular export country with an emerging economy can be used to segment consumers and create more effective strategies of communicating various extrinsic and intrinsic food product attributes. Second, I show how global and local companies can engage their consumers with their sustainable products, services, and sustainability initiatives more effectively. Further, the results of this work suggest that global companies can benefit from targeting consumers with a more global identity and framing their messages about sustainability efforts and initiatives in congruence with promotion (vs. prevention) regulatory focus. In addition, global companies can use distant spatial (e.g., Planet, Earth), proximal temporal (e.g., by the end of the year, in the nearest future),

and distant social (e.g., reference to a distant vs. local groups) message frames. Finally, based on the findings presented later in this document, local companies are recommended to take advantage of the social norms when communicating their sustainable practices. Local sustainable companies should also target globally-oriented consumers with descriptive, i.e., what others do, (vs. injunctive, i.e., what others think one should do) norm appeals.

This research has a variety of theoretical implications adding to the globalization, culture, and consumer behavior literature. In addition, this work has practical implications that can be used by marketing managers for developing effective marketing strategies for global and local firms operating on globalized markets.

Resumé

Hvordan kan multinationale globale og små lokale virksomheder tolke resultaterne af den igangværende globalisering og justere deres forretningspraksis ind efter de ændrede forbrugeridentiteter og –holdninger, såsom global eller lokal? Det overordnede mål med min forskning er at afdække kløften mellem forbrugeridentitet og fødevare- og bæredygtighedsrelateret forbrugeradfærd. Denne afhandlings primære postulat er, at forbrugeridentitet og holdningen til forbrug spiller en vigtig rolle i at forstå forbrugerresponsen på både multinationale globale og lokale virksomheders forskellige forretningspraksisser. Resultaterne fra tre forskningsartikler, der præsenteres i denne afhandling, understøtter denne tanke og viser, hvordan disse virksomheder kan operere på et globaliseret marked med forbrugere, hvis behov og ønsker styres af deres forbrugeridentitet.

Denne afhandlings resultater giver belæg for, at forbrugeridentitet og holdningen til forbrug påvirker forbrugeres holdnings- og adfærdsmæssige respons på virksomheders initiativer og indsats i forhold til bæredygtighed. For det første finder jeg, at indstillingen til forbrug hos forbrugere i et givent eksporterende udviklingsland kan anvendes til at segmentere dem og til at skabe mere effektive strategier til at kommunikere fødevarers forskellige ekstrinsiske og intrinsiske egenskaber. Dernæst viser jeg, hvordan globale og lokale virksomheder med deres bæredygtige produkter, ydelser og initiativer i forhold til bæredygtighed kan tiltrække forbrugere mere effektivt. Endvidere tyder resultaterne på, at globale virksomheder kan drage fordel af at målrette deres kommunikation mod forbrugere med en mere global identitet og udforme deres kommunikation om deres indsats og initiativer i forhold til bæredygtighed i overensstemmelse med forbedringer frem for forebyggelse. Ydermere kan globale virksomheder udforme deres

kommunikation ud fra geografisk afstand (f.eks. planet, Jorden), tid (f.eks. ved årets slutning, i den nærmeste fremtid) og social afstand (f.eks. med reference til fjerne vs lokale grupper). Endelig på baggrund af resultaterne, der præsenteres senere i denne afhandling, anbefales det lokale virksomheder at udnytte sociale normer i kommunikationen om virksomhedens bæredygtighed.

Lokale virksomheder kan nå henholdsvis globalt eller lokalt orienterede forbrugere ved at appellere til dem med et deskriptivt budskab, det vil sige i forhold til, hvad andre gør eller med et normativt budskab, det vil sige, hvad andre synes, man skal gøre. Dette studie har forskellige teoretiske implikationer og bidrager til globaliserings-, kultur- og forbrugeradfærdslitteraturen. Endvidere har afhandlingen praktiske implikationer, der kan anvendes af marketingdirektører til at udvikle markedsføringsstrategier for globale og lokale virksomheder, der arbejder i globaliserede markeder.

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"I am not an Athenian or a Greek, but a citizen of the world"

- Socrates

Chapter One
- Dissertation Overview -

Globalization is the process of "reducing barriers between countries and encouraging closer economic, political, and personal interaction" (Spears, Parker, and McDonalds 2004: p. 57). From the perspective of a consumer, globalization is more of a "state of mind" (Friesen 2003: p. 22), where consumers take various stances in regards to globalization from pro- to anti-globalization (Dimofte, Johansson, and Ronkainen 2008). Consumer reactions towards globalization can be detected in consumer responses toward global companies and their brands and products (Riefler 2012) when according to the central notion of consumer culture (Arnould and Thomson 2005; Slater 1997), consumers define and orient their core identities grounding them in consumption (Holt 2002).

Individuals may possess multiple identities that can be salient and shift at any point in time (Ng and Batra 2017). Globalization has given rise to a globally-oriented consumer segment that is more likely to identify with the people around the world and global consumer culture (Alden, Steenkamp, and Batra 2006; Zhang and Khare 2009). In contrast, the locally-oriented consumer segment is often described as contributing to the phenomenon of localization or heterogenization, and cultural diversity (Strizhakova, Coulter, and Price 2008). The process of localization not only strengthens local identity under the pressure of globalization but also could very well be the result of rejecting it (Tomlinson 1999). Consumers with local identity are believed to maintain the local traditional culture, identify with their local community, and reject influences that are considered global (Ger and Belk 1996; Strizhakova and Coulter 2013).

Accordingly, identification with the global world and global consumer culture, or the local community and local consumer culture, results in the formation of consumer groups preferring global or local companies, products, and brands giving rise to a construct of consumption orientation (Alden, Steenkamp, and Batra 2006; Steenkamp and Jong 2010). The concept of consumption orientation describes the set of "attitudinal responses to the global diffusion on consumption choices" (Alden, Steenkamp, and Batra 2006). Consumption orientation differentiates consumer segments in terms of their consumption preferences for services, goods, and lifestyles, based on their global or local culture identity (Steenkamp and Jong 2010).

Research shows that co-development and coexistence of global and local discourse have fundamental implications for consumer behavior (Zhang and Khare 2009). Complex interactions of global and local forces sometimes result in the emergence of consumer segments like glocal (where global becomes localized, and local becomes globalized) and glalient or disinterested (Strizhakova, Coulter, and Price 2008).

Companies use different strategies to communicate their products, services, and business practices on a daily basis. However, often multinational global and domestic local companies do not have clear guidance on how to interpret the effect of ongoing globalization on consumer needs and desires, and how to adapt their business practices accordingly (Steenkamp and Jong 2010). While prior research shows that globalization can impact consumer cultural self-identities and consumer product and brand choices (Arnett 2002; Alden, Steenkamp, and Batra 2006; Strizhakova, Coulter, and Price 2008, 2012; Yang et al. 2011; Zhang and Khare 2009), it is unclear how these consumer identities can alter consumer response to business practices beyond global/local brand or advertisement positioning.

This work concentrates on the role of consumer identities and consumption orientation in consumer food preferences and individual sustainability-related behavior. Article 1 is devoted to the effect of consumption orientation on consumer food preferences in emerging markets. Food significantly varies across the globe and has strong ties with ethnic traditions almost everywhere (Cleveland et al. 2016). Besides its primary purpose of maintaining life, growth, and satisfying hunger, food serves secondary, equally important goals such as: facilitating family time, bringing people together, cooking and serving as self-expression, and identifying one's culture of origin. Both local and global cultures play an important role when it comes to consumer food preferences and choice; yet, there is only limited research investigating the effect of globalization on consumer food preferences (Balabanis and Diamantopoulos 2016; Cleveland et al. 2016).

Articles 2 and 3 focus on the role of consumer identity in larger-scope pro-social behavior, particularly in the area of sustainability. Sustainability is also an especially fascinating phenomenon when exploring the role of global and local consumer identity since sustainability, in general, is more of a globally-construed construct due to the globality of the damaging environmental effects. However, the action that contributes to improving or disturbing sustainability often happens in the local domain. Therefore, global and local consumer cultural identity can play a significant role in the understanding of proper communication strategies and positioning for global and local companies operating sustainably (Gürhan-Canli, Sarial-Abi, and Hayran 2018; Ng and Batra 2017, Strizhakova and Coulter 2019).

This dissertation is driven by the main research question of – *How do consumer identity and subsequent consumption orientation affect food- and sustainability-related consumer behavior?* Specifically, this work intends to investigate how companies can more effectively communicate their food product and/or sustainability efforts on a globalized market to consumers with different

identities and consumption orientations. Therefore, the overall goal of this research is to address how global and local cultural forces affect consumer attitudinal and behavioral responses to various firm's practices (i.e., the use of different food product attributes and engagement with the firm's sustainability element). This work provides further insights and addresses research gaps (outlined in each individual article) in globalization, culture, and consumer behavior literature.

This dissertation consists of three research articles comprised of 9 individual studies with over 7,500 consumers in order to achieve this goal. Specifically, Article 1 examines the relationship between consumption orientation (as an outcome of global/local consumer identity) and the use of various extrinsic and intrinsic product attributes by consumers in emerging markets. This is the exploratory work that examines the effect that consumption orientation has on a wide variety of product attributes, including country-of-origin, sustainability, animal welfare, food safety, and the number of intrinsic attributes. Article 1 shows that consumption orientation is an important variable affecting consumer preferences for food products. Further, the origin was found to be a significant attribute for all consumer segments; while, consumption orientation also had a consistent effect on the sustainability attribute across countries. The results from Article 1 laid the groundwork for a more detailed investigation of the impact of consumer identity on consumer response to sustainability messages.

Article 2 examined how global brands can effectively engage consumers with messages about their general sustainability efforts and initiatives from the perspective of consumer cultural identity, regulatory focus, and construal level theories. The results from Article 2 point to the fact that global consumer identity plays a significant role in consumer responses to the sustainability initiatives of global brands. Further, it was found that global brands could take advantage of regulatory focus and spatial, temporal, and social distance message framing for their sustainability

messages that are consistent with the identity of their target consumers. Consequently, the next piece of the puzzle was to investigate strategies for the sustainability messages of local firms.

Article 3 explored the effect of social norm appeals on sustainable consumer behavior and how it is influenced by global and local consumer identity. Thus, Article 3 demonstrates the effect that consumer identity congruent with the social influence appeal has on consumer response to the sustainability practices of local service firms.

This dissertation is organized in the following way. The current chapter introduces the topic of interest, theoretical background, key concepts, a brief overview of empirical work performed (i.e., the research design, data collection, etc.), and overall conclusions and general discussion. Chapters 2, 3, and 4 present three scientific articles that attempt to answer the main research question of this dissertation.

Theoretical Background

Research in international marketing has shown a vivid interest in consumer response to globalization in general, and to foreign countries, cultures, and products in particular, trying to explain preferences and attitudes of consumers in a globalized marketplace (Cleveland, Laroche, and Papadopoulos 2015; Bartsch, Riefler, and Diamantopoulos 2016). Such responses have been used to segment and target international markets resulting in the abundance of various constructs, measures, and instruments to capture such dispositions (Bartsch, Riefler, and Diamantopoulos 2016).

Following the framework from Bartsch et al. (2016), this work differentiates consumer dispositions toward globalization based on their level of abstraction, such as consumption specific (i.e., directly related to the consumption context) and general (i.e., unrelated to any specific context) scopes. Consumption-specific scope brings together consumer dispositions with identity-

based consumption of global products, brands, and services, i.e., Consumption Orientation (Alden et al., 2006). Consumer dispositions with the general level of abstraction describe consumer stances towards economic and cultural globalization (Holton, 2000), i.e., Consumer Cultural Identity (Strizhakova, Coulter, and Price 2008, 2012; Zhang and Khare 2009).

This dissertation focuses on Consumption Orientation (Article 1) and Consumer Cultural Identity (Article 2 and 3) constructs, both grounded in Consumer Culture. These constructs have shown a consistent effect on consumer preferences for local and global products and brands (Alden, Steenkamp, and Batra 2006; Zhang and Khare 2009).

Consumer Culture Debate

Consumer culture is centered on consumption and is embraced by consumers making sense of their lives and environments through the consumption of various products (Tomlinson 1999). The way consumers perceive globalization and foreign countries, culture, and products based on their consumer culture is one of the important factors affecting the success of marketing strategies (Arnould and Thompson 2005; Slater 1997). There is an on-going debate on whether consumer culture around the world is "converging, diverging, or hybridizing" (Merz, He, and Alden 2008) with no clear direction of cultural transformation, thereby having a rather complex dynamic of coexistence of these phenomena.

Globalization theorists seem to be divided into three somewhat overlapping schools of thought in the global consumer culture debate. Members of the first argue that there is some kind of homogenization of consumer needs and desires that aspires to the American culture of consumerism (Edge 2006). In this instance, globalization is often equated to "Westernization" to "Americanization" to "McDonaldization" (Edge 2006). McDonaldization is described as a socio-cultural process that follows the principles of fast food – homogenization of standards and

consumer goods (Ritzer 1993). This homogenization has given rise to a Global consumer culture, which in turn affects the attitudinal responses of consumers causing them to substitute local products and brands with the global ones (Ritzer 2007; Steenkamp and Jong 2010).

The second school of thought, represented by Giddens and Tomlinson, believes in heterogenization, in which consumers' local identities are becoming more and more important and robust, due to the pressure from globalization (Edge 2006). Tomlinson (1999) argues that globalization contributed to shared spaces and goods, but not a shared cultural landscape, which fuels, or sometimes gives rise to localization. The phenomenon of localization, heterogenization, and cultural diversity facilitates traditional Local consumer culture (Crane 2002).

Members of the third school of globalization theorists, Appadurai (1990) and Robertson (1992), believe that cultural homogenization and heterogenization are taking place at the same time. They call this phenomenon "Glocalization," where global is becoming localized, and local is globalized. In glocalization, unlike in the previous two schools that have a distinct center- or core-periphery dichotomy, there is no such center. Global culture is a dominant center in the globalization dichotomy model and is an inferior periphery in the localization model. Global and Local are modified and adjusted to accommodate each other in the case of glocalization. Robertson (2003) emphasizes that glocalization could be an ideal alternative to "human universality" (p.177), where an individual can be looking not only for the meaning of the world as a whole, i.e., globalizing the local, but also for individual global and local identities, i.e., localizing the global.

Consumption Orientation

Consumption orientation is "consumer preferences for globalized, localized or hybridized alternatives within a given consumption domain" (Alden, Steenkamp, and Batra 2006: p. 227). Consumption orientation has been widely used in order to segment consumers and elicit a

consumer response to products, brands, and ads within specific product domains (Alden, Steenkamp, and Batra 2006; Riefler 2012; Steenkamp and Jong 2010; Westjohn et al. 2016). Consumption orientation is important as it can motivate companies to pursue a more localized multi-domestic marketing strategies (i.e., local branches market local products to the local population) or more homogenized ones (i.e., companies market products on a global basis with limited adaptation to local markets) (Hassan and Katsanis 1994; Steenkamp and Jong 2010). Thus, the extent to which consumers identify with global or local culture has important implications for marketing strategies (Westjohn, Magnusson, and Reynolds 2016).

Global consumer culture affects attitudinal responses of consumers to substitute local products and brands with global ones (Steenkamp and Jong 2010) due to global consumption orientation (Alden, Steenkamp, and Batra 2006). Consumers with global consumption orientation use brand globalness as a signal of better quality and reliability associated with progress and efficiency (Alden, Steenkamp, and Batra 1999; Hassan and Katsanis 1991, 1994; Holton 2000; Merz, He, and Alden 2008).

Local consumer culture impacts consumers' choice of rejecting global influences and choosing local products and brands (Steenkamp and John 2010) due to local consumption orientation (Alden, Steenkamp, and Batra 2006). Local consumption orientation is driven by the desire to satisfy the need for the specific local products that help to maintain a unique local culture respecting local traditions and customs (Ger and Belk 1996; Kotabe and Helsen 2010).

The complex coexistence and interaction of global and local consumer cultures give rise to a consumer segment with "glocal" or "hybrid" consumption orientation that combines the desire for local and global products and brands in their preference portfolio (Strizhakova, Coulter, and Price 2008). Finally, some consumers alienate from any consumer culture and form "disinterested" or

"glalient" consumer segments expressing a lack of cultural certainty and absence of any clear preferences for global or local product alternatives and/or consumption domain as a whole (Arnett 2002).

Consumer Cultural Identity

Arnett (2002) was first to propose the local-global identity construct when discussing the psychological consequences of globalization. As globalization has picked up speed, consumer cultural identity has been widely studied in consumer culture research (Strizhakova, Coulter, and Price 2008, 2012; Tu, Zhang and Khare 2012; Zhang and Khare 2009). As a result, consumer cultural identity has been differentiated as global and local, with consumers favorably reacting to the symbols of global or local consumer culture and a broad range of beliefs embedded in global and local discourse (Strizhakova, Coulter, and Price 2012; Strizhakova and Coulter 2013).

Global consumer culture is closely connected with a notion of global identity, people's belief in global citizenship, and a shared global connectedness and the cultural meanings produced by globalization (Steenkamp and Jong 2010; Holton 2000; Strizhakova, Coulter, and Price 2008). Global identity means "identifying with people around the world" (Zhang and Khare 2009: p. 524) and consists of "mental representations in which consumers believe in the positive effects of globalization, recognize the commonalities rather than dissimilarities among people around the world, and are interested in global events" (Tu, Khare, and Zhang 2012: p. 36). Consumers with global identity prefer a global cosmopolitan lifestyle, value global brands, and are actively engaged with the global consumer culture at the expense of the local one (Strizhakova and Coulter 2013).

Consumers with local identity relate more to people in one's local community and local way of life, have an interest in local events, rebel against global cultural influences, and have a more nationalistic and ethnocentric orientation (Strizhakova and Coulter 2013; Zhang and Khare 2009).

Consumers with local identity tend to avoid global brands, adhere to local traditions, and have a stronger affiliation with the local consumer culture (Strizhakova and Coulter 2013).

Overview of Research Articles and Individual Studies

Overview of research articles incorporated in this dissertation, including titles, author list, and completion status, are shown in Table 1. Together these three articles attempt to answer the main research question of *How do consumer identity and subsequent consumption orientation affect food- and sustainability-related consumer behavior*, along with answering more specific research questions pertinent to each article.

The current research uses quantitative methods, mainly following the experimental approach. Methods applied include discrete choice experiment, textual analysis of sustainability and CSR statements from 100 global brands, and a variety of online and laboratory experimental studies.

Table 1. Overview of research articles

Article	Title	Authors	Status
1	The role of consumption orientation in consumer food preferences in emerging markets	Ekaterina Salnikova and Klaus G. Grunert	Under Review
2	The role of global consumer identity in consumer response to global brands' sustainability messages	Ekaterina Salnikova and Yuliya Strizhakova	Under Review
3	Local businesses with global sustainability standards: The role of consumer identity and social norms in encouraging sustainable behavior	Ekaterina Salnikova	Working Paper

Table 2 introduces all studies in each individual article, answering specific research questions pertaining to each article of this dissertation. This table includes settings and study design, participants, and dependent variables pertinent for each study. A more detailed description of the design, analysis, and statistical procedures is left to the respective papers.

Table 2. Overview of studies and research design

Article	Study	Specific Research Question	Methods		
			Settings and Study Design	Participants	Dependent Variables
1	1	What is the role of consumption orientation in consumer preferences for food product attributes in emerging markets?	Online questionnaire including a) measurement instrument for global consumption orientation; b) discrete choice experiment on consumer preference for fresh pork products that included attributes on origin (domestic, Denmark, and major import) and other extrinsic (sustainability, food safety, animal welfare, price) and intrinsic (color, degree of visible fat, in-store appearance) variables; c) general behavioral and socio-demographic measures	6,011 panel pork consumers	Hypothetical choice of fresh pork alternatives
2	1	How do global brands message about their sustainability?	Textual analysis of sustainability and general CSR statements from 100 top global brands	N/A	Percentage of words compatible with various message frames
2	2	What messaging frames are effective in increasing consumer positive response to more general sustainability messages and messages about sustainability initiatives?	Online experiment (MTurk); global identity prime; 2 (regulatory focus: promotion vs. prevention) x 2 (spatial construal: distant vs. proximal) between-subjects experimental design; fictitious global sustainable fashion brand *ECOTrend* (presented as a real brand preparing for launch on the market) and its sustainability initiative with real-time actual time donation context; covariates	MTurk Prime US residents, n = 213; 63% females, M_{age} = 38	Traditional marketing measures (brand attitude, purchase intention), behavioral engagement measures in the form of actual time donation toward sustainable initiative (actual time, in seconds, donated by participants and the number of words written in the essay)
2	3	What messaging frames are effective in increasing consumer positive response to more general sustainability messages and messages about sustainability initiatives?	Online experiment (MTurk); global identity prime; 2 (regulatory focus: promotion vs. prevention) x 2 (temporal construal: distant vs. proximal) between-subjects experimental design; fictitious global sustainable home appliances brand *ECOHome* (presented as a real brand preparing for launch on the market) and its sustainability initiative with real-time actual time donation context; covariates	MTurk Prime US residents, different from those in Study 2, n = 229; 54% females, M_{age} = 37	Traditional marketing measures (brand attitude, purchase intention), behavioral engagement measures in the form of actual time donation toward sustainable initiative (actual time, in seconds, donated by participants and the number of words written in the essay)
2	4a	What messaging frames are effective in increasing consumer positive response to more general	Online experiment (MTurk); global identity prime; 2 (regulatory focus: promotion vs. prevention) x 2 (social construal: distant vs. proximal) between-subjects experimental design; fictitious global sustainable personal care product	MTurk Prime US residents, different from those in Studies	Behavioral engagement measures in the form of engagement in a co-creation task (number and naturalness of scents

		sustainability messages and messages about sustainability initiatives?	brand *ECOHome* (presented as a real brand preparing for launch on the market) and its sustainability initiative with co-creation task; covariates	2 and 3, n = 226; 54% females, M_{age} = 40	recommended for a new product line)
2	4b	What messaging frames are effective in increasing consumer positive response to more general sustainability messages and messages about sustainability initiatives?	Lab experiment; 1 (identity prime: global) x 1 (regulatory focus: promotion) x 2 (social construal: distant vs. proximal) between-subjects experimental design; fictitious global sustainable fruit snack bar *ECOFruit* taste test followed by a variety of engagement tasks	n = 103 undergraduate students from a Mid-Atlantic U.S. university, 47% females	Traditional marketing measures (brand attitude, purchase intention), behavioral engagement measures in the form of product ratings and charitable walk sign-up, measures of subsequent sustainable behavior of recycling and a choice of a gift card to a sustainable (vs. non-sustainable) restaurant
3	1	How can local firms more effectively engage consumers with firms' sustainable elements and encourage sustainable consumer behavior?	Online experiment (MTurk); 2 (identity prime: global vs. local) x 2 (social norms frame: descriptive vs. injunctive) between-subjects experiment; fictitious local (presented as a real business opening in participant's city within the next 2 months; true city and state name of each participant were used) sustainable deli business *TooGoodToWaste*; covariates	MTurk Prime US residents, different from those in Article 2 ; n = 212; 54% females; Mage = 38	Traditional marketing measures (projected frequency of future purchases and attitude towards the business concept [combined brand attitude and purchase intention])
3	2	How can local firms more effectively engage consumers with firms' sustainable elements and encourage sustainable consumer behavior?	Online experiment (MTurk); 2 (identity prime: global vs. local) x 3 (social norms frame: descriptive vs. injunctive vs. control) between-subjects experiment; fictitious local (presented as a real business opening in participant's city within the next 2 months; true city and state name of each participant were used) sustainable hair salon and spa business *Nature of Beauty* and its sustainable initiative with real-time actual time donation context; covariates	MTurk Prime US residents, different from those in Article 2 and Study 1; n = 518; 68% females; Mage = 38	Behavioral engagement measures in the form of actual time donation toward sustainable initiative (actual time, in seconds, donated by participants and the number of words written in the essay)
3	3	How can local firms more effectively engage consumers with firms' sustainable elements and encourage sustainable consumer behavior?	Online experiment (MTurk); 2 (identity prime: global vs. local) x 1 (social norms frame: descriptive) x 2 (normative source: global vs. provincial) between-subjects experiment; fictitious local (presented as a real business opening in participant's city within the next 2 months; true city and state name of each participant were used) sustainable laundromat business *Green&Clean* and its sustainable initiative with real-time actual time donation context and co-creation task of recommendation of seminar topics; covariates	MTurk Prime US residents, different from those in Article 2 and Studies 1 and 2; n = 242; 47% females; Mage = 36	Behavioral engagement measures in the form of actual time donation toward sustainable initiative (actual time, in seconds, donated by participants and the number of words written in the essay) and engagement in a co-creation task (number of seminars recommended)

Overall Conclusions and Contributions

This Ph.D. dissertation titled *"THINK GLOBAL, ACT LOCAL: The Role of Global Consumer Identity in Food- and Sustainability-Related Consumer Behavior"* presents three research articles that attempt to answer the research questions stated in this dissertation.

The results from these three articles show that globalization can significantly alter consumer responses to a more extensive variety of business practices, like consumer food preferences and consumer response in a broader pro-social domain of sustainability.

Specifically, Article 1 examines the relationship between consumption orientation (as an outcome of global consumer identity) and the use of various extrinsic and intrinsic food product attributes by consumers in emerging markets. Article 1 employs a Discrete Choice Experiment embedded in a survey among 6,011 consumers from countries with emerging markets (i.e., China, Vietnam, Singapore, Thailand, Brazil, and Colombia). In this article, we show that consumption orientation is an important variable affecting consumer preferences for food products.

Article 2 examines how global brands can effectively engage their consumers with sustainable products and sustainability initiatives from the perspective of consumer cultural identity, regulatory focus, and construal level theories. This work embraces experiments with online consumer samples along with the laboratory settings that include a student sample. Article 2 shows the significant role that global consumer identity has in evaluating consumer responses to the messaging of general sustainability and sustainability initiatives of global brands.

In Article 3, it is explored how the effect of social norm appeals on sustainable consumer behavior is influenced by global and local consumer identity. The results demonstrate the effect that congruency of consumer identity and social influence has on consumer behavior in response to the sustainability practices of local firms.

This dissertation attempts to add to the existing literature on globalization, culture, and consumer behavior in a manifold of ways.

First, this work contributes to globalization literature by focusing on the important, yet previously overlooked, role that global consumer identity and subsequent consumption orientation play in consumer behavior. Article 1 contributes to the literature on globalization and consumer behavior by linking individual consumption orientation (global, local, glocal) to the use of product attributes at the point-of-purchase. Articles 2 and 3 contribute to globalization research by identifying the vital role of global consumer identity in consumer responses to brand messaging and in subsequent consumer behavior.

Second, this work contributes to the literature by applying the notion of global consumer identity and global consumption orientation to the distinct domains of consumer behavior as food and sustainability. Previous research has mostly focused on the effect of consumption orientation on consumer preferences for globally- (vs. locally-) positioned ads (Nijssen and Douglas 2008, 2011; Westjohn et al. 2016) and global (vs. local) brands (Alden et al. 2006; Riefler 2012; Steenkamp and Jong 2010). Whereas prior research has started to tap into the role of global consumer identity in consumer attitudes toward general brand messaging (Grinstein and Riefler 2015; Ng and Batra 2017; Strizhakova and Coulter 2019; Westjohn et al. 2016), this work focuses on the role of global identity and the effectiveness of particular food product attributes (available to the consumer at the point-of-purchase; Article 1), along with the effectiveness of sustainability message frames in eliciting an attitudinal and behavioral response to brand sustainability messaging (Articles 2 and 3).

Third, this work contributes to globalization research by applying the notion of consumer identity not only to consumers in developed countries (Article 2 and 3) but also to consumers in

the countries with emerging markets (Article 1). Consumption orientation of consumers in emerging markets is not as well established as it is in developed countries, thereby making consumption orientation more fluid. For example, local consumer identity is sometimes considered to be fueled by globalization and is substantially pronounced in emerging markets (Strizhakova, Coulter, and Price 2012). At the same time, consumers in developing countries are increasingly faced with the choice between traditional local options or newer foreign products (Batra et al. 2000). Few studies aim to understand how consumers with various orientations make choices between domestic or foreign products and brands, in developing countries (e.g., Batra et al. 2000; Strizhakova and Coulter 2013). Burgless and Steenkamp (2006) argue that success in emerging markets is pivotal for many multinational companies calling them "paramount for the future of marketing science" (p. 337).

Further, the impact of globalization gained momentum in marketing literature, mainly focusing on the context of global companies and global brands. However, small local companies are as crucial for the stable operations of economies. Local companies often lack resources to experiment and make mistakes in the search for the most excellent business strategies. Therefore, Article 3 focuses on the most effective strategies that local companies can take, that are trying to comply with global sustainability standards from the perspective of consumer cultural identity.

Finally, this works contributes to the consumer behavior and sustainability literature by demonstrating that consumer identity can play a significant role in sustainable consumer behavior and by exploring psychological and situational factors that lead consumers with salient global or local identities to engage in sustainable behavior. This work suggests that previous research in sustainability has overlooked the interaction of global consumer identity with the variety of constructs previously found to affect sustainable consumer behavior in psychology and

environmental decision-making (Articles 2 and 3). Article 2 extends emerging research on global consumer identity and its impact on regulatory focus (e.g., Ng and Batra 2017; Westjohn et al. 2016) message frames. The results show that in contrast to prior research, in the context of sustainability, only global (but not local) identity together with promotion focus is effective when global brands engage consumers with sustainability. Additionally, Article 2 contributes to construal level theory (Trope, Liberman, and Wakslak 2007) by supporting its proposition, that different domains of construals (i.e., spatial, temporal and social) do not always act in unison. This work finds that the effectiveness of diverse construal domains may depend on consumer identity and regulatory focus. It further shows that either of social norm appeals (descriptive vs. injunctive norms) can be used successfully in encouraging sustainable consumer behavior; however, the effectiveness of such appeals is circumscribed by situationally activated consumer identity.

Each article has its particular practical implications, research limitations, and avenues for future research. These parts, therefore, are left for the discussion of each individual article.

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Chapter Two
- Article 1 -

The Role of Consumption Orientation in Consumer Food Preferences in Emerging Markets

Ekaterina Salnikova

Department of Management, Aarhus University, Fuglesangs Allé 4, 8210 Aarhus, Denmark

Klaus G. Grunert

Department of Management, Aarhus University, Fuglesangs Allé 4, 8210 Aarhus, Denmark

The Role of Consumption Orientation in Consumer Food Preferences in Emerging Markets

Global marketers are widely implementing global or local product positioning in an attempt to appeal to consumers in international markets. However, there is no consensus in homogenization versus heterogenization of consumer needs and globalization vs. localization of the marketplace.

This paper examines the relationship between consumption orientation and the use of various extrinsic and intrinsic product attributes by consumers in emerging markets. This paper employs a discrete choice experiment to explore the preferences of consumers with glocal, local, and global orientations from six emerging markets (i.e., China, Vietnam, Singapore, Thailand, Brazil, and Colombia) using fresh pork as a stimulus.

We found that consumer orientation impacts consumer preferences for pork products. Product origin was an essential attribute in the evaluation of products across all countries. Local consumers placed higher importance on the origin than glocal and global consumers. Glocal consumers were found to be the most prominent segment with their own unique blend of preference for products with various attributes.

Keywords: consumption orientation, consumer culture, extrinsic and intrinsic product attributes, country of origin, choice experiment, emerging markets

For over thirty years marketing literature has highlighted the acceleration of homogeneous consumer needs and desires around the world (Cleveland and Laroche 2007; Riefler 2012) and globalization of the marketplace as essential developments facing companies across the globe (Steenkamp and Jong 2010). However, inconsistencies in marketing literature regarding whether exporting companies should move from traditional multi-domestic approaches towards global products lead to a lack of guidance for companies operating in multiple markets (Kotabe and Helsen 2010).

The marketing literature has addressed this issue by developing the concept of consumption orientation (Alden, Steenkamp, and Batra 2006; Riefler 2012; Steenkamp and Jong 2010; Westjohn, Singh, and Magnusson 2012) rooted in global consumer culture (Arnould and Thompson 2005, 2018). The consumption orientation construct, first introduced by Alden et al. (2006), describes global, local, glocal, and disinterested consumer segments. This construct shows consistent effects on particular cognitive, affective, and behavioral consumer responses (Bartsch, Riefler, and Diamantopoulos 2016). For example, researchers have found the effect of consumption orientation on preference for globally- versus locally-positioned ads (Akaka and Alden 2010; Nijssen and Douglas 2008, 2011; Westjohn, Arnold, Magnusson, and Reynolds 2016) and on attitude toward global versus local brands (Alden et al. 2006; Riefler 2012; Steenkamp and Jong 2010).

We identify two significant gaps in the literature discussing consumption orientation as a concept that affects successful marketing strategies. First, product attributes play a fundamental role in marketing from two perspectives: the marketer who gets an opportunity to differentiate the product, and the consumer who uses attributes as the basis for evaluating the products in the marketplace. Consumer preference heavily depends on various information cues about the product

(Richardson, Dick, and Jain 1994), or extrinsic and intrinsic attributes (Olson 1976), making it a multi-attribute choice where consumers trade-off various product attributes in the context of another (Fasolo, McClelland, and Todd 2007; Rokka and Uusitalo 2008). Marketing literature suggests that individual differences moderate the effect of informational cues on product evaluations (Fandos and Flavian 2006; Lee and Lou 1995). However, consumption orientation has yet to be linked to consumer demand for a product consisting of various intrinsic and extrinsic attributes. Consumption orientation may play an important role in evaluating these product attributes by intervening in the decision-making process at the point-of-purchase and by moderating the effects of product attributes in consumer decision-making.

Second, the majority of applied research covering consumption orientation is focused on consumers in developed countries. However, the consumption orientation of consumers in countries with emerging markets is not as well established as in developed countries, making consumption orientation more fluid. For example, according to Strizhakova, Coulter, and Price (2012), local cultural identity is fueled by globalization, and it is especially pronounced in emerging markets. At the same time, consumers in the countries with emerging markets are increasingly faced with a choice between traditional local options or newer foreign products (Batra, Ramaswamy, Alden, Steenkamp, and Ramachander 2000). Few studies aim to understand how consumers with various orientations make choices between local or foreign products and brands in developing countries (e.g., Batra et al. 2000; Strizhakova and Coulter 2013). Burgess and Steenkamp (2006) argue that success in emerging markets is pivotal for many multination companies calling them “paramount for the future of marketing science” (p. 337). The growing importance of emerging markets in shaping consumption orientation resulted in several calls for

more research in emerging markets (Burgess and Steenkamp 2006, 2013; Steenkamp 2019a, 2019b).

In light of the research gaps identified, we contribute to globalization and decision-making research by linking individual consumption orientation and the use of product attributes in consumer decision-making. Investigating the role that consumption orientation has in the decision-making process contributes not only to discovering consumer preferences with the product's global and local positioning in emerging markets but also to understanding consumer decision-making from the perspective of the product attributes.

In this paper, we aim to close the gap between the consumption orientation and the use of the product attributes in consumer decision-making. This research starts to address how consumers' global, glocal, and local consumption orientation impacts the use of product attributes in the consumers' decision-making in emerging markets.

Theoretical Background

Consumption orientation

With regard to consumer culture literature (Holt 2002), there seem to be three overlapping schools of thought in the global consumer culture debate. Members of the first school of thought argue for the existence of homogenization of consumer needs and desires with the American culture of consumerism being a dominant center (Edge 2006; Ritzer 1993). The second school of thought, represented by Giddens (2000) and Tomlinson (1999), believes in heterogenization, in which local consumer identities have become more important and robust, from the pressure of globalization (Edge 2006; Tomlinson 1999). Members of the third school of globalization theorists, Appadurai (1990) and Robertson (1992), believe that cultural homogenization and

heterogenization are taking place concurrently creating the phenomenon of "Glocalization," where global is becoming localized, and local is becoming globalized.

Consequently, some global researchers argue that consumers around the world prefer global products and believe that these products have better quality, reliability, and are associated with progress and efficiency (Alden, Steenkamp, and Batra 1999, 2006; Hassan and Katsanis 1991, 1994; Holton 2000; Merz, He, and Alden 2008; Yip 2003). Steenkamp, Batra, and Alden (2003) found a positive relationship between consumer preferences for global products and the perceived degree to which these products are sold around the world. Alden et al. (2006) refer to such consumers as consumers with "global consumption orientation." We adapt Alden et al.'s (2006) terminology and refer to them as consumers with global consumption orientation, or simply, Global consumers.

Other researchers believe that companies can break through competitive clutter and satisfy consumers by offering local products meeting the need to maintain local culture (Ger and Belk 1996; Kotabe and Helsen 2010). Zhang and Khare (2009) describe a consumer with local identity as one that has "faith in and respect for local traditions and customs and recognizes the uniqueness of local communities" (p.525). Steenkamp and Jong (2010) state that local consumer culture, or the culture of one's home country, is traditionally the dominant one, and remains "a strong force" in consumers across the globe. Alden et al. (2006) address these consumers as having "local consumption orientation." Accordingly, we refer to such consumers as having a local consumption orientation, or simply, Local consumers.

There are also controversial positions that consumers have a complex combination of interacting local and global preferences and/or equal preferences for global and local products creating glocal or hybrid consumption orientation (Alden et al. 2006; Strizhakova, Coulter, and

Price 2008). We identify such consumers as having a glocal orientation and call them Glocal consumers.

Lastly, researchers have found that consumers reject both local and global products altogether, combining a negative attitude towards global products with a negative attitude towards local products, a phenomenon also known as marginalization, identity confusion, or "glalienation" (Steenkamp and Jong 2010). We label consumers in this segment as "disinterested" (Alden et al. 2006).

Consumption orientation and consumer decision-making in emerging markets

Consumers in emerging markets are exposed to similar globalization processes and multinational business strategies as consumers in developed markets, but consumers in emerging markets differ in socio-economic and cultural development (Strizhakova and Coulter 2013). Emerging markets are characterized by more rapid socio-economic and political change, a younger population with higher diversity in socio-economic factors like income and living standards, and greater emphasized embeddedness and hierarchy than in high-income markets (Burgess and Steenkamp 2006).

Literature on emerging markets suggests that multinational companies can compete in these markets, first, by implementing their global marketing strategies if they want to appeal to the elite segment of consumers concentrated in urban areas, and second, by differentiating their strategies for multiple socio-economic strata due to cultural and budget differences (Burgess and Steenkamp 2006; Kamakura and Mazzon 2013). Consumers in these countries can use the information about the brand's country-of-origin not only for determining overall quality, but also to determine a brand's desirability for symbolic, prestige-, and status-enhancing reasons (Batra et al. 2000; Steenkamp et al. 2003). Batra et al. (2000) found that brands perceived as having a nonlocal origin

are associated with a higher status than local products and are attitudinally preferred in countries with emerging economies. Global brands are associated with "modernity, future, and dreams of abundance" in emerging markets (Steenkamp 2019b). Such perception is based on the variety of reasons, such as desirability of nonlocal products due to scarcity and higher price, growth of cosmopolitan elites with the desire to display competence in alien cultures, consumer desire to imitate more affluent Western lifestyle by purchasing brands due to a feeling of insecurity and inferiority, and consumer aspiration to participate in the global consumer community (Batra et al. 2000).

The use of intrinsic and extrinsic attributes in emerging markets

There has been an increased interest in understanding consumer motives and preferences with food product selection and purchase decisions (Brečić, Mesić, and Cerjak 2017). Recently, researchers place more considerable attention on product attributes as a construct closely related to food choice motives (Asioli et al. 2017; Espejel, Fandos, and Flavián 2007; Espinoza-Ortega, Martínez-García, Thomé-Ortiz, and Vizcarra-Bordi 2016; Lee and Lou 2011; Markovina et al. 2015; Steenkamp 1997). Consumers form a perception of the particular product using an array of product-related cues (Acebrón and Dopico 2000; Teas and Agarwal 2000). When evaluating quality, value, and performance of the product, consumers often rely on product attributes as on informational qualitative cues, i.e., stimuli on intrinsic and extrinsic product characteristics (Richardson et al. 1994; Olson 1976; Olson and Jacoby 1972)

The intrinsic cues relate to specific physical properties of the product that cannot be changed without changing the physical characteristics of the product itself (Olson and Jacoby 1972), e.g., color and texture. Extrinsic cues are related to the product, but not physically a part of it, e.g., brand and price (Bernués, Olaizola, and Corcoran 2003).

The manifold of studies shows that the interaction of intrinsic and extrinsic cues is critical in affecting consumer preferences (Asioli et al. 2017; Brečić et al. 2017; Endrizzi et al. 2015; Loebnitz, Schuitema, and Grunert 2015). With the existing plethora of various extrinsic and intrinsic cues, consumers are bound to make multi-attribute choices trading-off different characteristics to achieve the highest individual benefit, or utility (Fasolo et al. 2007; Hall, Viney, Haas, Louviere 2004; Rokka and Uusitalo 2008).

Research on consumer preferences for fresh meat products shows that color and leanness, or degree of visible fat, are critical intrinsic cues (Glitsch 2000; Grunert, Loose, Zhou, and Tinggaard 2015). Grunert et al. (2015) show that there is a dominating reliance on intrinsic cues in Chinese consumers' preferences for pork ribs, with a smaller segment also relying on extrinsic characteristics. Wang, De Steur, Gellynck, and Verbeke (2015) found that sensory appeal associated with intrinsic cues was positively related to Chinese consumers' purchase intentions for traditional products. The general importance of intrinsic attributes in the Asia-Pacific consumers has been often attributed to the prevalence of wet markets and personal communication with the seller, especially when it comes to fresh produce and meat. However, recent studies challenge this assumption due to the increasing role of supermarkets in the daily lives of Asia-Pacific consumers, subsequently giving rise to the importance of extrinsic cues when assessing the food products (Grunert et al. 2015; Gorton, Sauer, and Supatpongkul 2011).

In cases of fresh meat, country of origin, brand, safety, and quality certification are important extrinsic cues for consumers (Balestrini and Gamble 2006; Grunert et al. 2015; Thøgersen, de Barcellos, Perin, and Zhou 2015). With regards to extrinsic cues, research shows somewhat consistent results on the positive effects of foreign country-of-origin and quality, safety, organic, and green certification on the product evaluation by Chinese consumers (Cicia et al. 2016; Grunert

et al. 2015; Ortega, Wang, and Wu 2009; Ortega, Wang, Wu, and Olynk 2011; Thøgersen et al. 2015).

Williams, Pehu, and Ragasa (2006) state that consumers in developing countries increasingly demand functional foods. Brazilian and Chinese functional foods markets have been rapidly growing for the past decade (de Barcellos and Lionello 2011). Consumers in China, Thailand, and Brazil, similarly Western consumers, were shown to have a positive attitude toward organic products and consider them to be healthier and more environmentally friendly (Roitner-Schobesberger, Darnhofer, Somsook, and Vogl 2008; Thøgersen et al. 2015). Multiple food scandals across East Asia have resulted in growing consumer demand for safe and quality certified foods. Thai consumers were found to be willing to pay a premium for "safe" vegetables, which are compliant with the pesticide residue limit (Posri, Shankar, and Chadbunchachai 2006). Mergenthaler, Weinberger, and Qaim (2009) show that Vietnamese consumers, on average, are willing to pay 60% more for vegetables free-from chemicals.

Product familiarity, involvement, and the relationship between price and quality were identified to activate the differences in utilization of specific intrinsic and extrinsic characteristics (Lee and Lou 1995). Past studies have also identified consumer patriotism and consumer ethnocentrism affect consumer reliance on extrinsic or intrinsic characteristics (Han 1988; Shimp and Sharma 1987). Consumers high in patriotism and ethnocentrism were shown to be more prone to look for country-of-origin information. Individual consumption orientation as one of the consequences of ethnocentrism may play an essential role in consumer evaluations of the product based on its intrinsic and extrinsic characteristics. Consumer predisposition to global, local, or glocal orientation may intervene in the decision-making process. For example, locally-oriented consumers might be more driven by intrinsic cues due to the ability to determine the freshness of

the product. However, sustainability claims might be more pertinent to the globally-oriented consumer, as they have an elevated environmental concern (Grinstein and Riefler 2015).

Consumption orientation and the use of intrinsic and extrinsic attributes

Country-of-Origin (COO). Westjohn et al. (2012) adopt Swann's (1983) self-verification theory to explain consumer preferences for globally- versus locally-positioned advertisements based on consumers' global and local identity. The self-verification theory holds that "people are motivated to maximize the extent to which their experiences confirm and reinforce their self-views" (Swann 2011: p.26), and suggests that consumers seek to reinforce and confirm their identities through their beliefs, attitudes, and behaviors (Westjohn et al. 2012).

Similarly to Westjohn et al. (2012), we base the explanation of the relationship between consumption orientation and preference for product attribute, such as country-of-origin, in self-verification theory. We propose that consumers will have a higher preference for products with a country of origin that reflects their glocal, local, or global consumption orientation. In the context of self-verification theory, the choice of a product with foreign versus domestic origin reinforces the identity of the individual, in this case, his or her glocal, global, or local orientation. In this paper, we define Global products to be products with the non-domestic origin and global or foreign brands. We outline local products to be comprised of locally-produced goods and local brands.

Global consumption orientation shows that consumers prefer Global products more often than Local Products. However, we argue that consumers with a global orientation, having more world-mindedness than consumers with a local orientation, do not entirely reject consuming either locally- or domestically- produced products. Placing lower importance on the products country-of-origin, and considering both domestic and foreign products, does not threaten consumers' self-views of being "global." Local consumption orientation indicates that there is a clear distinction

between Glocal and Local products in the consumers' minds, with Local products being the dominating alternative. We argue that consumers with local orientation tend to have the most definite preference for domestically produced products, almost rejecting the possibility of consuming non-domestically made products. Only domestic products allow these consumers to confirm their self-view as "local" raising the importance of product origin attribute. This may lead to local consumers attaching the highest value to country-of-origin among the three consumption orientations, making this group have the narrowest product consideration set among the three orientations.

Glocal consumption orientation means that there is no preference for either global or local products, even though the consumer distinguishes between global and local products. As suggested earlier, consumers with glocal orientation might have equal preferences for both global and local products. Furthermore, Alden et al. (2006) operationalized glocalization as "holding a positive attitude to a mix of home cultural and global cultural consumption choices" (p. 236). This should result in the lowest importance for the country-of-origin attribute, and the preferences towards domestic or foreign origin to be lower than that of local, and higher for global orientation. In this case, we could also call these glocal consumers to be the most "inclusive" in their preferences among the orientations described.

Sustainability. There seems to be no clearly established relationship between environmental concerns and consumer consumption orientation. There are few examples related to sustainability and possible antecedents of the consumption orientation like cosmopolitanism. For instance, Grinstein and Riefler (2015) that cosmopolitan consumers have elevated environmental concerns, tend towards sustainable behavior and qualify to be a primary target for messages regarding sustainability and environmental issues compared to a non-cosmopolitan consumer. However, at

the same time, cosmopolitan consumers by definition behave less sustainably, for example, by traveling and purchasing foreign products and exotic goods from all over the world (Grinstein and Riefler 2015).

Steenkamp and Jong (2010), looking at consumer-domain specific values, found that people scoring high on environmentalism are more likely to have a positive attitude toward and buy local products. This also goes along with Tomlinson's (1999) statement on "environmental local fundamentalism" that expresses one's support of the immediate environment and a lack of interest towards any other areas. However, Nijssen and Douglas (2008) found that globally-oriented consumers are more like to engage in socially and environmentally responsible behavior.

Animal Welfare. There is no research found regarding the attitudes of locally- and globally-oriented consumers towards fair animal treatment. Animal welfare attributes could be considered similar to environmental concern since both correspond to more altruistic interests with ethical and moral motivations. Especially considering that attention to animal welfare is a two-fold process, including respect for animals and their impact on the environment interdependently (Caracciolo et al. 2016). However, enhanced animal welfare does not always correspond to the reduced environmental impact (Cembalo et al. 2016; Caracciolo et al. 2016).

According to Steenkamp and Jong (2010), attitudes toward global products are negatively related to traditions and conformity. Additionally, Cembalo et al. (2016) found that the tradition and conformity values, associated with local consumption orientation are negatively associated with "animal welfarism" (p. 249). Moreover, Worsley and Lea (2008) propose that those who hold staunch egalitarian versus traditional conformity values may be more concerned about animal welfare than others.

Animal welfare is traditionally less of a top-of-mind issue for consumers in emerging markets. For example, consumers in China prefer industrial pig production systems and embrace pig confinement as it secures the safety of the final product, leanness, and consistent quality (de Barcellos et al. 2013). Hence, the animal welfare attribute, related to the general world-mindedness, might be more critical to globally-oriented consumers.

Food Safety. The issue of food safety has appeared in political agendas and public discourse in both developed and developing countries over the last few decades (Worsley and Lea 2008). Several papers have investigated consumer perception of food safety, and factors that affect consumer attitudes toward product attributes expressing food safety (e.g., Cicia et al. 2016; Ortega et al. 2009, 2011). However, there seems to be a lack of knowledge on the impact of consumption orientation regarding consumers' preference for food safety.

From a general values perspective, people that have strong traditional conformity values and that have positive attitudes toward local products (Steenkamp and Jong 2010), seem to be more concerned with food safety issues and regulations (Worsley and Lea 2008). Locally-oriented consumers might also be more aware of domestic food safety issues as they are more likely to follow local events and be connected with the local community (Zhang and Khare 2009).

Extrinsic versus Intrinsic Attributes. Intrinsic attributes, like color and texture, often serve as search attributes at the point-of-sale, indicating the quality and freshness of the product thus providing value to the consumer (Grunert et al. 2015; Aqueveque 2006). Locally-oriented consumers might place more emphasis on intrinsic cues due to their preference of short supply chains and direct contact with sellers in emerging markets, Attachment of globally-oriented consumers to the world as a whole and their tendency to know global events, news, and trends

(Zhang and Khare 2009), might lead to a higher significance of extrinsic attributes, like branding and labeling, in the decision-making process.

Materials and Methods

In cooperation with a global marketing research agency, 6,011 consumers from countries with emerging markets in Asia (China, Vietnam, Singapore, and Thailand) and South America (Brazil and Colombia) were recruited to participate in an online questionnaire for this study. Participants were provided with an opportunity to respond in either English or the national language of the country, in which the questionnaire was administered. All questions were rigorously translated to native languages of the six tested countries using a backward-double translating process.

The questionnaire included: measurement instrument for consumption orientation, discrete choice experiment (DCE) on consumer preference for fresh pork products, and general behavioral and sociodemographic measures.

Food is one of the most crucial consumption domains, which significantly varies across the globe and has strong ties with ethnic traditions almost everywhere (Cleveland, Laroche, and Papadopoulos 2015). Besides its primary purpose of maintaining life and satisfying hunger, food serves secondary, not less important, goals, such as: facilitating family time, bringing people together, cooking and serving as self-expression, experimenting with exotic foods and meals, and a way of identifying one's culture of origin. Food as a category is especially suited for our purpose because of consumers' need to make choices between the products from the global food chains on the one hand, and short local chains on the other, daily.

Fresh meat is one of the most prominent food categories, which also is not characterized by the presence of strong brands, thus eliminating the problem of distinguishing the brand effect versus country-of-origin effect. In fact, meat origin is usually clearly stated, and often, even

reinforced by law. Fresh meat products do not drastically differ between countries, which makes comparison easier. Additionally, pork products, specifically in Asian countries, not only lack strong brand recognition but also, more importantly, are not associated with any specific country-of-origin and by default considered to be local.

Measurement of Consumption Orientation

Consumption orientation in this study was measured using the instrument of consumption orientation first introduced by Alden et al. (2006) followed by the development of additional consumption-related domains by Steenkamp and Jong (2010). We included three such domains: lifestyle, brands, and food. For each of the three consumption-related domains, each respondent had to select one statement out of four that would best describe his/her feelings and matches his/her relative preferences for the four types of orientation: 1) preference for global alternative; 2) preference for localized alternative; 3) preference for a glocal or hybrid alternative; and 4) lack of interest in either product, and/or consumption domain as a whole (Alden et al. 2006; Steenkamp and Jong 2010; Rielfer 2012).

Discrete Choice Experiment

This study included a discrete choice experiment (DCE) to investigate consumer preferences for food product attributes based on consumers' consumption orientation

DCE has been widely used in marketing to investigate consumer preferences for products and related services (Langen 2011; Moskowitz, Beckley, and Resurreccion 2012; Silayoi and Speece 2004; Van Wezemael, Caputo, Nayga Jr, Chryssochoidis, and Verbeke 2014). DCE asks respondents to make repeated choices from sets of product descriptions, consisting of various combinations of product attributes according to a pre-specified factorial design. Based on these

choices, utilities for each individual level of these attributes and the overall importance of each product attribute can be calculated (Louviere, Hensher, and Swait 2000).

Product attributes and levels included in the DCE were developed based on the theoretical background, expert interviews with Danish pork manufacturers, and consumer focus groups in the same countries.

To uncover the preferences of these consumer segments for various product attributes, we focus on exploring the preferences for other intrinsic and extrinsic product attributes for consumers with glocal, local, and global consumption orientation. Therefore, DCE design included eight product attributes with various levels (see Table 1):

1) Extrinsic: origin, sustainability, food safety, animal welfare, and price;
2) Intrinsic: color, degree of visible fat, and an in-store appearance.

Origin included three levels: a) domestically produced pork; b) pork from a major supplier of imported pork, c) pork from Denmark. Domestically produced pork was chosen to investigate preferences for local products. Pork from a major supplier of imported pork represented imported products with a well-known origin. Danish origin was selected as a foreign, but a less known origin.

Product descriptions were generated using an orthogonal fractional factorial design with ten choice sets presented to each respondent. Each set consisted of three profiles without the base "No choice" option.

Other Measures

A direct measure of the perception of products with different origins was also included. The respondents were asked to evaluate the pork produced in their own country and in three foreign countries with regards to their perception of safety, quality, healthiness, tenderness, and taste.

Respondents had to respond to four 7-point Likert scales with poles Not Safe/Safe, Bad Quality/Good Quality, Unhealthy/Healthy, Tough/Tender, and Bad Taste/Good Taste. This allows us to compare the results of the choice experiment to direct measures.

Furthermore, several behavioral and socio-demographic measures were collected; such as gender, age, income, employment status, marital status, size of the household, children under 16 living in the household, city of residence, and frequency of pork purchase and consumption.

Data Analysis

First, following Alden et al. (2006), Multiple Correspondence Analysis (MCA) (Hoffman and Franke 1986) was used to examine the dimensional structure of the consumption orientation data and to determine whether consumers' consumption orientations are consistent across the three tested consumption related domains (i.e., lifestyle, brands, food). After that, Latent Class Analysis (LCA) was performed on the consumption orientation measurement instrument to create a latent variable for consumers with global, glocal, and local orientations across different consumption-related domains.

Finally, DCE was performed with these latent classes as a covariate to understand the preferences of consumers with different consumption orientations, and the importance they place on various extrinsic and intrinsic product attributes.

Both MCA and LCA were performed using SAS JMP 13. For DCE, a conditional ordered logit model was estimated using Latent Gold Choice 5.1. Consumption orientation variable with glocal, local, and global levels was included as a known-class division (Fenger, Aschemann-Witzel, Hansen, and Grunert 2015).

Multiple Correspondence Analysis of consumption orientation. MCA was performed to analyze the dimensional structure of the data, and to check for consistency across the product domains used in this study (lifestyle, brands, and food).

The first two dimensions explained 38.03% of the variance, with the first dimension accounting for 19.54% with dimension inertia $\lambda = 0.59$, and the second – for 18.49% with $\lambda = 0.56$. Canonical correlation or dimension inertia (λ) indicates the strength of the relationship between the respondents and the product-consumption domain and can be used as a reliability measure for MCA (Aden et al. 2006). Both measures are sufficiently reliable for further analysis.

The first dimension supports our expectations that global and local consumption orientations are polar opposites. Also, confirming our expectations, glocal and disinterested orientations, being both hybrid alternatives, are situated in between. Disinterested consumers are located right in between global and local consumption orientations leading one to determine that the Brands domain is closer to global, and the Food domain is closer to local, expressing a possible inconsistency in the responses across the three product consumption domains. The second dimension contrasts glocal consumption orientation with others.

Based on the visual analysis of the biplot, all three product domains are presented with a high response density within the clusters. This indicates that respondents' orientations were consistent across three consumption domains: lifestyle, brands, and food. Responses from consumers with global, local, and glocal consumption orientation are showing higher response density, while the disinterested respondents are showing much lower response density.

Multiple correspondence analysis was repeated on each individual country level, and the patterns of both dimensions were confirmed across all six countries.

Latent Class Analysis of consumption orientation. LCA was performed to find four classes of consumers based on their previous answers to the consumption orientation instrument. The final model from the LCA for four clusters resulted in BIC = 39627.1 compared to the models with three and five clusters with BIC equaling to 39882.7 and 39695.2 respectively.

The largest cluster is Glocal, followed by Local and Global, with Disinterested being the smallest amongst the four. These results are consistent with other studies looking into the distribution of such clusters, for example, Cleveland, Papadopoulos, and Laroche (2011) in their international market segmentation found that Disinterested segment (so-called "Marginals") is the smallest segment among all four with the lowest proportions across eight studied countries. Following the procedure form Westjohn et al. (2016), respondents from the disinterested group were removed from further analysis for the following reasons. Based on the MCA, the disinterested cluster has a low response intensity, and could partially overlap with the global and local clusters. Moreover, disinterested consumer preferences toward global and local products are not the focus of this paper.

Results

The general model for the aggregated dataset includes eight product attributes characterizing the choice alternatives, six countries as covariates, and latent variable grouping respondents into global, local, and glocal segments based on LCA. Given the complexity of the model, and inclusion of the known-class variable from outside of DCE, the model fit is satisfactory with $R^2 = 0.09$ ($p < .001$).

Table 1 reports the class sizes, choice probabilities, and betas of all attributes for each segment of consumers in the overall model along with relevant p-values and covariate probabilities for each of the countries. The p-value for Wald(=) statistics indicates heterogeneity in preferences for all

tested product attributes except for meat color, showing that parameters are significantly different between the consumption orientation classes. The meat color attribute showed no significant *p-value (Wald(=) = .200*, therefore the model was adjusted, and the effect of the meat color attribute was merged by fixing the coefficients across all clusters. The country covariate showed significance within the model ($p < .001$).

There were no significant differences between the three classes in terms of demographic characteristics.

Table 1. Choice probability for aggregated 3-known-class (Glocal, Local, and Global consumption orientation) model from DCE

Class	Class 1: Glocal			Class 2: Local			Class 3: Global			p-value (Wald=)
Group name	Choice prob.	Beta		Choice prob.	Beta		Choice prob.	Beta		
Class size (%)	61.59			24.36			14.05			
Meat Color										
pale pinkish to white	0.25	0.01	ns	0.25	-0.01	ns	0.25	-0.05	*	
reddish pink	0.30	0.19	***	0.30	0.18	***	0.30	0.17	***	*0.20*
red	0.24	-0.03	*	0.24	-0.03	ns	0.24	-0.01	ns	
dark red	0.21	-0.17	***	0.21	-0.14	***	0.21	-0.12	***	
Fat Content										
almost no visible fat	0.38	0.14	***	0.37	0.12	***	0.37	0.11	***	*<.001*
some visible fat	0.39	0.17	***	0.37	0.11	***	0.36	0.08	***	
a lot of visible fat	0.24	-0.31	***	0.26	-0.23	***	0.27	-0.19	***	
Safety										
no info	0.24	-0.30	***	0.28	-0.18	***	0.28	-0.17	***	*<.001*
government inspected and controlled	0.39	0.17	***	0.37	0.11	***	0.35	0.07	***	
guaranteed disease free	0.37	0.12	***	0.36	0.08	***	0.37	0.10	***	
Pig Production										
small family farm	0.32	-0.04	***	0.33	-0.02	ns	0.31	-0.07	***	
large scale industrial farm	0.33	-0.02	**	0.33	-0.02	ns	0.34	0.03	ǂ	*<.05*
large scale farm with high level of animal welfare	0.35	0.06	***	0.35	0.04	**	0.35	0.04	*	

Sustainability										
no focus on reducing environmental impact	0.29	-0.15	***	0.30	-0.09	***	0.32	-0.05	**	*<.001*
low to medium environmental impact	0.34	0.03	***	0.34	0.01	ns	0.34	0.02	ns	
hardly any negative environmental impact	0.37	0.12	***	0.36	0.08	***	0.34	0.03	ǂ	
Origin										
home country	0.45	0.34	***	0.51	0.48	***	0.39	0.18	***	*<.001*
Denmark	0.30	-0.07	***	0.26	-0.20	***	0.34	0.03	ns	
major import	0.25	-0.27	***	0.24	-0.28	***	0.27	-0.21	***	
In-store appearance										
freshly cut by butcher	0.39	0.15	***	0.39	0.17	***	0.36	0.09	***	*<.001*
prepacked chilled	0.33	-0.01	ns	0.32	-0.02	ns	0.33	-0.01	ns	
frozen	0.29	-0.15	***	0.29	-0.14	***	0.31	-0.08	***	
Price										
market price - 20%	0.36	0.08	***	0.37	0.12	***	0.36	0.08	***	*<.001*
market price	0.36	0.07	***	0.34	0.04	*	0.33	0.00	ns	
market price + 20%	0.28	-0.15	***	0.28	-0.16	***	0.31	-0.08	***	
Covariates										
Country										
Vietnam	0.18	0.10	0.01	***	0.15	***	0.02	0.16	ns	
Thailand	0.16	-0.03	0.01	*	0.18	***	0.02	0.17	*	
Singapore	0.17	0.06	0.01	***	0.14	***	0.02	0.17	**	*<.001*
Brazil	0.15	-0.15	0.01	***	0.19	***	0.02	0.19	***	
Colombia	0.17	0.02	0.01	ns	0.19	***	0.02	0.14	***	
China	0.17	0.00	0.01	ns	0.16	***	0.02	0.18	***	

Note. Class size is the overall class probability Pb(x). Covariate probability is the probability of being in particular covariate level (b) given that one belongs to latent class x.

^{ns} $p > .05$; ^{ǂ} $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

The relative importance in Table 2 reports a re-scaled effect of all attributes for each of the classes summing up to 100%. These effects can be used to compare the relative importance of the attributes across latent classes.

Table 2. The relative importance of the attributes across all countries

Class	Class1	Class2	Class3
Group name	Glocal	Local	Global
Relative importance (%)			
Meat Color	12.06	13.25	18.60
Fat Content	17.34	13.41	16.64
Safety	16.79	11.35	14.79
Pig Production	3.66	2.27	5.77
Sustainability	9.30	6.54	4.77
Origin	21.83	29.94	21.33
In-store Appearance	10.75	12.23	9.19
Price	8.26	11.02	8.91
Total, %	100	100	100

Origin is the most important attribute for all three segments, followed by Fat Content, Meat Color, In-store Appearance, and Safety, although in a different order for the three classes. The least important attributes for all three segments were Sustainability, Price, and Pig Production. The calculations were repeated at the individual country level to identify whether the pattern is consistent across countries.

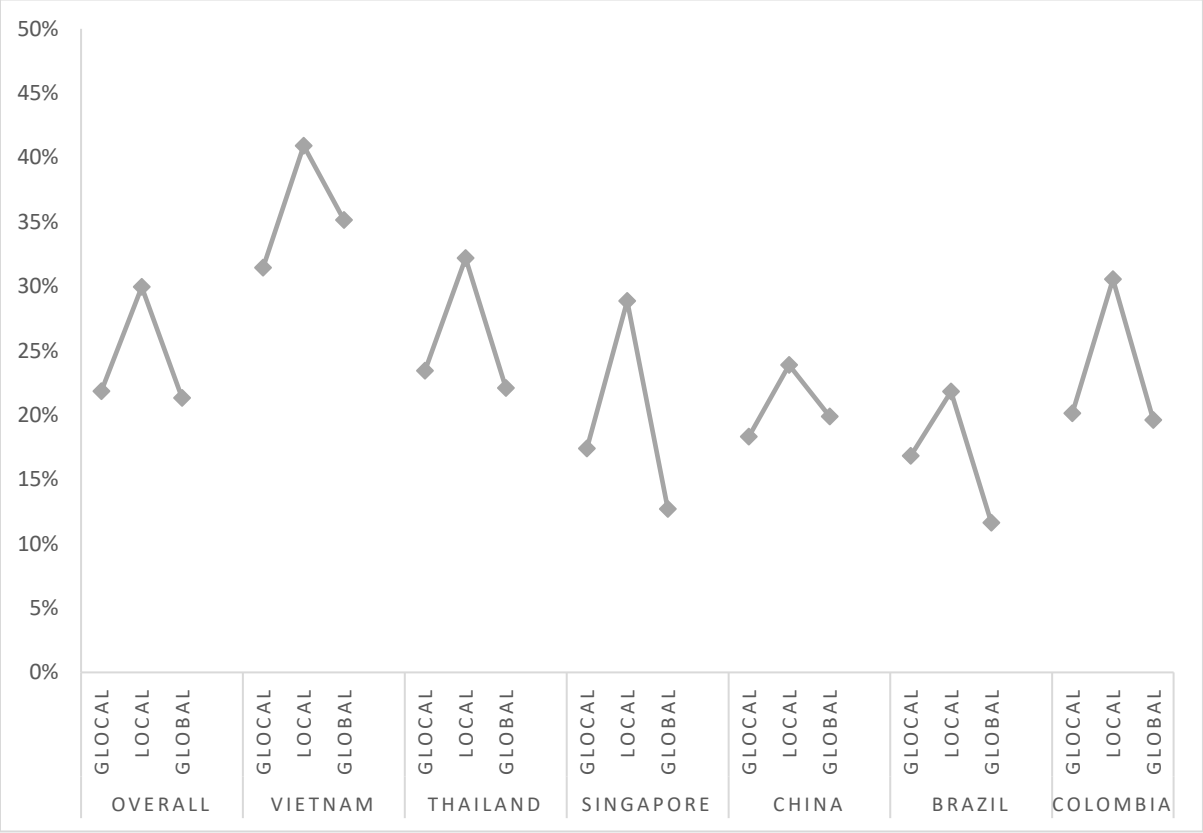
Exploring Preferences of Glocal, Global, and Local Consumers to Country-of-Origin Attribute

The relative importance of the Origin attribute for the overall model and individual countries was calculated. As can be seen in Table 2, Origin is the most important attribute for all segments, with the Local segment placing the highest importance on the Origin attribute (28.5%). It was found that Local consumers are most likely to choose the domestic product with the steepest drop in the probability of selecting either of the two other levels of origin corresponding to foreign production. The relative importance of Origin attribute is also graphically presented in Figure 1.

This pattern regarding the Origin attribute, where Local segment placing the highest and Global segment placing the lowest importance with the Glocal segment situating itself in between, is similar across most of the countries. The only exceptions are Vietnam and China, where the Global segments place slightly higher importance on the Origin attribute than the Glocal segments.

The Glocal segment places higher importance on country-of-origin than the Global segment. Based on these results one can conclude that consumers with Global orientation place the lowest importance on country-of-origin, which suggests that these consumers are the most inclusive consumers when it comes to the choice between domestic and foreign origin.

Figure 1. The relative importance of Origin attribute by segments and individual countries from DCE



Note. The differences between segments were significant for both overall sample and individual countries (*p (Wald=) < .001*)

Choice probabilities for the Origin attribute levels in the overall model and at individual country level were calculated and are presented in Figure 2. All countries have a *p-value (Wald=) < .001*. The pattern of choice probabilities for country-of-origin stayed the same for all of the tested countries.

Based on our results, the Global segment is more likely to choose products produced in their home country than any other origin but has a higher likelihood of choosing products with foreign origin than the other two segments. Moreover, the Global segment does not have as steep a change of choice probability from the choice of domestic production to a non-domestic.

The local segment shows the most definite preference for domestic origin among all consumer segments. This supports our expectations for local consumers to have an almost exclusive preference for domestic production. The global segment does not have as much differentiation between different origins, which could be a sign of the global segment being more open and inclusive in their preference for product origins. Preferences of Glocal consumers are located right in between Glocal and Local consumers.

When respondents were asked to evaluate domestic pork versus foreign pork independently from the DCE, first, consumer responses to questions regarding imported pork products were tested using ANOVA. There was a statistically significant difference between Glocal, Local, and Global groups ($F(2,5530) = 30.02$, $p < .001$). A Tukey post hoc test revealed that respondents with Global orientation evaluated imported pork products significantly higher than respondents with Glocal orientation ($p = .120$) and with Local orientation ($p < .001$). Respondents with Glocal orientation also showed a significantly higher evaluation of imported pork products than respondents with Local orientation ($p < .001$).

Figure 2. Choice probabilities for Origin attributed levels by segments and individual countries from DCE

Note. The differences between segments were significant for each level of both overall sample and individual countries (*p (Wald=) < .001*)

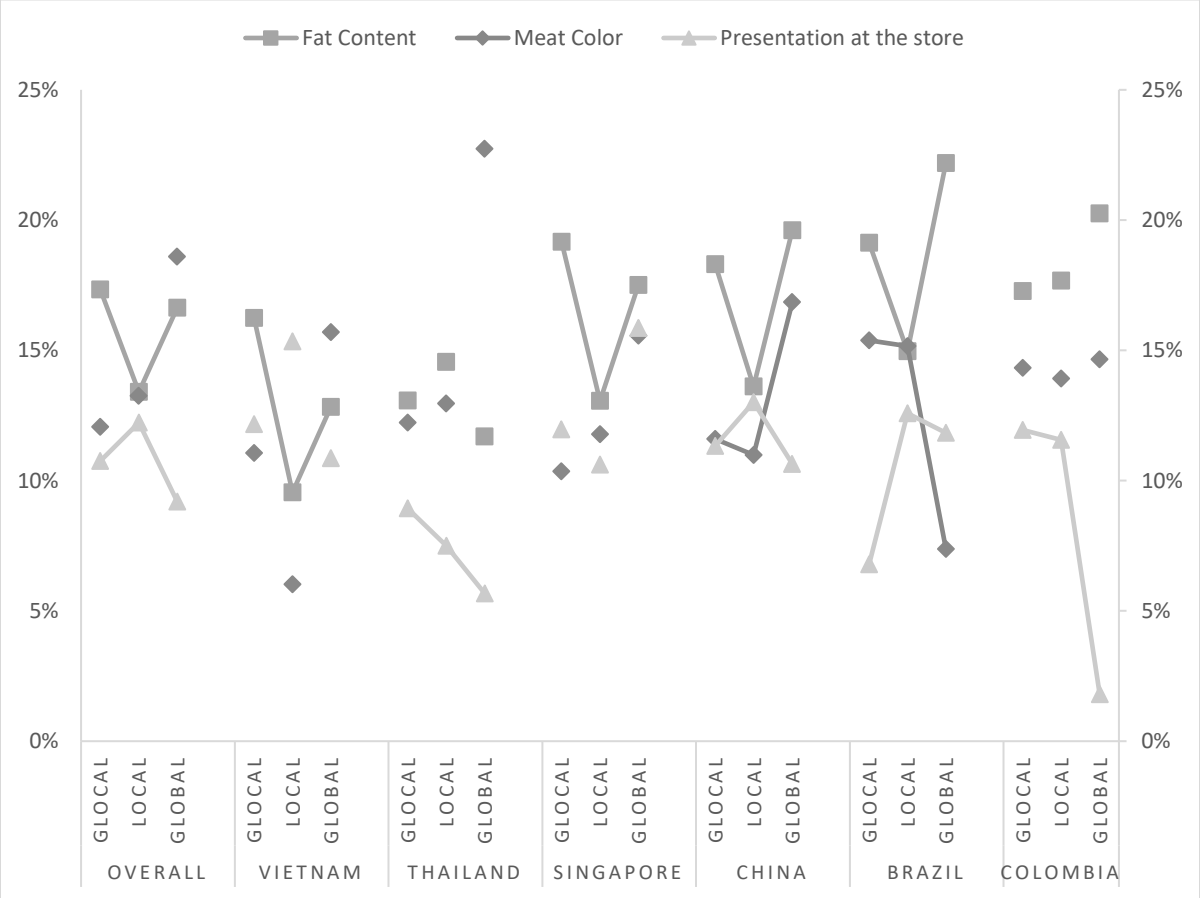
The same analysis was conducted regarding the perception of domestically produced pork. As expected, there was a statistically significant difference between Glocal, Local, and Global groups in this case as well (F (2,5530) = 20.40, $p < .001$). A Tukey posthoc test revealed that respondents with Local orientation evaluated domestically produced pork products statistically significantly higher than respondents with Glocal orientation ($p < .001$), and with Global orientation ($p < .001$). Respondents with Glocal orientation also showed a significantly higher evaluation of imported pork products than respondents with Global orientation ($p < .001$).

These results support the findings described above. Consumers with Local orientation tend to evaluate domestically produced pork higher than consumers with Glocal and Global orientation, respectively. And consumers with Global orientation tend to evaluate imported pork higher than consumers with Glocal and Local orientation.

Exploring Preferences of Glocal, Global, and Local Consumers to Other Product Attributes

The relative importance levels are calculated for all the attributes from the DCE for the overall model, as shown in Table 1. The results from the total sample reveal that Meat Color did not show a significant difference across the segments. However, exploring other intrinsic characteristics reveal that Glocal and Global segments appear to place higher importance on Fat Content (17.34% and 16.64% respectively), while the Local segment has the highest importance score in In-Store Appearance (12.23%) attribute. Both aggregated, and by-country, the relative importance of intrinsic attributes for the aggregated sample and by individual country, shown in Figure 3.

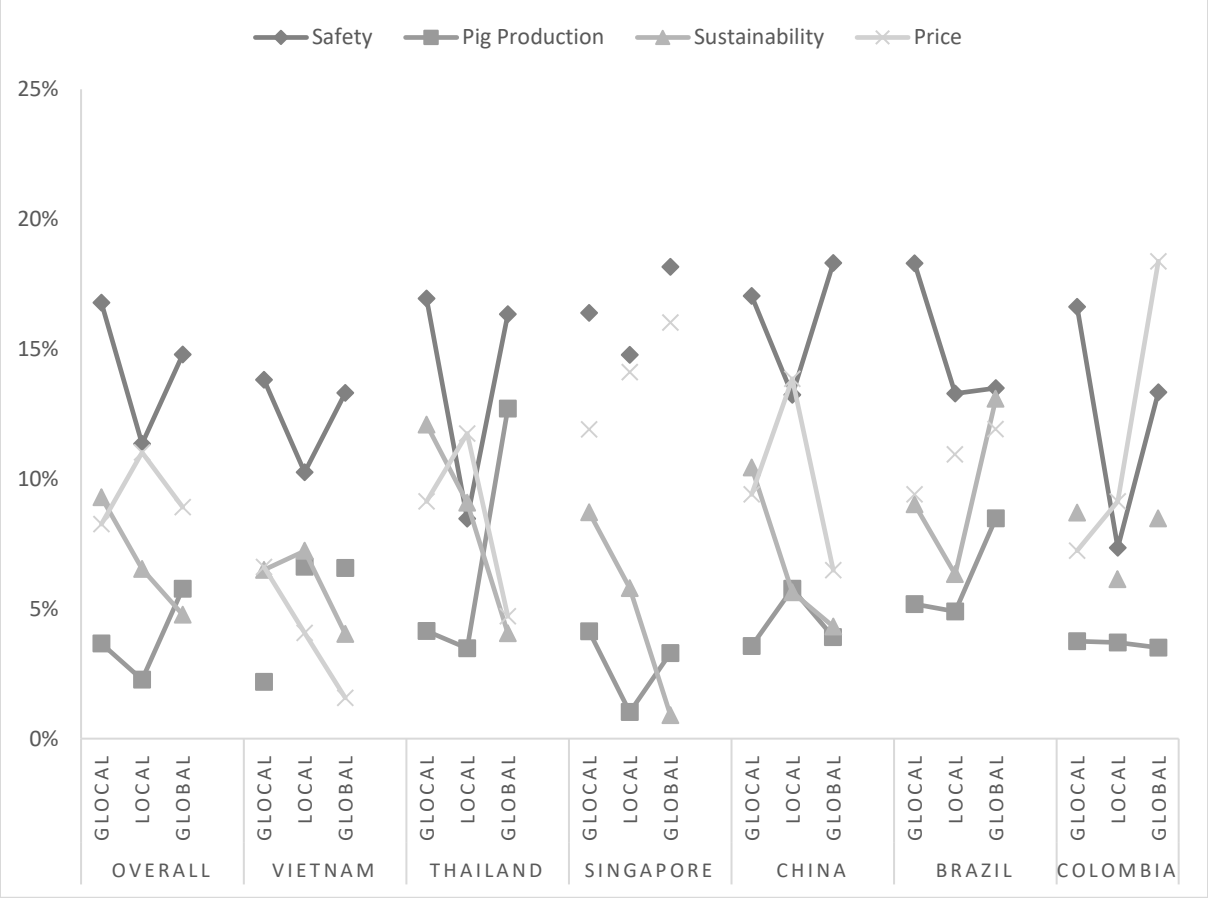
Figure 3. The relative importance of intrinsic attributes by segments and individual countries from DCE



Note. Dots with connecting lines indicate attributes with significant differences between the segments (*p (Wald=)* < *.05*)

The relative importance levels suggest that segments of consumers with Glocal orientation place higher importance on the Sustainability (9.30%) attribute than consumers with Local (6.54%) and Global (4.77%) orientations. Figure 4 shows the relative importance of extrinsic attributes by individual countries.

Figure 4. The relative importance of Extrinsic attributes by segments and individual countries from DCE



Note. Dots with connecting lines indicate attributes with significant differences between the segments (*p (Wald=) < .05*)

Global segment was the highest in preference (5.77%) for the Pig Production attribute among the three segments, with the highest probability of choosing the level "Large scale farm with high-level animal welfare" (.35), compared to "Large scale industrial farm" (.34) and "Small family farm" (.31), within the segment as shown in Figure 1. Safety attribute was the most important

(16.79%) for the Glocal segment, closely followed by Global (14.79%), and Local as the least sensitive (11.35%) to Safety attribute. Regarding price sensitivity, Local was the most price-sensitive segment (11.08%), followed by Global (8.91%) and Glocal (8.26%) segments (see Figure 4).

Discussion

Companies use different strategies to communicate their products, services, and business practices on a daily basis. However, multinational global and domestic local companies often do not have clear guidance on how to interpret the effect of ongoing globalization on consumer needs and desires, and how to adapt their business practices accordingly (Steenkamp and Jong 2010). While prior research shows that globalization can impact consumer cultural self-identities, product preferences, and brand choices (Arnett 2002; Alden et al. 2006; Strizhakova et al. 2008, 2012; Yang et al. 2011; Zhang and Khare 2009), it is unclear how it can alter consumer response to business practices beyond their reactions to global/local brand positioning.

This work concentrates on the role of consumption orientation in consumer food preferences and the decision-making process when selecting food. Specifically, we investigate the impact that consumption orientation has on consumer response to a product's country-of-origin, together with other extrinsic and intrinsic attributes of fresh pork products in emerging markets. This work explores how companies can more effectively communicate their food product attributes in a globalized market to consumers with different consumption orientations. Therefore, the overall goal of this research is to address how global, local, and glocal consumption orientation impacts the use of product attributes in the decision-making process for consumers in emerging markets.

Theoretical Implications

This work provides further insights and addresses research gaps in the globalization, culture, and consumer decision-making literature. First, we contribute to the globalization and culture streams of literature by showing that the glocal consumer segment is the result of a complex co-development and co-existence of global and local cultural discourse.

As a result of globalization, individuals around the world have the opportunity to make individual choices regarding the values they want to adopt and the identities they want to embrace (Arnett 2002). From the perspective of a consumer, globalization is more of a "state of mind" (Friesen 2003: p. 22), where consumers can take various stances from pro- to anti-globalization (Dimofte et al. 2008), resulting in consumer segments that are more globally- or more locally-oriented, (Strizhakova et al. 2012; Strizhakova and Coulter 2013). However, consumers in many cultures start to "glocalize," absorbing global ideas and bonding them with local traditions and customs (Cleveland et al. 2011). The international marketing literature often treats Glocal consumers as consumers whose needs and desires fall somewhere in between global and local orientations (Zhang and Khare 2009). While this may be true to a certain extent, one should consider Glocal consumers to have not just as a blend of preferences that are in between Global and Local, but as a separate group of consumers with different mindsets, own preferences, and self-views, even though related to the other two segments. For example, Glocal consumers place the highest importance on the Sustainability attribute among the three studied consumer segments. These consumers combine Local's environmental fundamentalism and Global's inclusivity of preferences and choices creating a segment most concerned with companies' efforts to reduce the impact on the environment. In our study, consumers with Glocal orientation are the largest segment of consumers. This supports views of the third school of globalization theorists that believe that

phenomena of "globalizing the local" and "localizing the global" are happening at the same time (Appadurai 1990; Robertson 1992).

Second, this work contributes to the literature by applying the notion of consumption orientation to the distinct domains of food-related consumer behavior. Previous research has mostly focused on the effect of consumption orientation on consumer preferences for globally- (vs. locally-) positioned ads (Nijssen and Douglas 2008, 2011; Westjohn et al. 2016) and global (vs. local) brands (Alden et al. 2006; Riefler 2012; Steenkamp and Jong 2010). Whereas prior research has started to tap into the role of global orientation in consumer attitudes toward general brand messaging (Grinstein and Riefler 2015; Ng and Batra 2017; Strizhakova and Coulter 2019; Westjohn et al. 2016), this work focuses on the role of consumption orientation in the effectiveness of particular food product attributes available for decision-making at the point-of-purchase.

Further, we contribute to country-of-origin and food marketing research by investigating the impact that consumption orientation has on consumer preference for the origin attribute of fresh pork. We show that consumption orientation is an important variable affecting consumer preferences for food products. Food significantly varies across the globe and has strong ties with ethnic traditions almost everywhere (Cleveland et al. 2015). Both local and global cultures play an important role when it comes to consumer food preferences and choice; yet, there is only limited research investigating the effect that globalization has on consumer food preferences (Balabanis and Diamantopoulos 2016; Cleveland et al. 2015).

Consumer preferences for food products are increasingly more affected by the emergent consumer ideology of locavorism, i.e., a strong dominant consumer preference for local food products (Reich et al. 2018). Locavorism can be triggered by the distrust of the global long-distance food system and anti-corporatism (Thompson and Arsel 2004). However, consumers in

emerging markets can associate global food production with higher safety and quality standards than that of their local counterparts. We argue that there is no uniform consumer preference for food product origin in emerging markets, but rather a combination of various consumer profiles whose preferences depend on their consumption orientation.

Our empirical investigation, performed with DCE, reveals that consumption orientation has a significant influence on consumer preferences for a product's country-of-origin. These results validate Westjohn et al.'s (2012) findings that consumers prefer a global or local positioning of products based on their global and local identity. It also offers support to self-verification theory (Swann 1983), with consumers favoring a product's origin in a way that is congruent with their self-view, and which corresponds to their glocal, local, or global orientation. Local consumers have a significantly stronger preference for local product origin than for non-domestic products, which is consistent with their self-view of "feeling local" and "being the locavore." On the other hand, consumers with global orientation seem to be much more open to different domestic and non-domestic product origins and are willing to choose local options as well as foreign ones, which is consistent with their self-concept of being global and world-minded.

Regarding the country-specific results of the impact that consumption orientation has on origin importance, there is little to no variation between tested countries with emerging markets. The only exception is Vietnam, where one can see the highest importance of the origin attribute in general with the most top preference for domestic and the lowest preference for foreign origins for all three consumption orientations among all studied countries. This could be explained by the fact that Vietnamese consumers, unlike consumers in other countries in this study, are the least familiar with imported foods and foreign and/or global brands, at least in the food category. Finally, as the majority of applied research dealing with consumption orientation is focused on consumers in

developed countries, we contribute to the globalization literature by expanding the scope to consumers in countries with emerging markets.

Managerial Implications

The overall goal of this work is to provide insights into how multinational global and domestic local companies can interpret the results of ongoing globalization and adapt their business practices to different consumption orientations in a globalized market. There were three types of consumption orientations discussed in this paper: glocal, local, and global. The main result of this research is that consumption orientation plays an important role in understanding consumer response to extrinsic and intrinsic food product attributes at the point-of-purchase. Therefore, when developing a product positioning for international markets, global managers should take into account the effect of globalization that drives consumer choices. They can, thus, segment consumers to create more effective strategies for both new and existing products.

General Implications. Our exploration of preferences for extrinsic and intrinsic attributes among consumers with various consumption orientations in emerging markets has led us to a better understanding of their preference profiles when buying food products, here fresh pork.

Product origin turned out to be the essential attribute of fresh pork for consumers in this study. For all three segments of consumers, i.e., consumers with glocal, local, and global orientation, products with a local origin had a higher probability of being chosen when presented next to a non-domestic product. Except for origin, consumers in emerging markets appear to base their choice more on intrinsic rather than extrinsic attributes. Meat color, the degree of visibility of fat, and in-store appearance are among the most important attributes that drive consumer choice of pork in all three segments of consumers. Trust in intrinsic attributes is explained by the cultural characteristics and long-lived traditions of consumers in emerging markets. These consumers, especially in Asian markets, are used to purchasing fresh meat in open markets that lack branding, safety, and quality

claims, guiding their choice by the look of the product, and trust in the seller. Another noteworthy attribute across all segments was food safety, which can also be easily explained by widespread food quality scandals and consumers' lack of trust in the food chain. Consequently, preference profiles for the three segments can be characterized as follows.

Glocal consumers rely on a wide range of extrinsic and intrinsic cues when purchasing a product, except the production scale, and animal welfare. Origin, fat content, and safety dominate in relative importance, closely followed by meat color, in-store appearance, sustainability, and price.

Local consumers use local origin as the single primary cue in purchasing decisions. They take intrinsic cues, the safety of the product, and the price in consideration, but place little importance on sustainability, the scale of production, and animal welfare.

Global consumers place equally high importance on origin, meat color, fat content, and safety, followed by the in-store appearance, and price. However, global consumers showed to be the least concerned about the domestic origin amongst the three segments.

Positioning strategies. Local companies with domestic production can take advantage of the consumer segment with local consumption orientation, whose choice is driven predominantly by the product origin and the intrinsic attributes of the products. Local companies have an advantage in combining these product characteristics since domestic product origin can go hand in hand with most preferred visual characteristics of meat, i.e., color or appearance of pork that has just been cut by a butcher. Local companies are closer both to consumers and to the upstream part of the value chain, which enables them to bring about a better match between intrinsic product attributes and consumer preferences. Moreover, local firms have access to local channels of distribution,

including those outside mainstream retailing channels, which may be better in promoting intrinsic product attributes over mainstream supermarkets, where most products are pre-packed.

Consumers with global orientation are the primary targets of global companies. Although the origin is still the most crucial attribute, consumers with global consumption orientation pay the least attention to the origin attribute among the three segments of consumers. Global consumers seem to convey greater open-mindedness and are willing to consume products from both local and global origins. However, these consumers are most likely to choose a product based on the intrinsic characteristics of the product like meat color and degree of visible fat. This could be a challenge for exporting companies that sell meat products of foreign origin when the intrinsic characteristics are more difficult to adapt to local preferences, as these companies usually serve multiple markets based on the same input stream of raw materials. In this case, a global manager could place more emphasis on extrinsic attributes, most notably on the safety of their offerings. For example, they can use front-of-package claims like "government inspected and controlled," "guaranteed disease-free," and "highest quality guaranteed." Additional examples of displaying food safety through package claims could be "organic," "raised without the use of antibiotics," and "no additives, supplements, and artificial ingredients."

Consumers with a glocal consumption orientation could potentially be an even more attractive target group for global companies that are willing to include a mix of exported products, brands with foreign origins, and locally-produced items in their product portfolios. These consumers successfully combine globally recognized values with their local way of life and express a desire for products with both local and global origins. Glocalized consumers rely on a wide range of product characteristics when purchasing pork products, including intrinsic attributes along with

food safety and environmental friendliness of the production method, and sustainability focus of the company in general.

Online and social media marketing. Online selling and social media marketing are rapidly developing in countries with emerging markets. China is among the leading nations worldwide both in terms of volume of online sales of fresh groceries and of growth rates, but also in Thailand and Vietnam growth is considerable (Harris 2017). Online selling and social media provide unique opportunities when addressing consumer target groups based on their consumption orientation and, ensuingly, their preference for specific intrinsic and extrinsic product attributes.

Online shopping prevents physical inspection of products before purchase, but in turn, provides extended possibilities for communicating extrinsic product attributes beyond the constraints of the product label. Furthermore, online communication is not hampered by physical distances (Whitelock, Cadogan, Okazaki, and Taylor 2013), which makes it an obvious choice for global companies trying to address global consumers by emphasizing extrinsic attributes like safety and sustainability (Jin, Li, and Li 2017). At the same time, social media allows community building across national boundaries, and global companies can support this by linking it to the process of building a global brand image.

Local companies addressing consumers with a local consumption orientation can use online selling as a low-cost alternative to traditional retailing. Additionally, they can combine online selling with social media for local community building for merging online bonding with physical meeting places and for directing consumers to sales locations that emphasize local products (Elghannam, Escribano, and Mesias 2017).

Limitations and Future Research

The paper attempts to make a contribution to the relationship that consumption orientation has with consumer preferences for product origin and other product attributes. However, it is based on one product category only. This research could be replicated not only for different food categories, but also for other fast-moving consumer goods.

Similar research needs to be performed in other parts of the world. For example, it would be interesting to see the difference between Asian, European, and North American consumers, including discussion of individualistic versus collectivistic societies. Further research is needed to study glocal consumption orientation and Glocal consumers as these have often been neglected in behavioral studies that focus on global versus local identities and consumption orientations.

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Chapter Three
- Article 2 -

The Role of Global Consumer Identity in Consumer Response to Global Brands' Sustainability Messages

Ekaterina Salnikova

Department of Management, Aarhus University, Fuglesangs Allé 4, 8210 Aarhus, Denmark

Yuliya Strizhakova

Rutgers University – Camden, 227 Penn Street, Camden, NJ 08102, USA

The Role of Global Consumer Identity in Consumer Response to Global Brands' Sustainability Messages

When corporate sustainability commitments become a norm rather than a differentiating proposition, brands turn their attention to engaging consumers with sustainability. Across 5 studies (1 textual analysis, 3 online, and 1 lab experiments), our goals are to a) evaluate current messaging about sustainability and general corporate social responsibility (CSR) by top 100 global brands (Interbrand 2018) and b) assess effectiveness of messaging frames in increasing consumer positive reactions, both in relation to more general sustainability messages and messages about sustainability initiatives. Top 100 global brands do not take advantage of using specific regulatory focus and spatial distance framing when communicating about sustainability, whereas they do opt for promotion focus in their CSR statements and temporally proximal sustainability/CSR frames. Our experiments further demonstrate that even though there are no differences in consumer attitudinal and intention responses to general sustainability statements, differences exist in consumer engagement with sustainability initiatives. Specifically, consumers with global identity are more engaged with sustainability initiatives when promotion-(vs. prevention-) focused frames are used in combination with more distant (vs. proximal) spatial and social construals, as well as more proximal (vs. distant) temporal construals. These frames further impact sustainable behavior and choice.

Keywords: consumer identity, consumer engagement, sustainability, construal, regulatory focus

With rising consumer environmental concerns and growing interest in sustainable consumption (Kotler 2011; White, Habib, and Hardisty 2019), many global brands are adapting their business strategy by making sustainability a distinct element of their business and corporate social responsibility (CSR) strategies. Most global brands message about their sustainability in at least some of their communication elements, such as corporate vision, commitments, product portfolio, or achievements. For example, L'Oreal sets a number of sustainability commitments in its Sharing Beauty With All campaign (e.g., "By 2020, L'Oréal will have reduced the environmental footprint of its plants and distribution centres by 60%, from a 2005 baseline") and states its sustainability achievements in the form of progress reports and articles[1].

Some global brands, however, have started to take their sustainability commitment a step further and develop various sustainability initiatives, which we define as firm's activities aimed at involving and engaging consumers with corporate sustainability-related functions. Sustainability initiatives are rooted in engagement marketing (Hamerling et al. 2017; Hollebeek, Strivastava, and Chen 2016; Schmitt, Skiera, and Van den Bulte 2011) and can both build a new and strengthen the existing psychological connection between the consumer and the brand (Harmeling et al. 2017), enhance revenue, and contribute to societal welfare (Jahdi 2014). Consumer engagement is identified as a highly interactive customer experience with product, brand, community, or service (Brodie et al. 2011; Hollebeek, Glynn, and Brodie 2014). Initiatives can engage consumers through either task-based activities (e.g., writing a review or sharing/liking a sustainable product on social media) or experiential campaigns (e.g., cause-related campaigns). For example, as part of their global Save Water initiative, Colgate organized #EveryDropCounts initiative that encourages consumers to pledge to save water by sharing the initiative hashtag on social media. Additionally,

[1] https://www.loreal.com/loreal-sharing-beauty-with-all

in 2018, Colgate sponsored #RunningDry initiative devoted to raising awareness of the global water crisis by donating consumers' running miles to the cause.

The choice of appropriate messaging frames to communicate about sustainability and to engage consumers in sustainability initiatives plays a major role in bringing corporate sustainability commitment to a success; however, very limited academic research has investigated this topic (Jahdi and Acikdilli 2009; Jahdi 2009). In our work, we focus on two sides of this issue and ask: a) how do global brands message about their sustainability? and b) what messaging frames are effective in increasing consumer positive reactions, both concerning more general sustainability messages and messages about sustainability initiatives? We further evaluate consumer reactions to sustainability messaging by both traditional measures of self-reported brand attitudes/purchase intentions and diverse engagement measures (i.e., voluntary donations, product reviews, sustainable behaviors, and choices).

In addressing our research questions, we incorporate previous research in psychology and environmental decision-making demonstrating that regulatory focus (promotion focus – goal of achieving gain and approaching pleasure, prevention focus – goal of avoiding pain and focusing on security and protection; Higgins 1998) and level of psychological distance, or construal (distant versus proximal spatial, temporal, and social distances; Liberman, Trope, and Wakslak 2007; Trope and Liberman 2003, 2010, 2011) impact sustainability concerns in general and the effectiveness of sustainability messages in particular (Bullard and Manchada 2012; Lee and Oh 2014). Current application of regulatory and construal frames in corporate sustainability communication and effectiveness of these frames (i.e., promotion vs. prevention frames and proximal vs. distant construal levels) has not been established consistently.

We argue that inconsistent findings can be attributed to an additional, previously overlooked factor - global consumer identity - that is likely to influence the effectiveness of sustainability messaging. Environmental concerns are global concerns and consumers with a stronger (vs. weaker) global consumer identity appear to express stronger environmentalism, to be more concerned with sustainability, and to protect the sustainability of higher social units (e.g., Earth, world) (Brieger 2018; Steenkamp and de Jong 2010; Strizhakova and Coulter 2013). Stronger (vs. weaker) global consumer identity has also been found to impact the effects of regulatory focus (Ng and Batra 2017; Westjohn et al. 2016) and construal frames (Grinstein and Riefler 2015; Strizhakova and Coulter 2019) in other domains. Notwithstanding these preliminary findings, research calls have been made to examine the relationship between global consumer identity and various elements of sustainability messaging. For example, Ng and Batra (2017) call for more work in assessing relationships between global consumer identity, abstract processing, and consumer likelihood of *engaging* in sustainable behavior. Strizhakova and Coulter (2019) highlight the need for investigating the effects of spatial, temporal, and social construals in relation to sustainability. Gürhan-Canli, Sarial-Abi, and Hayran (2018) call for more research examining sustainability at the intersection of culture, brands, and consumers in a globalized world.

In light of these calls and our two research questions, we, first, conduct textual analyses of sustainability and other CSR statements on the websites of the top 100 global brands (Interbrand 2018) to identify prevailing messaging frames. We further compare these messaging frames across more vs. less sustainable global brands. Next, we conduct three experiments (two online and one lab) to evaluate consumer responses to sustainability messages and initiatives from the integrative perspective of cultural identity, regulatory focus, and construal level theories.

Our research makes several important contributions to globalization, consumer engagement, and sustainability research. First, even though prior research has established the prevalence of promotion focus framing in the general CSR statements and CEO/leadership statements (Berson et al. 2001; Gamache et al. 2015; Patel and Cooper 2013; Lunenberg, Gosselt, and De Jong 2016), such analyses have not been applied to sustainability messaging. We demonstrate that global brands are much less certain about their messaging frames in sustainability vs. more general CSR communication, even though global brands that are more (vs. less) sustainable appear to have a more consistent messaging alignment across their sustainability and general CSR communication. Second, we contribute to consumer engagement and sustainability research by demonstrating the need to further differentiate between more general sustainability messaging versus messaging about sustainability initiatives. As corporate sustainability statements become a norm (we find 90% of global brands do make such statements), messaging frames do not appear to matter to consumer reactions to more general statements, but they do matter to consumer engagement with sustainability initiatives. Relatedly, we emphasize the importance of considering various forms of consumer engagement with sustainability initiatives (e.g., donations, product reviews, and ratings, sign-up for a charitable walk) and subsequent enactment of sustainable behaviors (e.g., recycling, choice of gift cards to a sustainable business) rather than focusing on more traditional attitudinal and intention responses.

Finally, we find that global consumer identity plays and important role in evaluating consumer responses to sustainability messaging and in enacting subsequent sustainable behavior/choices (consistent with conceptual propositions by White, Habib, and Hardisty 2019). Whereas prior research has started to tap into the role of consumer cultural identity in consumer attitudes toward messages constructed with varying regulatory focus (Ng and Batra 2017; Westjohn et al. 2016) or

construal levels (Grinstein and Riefler 2015; Strizhakova and Coulter 2019), we focus on the role of global consumer identity in the effectiveness of message frames to elicit both traditional attitudinal responses to and consumer engagement with sustainability initiatives. We find the importance of only strong global (but not local) consumer identity and promotion focus messaging in consumer engagement with sustainability initiatives. Additionally, we support construal level theory proposition (Trope, Liberman, and Wakslak 2007) that different domains of construals (i.e., spatial, temporal, and social) do not always act in unison. Previous research has focused on a generalized strategy of reducing (Spence, Poortinga, and Pidgeon 2012; Weber 2006; Jones, Hine, and Marks 2017) or increasing (Fujita et al. 2006; Spence and Pidgeon 2010) psychological distance in sustainability communication. Our research indicates that there is no single effective strategy of proximizing or distancing environmental threats; instead, the global consumer identity of the message receiver along with the regulatory focus frame of the message plays an important role in how effective distant/proximal message frames are.

Theoretical Foundation

As globalization evolves, many multinational corporations adapt their business strategy to address the rising consumer concerns about its adverse environmental effects and incorporate sustainability into their practice (Bullard and Manchanda 2013; Chang, Zhang, and Xie 2015; Grienstein and Riefler 2015). One way of messaging about sustainable commitment is by passively informing consumers about corporate sustainability vision, commitment, and practice through the central business website and other corporate media outlets. However, even back in 2002, 70% of websites of the largest 200 global corporations from *Fortune*'s Global 500 list contained some reference to sustainability policies and practices (Jose and Lee 2007), with many firms differentiating their sustainability messaging from other types of CSR.

The subsequent emergence of social media and other types of interactive messaging tools allowed firms to not only inform consumers about corporate sustainability but also engage consumers through various sustainability initiatives. Consumer engagement, i.e., a highly interactive customer experience with the focal object (e.g., product, brand, community, or service; Brodie et al. 2011; Hollebeek, Glynn, and Brodie 2014), has received recent research attention as a vital metric in strategic brand decisions (Harmeling et al. 2017; Hollebeek, Srivastava, and Chen 2016; Panzari and Kumar 2017; Schmitt, Skiera, and Van den Bulte 2011). Consumer engagement is typically an outcome of engagement marketing, i.e., "a firm's deliberate effort to motivate, empower, and measure a customer's voluntary contribution to the firm's marketing functions beyond the core economic transaction" (Harmeling et al. 2017, p. 317). Active engagement (invitation to participate in the action) affects the degree of perceived involvement in a message, which leads to higher effectiveness of the message (Wang 2006).

Prior research has focused on the theoretical conceptualization of engagement (Harmeling et al. 2017; van Doorn et al. 2010), operationalizing and measuring engagement in relation to brands, online platforms, brand communities, mobile technologies and social media (Baldus, Voorhees, and Calantone 2015; Brodie et al. 2013; Dessart, Veloutsou, and Morgan-Thomas 2016), as well as understanding consumer engagement in cross-cultural settings (Gupta, Pansari, and Kumar 2018). However, consumer engagement has not been examined in the context of sustainability. Engagement with sustainable focal objects (e.g., messages about brand's sustainable efforts or sustainability initiatives) may be more complex and challenging than, for example, altering consumer brand preferences, because of the more abstract nature of sustainability, as well as a broader range of barriers, such as time, financial costs, convenience, and other psychological factors (McKenzie-Mohr 2000). Therefore, the question remains how global brands can frame

their sustainability messages to a) solicit more positive attitudes/behavioral intentions and b) engage consumers with their sustainability initiatives more effectively.

Global Consumer Identity and Sustainability Messaging

Globalization impacts consumer cultural identities and subsequent product/brand choices (Alden, Steenkamp, and Batra 2006; Strizhakova, Coulter, and Price 2008, 2012). Specifically, globalization has given rise to a globally-oriented consumer segment – the primary target of multinationals - who are more likely to identify with people around the world (vs. in their own geographically proximal community) and with the global consumer culture (Alden, Steenkamp, and Batra 2006; Zhang and Khare 2009). In contrast, locally-oriented consumers are believed to maintain a local traditional culture, identify with their local community, and reject influences that are considered global (Ger and Belk 1996; Strizhakova and Coulter 2013).

Past sustainability research and past globalization research diverge in their interpretations of relationships between consumer cultural identity and sustainability. Explicitly, sustainability research often ties environmentally-friendly discourse with local consumer identity due to "local environmental fundamentalism" (Tomlinson 1999), and "locavorism" (Feldman and Hamm 2015; Reich, Bech, and Price 2018; Stanton, Wiley, and Wirth 2012). Further, sustainability is often seen as clashing with globalization because of globalization links with materialism, overconsumption, and depletion of resources (Brown and Kasser 2005; Good 2007). In contrast, globalization research finds that globally-oriented consumers are more innovative, culturally open to experience, care more about the environment as a unifying global cause and the world at large (Grinstein and Riefler 2015; Russell and Russell 2010; Westjohn, Singh, and Magnusson 2012). This line of research also finds that globally-oriented consumers have a stronger connection and desire to

engage in environmentally-responsible behavior (Nijssen and Douglas 2008; Steenkamp and de Jong 2010; Strizhakova and Coulter 2013).

We argue that sustainability and globalization streams of research may not necessarily be in conflict with each other, but rather consumer cultural identity may differentially influence the effectiveness of sustainability messages. Specifically, the effectiveness of sustainability messages may vary between globally- and locally-oriented consumers and is more successful when message frames are congruent with consumer cultural identity. Given that recent globalization research finds strong links between global consumer identity and sustainability, we mainly focus on global consumer identity in this research and aim to assess the effectiveness of sustainability message frames in relation to varying a) regulatory focus and b) construal levels. We proceed to discuss each of these frames in turn.

Regulatory Focus

Regulatory focus theory (Higgins 1998) suggests that individuals vary in how they view their goals. The theory distinguishes two hedonic principles (promotion focus - approaching pleasure, and prevention focus - avoiding pain) that consumers adopt when pursuing these goals. Some goals are more compatible with promotion, whereas others are more compatible with prevention self-regulatory strategy, with the higher compatibility of goals and self-regulatory strategy resulting in a better regulatory fit (Freitas and Higgins 2002; Higgins 2000), and the experience of "feeling right" (Cesario, Grant, and Higgins 2004).

Firms often use regulatory focus to build and promote their general CSR and sustainability profile. General CSR statements appear to have an overwhelmingly optimistic promotion frame (Lunenberg, Gosselt, and De Jong 2016); however, prior research has not evaluated the regulatory focus framing of sustainability messages. For example, Marks & Spencer refers to "reducing

environmental impact", "preserving natural resources", "avoiding waste" (i.e., prevention-oriented messages), as well as "increasing the proportion of the recycled products", "driving continuing improvement" (i.e., promotion-oriented messages) (Marks & Spencer plan A sustainability campaign[2]). Therefore, in this research, we, first, investigate how global brands currently message about their sustainability, and, particularly, what regulatory frames they are using to construct their sustainability messages.

Sustainability research demonstrates that regulatory fit can be used to encourage charitable, pro-social, and pro-environmental behavior (Bullard and Manchanda 2013; Newman et al. 2012; Park and Ryu 2018); yet, the findings are inconsistent. Some document that prevention- (vs. promotion-) messages are more effective in motivating sustainable behavior (Bullard and Manchanda 2013), and loss (vs. gain) frames associated with prevention focus are more likely to motivate individuals to engage in responsible behavior (Davis 1995). Others find that gain and motivational frames associated with promotional focus are more effective than loss and sacrifice frames associated with prevention focus in increasing positive attitudes toward climate change mitigation (Gifford and Comeau 2011; Spence and Pidgeon 2010) and in motivating charitable behavior (Park and Ryu 2018). Recently, global consumer identity has been used as a moderator of regulatory focus effectiveness in a broader messaging context. For example, Westjohn et al. (2016) demonstrate that promotion (prevention) focus is positively (negatively) related to global consumer culture. Ng and Batra (2017) further support that participants with stronger global consumer identity process information on a more abstract (concrete) level using item-grouping task, and have more positive attitudes toward a promotion (prevention) product advertisement.

[2] https://corporate.marksandspencer.com/documents/plan-a/plan-a-2025-commitments.pdf

Extending these findings to sustainability messaging, we argue that consumer global consumer identity is an important factor in understanding the effectiveness of promotion (vs. prevention) sustainability messages. We hypothesize:

H1a: Consumers with a stronger global consumer identity will have a more positive attitudinal/purchase intention response to promotion (vs. prevention) sustainability messages.

H1b: Consumers with a stronger global consumer identity will be more engaged with sustainability initiatives that have promotion (vs. prevention) messages.

Construal Levels of Psychological Distance

Construal level theory (Liberman and Trope 2008; Trope and Liberman 2003, 2010, 2011) proposes that individuals construe events at a higher level (more general, indirectly experienced, abstract) construal or lower level (more specific, directly experienced, concrete) construal. These construal levels are referred to as psychological distance from the reference point of "self, here and now… in time, space, social distance, and hypothetically" (Trope and Liberman 2010). The message is interpreted based on the psychological distance of the event/object to its receiver. Even though construal levels and psychological distance are not the same, there is an association between them that can be activated automatically (Bar-Anan, Liberman, and Trope 2006).

Sustainability-related messages are often composed with reference to the constructs of place (proximal near vs. distant global), time (proximal short vs. distant long-term) and the referent group of a beneficiary (proximal ingroup vs. distant outgroup). Consumer response is based on individual consumer interpretation of associated content of sustainability messages. Thus far, the review of studies on construal levels of psychological distance and sustainability reveals inconsistency whether to decrease or increase the distance to motivate pro-environmental behavior (McDonald, Chai, and Newell 2015). For example, Lee and Oh (2014) state that consumer

processing fluency will be enhanced when a high- (low-) level construal is used with the promotion- (prevention-) sustainability message. In contrast, White, Habib, and Hardisty (2019) propose that the prevention message combined with concrete information is particularly useful in engaging consumers in sustainable behavior.

Some research on pro-environmental choices suggests that a higher-level construal and distancing of dimensions (spatial, temporal, and social) should promote more significant consideration of environmental issues and, consequently, increase the likelihood of pro-environmental choices (Fujita et al. 2006). When used in relation to climate change communication, increasing (vs. decreasing) psychological distance increases positive attitudes towards climate change mitigation and perceptions of the severity of climate change (Spence and Pidgeon 2010). Others found that reducing the psychological distance, primarily temporal (Jones, Hine, and Marks 2017), can increase the effectiveness of sustainability messages and of promoting sustainable behavior (Spence, Poortinga, and Pidgeon 2012), by evoking the intuitive feeling about the risk of global warming, and simulating its concrete consequences (Weber 2006). Conceptually, however, Trope, Liberman, and Wakslak (2007) argue that not all construals may act in unison and their effectiveness may vary depending on the context of the study. We proceed to discuss and make hypotheses in relation to each construal.

Spatial distance construal. Popularized "Think Global, Act Local" slogans inspire people to support the global action of sustainability, yet implementing changes of personal behavior at a local level. However, research by environmentalists, psychologists, and other social scientists does not converge on the best spatial strategy to tackle environmental issues.

Some argue that sustainable individual behavior can be encouraged when the effect is discussed at a local-concrete level (Lorenzoni, Nicholson-Cole, and Whitmarsh 2007; Weber

2006; White, Habib, and Hardisty 2019). Others demonstrate that environmental threats are perceived more seriously at a global level and/or geographically distant locations (Spence, Poortinga, and Pidgeon 2012; Spence and Pidgeon 2010; Uzzel 2000), and proximizing environmental threats does not always mean stronger mitigation of damaging environmental effects (Hendersen et al. 2006).

Uzzel (2000) suggests that the interaction between the local and global at the level of identity might be meaningful when considering the interaction of the global and local environmental levels. Consistent with this proposition, Russell and Russell (2010) find that local consumer identity is associated with greater effectiveness of proximally-framed cause-related campaigns, whereas global consumer identity mitigates this effect. Grinstein and Riefler (2015) find that cosmopolitan consumers react more favorably to globally-framed CRM messages, and Magnusson, Westjohn, and Zdravkovic (2015) find that more (vs. less) globally-oriented consumers are more positive about a foreign firm's CSR messages. Hence, global consumer identity together with regulatory focus influences the effectiveness of spatial construal of sustainability messages. We predict:

H2a: Consumers with a stronger global consumer identity will have a more positive attitudinal/purchase intention response to promotion-focused sustainability messages framed around more distant (vs. proximal) spatial construal.

H2b: Consumers with a stronger global consumer identity will be more engaged with messages about promotion-focused sustainability initiatives that have more distant (vs. proximal) spatial construal in their message.

Temporal distance construal. Sustainability discourse discusses "future risks", "future generations", "future of the Planet", temporally distancing environmental threats and climate change, phenomena that are already fundamentally characterized by uncertainty and abstract

nature (Jones, Hine, Marks 2017; Poortigna et al. 2011; Spence, Poortinga, and Pidgeon 2012). Some research supports that individuals with independent self-view associated with an abstract representation of the future are more persuaded by distant-future than proximal-future appeals (Spassova and Lee 2013). Reczek, Trudel, and White (2018) demonstrate that abstract (vs. concrete) construal level is associated with more positive reactions to eco-friendly products driven by the compatibility of the abstract construal with a more distant future.

However, several arguments are supporting an alternative perspective when dealing with consumer engagement (i.e., action) with sustainability initiatives. First, sustainability initiatives encourage immediate action through engagement. Indeed, White, Habib, and Hardisty (2019) propose that focusing on how sustainable behaviors can create a positive affective response in the present (rather the distant future) can lead to higher engagement in sustainable behaviors. In general, given the difficulty of personally relating to the distant time frame (Swim et al. 2009) and the existence of the "present bias" phenomenon (i.e., one's actions tend to be dominated by short-term needs, motives, and emotions), mitigation of damaging effects of something as distant as climate change might be confusing. Consumers are asked to provide immediate action to reduce the impact of the past unsustainable lifestyle with the promise of gaining the reward in the future rather than now (Weber 2006). Lowe et al. (2006), for example, find that temporally distant communication along with uncertain consequences of environmental damage can be perceived as less dangerous leading to consumer inaction.

Second, cultural identity may change the direction of the effectiveness of temporal distancing. Although the effectiveness of the temporal frame in relation to cultural identity has not been examined, global consumer identity has been associated with more serious environmental concerns and a greater desire to take environmental action (Steenkamp and de Jong 2010; Strizhakova and

Coulter 2013). This action is likely to be temporally proximal, or immediate rather than temporally distant. Globally-oriented consumers also tend to be more innovative, as well as to carry traits of agreeableness, world-mindedness, and openness to change (Nijssen and Douglas 2011; Steenkamp and de Jong 2010; Westjohn, Singh, and Magnusson 2012), which are more congruent with the immediate action of the proximal time-frame. We predict:

H3a: Consumers with a stronger global consumer identity will have a more positive attitudinal/purchase intention response to promotion-focused sustainability messages framed around more proximal (vs. distant) temporal construal.

H3b: Consumers with a stronger global consumer identity will be more engaged with messages about promotion-focused sustainability initiatives that have more proximal (vs. distant) temporal construal in their message.

Social distance construal. Social construal of psychological distance is sometimes confounded with spatial (Hart and Nisbet 2012; Spence, Poortinga, and Pidgeon 2012) because spatial closeness frequently leads to social closeness (Brugger et al. 2015). Yet, the two constructs are distinct.

Social construal in the sustainability discourse can be reflected in the self-other difference, in the first-third person perspective (Trope and Liberman 2010), cultural ingroup-outgroup referent beneficiaries (Line, Hanks, and Zhang 2016), and social distance of potential victims of climate change (Hart and Nisbet 2012). People believe that people similar to them (i.e., socially proximal) are more likely to be affected by environmental threats (Spence, Poortinga, and Pidgeon 2012). Close (vs. distant) others carrying out sustainable behavior could be more effective at reducing abstractness of sustainability by increasing the strength of emotions, and therefore encouraging sustainable consumer behavior (White, Habib, and Hardisty 2019).

Nevertheless, people have more positive attitudes toward sustainability issues when considering social rather than personal risks (Leiserowitz 2005; Spence and Pidgeon 2010). McDonald, Chai, and Newell (2015) propose to investigate individual differences, such as political affiliation, socio-economic status, ethnicity, and nationality, as different forms of social distance. However, individuals' belongingness and connectedness to the whole world in the form of global consumer identity have not been investigated in the context of sustainability. Individuals with stronger global consumer identity are more likely to mentally associate themselves with the world at large rather than with a smaller local community (Golmohamad 2008) and to have a stronger psychological connection with people from all over the world than with people from their neighborhood (Reysen and Miller 2013). Consequently, the out-group of the world as a whole becomes an in-group for consumers with a robust global consumer identity. The global consumer identity being a higher-level superordinate identity further creates a more communal mindset and leads to more positive responses to a more distant CSR activity (Russell and Russell 2010). We argue that consistent with research on spatial construal and on in-groups/out-groups, consumers with a stronger global identity are more likely to respond to socially distant (vs. proximal) messages. We predict:

H4a: Consumers with a stronger global consumer identity will have a more positive attitudinal/purchase intention response to promotion-focused sustainability messages framed around more distant (vs. proximal) social construal.

H4b: Consumers with a stronger global consumer identity will be more engaged with messages about promotion-focused sustainability initiatives that have more distant (vs. proximal) social construal frames.

Overview of Research

We conduct one textual analysis and four experiments. Study 1 addresses our first research question and examines which regulatory focus and construal level frames the top 100 global brands currently use when messaging about their sustainability efforts and other general CSR efforts. We use textual analyses (LIWC 2015) of sustainability and general CSR website statements of the top 100 global brands (Interbrand 2018), further comparing statements by more versus less sustainable global brands. Studies 2, 3, 4a, and 4b address our second research question and evaluate the effectiveness of different regulatory focus and construal distance frames, along with the effect of global consumer identity. Study 2 (MTurk Prime US residents, n = 417; 65% females, M_{age} = 38) identifies the effect of global consumer identity in relation to regulatory focus (H1) and spatial distance construal (H2). Study 3 (MTurk Prime US residents, different from those in Study 2, n = 229; 54% females, M_{age} = 37) tests the effectiveness of the temporal distance construal (H3) in relation to global consumer identity and regulatory focus. Studies 2 and 3 employ traditional marketing measures, i.e., brand attitude and purchase intention, along with the behavioral engagement measure of actual time donation to an environmental charity. Study 4a (MTurk Prime US residents, different from those in Study 2 and 3, n = 226; 54% females, M_{age} = 40) examines the interacting effect of regulatory focus and social distance construal in relation to global consumer identity. Study 4b (n = 103 undergraduate students, 47% females) further examines the effects of global consumer identity, promotion focus, and social distance construal (H4) in a lab experiment. Study 4b uses traditional marketing measures, behavioral engagement measures in the form of product ratings and charitable walk sign-up, along with the measures of subsequent sustainable behavior of recycling and a choice of a gift card to a sustainable (vs. non-sustainable)

restaurant. Fashion, home appliances, personal care products, and fruit bars are used as product contexts in experiments.

Study 1: Textual Analyses of Sustainability Statements by Global Brands

Objectives and Procedure

The key objective of Study 1 was to answer the first research question and examine how global brands message about their sustainability efforts. We analyzed the current framing of sustainability statements versus any other general CSR statements by the top 100 global brands (Interbrand 2018). Specifically, we evaluated a) framing of regulatory focus, b) framing of spatial and temporal distance construals, c) differences in the framing of regulatory focus and construals between sustainability statements and more general CSR statements, and d) differences in framing between more and less sustainable global brands. Previous managerial research reports higher use of positive (vs. negative) frames, corresponding to promotion (vs. prevention) focus, in CSR news coverage (Lunenberg, Gosselt, and De Jong 2016); however, such analyses have not been applied to sustainability statements. The use of construal framing in both sets of statements is also unknown.

We collected and reviewed corporate public sustainability and general CSR statements from the websites of the top 100 global brands (Interbrand 2018) between May and August 2018. Two independent coders were trained to differentiate between sustainability statements (i.e., those with references to environmental protection, green practices, sustainability) and general CSR (i.e., ethical and socially responsible statements excluding any references to sustainability/environmental practices [e.g., commitments to education, child labor practices, health support, and so on]) statements. The first author subsequently resolved all inconsistencies

in data collection and coding. Our search resulted in a total of 243,751 words for sustainability and 307,931 words for general CSR statements.

Based on past managerial research (Gamache et al. 2015) and additional review of regulatory and construal theory research (Bar-Anan et al. 2007, Bullard and Manchanda 2013, Lee and Aaker 2004, Line, Hanks, and Zhang 2016), we developed three dictionaries for each of the studied frames - regulatory focus, spatial, and temporal distance construals (see Web Appendix A). We used LIWC 2015 (Pennebaker et al. 2015) to perform textual analyses, calculating the relative frequency with which words related to the specific frame in the custom dictionary occurred in the text.

Results

The analysis of consolidated sustainability statements of top 100 global brands demonstrates a balanced use of regulatory focus (Sustainability Statements: Promotion words = 1.09% [or 2,657 words], Prevention words = .93% [or 2,267 words], z = 1.13, $p > .05$). However, consistent with previous managerial research on CEO/leadership framing (Gamache et al. 2015; Lunenberg, Gosselt, and De Jong 2016), general CSR statements demonstrate higher use of promotion versus prevention focus (General CSR: Promotion words = 1.57% [or 4,835 individual words] vs. Prevention words = .78% [or 2,402 individual words], z = 5.15, $p < .001$).

In relation to construal levels, the results reveal a balanced relative frequency of use of distant versus proximal spatial construal in sustainability statements (Spatial Construal: Distant words = .78% [or 1,901 individual words] vs. Proximal words = .59% [or 1,438 words], z = 1.62, $p > .05$); yet, a higher rate of temporally proximal (vs. distant) words (Temporal Construal: Distant words = .16% [or 390 words] vs. Proximal words= .41% [or 999 words], z = 3.31, $p < .001$). The same pattern of results on construal levels is evident for general CSR statements (see Table 1).

Table 1. Study 1: Results of textual analysis of sustainability and general CSR statements of top 100 global brands (Interbrand 2018)

		Sustainability statements			CSR statements
		Total of 100 brands[a]	Brands in the top 100 sustainability list[b]	Brands not in the top 100 sustainability list[c]	Total of 100 brands[d]
Total word count		243,751	77,488	166,263	307,931
Regulatory focus	Promotion, %	1.09	1.05	1.12	1.57
	Prevention, %	.93	.84	.98	.78
	z-test	1.13^{ns}	1.53^{ns}	$.97^{ns}$	1.15^{***}
Spatial construal	Distant, %	.78	.73	.8	.82
	Proximal, %	.59	.47	.62	.93
	z-test	1.62^{ns}	2.37^{*}	1.51^{ns}	$.83^{ns}$
Temporal construal	Distant, %	.16	.17	.15	.14
	Proximal, %	.41	.36	.43	.5
	z-test	3.31^{***}	2.61^{**}	3.68^{***}	4.5^{***}

^{ns} p>.10; †p ≤ .10; *p ≤ .05; **p≤ .01; ***p≤ .001

[a] Sustainability statements include all public sustainability-related information available on corporate websites of 100 top global brands (Interbrand 2018)

[b] Brands in the top 100 sustainability list are global brands from Interbrand (2018) that also made the top 100 sustainable brands from CorporateKnights.com

[c] Brands not in the top 100 sustainability list global brands from Interbrand (2018) that are not included in the top 100 sustainable brands from CorporateKnights.com

[d] CSR statements include all public CSR-related information available on corporate web-sites of 100 top global brands (Interbrand 2018)

Notes: Corporate public sustainability and general CSR statements from the websites of the top 100 global brands from Interbrand (2018) list were collected between May and August 2018. Three dictionaries for each of the studied dimensions – regulatory focus, spatial and temporal distance construals – were developed based on past research (see Study 1 and Web Appendix A). LIWC (2015) was used to perform textual analyses and % is the relative frequency, with which words related to that dimension and included in the custom dictionary, occur in the text (percent of words occurring in the text within specific dimension)

Next, we classified the top 100 global brands (Interbrand 2018) as more (resulting in 77,488 words) or less (resulting in 166,263 words) sustainable brands based on whether they were mentioned in the top 100 *sustainable* brands (CorporateKnights.com), and repeated the analyses for both sets. Results for the global brands in the top 100 sustainable list indicate a significantly higher use of distant than proximal spatial construal in their sustainability statements (Spatial Construal in top 100 sustainable list: Distant words = .73% [or 566 individual words] vs. Proximal words = .47% [or 363 individual words], z = 2.37, $p < .05$). Brands not in the top 100 sustainable list displayed a balanced use of spatial construal. Both more and less sustainable global brands

displayed a balanced use of regulatory focus words and a higher rate of temporally proximal (vs. distant) words (see Table 1).

Discussion

The top 100 global brands differ in regulatory focus framing of their sustainability versus general CSR statements: sustainability statements are not dominated by any regulatory focus framing, whereas general CSR statements (consistent with Gamache et al. 2015) are dominated by promotion focus. Interestingly, more sustainable global brands opt for a spatially distant (vs. proximal) framing consistent with their general CSR statements, but less sustainable brands do not seem to have a preference for spatial framing. All global brands choose temporally proximal (vs. distant) framing in both their sustainability and general CSR statements. In studies 2, 3, 4a, and 4b we proceed to evaluate whether such framing is effective and whether global cultural identity matters to consumer responses to sustainability framing.

Study 2: Global Consumer Identity, Regulatory Focus, and Spatial Construal

In Study 2, we tested the effect of global consumer identity on the effectiveness of different sustainability messages framed around regulatory focus (H1) and spatial construal (H2). A pretest with 190 Amazon U.S. MTurk participants (60% females, M_{age}=39) recruited using TurkPrime (www.turkprime.com) platform was conducted to assess the effectiveness of global and local consumer identity manipulation (Zhang and Khare 2009; Gao, Zhang, and Mittal 2017; Ng and Batra 2017). Each participant was randomly assigned to read a passage about a global (Think Global) or a local (Think Local) movement for at least 30 seconds of locked-in screen time (see Web Appendix B). Two global/local reinforcements congruent with the passage were used: participants identified three points from the text that describe what being a global or local citizen means and unscrambled three sets of phrases taken directly from the passage.

As a manipulation check, participants answered three questions from the global citizenship scale (Zhang and Khare 2009). The answers were averaged with a higher composite score indicating global consumer identity (α =.97). The pretest priming was successful in activating global consumer identity ($M_{\text{global identity in global citizenship condition}} = 4.31$, $M_{\text{global identity in local citizenship condition}} = 3.49$, $F(1,188) = 9.40$, $p < .001$).

Method

For the main study, we used a 2 (regulatory focus: promotion vs. prevention) x 2 (spatial construal: distant vs. proximal) between-subjects experiment previously priming participants with the global consumer identity[3]. Amazon MTurk respondents, different from those in the pretest (n = 213 usable [62 were removed for failing to answer attention checks correctly]; 63% females, $M_{age} = 38$), were notified that they would be completing two unrelated studies. In the first study, they completed our global identity priming manipulation. In the second study, they read information about a new global sustainable fashion brand *ECOTrend* that was promotion-(prevention-) and distant-(proximally-) spatially-framed (see Web Appendix C). The regulatory focus was manipulated by a slogan of the new brand – "Save Nature, Promote Life!" for the promotion condition and "Save nature, conserve life!" for the prevention condition - and reinforced throughout the text. Spatial psychological distance construal was manipulated using the "world" versus "local community" as the geographic beneficiary of the brand's sustainability efforts.

Our dependent variables included traditional marketing self-reported measures, such as brand attitude (three 7-point semantic differential scale items: unfavorable-favorable, unappealing-appealing, and undesirable-desirable; α = .93) and purchase intention (two 7-point semantic

[3] In addition, we repeated the experiment priming participant with the local consumer identity in order to compare whether the interacting effect of regulatory focus and spatial construal holds true for local identity (MTurk Prime US residents, n = 204 [60 were removed for failing to correctly answer attention check]; 67% females, $M_{age}= 37$)

differential scale items: unlikely-likely, improbable – probable; MacKenzie, Lutz, and Belch 1986; $\alpha = .97$).

Finally, participants read about the *ECOTrend*'s sustainable initiative of organizing Environment Day, framed in congruence with the participant's experimental condition. Participants were offered to participate in the initiative immediately in real-time of the survey (see Web Appendix D) by writing an essay titled "what sustainability means to you" and earning 10 cents a minute of their time for an environmental charity. Two engagement measures were used to assess participant's responses to this task: ln-transformed time donated for charity in seconds, and ln-transformed number of words written in the essay. Afterward, participants were debriefed about the real purpose of the study (none of the participants guessed it correctly), and were informed that researchers pledge to donate 10 cents per minute participants spent on time donation task up to $50 to the Union of Concerned Scientists, a national non-profit organization aimed at combating global sustainability issues. Researchers honored the pledge and donated $50 to the Union of Concerned Scientists.

We used PROCESS (Model 1; Hayes 2017) to analyze the data. We covaried several important controls because of their previously established effects in sustainability and regulatory focus research: green consumer values (Haws, Winterich, and Naylor 2014; $\alpha = .93$), personality measure of promotion ($\alpha = .74$) and prevention ($\alpha = .70$) foci (Lockwood, Jordan, and Kunda 2002), consumer trust of *ECOTrend*'s corporate sustainability (Skarmeas and Leonidou 2013), liking of *ECOTrend*'s clothing design, age, and gender.

Results

Our manipulation checks were successful: global identity ($M_{\text{global identity in global citizenship condition}} = 4.02$, $M_{\text{global identity in local citizenship condition}} = 3.37$, $F(7,409) = 2.97$, $p < .001$, $\alpha = .97$), promotion

regulatory focus ($M_{\text{promotion condition}} = 5.88$, $M_{\text{prevention condition}} = 2.72$, $F(3,200) = 79.10$, $p < .001$), and spatial distance construal ($M_{\text{distant condition}} = 6.41$, $M_{\text{proximal condition}} = 1.49$, $F(3,200) = 458.39$, $p < .001$). When accessing the perception of brand globalness, more than half of the participants chose that they considered *ECOTrend* to be made "for people around the world" (54%) vs "for your local community" (24%) or "for people around the USA" (22%).

Main and interaction effects of regulatory focus and spatial distance construal were not significant for brand attitude and purchase intention (except for marginally significant main effect of regulatory focus for purchase intention; see Table 2), providing no support for H1a and H2a. In relation to engagement measures (log-number of words in the essay and log-time donated for charity in seconds), the two-way interaction between regulatory focus and spatial construal level was significant ($p < .05$) for global consumers[4] for the number of words (number of written words: $b = 1.01$, $t(197) = 2.34$, $p < .05$, $R^2 = .15$, LLCI =.16, ULCI = 1.87) and marginally significant ($p < .10$) for the donated time(donated time: $b = 1.00$, $t(197) = 1.70$, $p < .10$, $R^2 = .14$, LLCI = -.16, ULCI = 2.17) (see Table 2).

Spotlight analyses (Spiller et al. 2013) further indicated significant effects of promotion focus and distant spatial frame for the number of written words ($b = .61$, $t(197) = 2.02$, $p < .05$, LLCI = .01, ULCI = 1.20; Figure 1a) and marginally significant effect for donated time ($b = .68$, $t(197) = 1.66$, $p < .10$, LLCI = -.13, ULCI = 1.49; see Table 2; Figure 1b). Hence, globally-oriented consumers are more engaged with the sustainability initiative when the message is promotion- (vs. prevention-) framed (supporting H1b) and uses a distant (vs. proximal) spatial frame (supporting H2b).

[4] Participants primed with local identity didn't exhibit significant interactions for any of the dependent measures

The green values, trust in corporate sustainability, and clothing design liking are significant covariates, whereas the effects of age, gender and personality trait of regulatory foci are not significant (see Table 2).

Study 2: Mean differences of engagement measures in prevention and promotion conditions across spatial construal frames for consumers with a global identity

Figure 1a. Means of time donation (ln, word count) for consumers with global identity

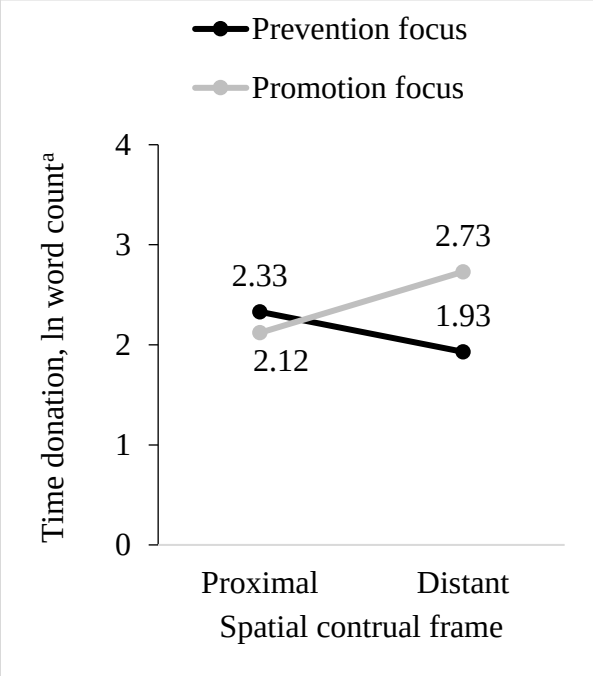
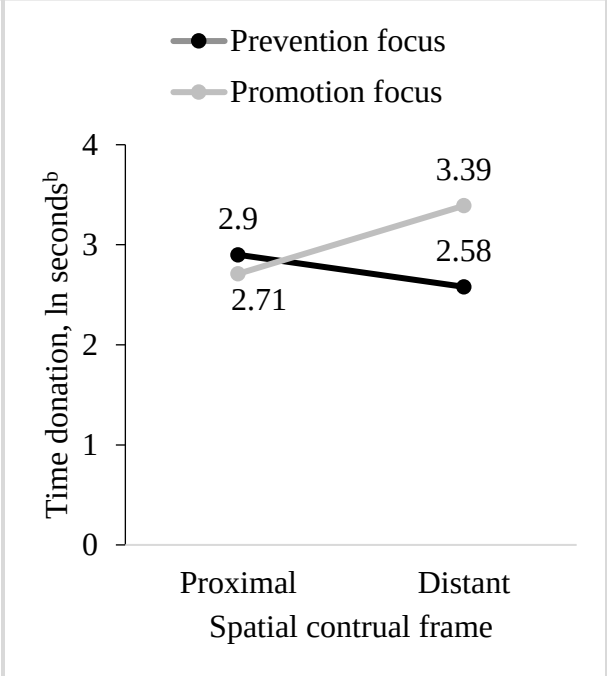


Figure 1b. Means of time donation (ln, seconds) for consumers with global identity



[a] Time donation, ln word count is an engagement measure. ln-transformed number of words written in the essay recorded when consumers participated in the sustainability initiative organized by *ECOTrend* by donating their time and writing an essay titled "what sustainability means to you" earning 10 cents a minute of their time for an environmental charity to which *ECOTrend* contributes. This measure ranged from .69 to 5.78 ln-minutes.

[b] Time donation, ln seconds is ln-transformed time donated for charity in seconds written in the essay when participants donated their time for an environmental charity to which *ECOTrend* contributes. This measure ranged from .69 to 7.21 ln-words.

Notes: Spotlight analysis indicates significant effects of promotion focus and distant spatial frame for both the increased number of written words (b = .61, t (197) = 2.02, $p < .05$, LLCI=.01, ULCI = 1.20) and marginally significant for donated time in seconds (b = .68, t (197) = 1.66, $p < .10$, LLCI = -.13, ULCI = 1.49)

Table 2. Study 2: Interaction effect of regulatory focus and spatial construal for consumers with global identity

	Global Identity, n=203							
	Behavioral engagement measures				Traditional marketing measures			
	Time donation, ln word count[a]		Time donation, ln seconds[b]		Brand Attitude		Purchase Intention	
	b	*t*	*b*	*t*	*b*	*t*	*b*	*t*
Main effects								
Regulatory focus[c]	.29	1.35^{ns}	.31	1.03^{ns}	.13	1.17^{ns}	.27	$1.65^{‡}$
Spatial construal[d]	.12	$.55^{ns}$	.02	$.68^{ns}$	-.03	$-.27^{ns}$	-.16	-1.01^{ns}
Interaction	1.01	2.34*	1.00	$1.70^{‡}$	-.26	1.20^{ns}	-.25	$.77^{ns}$
Covariates								
Green consumer values	.26	2.70^{*}	.33	2.48^{**}	.21	4.40^{***}	.24	3.29^{***}
Promotion focus	-	-	-	-	.10	$1.89^{‡}$	.17	2.12^{*}
Prevention focus	-	-	-	-	-	-	.12	$1.69^{‡}$
Trust in sustainability initiative	.25	2.60^{**}	.34	2.64^{**}	.39	8.25^{***}	.24	3.29^{**}
Product design liking	.14	$1.84^{‡}$	.22	2.08^{*}	.14	3.56^{***}	.21	$3.56^{‡}$
Age	-	-	-	-	-	-	-	-
Gender[e]	-	-	-	-	.27	2.41^{*}	.34	2.01^{*}
Model fit								
F	5.78^{***}		5.34^{***}		22.35^{***}		9.99^{***}	
R^2	.15		.14		.48		.32	

^{ns} p>.10; ‡p ≤ .10; *p ≤ .05; **p≤ .01; ***p≤ .001

[a] Time donation, ln word count (range: 69 to 5.78) is behavioral engagement measure ln-transformed number of words written in the essay when participants participated in the sustainability initiative organized by *ECOTrend* by donating their time and writing an essay titled "what sustainability means to you" earning 10 cents a minute of their time for an environmental charity to which *ECOTrend* contributes.

[b] Time donation, ln seconds (range:.69 to 7.21) is ln-transformed time donated for charity in seconds recorded when participants donated their time to environmental charity to which *ECOTrend* contributes.

[c] Regulatory focus is anchored to promotion focus (0 – prevention, 1 – promotion).

[d] Spatial construal is anchored to distant construal (0 – proximal, 1 – distant). Distant – global, Planet Earth, Globe, around the world; Proximal – local, community around you

[e] Gender is anchored to female

Notes: Initially we included all covariates in the model removing non-significant ones stepwise. Only significant covariates are reported in the Table. Spotlight analysis indicates significant effects of promotion focus and distant spatial frame for both the increased number of written words (b =.61, t (197) = 2.02, $p < .05$, LLCI=.01, ULCI=1.20) and marginally significant for donated time in seconds (b=.68, t (197) = 1.66, $p < .10$, LLCI=-.13, ULCI=1.49).

Discussion

Promotion and spatially distant framing impact the brand effectiveness in engaging globally-oriented consumers with sustainability initiatives, although cultural identity, regulatory focus, and spatial construal do not appear to impact consumers more general attitudes and behavioral intentions toward general messages about sustainable products. We further did not observe any effects of framing in relation to engaging locally-oriented consumers. Given that global consumers are primary targets of global brands, we proceed to explore the effect of global consumer identity in relation to promotion focus, temporal and social distance construals.

Study 3: Global Consumer Identity, Regulatory Focus, and Temporal Construal

In Study 3, we explore the effect of global identity on congruency of promotion (vs. prevention) focus with proximal (vs. distant) temporal frames (H3). We use a 2 (regulatory focus: promotion vs. prevention) x 2 (temporal construal: distant vs. proximal) between-subject experiment holding global identity prime constant. In total, 275 Amazon Prime MTurk consumers different from those in Study 2 completed the study. Forty-six responses were removed because of failed attention checks, resulting in the final sample of 229 participants (54% females, M_{age} = 37).

Method

Similar to Study 2, participants were primed about global identity, and read promotional materials for a fictitious brand of sustainable home appliances *ECOHome* framed around promotional (vs. prevention) focus, and distant (vs. proximal) temporal construal. We controlled temporal construal by manipulating the slogan of the new brand and the message frame, such as "the world of today", "immediate change", "by the end of 2018" for proximal temporal, and "the

world of the future", "a long-term change", "by the end of 2030" for distant temporal construal (see Web Appendix E). The regulatory focus was manipulated by a slogan of the new brand – "Support the environment and improve the world" for the promotion condition and "Protect the environment and preserve the world" for the prevention condition - and reinforced throughout the text. These frames were developed following the current industry practices identified in Study 1. After reading the message, participants completed brand attitude and purchase intention measures (as in Study 2).

Similar to Study 2, we presented participants with an opportunity to participate (donate time by writing an essay) in *ECOHome*'s sustainability initiative in organizing the Environment Day for charity, which was framed in congruence with the previously assigned temporal experimental condition (see Web Appendix F). We used two engagement measures from this task: ln-transformed number of words written in the essay and ln-transformed time donated for charity in seconds. After the engagement task, we again asked participants to complete the purchase intention measure to determine whether engaging in the sustainability initiative might impact consumer purchase intentions. Participants were debriefed at the end and informed about researchers' $25 donation to the Union of Concerned Scientists honored after completion of the study.

We used PROCESS (Model 1; Hayes 2017) to assess the effect of temporal construal frame, covarying the effects of green consumer values (Haws, Winterich, and Naylor 2014), personality measure of regulatory focus (Lockwood, Jordan, and Kunda 2002), consumer trust of corporate sustainability (Skarmeas and Leonidou 2013), design liking, age and gender (Table 3).

Results

Manipulation checks were successful (global priming: $M_{\text{global identity}} = 4.73$ and above 4.0 mid-point; temporal distance: $M_{\text{distant condition}} = 6.12$, $M_{\text{proximal condition}} = 2.21$, $F(3,225) = 112.70$, $p <$

.001). Consistent with Study 2 and in contrast to H3a, effects of temporal construal on brand attitude and purchase intention measures collected before the sustainability initiative and time donation task were not significant (see Table 3 for the list of significant covariates for each measure).

Main and interaction effects of regulatory focus and temporal distance construal were not significant for brand attitude and purchase intention, providing no support for H1a and H3a. However, there was a significant main effect of regulatory focus on time donation, ln word count, and the main effect of temporal construal on time donation, ln seconds, measures (see Table 3). In relation to the interaction effects on engagement measures, the two-way interaction between regulatory focus and temporal construal level was significant for participants primed with global identity for the number of words (b = -1.00, t (222) = 2.50, $p < .05$, $R^2 = .17$, LLCI = -1.79, ULCI = -.21), donated time in seconds (b = -1.36, t (223) = 2.48, $p < .05$, $R^2 = .17$, LLCI = -2.43, ULCI = -.28), and purchase intention after engagement (b = -.70, t (220) = 2.70, $p < .01$, $R^2 = .52$, LLCI = -1.22, ULCI = -.19) (see Table 3).

Consistent with H3b, consumers primed with the global identity and presented with the message around promotion focus demonstrated higher engagement with the sustainability initiative when the message was construed around temporarily proximal (vs. temporally distant) frame: ln-transformed donated words (b =-.70, t (222) = -.2.62, $p < .01$, LLCI=-1.23, ULCI=-.17) and ln-transformed time donation in seconds ((b=-1.14, t (222) = 3.10, $p < .01$, LLCI=-1.86, ULCI=-.42; see Figure 2). The full list of significant covariates related to each measure is shown in Table 3.

Table 3. Study 3: Effect of temporal construal in promotional regulatory focus and consumers with global identity

	Global Identity, n=229									
	Engagement with sustainability						Traditional marketing measures			
	Behavioral engagement measures				Subsequent sustainable intention					
	Time donation, ln word count[a]		Time donation, ln seconds[b]		Purchase Intention after engagement[c]		Brand Attitude		Purchase Intention	
	b	*t*	*b*	*t*	*b*	*t*	*b*	*t*	*b*	*t*
Main effects										
Regulatory focus[d]	-.41	2.07*	-.65	2.39*	.09	.72^{ns}	-.04	.38^{ns}	.10	.72^{ns}
Temporal construal[e]	-.25	1.24^{ns}	-.53	1.92^{ǂ}	-.06	.43^{ns}	-.13	1.24^{ns}	-.05	.36^{ns}
Interaction	-1.00	2.50*	-1.36	2.48*	-.70	2.70**	.29	1.37^{ns}	-.37	1.39^{ns}
Covariates										
Green consumer values	.30	2.88**	.43	2.99**	.20	2.99**	-	-	.26	3.69***
Promotion focus	-	-	-	-	-.08	2.67**	-	-	-.06	2.09*
Prevention focus	.08	2.66**	-	-	.09	2.62**	-	-	.08	2.26*
Trust in sustainability initiative	.25	2.76**	.32	2.55*	.50	7.32***	.54	10.13***	.45	6.40***
Product design liking	-	-	-	-	.25	4.08***	.15	3.13**	.22	3.47***
Age	-	-	-	-	-	-	.01	2.91**	-	-
Gender[e]	-	-	-	-	-	-	-	-	-	-
Model fit										
F	7.72***		9.06***		30.18***		40.48***		25.07***	
R^2	.17		.17		.52		.52		.48	

^{ns} p>.10; ^{ǂ}p ≤ .10; *p ≤ .05; **p≤ .01; ***p≤ .001

[a] Time donation, ln word count (range: .69 to 5.69) is behavioral engagement measure ln-transformed number of words written in the essay recorded when participants participated in the sustainability initiative organized by *ECOTrend* by donating their time and writing an essay titled "what sustainability means to you" earning 10 cents a minute of their time for an environmental charity

[b] Time donation, ln seconds (range: .69 to 6.48) is ln-transformed time donated for charity in seconds recorded when participants donated their time for an environmental charity

[c] Purchase intention after engagement (range: 1 to 7) is a traditional marketing measure recorded one more time after the engagement task in order to see whether engagement in sustainability initiative could further impact purchase intention toward the brand [d] Regulatory focus is anchored to promotion focus (0 – prevention, 1 – promotion).

[e] Temporal construal is anchored to distant construal (0 – proximal, 1 – distant). Distant – future, by the end of 2030, next decade; Proximal – today, by the end of 2018, within this year [e] Gender is anchored to female

Notes: Initially we included all covariates in the model removing non-significant ones stepwise. Only significant covariates are reported in the Table. Spotlight analysis indicates significant effects of promotion focus and proximal temporal frame for the increased number of written words (b =-.70, t (222) = -.2.62, p < .01, LLCI=-1.23, ULCI=-.17), donated time in seconds (b=-1.14, t (222) = 3.10, p <.01, LLCI=-1.86, ULCI=-.42), and purchase intention after engagement (b =-.70, t (222) = -.2.62, p < .01, LLCI=-1.23, ULCI=-.17). In addition, spotlight analysis indicates marginally significant effect of prevention focus and distant temporal frame for the purchase intention after engagement (b =-.55, t (222) = 1.69, p < .10, LLCI=-.06, ULCI=.72)

Study 3: Mean differences of engagement measures in prevention and promotion conditions across temporal construal frames for consumers with a global identity

Figure 2a. Means of time donation (ln, word count) for consumers with global identity

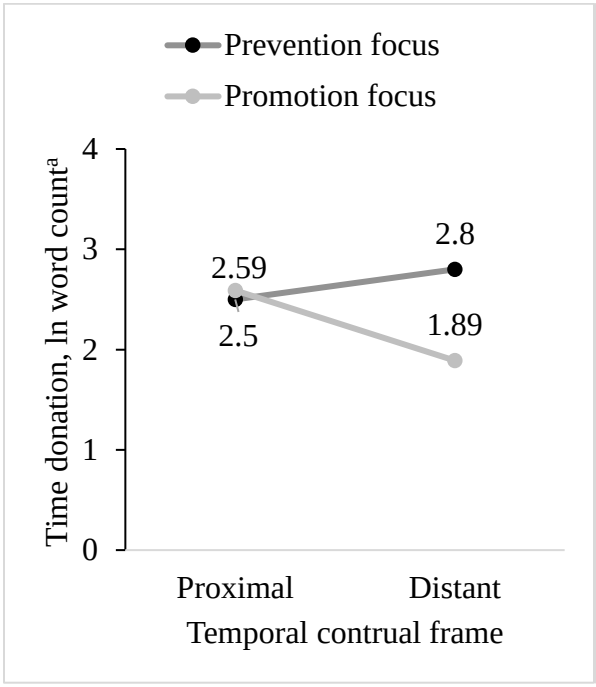


Figure 2b. Means of time donation (ln, seconds) for consumers with global identity

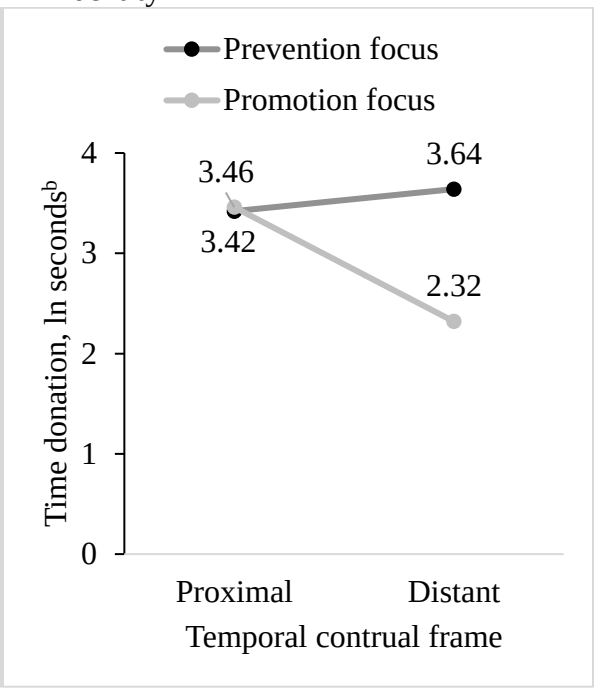
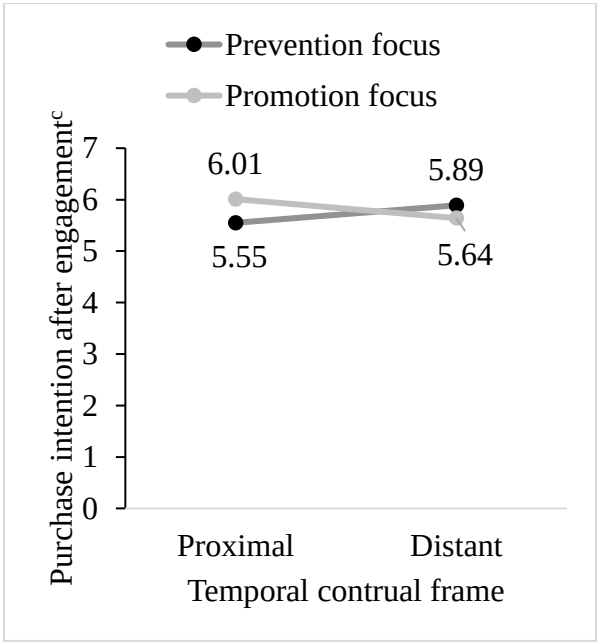


Figure 2c. Means of purchase intention after engagement for consumers with global identity



[a] Time donation, ln word count measure (ranged from .69 to 5.69 ln-words) is an engagement measure ln-transformed number of words written in the essay recorded when consumers participated in the sustainability initiative organized by *ECOTrend* by donating their time and writing an essay titled "what sustainability means to you" earning 10 cents a minute of their time for an environmental charity to which *ECOTrend* contributes.

[b] Time donation, ln seconds measure (ranged from .69 to 6.48 ln-) is ln-transformed seconds donated for an environmental charity to which *ECOTrend* contributes.

[c] Purchase intention after the engagement is purchase intention question repeated after the engagement task

Notes: Spotlight analysis indicates significant effects of promotion focus and proximal temporal frame for the increased number of written words (b =-.70, t (222) = -.2.62, p < .01, LLCI=-1.23, ULCI=-.17), donated time in seconds (b=-1.14, t (222) = 3.10, p <.01, LLCI=-1.86, ULCI=-.42), and purchase intention after engagement (b =-.70, t (222) = -.2.62, p < .01, LLCI=-1.23, ULCI=-.17). In addition, spotlight analysis indicates marginally significant effect of prevention focus and distant temporal frame for the purchase intention after engagement (b =-.55, t (222) = 1.69, p < .10, LLCI=-.06, ULCI=.72)

Additionally, when repeating purchase intention question after the engagement task, participants in the proximal temporal condition indicated a higher purchase intention than participants in the distant condition when the message is framed around promotion focus (b =-.70, t (222) = -.2.62, $p < .01$, LLCI=-1.23, ULCI=-.17; see Figure 2). Further, spotlight analysis indicates marginally significant effect of prevention focus and distant temporal frame for the purchase intention after engagement (b =-.55, t (222) = 1.69, $p < .10$, LLCI=-.06, ULCI=.72; see Figure 2). Effects of green consumer values, promotion and prevention foci, trust in sustainability initiative, and liking of the product design were significant covariates for purchase intention after the engagement.

Discussion

Participants with stronger global identity are more engaged with promotion-focused sustainability initiatives framed around proximal temporal construal of psychological distance. They also express higher purchase intentions toward the brand after participating in the sustainability initiative. In Study 4, we proceed to test the effect of social construal.

Study 4a: Global Consumer Identity, Regulatory Focus, and Social Construal

Study 4a intends to evaluate the effect of global consumer identity on the consistency of promotion (vs. prevention) focus and proximal (vs. distant) social construal frames (H4). We employ a 2 (regulatory focus: promotion vs. prevention) x 2 (social construal: distant vs. proximal) between-subject experiment priming participants with the global identity first. A total of 245 Amazon Prime MTurk participants (different from those in Studies 2 and 3) participated in the study. Nineteen responses were excluded from the original data (due to failed attention checks) resulting in the final sample of 226 participants (54% females, M_{age}=40).

Method

Participants were, first, primed with global identity using the same priming procedure as in Studies 2 and 3, and then read promotional materials including sustainability initiative of a fictitious global brand of sustainable personal care products *ECOCare* (see Web Appendix G). We manipulated promotion (vs. prevention) regulatory focus through the slogan of the brand, such as "Enhance and Support nature" for promotion and "Save and Preserve nature" for prevention focus conditions. Social distance was manipulated through the name of sustainability initiative – "MTurkers for sustainable word" for proximal temporal and "Professional athletes for a sustainable world" for distant temporal construal conditions. After reading about the brands and its sustainability initiative, participants were asked to participate in the co-creation task of recommending scents for the new line of new sustainable hand soap. A number of scents recommended by participants was recorded along with the chosen number of natural (e.g., Lavender, Citrus) versus artificial (e.g., Ocean Breeze, Cookies & Cream) scents. The total number of scents recommended and index of scent naturalness (number of natural scents minus number of artificial ones) were used as dependent measures for this engagement task.

We used PROCESS (Model 1; Hayes 2017) to assess the interaction effect of regulatory focus and social construal frames, covarying the effects of green consumer values (Haws, Winterich, and Naylor 2014), personality measure of regulatory focus (Lockwood, Jordan, and Kunda 2002), consumer trust of corporate sustainability (Skarmeas and Leonidou 2013), identification with MTurkers and Professional athletes as social groups, age, gender, and income (Table 4).

Results

The analysis showed successful manipulation checks, such as global priming $M_{\text{global identity}}$ = 4.60 and above 4.0 mid-point; regulatory focus: $M_{\text{promotion focus}}$ = 5.86, $M_{\text{prevention focus}}$ = 3.77; F

(3,222) = 32.75, $p < .001$); social distance construal: $M_{\text{distant condition}} = 6.85$, $M_{\text{proximal condition}} = 2.1.40$, F(3,225) = 112.70, $p < .001$). When assessing *ECOCare*'s brand globalness, 93% of participant stated that *ECOCare* is the brands made "for people around the World" rather than "for people around the USA" (5%), and "for your local community" (2%).

Study 4a: Mean differences of engagement measures in prevention and promotion conditions across social construal frames for consumers with a global identity

Figure 3a. Means of number of scents offered for consumers with global identity

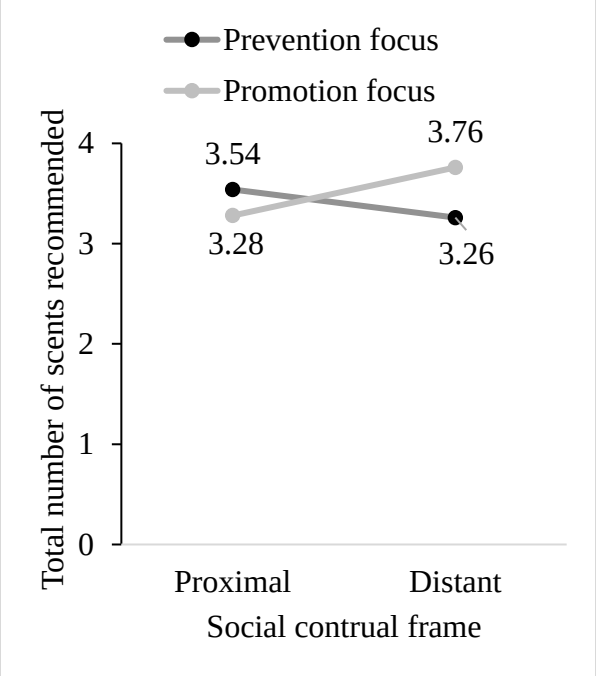
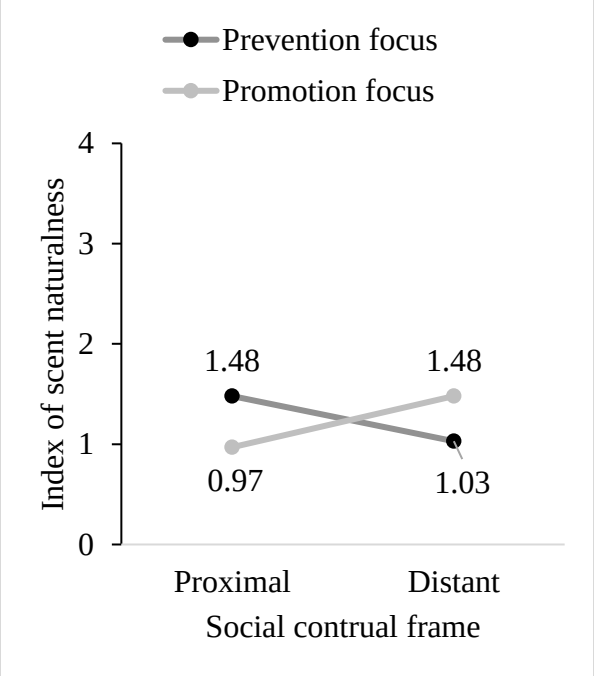


Figure 3b. Means of the index of scent naturalness for consumers with global identity



[a] Total number of scents recommended is the number of scents for a new sustainable handsoap by *ECOCare* that participants recommended in co-creation task

[b] Index of scent naturalness is the difference between the number of natural scents offered and number of artificial scents offered by participants in co-creation task of recommending scents for a new sustainable hand soap

Notes: Spotlight analysis indicates marginally significant effects of promotion focus and distant social frames on the increased number of scents recommended (b =-.49, t (218) = 1.65, $p < .10$, LLCI = -.09, ULCI = 1.07) and a higher index of scent naturalness recommended by participants (b=.51, t (217) = 1.80, $p < .10$, LLCI = -.05, ULCI = 1.06)

Table 4. Study 4a: Effect of social construal and regulatory focus for consumers with global identity

	Global Identity, n=226			
	Behavioral engagement measures			
	Total number of scents recommended[a]		Index of scent naturalness[b]	
	b	t	b	t
Main effects				
Regulatory focus	0.11	.52^{ns}	-0.04	0.23^{ns}
Social construal	0.09	.44^{ns}	0.02	.11^{ns}
Interaction	0.77	1.87†	0.95	2.41*
Covariates				
Green consumer values	-	-	0.20	2.46*
Promotion focus	-	-	-	-
Prevention focus	-	-	-	-
Trust in sustainability initiative	0.19	2.3*	-	-
Identifying with Professional athletes	-0.19	-2.67	-0.25	3.69***
Identifying with MTurkers	-	-	-	-
Age	-0.03	3.03**	-0.02	2.04*
Gender	0.49	2.48*	0.69	3.61***
Income	-	-	0.15	3.01**
Model fit				
F		3.81***		5.95***
R^2		0.11		0.18

^{ns} p>.10; † p ≤ .10; * p ≤ .05; ** p≤ .01; *** p≤ .001

[a] Total number of scents recommended (range: 1 to 11) is the number of scents for a new sustainable handsoap by *ECOCare* that participants recommended in co-creation task

[b] Index of scent naturalness (range: -2 to 5) is the difference between the number of natural scents offered and number of artificial scents offered by participants in co-creation task of recommending scents for a new sustainable hand soap

[d] Regulatory focus is anchored to promotion focus (0 – prevention, 1 – promotion).

[e] Temporal construal is anchored to distant construal (0 – proximal, 1 – distant). Distant Professional athletes; Proximal – MTurkers

[e] Gender is anchored to female

Notes: Spotlight analysis indicates marginally significant effects of promotion focus and distant social frames on the increased number of scents recommended (b =-.49, t (218) = 1.65, p < .10, LLCI=-.09, ULCI=1.07) and a higher index of scent naturalness recommended by participants (b=.51, t (217) = 1.80, p <.10, LLCI=-.05, ULCI=1.06)

Main and interaction effects of regulatory focus and temporal distance construal were not significant (see Table 4). In relation to the interaction effects, the two-way interaction between regulatory focus and temporal construal level was marginally significant for total number of scents recommended (b = .77, t (218) = 1.87, $p < .10$, $R^2 = .11$, LLCI = -.04, ULCI = 1.59) and the index of scent naturalness (b = .95, t (216) = 2.41, $p < .05$, $R^2 = .18$, LLCI = .17, ULCI = 1.73; see Table 4). The full list of significant covariates related to each measure is shown in Table 4.

Spotlight analysis showed that consistently with H4b, consumers primed with the global identity and presented with the message around promotion focus demonstrated higher engagement with the sustainability initiative when the message was construed around socially distant (vs. proximal) frame. This effects on the total number of scents recommended (b = .49, t (218) = 1.65, $p < .10$, LLCI=-.09, ULCI = 1.07), and on the index of scent naturalness (b = .51, t (217) = 1.80, $p < .10$, LLCI = -.05, ULCI = 1.06) were marginally significant (see Figure 3).

Discussion

The congruency of promotion and socially distant message frames impacts the effectiveness of global consumer engagement with brands' sustainability initiatives. We found the effect of these frames not only for the engagement measure of the number of scents recommended by the participants, but also for the type of scents they were recommending. Globally-oriented consumers tend to recommend more natural scents were presented with the message framed around promotion focus and socially distant construal frames. We proceed with exploring the effect of socially distant construal frames on the effectiveness of promotion-framed sustainability messages in the laboratory experiment.

Study 4b: Global Consumer Identity, Promotion Focus, and Social Construal in a Lab Experiment

In Study 4b, we tested the effects of global identity, promotion focus, and social construal in impacting consumer attitudinal/purchase intention and engagement response to sustainability messages and initiatives. In addition, we evaluated consumer sustainable behavior and choice. A total of 103 undergraduate students (46% females) from a Mid-Atlantic U.S. university participated in a lab experiment for course credit and an entry to win one of four $25 gift certificates in a lottery. We used a between-subjects experiment, randomly assigning two experimental conditions related to social distance construal (proximal vs. distant) and holding global identity prime and promotion regulatory focus of the message constant.

Method

Participants were presented with the global identity prime used in Studies 2 and 3. Then, they read promotional materials framed around a promotion focus and varying the social distance of a fictitious brand *ECOFruit*. Students were notified that these two studies are unrelated and that the main objective is to assess consumer reactions to a new sustainable fruit bar that is to be launched in their market. Social distance was manipulated by the referent social group: "Doctors for a sustainable world" in the socially distant condition vs. "Students for a sustainable world" in the socially proximal condition (see Web Appendix H).

Participants were then offered to taste a sample of a fruit bar (unbranded small fruit bars from a local Asian store in a transparent cover with an added recyclable sticker on top were used in the experiment). During the tasting, unknowingly to participants, one researcher and one trained lab assistant recorded the disposal of the fruit bar packaging in the recycling versus regular trash bins placed next to the point of tasting and randomly rotated in their proximity to the tasting location

throughout the experiment. Afterward, participants were redirected to *ECOFruit*'s website (two real websites were created with the content framed in congruence with proximal vs. distant social construal conditions). They were asked to write a product review for *ECOFruit*, rate the product on a five-star scale, and were offered to sign up for the organized charity walk happening on the Earth Day of that year (providing an email address for future contact) in support of *ECOFruit*'s sustainability initiative (see Web Appendix I).

As a part of study recruitment, participants were told that they would be able to win one of the gift certificates to a local restaurant. Participants were then presented with a choice of a gift certificate between a commonly known sustainable (Honeygrow) or conventional (Saladworks) restaurant. Next to the names of these restaurants that were randomly presented, participants were also given a brief description of each restaurant's mission that reflected (vs. did not reflect sustainability) (see Web Appendix I). Both restaurants were located close-by to campus in the nearby mall area. At the end of the experiment, participants were asked to indicate the purpose of the experiment (none of the participants correctly guessed the purpose). Finally, participants were debriefed on the real purpose of the study, and randomly chosen winners of the lottery received the VISA gift cards at a later date.

We analyzed three sets of dependent measures: a) brand attitude and purchase intention, b) behavioral - engagement measures: product rating during the review process and sign-up to a charitable walk, and c) subsequent sustainable behavior measures: recycling behavior and choice of the gift certificate to a sustainable versus a conventional restaurant. We covaried effects of green consumer values (Haws et al. 2014), personality trait of regulatory foci (Lockwood, Jordan, and Kunda 2002), consumer trust of corporate sustainability (Skarmeas and Leonidou 2013), liking of

fruit bar taste, gender, and level of hunger (Briz, Drichoutis, and House 2015; "On a scale from 1 to 7 how hungry are you right now with 1 = not hungry at all and 7 = very hungry?").

Results

Manipulation checks were successful: global identity (M = 4.46 and above the average 4.0); 98% (101) of participants correctly identified their social distance frame (X^2 (1, 102) = 95.16, $p <$ .001). Consistent with Studies 2 and 3 and contrary to H5a, social construal manipulation alone (before the engagement task) did not impact consumer attitudes and behavioral intentions toward *ECOFruit* (Table 4).

Consistent with H5b, we observed significant ($p < .05$) or marginally significant ($p < .10$) differences between social construal conditions in relation to our sustainability engagement measures and subsequent sustainable behavior. Specifically, after being primed with the global identity, respondents in the distant (vs. proximal) social construal condition rated the product higher when reviewing it ($M_{\text{distant condition}} = 1.04$, $M_{\text{proximal condition}} = .87$; b = .18, t = 1.82, $p < .10$; significant covariates were liking of the product design and level of hunger) and signed-up for a charitable walk at a higher rate ($M_{\text{distant condition}} = .16$, $M_{\text{proximal condition}} = .04$; b = .24, t = 2.44, $p <$ .05; significant covariate was green consumer values; see Table 5).

Table 5. Study 4b: Effect of social construal in promotional regulatory focus and consumers with global identity

	Global Identity, n=101											
	Engagement with sustainability								Traditional marketing measures			
	Behavioral engagement measures				Subsequent sustainable behaviors							
	Product rating[a]		Charitable walk sign-up[b]		Recycling[c]		Gift card choice[d]		Brand Attitude		Purchase Intention	
	b	*t*	*b*	*t*	*b*	*t*	*b*	*t*	*b*	*t*	*b*	*t*
Main effects												
Social construal[e]	.18	1.82‡	.24	2.44*	.14	1.68‡	.20	2.10*	-.03	.36 ^{ns}	.63	1.00^{ns}
Covariates												
Green consumer values	-	-	.25	2.59*	-	-	.34	3.64***	.24	3.41***	.13	2.10*
Promotion focus	-	-	-	-	-	-	-	-	-	-	-	-
Prevention focus	-	-	-	-	-	-	-	-	-.15	2.14*	-	-
Trust in sustainability initiative	-	-	-	-	-	-	-	-	.22	2.92**	.68	10.28***
Product design liking	.18	1.90‡	-	-	-	-	-	-	.54	7.24***	.21	13.18***
Age	-	-	-	-	-	-	-	-	-	-	-	-
Gender[f]	-	-	-	-	-	-	-	-	-	-	-	-
Hunger level	.2	2.10*	-	-	-	-	-	-	-	-	-	-
Model fit												
F		4.15‡		5.57**		2.00‡		7.95***		23.46***		42.04***
R^2		.11		.08		.03		.12		.53		.61

^{ns} p > .10; ‡p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001

[a] Product rating (range: .69 to 1.95; $M_{distant}$ = 1.04, $M_{proximal}$ = .87) is an ln-transformed product rating left by participants for *ECOFruit*'s product after tasting it and writing the review for it

[b] Charitable walk sign-up (0 – didn't sign up, 1 – signed up; $M_{distant}$ = .16, $M_{proximal}$ = .04) was recorded when participants were offered to sign up for the organized charity walk in support of *ECOFruit*'s sustainability initiative after writing the review for the product and rating it

[c] Recycling measure (0 – didn't recycle, 1 – recycled; Mdistant = .32, Mproximal = .18).was collected during the tasting of a fruit bar sample (unbranded small fruit bars from a local Asian store in a transparent cover with an added recyclable sticker on top), unknowingly to participants, when one researcher and one trained lab assistant recorded disposal of the packaging in the recycling vs. regular trash bins placed next to the point of tasting and randomly rotated in their proximity to the tasting location throughout the experiment

[d] Gift card choice was recorded when participants were then presented with a choice for the gift certificate lottery between certificates to a commonly known sustainable or conventional restaurant as a part of a study recruitment [d] Social construal is anchored to distant construal (0 – proximal, 1 – distant). Distant – doctors; Proximal – students [e] Gender is anchored to female

Notes: Initially, we included all covariates in the model removing non-significant ones stepwise. Only significant covariates are included in the present model

Additionally, they demonstrated more sustainable behaviors: recycled the product packaging at a higher rate ($M_{\text{distant condition}} = .32$, $M_{\text{proximal condition}} = .18$; b = .14, t = 1.68, $p < .10$; no significant covariate effects) and were more likely to choose the gift-card to a sustainable (vs. unsustainable) restaurant ($M_{\text{distant condition}} = .66$, $M_{\text{proximal condition}} = .51$; b = .20, t = 2.10, $p < .05$; significant covariate was green consumer values; see Table 5). Therefore, overall framing around socially-distant construal combined with promotion focus was more effective in engaging globally-oriented participants with sustainability across a variety of engagement tasks, as well as encouraging more sustainable behaviors and choices.

Discussion

Stronger global identity leads to higher consumer engagement with sustainable initiatives and a higher likelihood of subsequent sustainable behaviors and choices when the promotion-focused message is framed around more distant (vs. more proximal) social construal. Similar to other studies, social construal does not appear to impact more traditional measures of consumer attitudinal and purchase intention responses before engagement with the initiative.

General discussion

As sustainability concerns are rising, more and more brands turn their attention to sustainable practices and initiatives. As a result, statements about brand commitment to sustainability may be losing its differentiating point in contrast to a few decades ago (Dechant and Altman 1994; Jose and Lee 2007). Instead, the current questions that brands need to address are how to message about sustainability commitment more effectively and how to engage consumers with their sustainability initiatives. Our research contributes to globalization, consumer engagement, and sustainability research by addressing these two research gaps. Specifically, we first evaluated how top 100 global

brands - both more and less sustainable - message about their sustainability efforts and commitments on their websites and which regulatory and construal frames dominated their sustainability versus general CSR discourses. Even though the promotion focus has been established as a dominant discourse of CEO/leadership communication (Gamache et al. 2015), the "doom and gloom" assessment of sustainability statements has not been done in prior research.

Second, we evaluated the effectiveness of regulatory focus and construal frames in relation to more general consumer attitudinal/purchase intention responses, as well as various forms of consumer engagement with sustainability initiatives. Given inconsistencies in prior environmental and globalization research about the effectiveness of various message frames, we argue that global consumer identity can explain some discrepancies and should be an important factor in evaluating message frame effectiveness. Consistent with emerging consumer engagement research (Harmeling et al. 2017; Hollebeek, Strivastava, and Chen 2016; Schmitt, Skiera, and Van den Bulte 2011), our findings further reflect the importance of consumer engagement as a brand metric in increasing the effectiveness of sustainable brand practices.

Overall, our research has strong theoretical and managerial implications for brands that message about their sustainability commitments and engage consumers with their sustainability initiatives.

Theoretical Contributions

Our research underscores and contributes to three theoretical paradigms: globalization, consumer engagement, and sustainability. First, we contribute to globalization and sustainability research by identifying the current state of global brands' strategies of messaging about their sustainable commitments, practices, and initiatives. Consistent with prior research (Gamache et al. 2015), we demonstrate that the prevailing discourse of the general CSR statements is promotion-

focused; however, both more positive/optimistic promotion and more negative/pessimistic prevention frames are equally present in sustainability messaging of both more and less sustainable brands. Additionally, prior research has not evaluated salient spatial and temporal construal frames of sustainability or general CSR statements. We observe differences in relation to spatial construal framing among more and less sustainable global brands: more sustainable brands opt for more distant (vs. proximal) spatial framing in sustainability statements, which is likely to align better with the promotion focus. Yet, both more and less sustainable global brands aim for temporal proximity (rather than distant future focus) in their sustainability statements. Hence, top global brands do not appear to have a unifying distancing or proximizing strategy across different construals.

We further contribute to emerging consumer engagement theories (Harmeling et al. 2017; Hollebeek, Srivastava, and Chen 2016; Schmitt, Skiera, and Van den Bulte 2011) by identifying the importance of consumer engagement with sustainable initiatives. As simple corporate website statements about sustainability commitments are reaching a point of being a standard for global brands, varying messaging frames around sustainability initiatives rather than these more general statements become more important to consumer response to brands. Our research enriches consumer engagement theory by testing its propositions in the novel context of sustainability initiatives and demonstrating several engagement tasks that could be used in future research (i.e., task-based time donation, product reviews and ratings, sign-ups for charitable walks). Furthermore, sustainability initiatives appear to be a crucial tool in connecting sustainability messaging with both subsequent sustainable consumer behavior (i.e., recycling and choice of sustainable vs. conventional businesses) and subsequent purchase intentions toward the sustainable brand.

We further contribute to emerging research on the role of consumer cultural identity in consumer responses to sustainability (Steenkamp and de Jong 2010; Strizhakova and Coulter 2013, 2019) and address the gap between prior globalization and sustainability research as to the effectiveness of sustainability messages and initiatives. Prior globalization research argues for a positive relationship between globalization and environmentalism (Brieger 2018; Kashima 2016; Nijssen and Douglas 2008; Strizhakova and Coulter 2013), whereas sustainability research supports localization of sustainability initiatives because of the seemingly clashing links between sustainability on the one hand, and materialism/overconsumption linked to globalization, on the other hand (Brown and Kasser 2005; Good 2007). Our research speaks to the importance of understanding the consumer cultural identity of the brand target market. Sustainability and globalization/localization may not necessarily clash, but rather mingle, and divergent theoretical findings in prior research can be explained by a lack of consideration of consumer cultural identity in such empirical work.

In this light, we contribute to globalization research by demonstrating a significant role of global consumer identity in the effectiveness of messaging about sustainability initiatives. We show that there is a stronger link between the effectiveness of these messages and global (vs. local) consumer identity. More importantly, our findings bridge the theoretical gap by integrating three theoretical paradigms and lines of research. Such an integrative approach allows us to provide converging evidence that the effectiveness of sustainability messaging about sustainability initiatives is contingent on the congruence of consumer cultural identity with regulatory focus and construal level frames of the message.

Finally, we contribute to sustainability research by providing empirical evidence of a more effective message framing for sustainability communication. We fill in gaps in sustainability

communication literature that is inconsistent about message framing and regulatory focus, as well as about proximizing versus distancing environmental threats through spatial, temporal, and social construals (Fujita et al. 2006; Spence, Poortinga, Pidgeon 2012; Weber 2006; Jones, Hine, and Marks 2017). Concerning regulatory focus, our work builds on recent work that has identified differential responses of consumers with a stronger global identity on their preferences for promotion (vs. prevention) regulatory focus (Ng and Batra 2017; Westjohn et al. 2016). Concerning construal framing, we demonstrate the divergent effect of three construals – spatial, temporal, and social – further linked to consumer cultural identity and regulatory focus frame. No single strategy of proximizing or distancing environmental threats in sustainability communications can be considered effective by itself, but rather each construal domain should be considered in connection to consumer cultural identity and regulatory focus.

Managerial Contributions

Our research has important implications for global brand managers and their strategies for effective sustainability messaging. First, we find that not all global brands take advantage of using effective regulatory focus and construal level frames when communicating with their consumers. The top 100 global brands use balanced regulatory focus (equal amount of promotion and prevention frames) in their sustainability statements; however, they use promotion focus when referring to their CSR activities. For example, Unilever frames its sustainability-related goal as prevention - "Reducing environmental impact by half", and CSR goal as promotion - "Enhancing livelihoods for millions"[5]; as well as uses a more distant temporal frame for sustainability - "By 2030 our goal is to halve the environmental footprint..", but a more proximal temporal frame for CSR - "By 2020 we will enhance the livelihood of…" From a practical standpoint, the current

[5] https://www.unilever.com/sustainable-living/

work gives insights to marketers into how to implement these strategies when messaging about the company's sense of purpose to the consumer by engaging them in interactive sustainability initiatives and campaigns.

Second, global brand managers should realize that passively presenting information about their sustainable business element to consumers (i.e., by messaging about it on their website) is rather a norm for most companies (90% of global brands did it in our analyses) rather than a differentiating advantage. Our experimental studies further demonstrate that simple presentation of a sustainable brand messaging did not appear to matter to consumer attitudes or purchase intentions toward the brand. However, to embrace the "green" component of the brand more effectively, companies should actively engage with consumers via interactive task-based and experiential sustainability initiatives and awareness campaigns. Examples of such initiatives could be signing the petition to support wildlife, pledge to use less natural resources, participation in social media movement with designated "green" brand or slogan hashtag, and college competitions dedicated to environmental protection among other engagement tools. Greater consumer engagement with sustainable initiatives appears to lead to greater purchase intentions and is likely to impact subsequent sales positively. Moreover, by implementing such sustainable initiatives, global brands may initiate a spill-over pro-social effect by encouraging more sustainable behaviors, such as recycling and broader choices of more sustainable products and services.

Finally, we urge global brand managers to consider consumer cultural identity in developing their messages about sustainable initiatives. The current work demonstrates that there is no uniform effect of construal level message frames for the three most often used in sustainability communication – spatial, temporal, social. However, global rather than local consumer identity seems to impact the effectiveness of these construals, possibly because of strong links between

globalization and environmentalism more broadly (Steenkamp and de Jong 2010; Strizhakova and Coulter 2013). Hence, to engage the globally-oriented target market with sustainability initiatives, the marketer should embed the promotion focus (e.g., enhance, grow, improve, inspire vs avoid, reduce, secure, conserve), distant spatial (e.g., Globe, Planet, World, Earth vs. hometown, nearby, municipal, neighborhood), proximal temporal (e.g., present, today, this year, immediately vs. in 12 years, future, by 2030), and distant social (e.g., reference to a distant vs. local groups) construals in its message.

Limitations and Directions for Future research

We focused primarily on global brands, globally-oriented consumers as their targets, and sustainability. However, many multinationals have localized strategies with the portfolio of various local brands, and many sustainable companies can operate only locally serving specific communities. Therefore, future research might want to focus on local brands and businesses, taking into consideration possible moderating effects of both global and local consumer identity in this business context. Relatedly, we only focused on product brands, and it might be interesting to evaluate effects of messaging about sustainability initiatives for services that are more likely to have localized business strategies.

We used a variety of behavioral engagement measures and a measure of subsequent sustainable behaviors and purchase intentions. However, we did not measure the long-term effects of messaging about sustainability initiatives directly on sales and profits, and such research is warranted. In addition, we did not consider the independent effect of the partnerships with charity organizations and the construal framing of these organizations (e.g., sustainability charities operating globally versus locally). Effects of cultural identity on the effectiveness of such a business-charity partnership open further research opportunities.

Future research could also examine other forms of engagement that were beyond the scope of current research, such as social media engagement campaigns or organizing real-life sustainability competitions. Furthermore, researchers could further concentrate on the societal effect of sustainability initiatives in addition to recycling, such as water conservation, reducing food waste, and support for climate change initiatives.

In terms of the variety of construal levels, we used spatial, temporal, and social domains. Researchers could examine other variations of these domains, along with not studied hypothetical construal when developing effective frames for sustainability messaging. We framed the distant temporal construal based on the goal for 2030 compared to the same year for proximal based on current practices of global brands. However, different levels might be considered in future research. We further used professional athletes and doctors as distant social groups. However, there could be differences in social desirability, preference, liking, or perceived expertise of the socially distant groups. Therefore, other more and less desirable social groups might be considered in future research to assess further the effect of construals on the effectiveness of sustainability messaging. Finally, researchers could further investigate the effect of social distance in the form of in-group/out-group effects and mechanisms for global and local consumers.

Conclusion

When sustainability becomes a norm, global brands should be cognizant of effective strategies to message about their sustainability commitment. Messaging about sustainability initiatives that engage consumers with sustainability element might help global brands to gain a competitive advantage in the era of commonly used sustainability messages. Globally-oriented consumers who are the primary target of multinationals are more likely to respond to sustainability initiatives framed around promotion focus, spatially and socially distant construals, yet more actionable

temporally proximal construals. Global brands should consider a range of engagement metrics to measure the effectiveness of their sustainability initiatives.

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Web Appendixes

Appendix A: Study 1. Dictionaries for LIWS

Regulatory Focus

Promotion Focus			Prevention Focus		
Accomplish(ed)	Encouragement	Inspires	Accuracy	Loosing	Safety
Accomplishes	Encourages	Inspiring	Accurate	Loss	Secure(d)
Accomplishing	Encouraging	Momentum	Afraid	Losses	Security
Accomplishment	Excite(d)	Obtain(ed)	Anxiety	Lost	Stability
Accomplishments	Excitement	Obtaining	Anxious	Must	Stabilize
Achieve(d)	Excites	Obtains	Avoid(ed)	Obligate	Stable
Achievement	Exciting	Optimistic	Avoiding	Obligation	Thoughtful
Achievements	Expand(ed)	Progress(ed)	Avoidance	Obligations	Thoughtfulness
Achieves	Expanding	Progresses	Avoids	Oblige(d)	Threat
Achieving	Expands	Progressive	Care(d)	Obliged	Threatened
Advance(d)	Expansion	Promote(d)	Careless	Ought	Threatening
Advancement	Expansions	Promotes	Careful	Pain	Threats
Advancements	Fast	Promoting	Cares	Preserve(d)	Vigilance
Advances	Gain(ed)	Promotion	Caring	Preserves	Vigilant
Advancing	Gaining	Speed	Compassionate	Preserving	
Adventure	Gains	Success	Conservative	Prevent(ed)	
Adventurous	Grew	Successful	Conserve(d)	Preventing	
Aspiration	Grow	Succeed(ed)	Conserves	Prevention	
Aspirations	Growing	Succeeds	Conserving	Prevents	
Aspire(d)	Grows	Support(ed)	Defend(ed)	Protect(ed)	
Aspires	Growth	Supporting	Defending	Protected	
Aspiring	Hope(d)	Supports	Defends	Protecting	
Attain(ed)	Hopeful	Swift	Defense	Protection	
Attaining	Hopes	Toward	Duty	Reassurance	
Attainment	Hoping	Velocity	Escape(d)	Reassure(d)	
Attains	Ideal	Wish	Escapes	Reassures	
Bold	Improve(d)	Wishes	Escaping	Reassuring	
Courage	Improvement		Evade(d)	Responsibilities	
Courageous	Improvements		Evades	Responsibility	
Desire	Improving		Evading	Responsible	
Eager	Increase(d)		Evasion	Responsibly	
Earn(ed)	Increases		Fail(ed)	Risk	
Earning	Increasing		Failing	Risking	
Earnings	Inspiration		Fails	Risks	
Encourage(d)	Inspirations		Fear	Safe	
Encouraged	Inspire(d)		Looses	Safely	

Spatial and Temporal Psychological distance

Spatial Distance		Temporal Distance	
Distant	**Proximal**	**Distant**	**Proximal**
Africa	America	All over	Already
All Over	American	By the time	Always
All-Around	Borough	Future	Annual
Antarctica	Citizen	In fifteen years	Around
Arctic	City	In five years	At the moment
Asia	Close By	In several years	Current
Australia	Community	In ten years	Ever
Continents	Country	In three years	Every day
Cosmopolitan	County	In twenty five years	Every week
Earth	District	In twenty years	Every year
Europe	Domestic	In two years	Immediately
Everywhere	Here	Later	Just
External	Home	Next decade	Never
Faraway	Hometown	Next years	Next month
Foreign	Inland	Remote	Next year
Global	Internal	Some time	Now
Globe	Local	Someday	Often
Import	Municipal	Then	Present
Intercontinental	National	In 2 years	Recently
International	Native	In 3 years	Recently
Latin America	Nearby	In 5 years	Seldom
Planet	Neighborhood	In 10 years	So Far
South America	Regional	In 15 years	Sometimes
Universal	Resident	In 20 years	Soon
Universe	State	In 25 years	This time
World	Town	2020	This year
Worldwide	Township	2025	Today
	United States	2030	Tomorrow
	Urban	2035	Up to now
	US	2040	Usually
	USA	2045	Yet
		2050	

Appendix B: Priming materials

Passages presented to participants in global and local conditions

In a recent article, a team of researchers from the University of Oxford, UK discussed the phenomenon of **GLOBAL/LOCAL citizenship**. **A GLOBAL/LOCAL citizen** is someone who identifies with the **GLOBAL** world community rather than with his(er) local one, and whose actions contribute to building this community's values and practices.

GLOBAL/LOCAL citizenship in large part is made possible through taking part in the **GLOBAL/LOCAL** events, through participation in the **GLOBAL/LOCAL** economy, and through being a part of the **Think GLOBAL/LOCAL Movement**, which encourages people to take a **GLOBAL/LOCAL** perspective on their daily lives.

Specifically, **Think GLOBAL/LOCAL** means that you identify with the following behaviors:

- You belong to the **whole world / local community**
- You are a **global citizen / local citizen**
- You always **think globally / think locally**
- You hold a **global viewpoint / local viewpoint**
- You care about knowing **global events / local events**
- Your heart belongs to **the whole world / your local community**
- You believe you are connected **with the rest of the world / with your local community**

Priming reinforcements

1. Please, identify three points from the text you have just read that describe what being a **GLOBAL/LOCAL** citizen means to you.
2. Please, put the following sentences about the behaviors corresponding to the **Think GLOBAL/LOCAL** Movement description in an order that makes sense:
    a. I belong to the whole world / local community
    b. I am a global / local citizen
    c. I always think globally / locally
    d. I hold a global / local viewpoint
    e. I care about knowing global / local events
    f. My heart belongs to the whole world / local community
    g. I believe I am connected with the rest of the world / I respect my local traditions

Appendix C: Study 2. Promotional material stimuli for spatial construal

Visuals

ECOTrend: SAVE NATURE, CONSERVE LIFE!

ECOTrend: SUPPORT NATURE, PROMOTE LIFE!

Textual information below the visual

ECOTrend is an ethical eco-friendly fashion company, which merges vibrant styles with sustainable and fair trade practices in an effort **to increase the positive impact (to reduce the negative impact)** on **global (local)** environment and working conditions **around the world (in your local community)**.

ECOTrend is committed **to supporting (to preventing)** pro-environmental behaviors, **increasing (reducing)** the use of renewable resources, and **moving towards (moving away from non)** eco-friendly practices like using organic cotton and recycled materials. *ECOTrend* goes above and beyond to make environmentally conscious and totally trendy clothing and accessories.

In addition, *ECOTrend* **provides (avoids)** fair wages and full-time employment to the artisans and farmers that grow organic cotton **around the world (in your local community)**.

By buying *ECOTrend* clothing and accessories, you can make a difference for Planet Earth by **enhancing the abundance (decreasing the waste)** of natural resources, in turn **accomplishing environmental prosperity** (**subsiding environmental risks) across the Globe (around you).**

Going green has never looked so stylish!

Choose *ECOTrend*! **SUPPORT (SAVE)** Nature, **PROMOTE (CONSERVE)** Life!

Appendix D: Study 2. Time Donation exercise for spatial construal

Global Environment Day by ECOTrend! Local Environment Day by ECOTrend!

ECOTrend takes initiative in creating the **Global (Local)** Environment Day. On this day *ECOTrend* will inspire people to earn money for charity by completing different tasks on their website. In turn, *ECOTrend* will donate money to a **global (local)** charity **promoting environmental prosperity (subsiding environmental risks) around the world (in your local community)**.

You have an opportunity to monetize your time for a good cause with *ECOTrend*, and donate time to participate in the **Global (Local)** Environment Day here and now. You can choose how much time you would like to donate today, and you'll be asked to complete a simple task that will take the exact amount of time specified.

Note, you will NOT get paid for the time you spend on this task, but *ECOTrend* will donate 10 cents a minute of your donated time to the **global (local)** charity **promoting environmental prosperity (subsiding environmental risks) around the world (in your local community)**. In case, you do not want to donate any time, you can click on 0, and opt-out of donating your time for a good cause.

Time Donation task for special construal

Thank you for agreeing to donate your time to a good cause! Please, describe what sustainability means to you personally. You can write anything that you deem important and relevant to this topic.

Appendix E: Study 3: Promotional material stimuli for temporal construal

Visuals

Textual information below the visual

ECOHome: **support (protect)** the environment and **improve (preserve)** the world of the **FUTURE (TODAY)**!

ECOHome is a multinational eco-friendly home appliances company that develops innovative products across the globe and acts responsibly toward our planet Earth, **creating a better world (preserving the world)** of the **FUTURE (TODAY)**.

ECOHome takes steps in both the manufacturing and functionality of our appliances **to increase our positive impact (to decrease our negative impact)** on environment all over the world. **Improved energy and water efficiency (reduced energy and water waste)** (all products qualify for high Energy Star ratings), **extensive use of recycled materials, great quality of product materials ensure not only high quality products (and avoiding the use of non-ecofriendly and low quality materials not only protect from quality products),** but also **provide support (decrease risks)** to our **FUTURE (PRESENT)** environment.

ECOHome is oriented to make a **long-term (immediate)** change for our environment. To achieve this, *ECOHome* has committed to three sustainability objectives by the end of **2030 (2018) (within the next decade (within this year**):

- **Plant (Save) 60,000 (5,000)** trees by the end of **2030 (2018)** across the Globe!
- **Ensure (Protect)** access to affordable, reliable, and sustainable energy for **1,200 (100)** families in need worldwide by the end of **2030 / 2018**!
- **Provide (Preserve) 120,000 (10,000)** gallons of safe drinking water to children all over the world by the end of **2030 (2018)**!

Supporting (Protecting) the Earth of the **FUTURE (TODAY)** has never been easier - choose *ECOHome*!

Appendix F: Study 3. Time Donation exercise for temporal construal

ECOHome takes initiative in creating the Global Environment Day "**Improving (Preserving)** the World of the **FUTURE (TODAY)** On this day *ECOHome* will inspire people to earn money that they will use **to achieve (to reassure execution)** their sustainability objectives by the end of **2030 (2018)**.

You have an opportunity to monetize your time for a good cause with *ECOHome*, and donate time to participate in the Global Environment Day "**Improving (Preserving)** the World of the **FUTURE (TODAY**)" here and now. You can choose how much time you would like to donate today, and you'll be asked to complete a simple task that will take the exact amount of time specified.

Note, you will NOT get paid for the time you spend on this task, but *ECOHome* will dedicate 10 cents a minute of your donated time to one of their sustainability objectives to **promote environmental prosperity (to decrease environmental risks)** in the world of the **FUTURE (TODAY)**.

In case, you do not want to donate any time, you can click on 0, and opt-out of donating your time.

Time Donation task for temporal construal

Thank you for agreeing to donate your time to a Global Environment Day "**Improving (Preserving)** the World of the **FUTURE (TODAY)**"

Please, describe what sustainability means to you personally. You can write anything that you deem important and relevant to this topic.

Appendix G: Study 4a. Promotional material stimuli for social construal

Visuals

Textual information below the visual

ECOCare is a new eco-friendly personal care brand from a multinational company, which merges excellent quality ingredients with sustainable practices in an effort to **increase the positive impact (reduce the negative impact)** on the global environment. ***ECOCare*'s** line of products includes a variety of skincare products, deodorants, hand soaps, shaving creams, etc.

ECOCare is committed to **supporting pro-environmental behaviors (preventing anti-environmental behaviors)**, **increasing the use of renewable resources (reducing the use of scarce resources)**, and **moving towards eco-friendly practices (moving away from non-ecofriendly practices)** like using **organic (non-organic)** skincare products, **naturally-derived (artificially-derived)** scents, and only **sustainably-(unsustainable-) sourced** ingredients.

As a part of its global commitment to sustainability, ***ECOCare*** initiates the worldwide campaign "**PROFESSIONAL ATHLETES (MTURKERS)** for a Sustainable World!"

The mission of this campaign is to empower **professional athletes (MTURKERS)** worldwide **to advance (to preserve)** sustainability principles and practices. Through innovation and collaboration with the **professional athletes (MTurkers) worldwide**, ***ECOCare*** works **to raise awareness** of **(to secure) athletes' (MTurkers)** engagement with sustainable practices, such as recycling, growth of natural resources and biodiversity, as well as the **advancement (ensuring)** of sustainable consumption choices. ***ECOCare*** is committed to **athletes' (MTurkers') enhancement of environmental prosperity (minimizing environmental risks)** around the Globe.

Choose ***ECOCare***! **ENHANCE (SAVE)** and **SUPPORT (PRESERVE)** nature with "**PROFESSIONAL ATHLETES (MTURKERS)** for a Sustainable World"

Appendix H: Study 4b. Promotional material stimuli for social construal

Visuals

Textual information below the visual

ECOFruit is a new eco-friendly fruit snack from a multinational company, which merges excellent nutrition with sustainable practices in an effort to increase the positive impact on the global environment.

ECOFruit is committed to supporting pro-environmental behaviors, increasing the use of renewable resources, and moving towards eco-friendly practices like using organic fruit, naturally-derived colors and flavors, and only sustainably-sources ingredients.

As a part of its global commitment to sustainability, *ECOFruit* initiates the worldwide campaign "**DOCTORS (STUDENTS)** for a Sustainable World!"

The mission of this campaign is to empower **DOCTORS (STUDENTS)** worldwide to advance sustainability principles and practices. Through innovation and collaboration with the doctors' organizations worldwide, *ECOFruit* works to raise awareness of doctors' engagement with sustainable practices, such as recycling, growth of natural resources and biodiversity, as well as the advancement of sustainable consumption choices. *ECOFruit* is committed to **DOCTORS' (STUDENTS')** enhancement of environmental prosperity around the Globe.

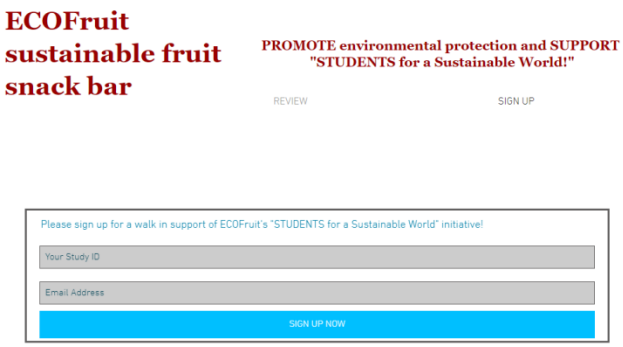
Choose *ECOFruit*!

PROMOTE environmental protection and SUPPORT "**DOCTORS (STUDENTS)** for a Sustainable World"!

Going green has never tasted so good!

Appendix I: Study 4b. Engagement and subsequent behavior measures

Sign-up for a charitable walk for social construal in Distant/Proximal conditions on *ECOFruit*'s website

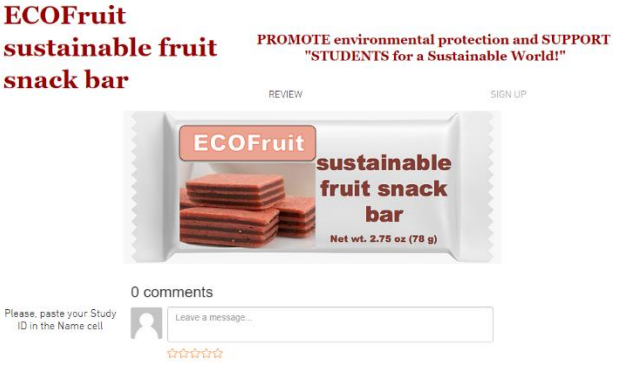


ECOFruit is organizing a walk in support of their "**DOCTORS (STUDENTS)** for a Sustainable World" initiative.

This event will take place in multiple locations around the world, including Cherry Hill, Philadelphia, Atlantic City, and New York City, on Sunday, April 22, 2018 (Earth day) from 10 am to 11 am.

Please, indicate whether you are interested in this event or would like to sign up.

Product review and rating for social construal in Distant/Proximal conditions on *ECOFruit*'s website



At this point, *ECOFruit*, a company supporting "**DOCTORS (STUDENTS)** for a Sustainable World" initiative, would appreciate your online rating and review of their product. Please follow the link to proceed with your review and sign it with your identifying number in the Name cell.

Please, follow the link to proceed with your review and sign it with your identifying number in the Name cell. Click here to proceed with the product review.

Gift card lottery choices

As part of the study, we are doing a lottery in which you can win one of the four $25 restaurant gift cards. Please indicate the choice of the restaurant below. Both of them are located in the Cherry Hill Mall.

1. Saladworks: “Saladworks chop FRESH all day, every day. From kale to carrots to quinoa, their promise is as fresh as it gets. Saladworks is making SALADS for the people. By the people”
2. Honeygrow: “Honeygrow features local and SEASONAL produce, and visits nearby farms to ensure the highest quality products. Honegrow is committed to connecting with every community and to serving in meaningful + SUSTAINABLE ways”

Chapter Four
- Article 3 -

Local Businesses with Global Sustainability Standards:

The Role of Consumer Identity and Social Norms in Encouraging Sustainable Behavior

Ekaterina Salnikova

Department of Management, Aarhus University, Fuglesangs Allé 4, 8210 Aarhus, Denmark

Local Businesses with Global Sustainability Standards: The Role of Consumer Identity and Social Norms in Encouraging Sustainable Behavior

This research explores how the effect of social norm appeals on sustainable consumer behavior is influenced by consumer global and local identity. Across three experimental studies, the author demonstrates the role of consumer identity, social influence, and their consistency in sustainable consumer behavior. The results show the congruency of global identity with descriptive (vs. injunctive) norms reflected using both self-reported and behavioral measures. Furthermore, the author demonstrates that consumers with global identity have a more positive attitudinal and behavioral response to sustainable practices of local firms when their promotional appeals employ descriptive social norms coming from a global (vs. provincial) source.

Keywords: global identity, local business, sustainability, social influences, descriptive norms, normative source, sustainability

"… I am not born for one corner; the whole world is my native land."

- Lucius Annaeus Seneca

Due to polarization between ongoing globalization with strong political stances taken against it in the international arena, sustainability has become an important concern to the world at large. Governmental policies, technological innovation, and international conventions are among the variety of possible approaches to combating environmental threats (Osbaldiston and Schott 2012). However, individual consumer behavior towards sustainable consumption and conservation of resources is available to most individuals across the Globe. As such, there is no doubt that individual sustainable behavior plays a crucial role in the future of our Planet Earth and for generations to come (Stern 2000). Individual sustainable behavior is identified as "actions that result in decreased utilization of natural resources across the lifecycle of the product, behavior, or service" (White, Habib, and Hardisty 2019: p. 3).

Multifarious companies are responding to elevated consumer concerns about sustainability by shifting their strategic focus towards sustainability, thereby improving consumer perception of the business itself, and as a result, enjoying financial gains (Kotler et al. 2010; Olsen et al. 2014). Most global corporations are trying to incorporate sustainable elements in their product positioning and business strategies, thereby persuading consumers that they are going "green" through multiple communication channels (Osterhus 1997; White et al.,2019). However, often, it is small businesses that could very well be more consistent with a truly sustainable strategy at its core. Small companies are trying to adapt their business strategies to high sustainability standards accepted at a global level (Osbaldiston and Schott 2012).

However, small local businesses often struggle from the competition of multinational corporations that can control pricing due to economies-of-scale, and that promote their sustainable

positioning through various communication channels. As a result, local businesses often struggle under pressure from global "giants" and do not choose to proceed with sustainable practices or eventually close their doors. In a more optimistic scenario, local businesses can find new effective ways to engage consumers with their sustainable elements turning it into a beneficial strategy for both the environment and the financial prosperity of their businesses. Thus, the question we pose is how can local firms more effectively engage consumers with firms' sustainable components and encourage sustainable consumer behavior?

Sustainability, in general, is more of a globally-construed phenomenon; however, the action that contributes to improving or disturbing sustainability often happens in the local domain. Therefore, global and local consumer cultural identity (Hermans and Dimaggio 2007) can play an essential role in understanding proper positioning for local businesses that contribute to the global goals of sustainability. Some researchers identified locally-oriented consumers as having heightened environmental concerns scoring high on the value of environmentalism, or to having a positive attitude toward buying local products due to the emergence of environmental fundamentalism as the results of anti-globalization movement (Reich, Beck, and Price 2018; Stanton, Wiley, and Wirth 2012; Steenkamp and Jong 2010; Telligman, Worosz, and Bratcher 2017). However, globalization research is evident in suggesting that consumers with global identity are more likely to have elevated environmental concerns and a tendency to engage in sustainable behavior (Grinstein and Riefler 2015; Nijssen and Douglas 2008; Strizhakova and Coulter 2008). Therefore, research does not provide any simple and straight-forward strategies that local companies can take in regards to targeting globally- or locally-oriented consumers.

When creating a strategy to communicate with their consumers, local businesses could take advantage of the recognized influence of social factors when engaging their consumers with their

sustainable business practices. Social norms were found to be an especially effective tool to influence sustainable consumer behavior (Cialdini et al. 2006; Goldstein, Cialdini, and Griskevicius 2008; White and Simpson 2013). We propose that consumer identity might impact the effect of social influence on sustainable behavior due to the difference in the effect of global versus local environment concerns (Gifford et al. 2009). We argue that consumers with global identity will be more consistent with the descriptive norm appeal due to the emphasized inner global connectedness, world-mindedness, and cosmopolitanism (Strizhakova and Coulter 2013, 2015) consistent with the notion of descriptive norms. At the same time, we propose that consumers' mental frame of local identity will be more consistent with the injunctive appeal due to the positive relationship with consumer ethnocentrism, nationalism, and values of tradition and conformity (Baughn and Yarpak 1996; Lee, Lee, and Lee 2014; Steenkamp and Jong 2010), compatible with the general obedience and adherence to injunctive norms.

Consequently, the impact of consumer identity on social norms could be influenced by belonging to a social reference group (effect of the in-group vs. out-group), the degree of perceived similarity with the reference group, or by the psychological distance of the individual to the normative source (Goldstein et al. 2008; Hogg 2003; Tajfel and Turner 1996). Goldstein et al. (2008) found superior effects from social factors when consumers were exposed to social norms and described a more proximal reference group due to location and time (descriptive provincial norms) vs. a more general one (descriptive global norms) due to a closer match between these individuals and situational circumstance. However, from a globalization perspective, global consumers may construe global norms and global social groups as a more proximal social group (also their in-group) versus the provincial norms and the local community, due to the mental connection to the world as a whole and belongingness to a social group of global citizens. In this

case, would the appeals employing descriptive global norms and out-group normative sources be more effective in promoting sustainable consumer behavior in consumers with global identity? In contrast, would consumers with local identity be more affected by an appeal featuring provincial norms and in-group norm source?

In this paper, we draw upon theories of consumer cultural identity (Hermans and Dimaggio 2007) and focus theory of normative conduct (Cialdini, Reno, and Kallgren 1990; Cialdini, Kallgren, and Reno 1991). Our goal is to evaluate consumer responses to sustainable practices of local firms from an integrative perspective of consumer identity and social influence as a form of social norms. Our research contributes to globalization, sustainability, and normative conduct research by identifying an important but not yet explored, the role of consumer identity in encouraging sustainable consumer behavior.

Theoretical Foundation

Social norms and sustainable consumer behavior

A common approach to encouraging consumers to engage in sustainable consumer behavior is a powerful tool of social influence (White et al., 2019). Social influence can be transmitted by highlighting social aspects of engaging in sustainable behavior through social norms or beliefs of what is socially appropriate and/or approved (Cialdini et al. 1990, 1991, 2006).

We apply the notion of social influence from the perspective of the focus theory of normative conduct, as a means to foster sustainable consumer behavior (Cialdini et al. 1990, 1991). According to this approach, there are two main propositions concerning the effects of social norms. First, they reflect two components: information on what people actually do ("what is done") or descriptive norms, and information on what people should do ("what ought to be done") or injunctive norms (Kallgren, Reno, and Cialdini 2000). Descriptive norms manifest the perceived

prevalence of a given behavior and motivate action by informing people about what is considered to be useful or accurate in a particular setting. Therefore, it provides decisional short-cuts (i.e., heuristic) in choosing how to behave in a specific situation (Cialdini et al. 1990, 1991). Injunctive norms, a perceived degree of social (dis)approval of specific behavior, is driven by the desire to avoid social sanctions for noncompliance, or to receive social rewards for engaging in the desired behavior (Cialdini et al. 1990; Jacobson, Mortensen, and Cialdini 2011). According to the second proposition of normative conduct theory, the effect of social norms is constrained by the extent to which information on social norms is currently salient (Cialdini et al. 1990, 1991).

Both types of social norms are found to positively influence sustainable consumer behavior (Cialdini et al. 1990 1991; Nolan et al. 2008; Reno, Cialdini, and Kallgren 1993; Schultz et al. 2007; White and Simpson 2013). In particular, social norms have been used in explaining and predicting a number of different sustainability-related behavior, such as littering (Cialdini et al. 1990; Kallgren et al. 2000), composting and recycling (Schultz 1999; White and Simpson 2013), energy conservation and participation in other sustainable programs (Bollinger and Gillingham 2012; Goldstein et al 2008; Schultz et al. 2007), and choice of sustainable products including food and services (Burger et al. 2010; Harland, Staats, and Wilke 1999; Mollen et al. 2013; Teng, Wu, and Liu 2015). Current research examines the comparative effectiveness of these types of social norms and the conditions under which local firms can elicit the most positive sustainable consumer behavior. These conditions are defined to be global and local consumer identity.

The role of consumer identity

We propose that consumer identity or their global and local cultural orientation as a mental frame may interact with the influence of social norms on sustainable consumer behavior.

Consumer cultural identity theory (Arnett 2002; Hermans and Dimaggio 2007) suggests the increasing impact of globalization on identity and the self and proposes studying these identities on the levels of globalization and its backfired result - localization. Globalization has shown to impact consumer cultural identities and subsequent product and brand choices (Alden, Steenkamp, and Batra 2006; Strizhakova et al. 2008, 2012). Specifically, globalization has given rise to mental frames of a globally-oriented segment of consumers who are more cosmopolitan with a higher likelihood of identifying with people around the world (vs. in their own geographically proximal community) and with global consumer culture (Alden et al. 2006; Strizhakova and Coulter 2013; Zhang and Khare 2009). Mental framing of global identity consists of identification with the world at large and particularly, with people around the world that believe in the positive effect of globalization (Strizhakova et al. 2012; Tu, Khare, and Zhang 2012; Zhang and Khare 2009). Global identity was found to be negatively related to tradition and conformity (Steenkam and Jong 2010) and less susceptible to normative influence and pressure associated with injunctive norms (Alden et al. 2006; Lee et al. 2014; Riefler, Diamantopoulos, and Siguaw 2012). This leads to possible rejection of the influence of injunctive norms on consumers with a global identity. Association of global identity with global connectedness and belongingness to the global world (Strizhakova and Coulter 2013) suggests that consumers exhibiting such mental framing are more open to acquiring information to make a more informed and objective decision that is appropriate for the particular context, which corresponds to the notion of descriptive norms.

In contrast, local identity is often described as contributing to a phenomenon of localization or heterogenization, difference, and cultural diversity. This process not only strengthens local identity under the pressure of globalization but also could very well be the result of rejecting it (Tomlinson 1990). Consumers with local mental frames are believed to maintain a local traditional

culture, identify with their local community, and reject influences that are considered global (Ger and Belk 1996; Strizhakova and Coulter 2013). Local identity could also be predicted by consumer ethnocentrism (Chan, Chan, and Leung 2010; Shimp and Sarma 1987; Steenkamp and Jong 2010) and economic nationalism (Baughn and Yarpak 1996; Lee et al. 2014), both of which foster a closer belongingness to the in-group, accompanied by a stronger susceptibility to the influence from other in-group members and the pressure to comply with it (Lee et al. 2010). Furthermore, local identity was found to be positively related to the general value of tradition, conformity, and security (Steenkamp and Jong 2010). In turn, these values are associated with the strive for obedience and restrain of actions in order not to upset and violate injunctive social norms. Therefore, we hypothesize:

H1: Social norms appeal interacts with the effect of consumer global/local consumer identity on consumer attitudinal and behavioral response to sustainable messages of local business

H2a/b: Consumers with activated global/local identity will demonstrate greater positive attitudes and behavior towards a business when the message includes descriptive/injunctive social norms

The moderating role of the normative source proximity (provincial and global norms)

The effect of social influences depends on the normative source or so-called reference group that exhibits similarities to the norm receiver (White et al., 2019). The two most common perspectives of approaching these similarities include social identity or social group membership (Hogg 2003; Tajfel and Turner 1996; Terry and Hogg 1996; Terry and Hogg 1999), and contextual comparability or situational similarities to a reference group like spatial or temporal proximity (Goldstein et al. 2008).

Multiple researchers have found that individuals are more likely to adhere to the descriptive norms of a group with relevant social identity (Terry and Hogg 1996; Terry et al. 1999). At the same time, consumers were found to be more likely to engage in sustainable behavior when in-group members also participate in such behavior (Gupta and Ogden 2009; Han and Stoel 2017; Welsh and Kuhling 2009).

Goldstein et al. (2008) found that individuals are more likely to follow descriptive norms coming from a reference group that is contextually comparable to the norm receiver. It was found that the location at a given time was more influential than individual identification with the reference group. Norm of the reference group from the immediate surrounding is defined as a provincial norm, and from less immediate surroundings as a global norm (Goldstein et al. 2008).

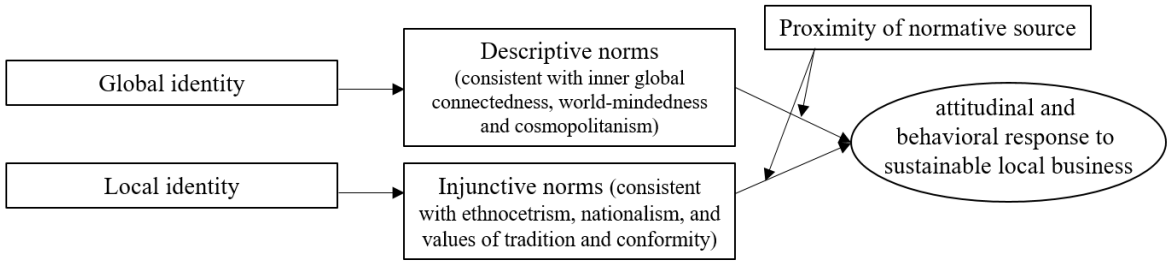
In the case of consumer identity, it is suggested that consumers with the salient global identity mental frame are more likely to associate themselves and have a stronger psychological connection with people around the world than with people from their local community (Reysen and Miller 2013). However, this does not necessarily contradict Goldstein's notion of adherence to provincial norms more than to global one. We propose that "people around the world" become more of an "in-group" for globally-oriented consumers due to the greater identification with global citizens as a social group. The second reason is a spatial similarity, i.e., for people with global identity; global citizenship is a more immediate context due to the mental association with the world rather than with a smaller local community (Golmohamad 2008). Accordingly, individuals with a salient local mental frame will adhere to descriptive (vs. injunctive) norms depicting the behavior of a local community as both a social group and a proximal surrounding. Hence, we hypothesize:

H3: Proximity of descriptive norm source moderates the effect of consumer global/local consumer identity on consumer behavioral response to sustainable messages of local business

H4a/b: Consumers with activated global/local identity will demonstrate a more positive sustainable behavior (in the form of donations to environmental charity and idea generation for seminars organized by the local service business) when the message includes global/provincial norm source

We conducted three online experiments to test our hypotheses by assessing the role of consumer identity with the effect of social influence on sustainable consumer behavior for local firms. Study 1 examines the effect of the interaction of global/local identity and descriptive/injunctive social norms on consumer attitudes towards sustainable business practices of the local service firm. In Study 2, we extend the hypothesis tested in Study 1 by examining the effect of this interaction in an actual donation context. In study 3, we show the moderating effect of proximity of normative sources on the interacting effect of global or local identity on sustainable consumer behavior including actual donation context and consumer co-creation process. The summary of the hypotheses is shown in Figure 1.

Figure 1. Summary of hypotheses



Study 1: Interaction of consumer identity and social norms using self-reported attitudinal measures

Objectives and participants

We tested the link between consumer identity and social norms among 252 Amazon MTurk participants. In particular, we tested whether salient global (vs. local) identity leads towards a preference to message appeal depicting descriptive (vs. injunctive) social norms. Global versus local consumer identity was activated through priming (see Appendix 1). Social norms were manipulated through the description of the firm and its sustainable component. A 2 (identity prime: global vs. local) x 2 (social norms frame: descriptive vs. injunctive) between-subjects experiment was adopted. Five responses were removed from the analysis due to failed attention checks embedded in the survey. For the manipulation check of social norms appeal, participants were asked to recall the slogan of the presented business. Those who incorrectly recalled the slogan (35 responses) were removed from the further analysis resulting in a final sample of 212 (U.S. residents; 54% females; $M_{age} = 38.27$) participants with slightly over 50 participants in each condition.

Priming

In order to activate global or local identity, each participant was randomly assigned a global or local priming condition. Participants read a passage describing a global or local citizenship phenomenon shown on the screen for at least 30 seconds. Two priming reinforcements congruent with the passage were used. First, participants were asked to identify three points from the text that described what a global or local citizen means according to the first part of priming. Second, participants completed the task unscrambling three sets of words taken directly from the passage participants had read earlier. Priming technique was developed in accordance with the research of

Zhang and Khare (2009), Gao, Zhang, and Mittal (2017), and Ng and Batra (2017) (see Appendix A). The global-local citizenship scale (Zhan and Khare 2009) was used as a manipulation check where answers to three questions were averaged with a higher composite score identifying global identity ($\alpha = .95$). Manipulation check showed that the priming was successful in activating global vs. local consumer identity ($M_{\text{Global identity in global citizenship condition}} = 4.33$, $M_{\text{Global identity in local citizenship condition}} = 3.51$, $t = 2.95$, $p < .001$).

Method

Participants were notified that they would be completing two unrelated studies. The first part consisted of the primer. The second part included an article that appeared in a local newspaper from the state of the participant's residence (true state name was embedded from the qualification question at the beginning of the survey). This article described the business concept and sustainable business strategies of a new local business – *TooGoodToWaste Deli* – an eco-friendly deli intended to battle food waste. Social norms appeal was manipulated through the company slogan "You can/should support the food world" and the information about the results of the national survey in the article (Appendix 2). Subsequently, participants were asked to rate:

- projected frequency of future purchases ("*Considering you like the taste of TooGoodToWaste Deli's food, how often would you like to incorporate TooGoodToWaste Deli's meals in your daily table?";* two 7-point scale items: for lunch never-daily, for dinner never-daily; α=.92),

- attitude towards the business concept (combined brand attitude [three semantic differential 7-point scale items: unfavorable-favorable, unappealing-appealing, and undesirable-desirable], and purchase intention [two 7-point semantic differential scale items: unlikely-likely, improbable – probable; MacKenzie et al. 1986]; $\alpha = .97$).

We used PROCESS (Hayes 2017) to analyze the data and to control for external influences covarying the effects of several control measures, such as global consumption orientation (GCO; Steenkamp and Jong 2010; Westjohn et al. 2016; α =.78), green consumer values (Haws, Winterich, and Naylor 2014; α = .94), consumer trust of corporate sustainability, and attitudes towards food waste, age, and gender. Non-significant covariates were excluded from the model stepwise. Participants were debriefed about the true purpose of the study and the fictitious nature of the business at the end of the study.

Results

The two-way interaction of consumer identity and social norms was significant for both of the dependent variables. Therefore, the first part of H1 predicting that social norms appeal interacts with the effect of consumer identity on consumer attitudinal response to sustainable messages of local service firms was supported.

Frequency of future purchases (ΔR^2 = .01, ΔF (1 204) = 5.41, $p < .05$; b = .80, t (204) = 2.33, $p < .05$, LLCI = .12, ULCI = 1.48; Table 1) showed the expected social norm by identity interaction when controlling for GCO (b = .15, t (204) = 2.36, $p < .05$, LLCI = .02, ULCI = .27), green consumer values (b = .27, t (204) = 3.46, $p < .001$, LLCI = .12, ULCI = .43), consumer trust of corporate sustainability (b = .51, t (204) = 8.66, $p < .001$, LLCI = .39, ULCI = .62), and attitudes towards food waste (b = .08, t (204) = 2.60, $p < .05$, LLCI = .02, ULCI = .14).

Attitude toward the business concept also showed a significant interaction (ΔR^2 = .01, ΔF(1,204) = 4.11, $p < .05$; b = .56, t (206) = 2.08, $p < .05$, LLCI = .03, ULCI = 1.09; Table 1) when controlling for green consumer values (b = .34, t (206) = 5.43, $p < .001$, LLCI = .22, ULCI = .46), consumer trust of corporate sustainability (b = .81, t (205) = 17.53, $p < .001$, LLCI = .72, ULCI = .91), and age (b = -.01, t (206) = 1.64, $p < .10$, LLCI = -.02, ULCI = .00).

Spotlight analyses (Spiller et al. 2013) showed that participants in global identity conditions indicated higher frequency of future purchases when the message was framed around descriptive (vs. injunctive) social norms (b = .41, t (197) = 1.72, $p < .10$, LLCI = -.06, ULCI = .88; Figure 2). The same was true for the attitude towards the business concept, where participants in global conditions rated messages framed around descriptive (vs. injunctive) social norms more favorably (b = .31, t (205) = 1.62, $p < .10$, LLCI = -.07, ULCI = .68; Figure 2). There were no significant results for participants in the local identity condition.

Table 1. Study 1: Main and interaction effects of consumer identity and social norms

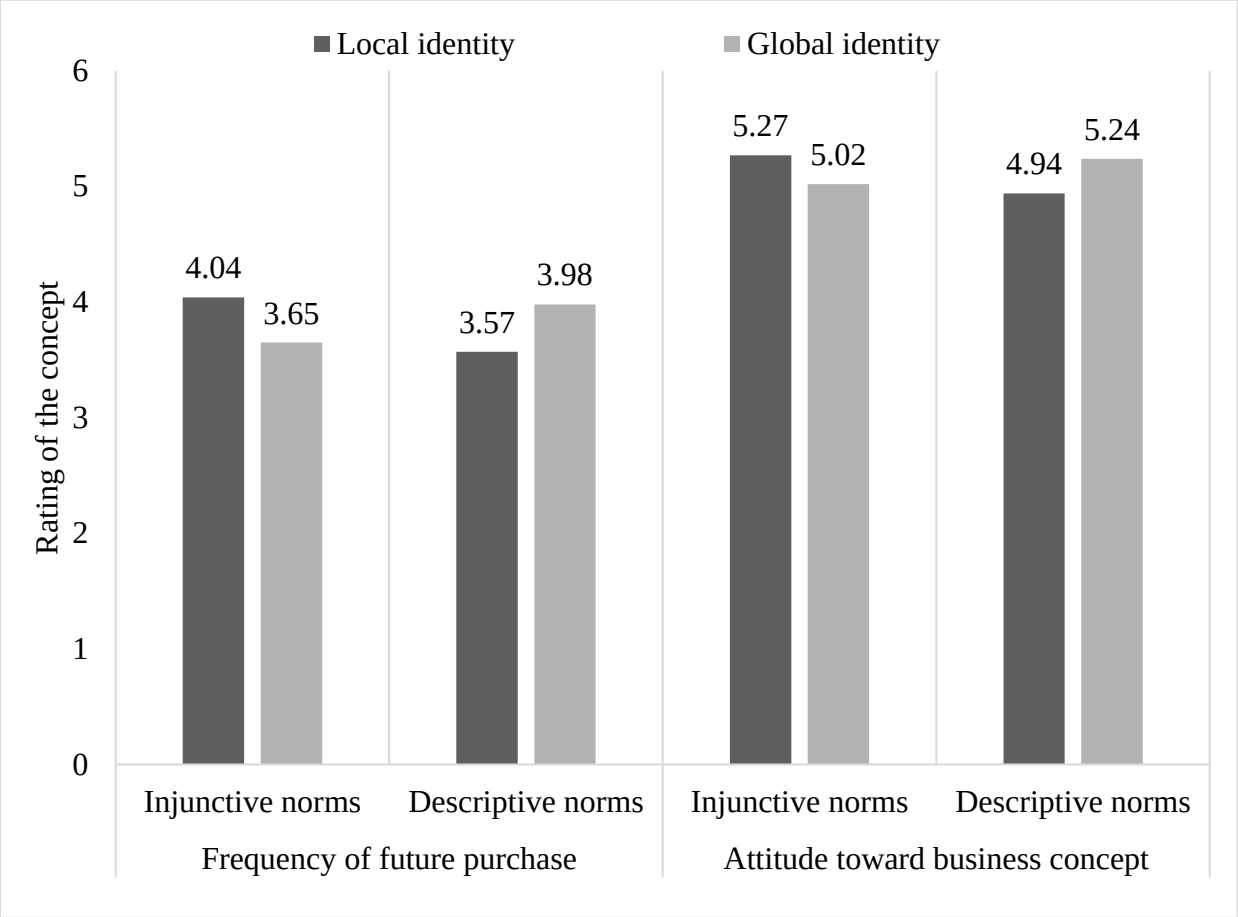
	Frequency of future purchase		Attitude toward a business concept	
	b	t	b	t
Main effects				
Consumer Identity	.01	$.06^{ns}$	-.04	$.3^{ns}$
Social Norms	-.07	$.4^{ns}$	-.04	$.27^{ns}$
Interaction	.80	2.33^{**}	.57	2.03^{**}
Covariates				
Trust in sustainability initiative	.51	8.67^{***}	.86	17.86^{***}
Green consumer values	.27	3.46^{***}	.27	4.11^{***}
Attitude toward food waste	.08	2.6^{**}	-	
GCO	.15	2.36^{**}	-	
Age	-		-	
Gender	-		-	
Model fit				
F	23.42^{***}		95.05^{***}	
R^2	.45		.70	
Test of unconditional interaction				
ΔF	5.41^{**}		4.11^{**}	
ΔR^2	.01		.01	

^{ns} $p > .05$; † $p \leq .10$; * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$

Therefore, consumers with activated global identity will demonstrate a greater positive attitudinal response to sustainable messages of local service firms when the message includes

descriptive (vs. injunctive) social norms. This supports H2a but does not provide enough support for H2b.

Figure 2. Study 1: Rating (centered means) of social norm frames across consumer identity conditions



Discussion

Results support our hypothesis that activated global consumer identity leads to preferences that reflect descriptive (vs. injunctive) social norms when rating a local business with sustainable practices. However, since this study used only self-reported measures of preferences, the next study concentrates on whether salience of global (vs. local) identity will lead participants to actually behave in a manner with the descriptive social norms described. Moreover, Study 2 includes the control group in the design.

Study 2: Interaction of consumer identity and social norms using behavioral measures of sustainable consumer behavior

Objectives and participants

In Study 2, we extend the results of Study 1 and tested the interaction of consumer identity and social norms in the domain of actual behavior – time donation for an environmental charity. Building on the results from Study 1, we proposed that when global (vs. local) identity is activated, consumers will be more engaged with business' a sustainable component when the message appeal is more consistent with the descriptive (vs. injunctive) norm frame. 545 Amazon MTurk participants, different from those in Study 1, were employed for this 2 (identity prime: global vs. local) x 3 (social norms frame: descriptive vs. injunctive vs. no norm) between-subjects design. 27 responses were removed from the analysis due to the failed attention check (one or two out of two questions). This resulted in a final sample of 518 participants (U.S. residents; 68% females; M_{age} = 38.01; between 96 and 115 participants in each condition except two control groups with 54 and 45 participants).

Method

Participants were first, prequalified for participation in this study by eliciting the frequency of using the services of hair salons and spas, among other services. Participants that indicated never using such services were screened out. Participants were then notified that they would be completing two unrelated studies. The first part followed the priming procedure identified in Study1.

The second part consisted of the short introduction of a fictitious local sustainable hair salon and spa business – *Nature of Beauty*, followed by the description of a sustainable initiative (*Water Day 2019*) organized in cooperation with a charity (Appendix 3). Localness of the business was

reinforced with the mention of the city and state of the participant's residence (true city and state name were embedded from the qualification questions at the beginning of the survey).

Participants were then presented with an opportunity to participate in the initiative and raise money for environmental charity by donating their time during the experiment (participants were notified that they would not be paid for the time they are donating). Social norms were manipulated through the headline of the initiative "You can/should join the efforts to protect water resources by participating in Water Day 2019 with Nature of Beauty" (for descriptive/injunctive norms conditions), and "Joining the efforts to protect water resources by participating in Water Day 2019 with Nature of Beauty" (for control conditions). Further social norm manipulation was included in the description of the sustainability initiative itself (Appendix 3). Participants in the control "no norm" group were randomly assigned to global vs. local prime, then read the information appeal of the initiative without mention of any social norms. As a time donation task, participants were asked to write an essay about the importance of clean water and how one can help in water observance and sanitation efforts. Actual time (in seconds) donated by participants and the number of words written in the essay were used to measure actual behavior.

PROCESS (Hayes 2017) was used to test and probe the interactions using indicator coding for multi categorical variable - social norms, and controlling for external influences covarying the effects of global consumption orientation (GCO; Steenkamp and Jong 2010; Westjohn et al. 2016; $\alpha = .78$), green consumer values (Haws et al. 2014; $\alpha = .92$), and consumer trust in corporate sustainability, age, and gender. Non-significant covariates were excluded from the model stepwise.

Participants were debriefed about the true purpose of the study and the fictitious nature of the business and sustainable initiative and were informed that researchers pledge to donate 10 cents

per minute participants spent on time donation task up to $25 to the Union of Concerned Scientists. Researchers honored the pledge and donated $25 to the Union of Concerned Scientist.

Results

Manipulation checks showed that the priming was successful in activating global vs. local consumer identity ($M_{\text{global citizenship condition}} = 4.41$, $M_{\text{local citizenship condition}} = 3.13$, $t(516) = 7.89$, $p < .001$). The results revealed that participants in an injunctive/no norm/descriptive norms condition perceived the appeal to correspond more with an injunctive/no norm/descriptive norms ($M_{\text{injunctive norm condition}} = 1.95$, $M_{\text{no norm condition}} = 3.60$, $M_{\text{descriptive norm condition}} = 5.03$, $F(515,2) = 112.01$, $p < .001$).

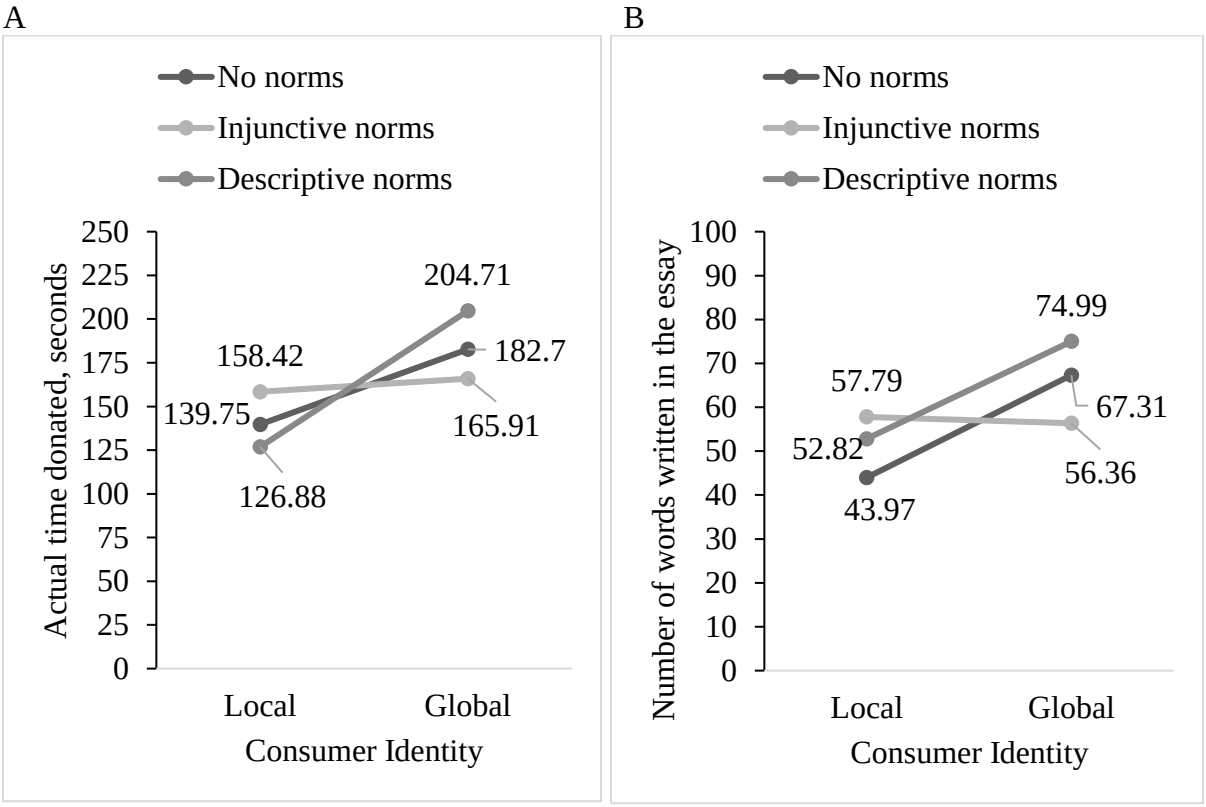
The analysis revealed the predicted interaction of consumer identity and social norm frame for behavioral measures also when including a control group that did not receive any norm-related information. Interaction was marginally significant for both actual time donated by participants ($\Delta R^2 = .01$, $\Delta F(2, 511) = 2.48$, $p < .10$) and number of words written in the essay ($\Delta R^2 = .01$, $\Delta F(2, 511) = 2.73$, $p < .10$). Trust in corporate sustainability was the only significant covariate for both actual time donated ($b = 34.56$, $t(511) = 6.26$, $p < .001$, LLCI = 23.72, ULCI = 45.40) and number of words written in the essay ($b = 10.94$, $t(511) = 5.53$, $p < .001$, LLCI = 7.05, ULCI = 14.82). These results support H1 stating that social norms appeal interacts with the effect of consumer identity on consumer behavioral response to sustainable messages of local service firms.

In addition, results showed the main effect of consumer identity on the number of words written in the essay with participants in global (vs. local) condition writing more extended essays ($b = .23.34$, $t(511) = 2.00$, $p < .05$, LLCI = .46, ULCI = 46.23).

As H2a predicted, when global identity was activated, exposure to descriptive (vs. injunctive vs. no norm) norms appeal of sustainability initiative resulted in a higher time donation for a

charitable cause (b = .77.82, t (511) = 3.37, *p* < *.001*, LLCI = 32.45, ULCI = 123.20; Figure 3). The same was true with the results of number of words written in the essay where participants with activated global (vs. local) identity had a higher number of words when presented with descriptive (vs. injunctive vs. no norm) appeals (b = .22.17, t (511) = 2.67, *p* < *.01*, LLCI = 5.91, ULCI = 38.42; Figure 3). There was not enough evidence support for H2b.

Figure 3. Study 2: Behavioral change in sustainable behavior influenced by social norm frames across consumer identity conditions



Discussion

The results of Study 2 confirms the congruency of global consumer identity and descriptive (vs. no norm vs. injunctive) social norm appeal. The descriptive norm appeal was shown to be particularly effective in encouraging donations to environmental charity in the form of actually donated time, and the effort applied expressed in the number of words written. Study 3 exclusively concentrates on the descriptive norm appeal, but with additional testing regarding the notion of

provincial and global descriptive norms and their moderating role for sustainable behavior of locally- and globally- oriented consumers.

Study 3: Moderating effect of provincial and global descriptive norms for global and local cultural identities using behavioral measures of sustainable consumer behavior

Objectives and participants

Study 3 carries two major objectives. The first one is to extend the application of consumer identity and social norm interaction by introducing an additional dependent measure of sustainable behavior in the form of consumer co-creation.

The second objective is to explore further the ways in which the magnitude of the effect of descriptive norms changes when activating global consumer identity and whether it depends on the proximity of the normative source. Goldstein et al. (2008) discussed the effectiveness of norms originating in the reference group provincial (vs. global) in nature. However, we argue that consumers with activated global identity norms not only identify with the more global reference group but also construe global norm source more like a provincial one. Therefore, we propose that activated global (vs. local) identity will be consistent with a global (vs. provincial) norm source.

302 Amazon MTurk participants, different from the ones in Studies 1 and 2, were employed for this 2 (identity prime: global vs. local) x 2 (normative source frame: global vs. provincial norm) between-subjects design. Descriptive norms were kept constant throughout all conditions.

Due to failing one or two out of two attention checks, 32 responses were deleted from the final sample. For the first manipulation check of proximal vs. global norms, participants (28) that incorrectly indicated the slogan of the presented firm were excluded from further analysis. This left us with the final sample of 242 respondents (U.S. residents; 47% females; $M_{age} = 35.68$; between 57 and 63 participants in each condition).

Methods

Following the structure of Studies 1 and 2, prequalified participants were randomly assigned a global or local consumer identity prime, and then received one of the two normative source appeals from the fictitious local, sustainable wash and fold laundry business – *Green and Clean.* Furthermore, participants had an opportunity to participate in its sustainable initiative by donating time. Global and provincial normative sources were manipulated with mentions of "people in the local community" versus "people around the World" as the source of the descriptive norm (Appendix 4).

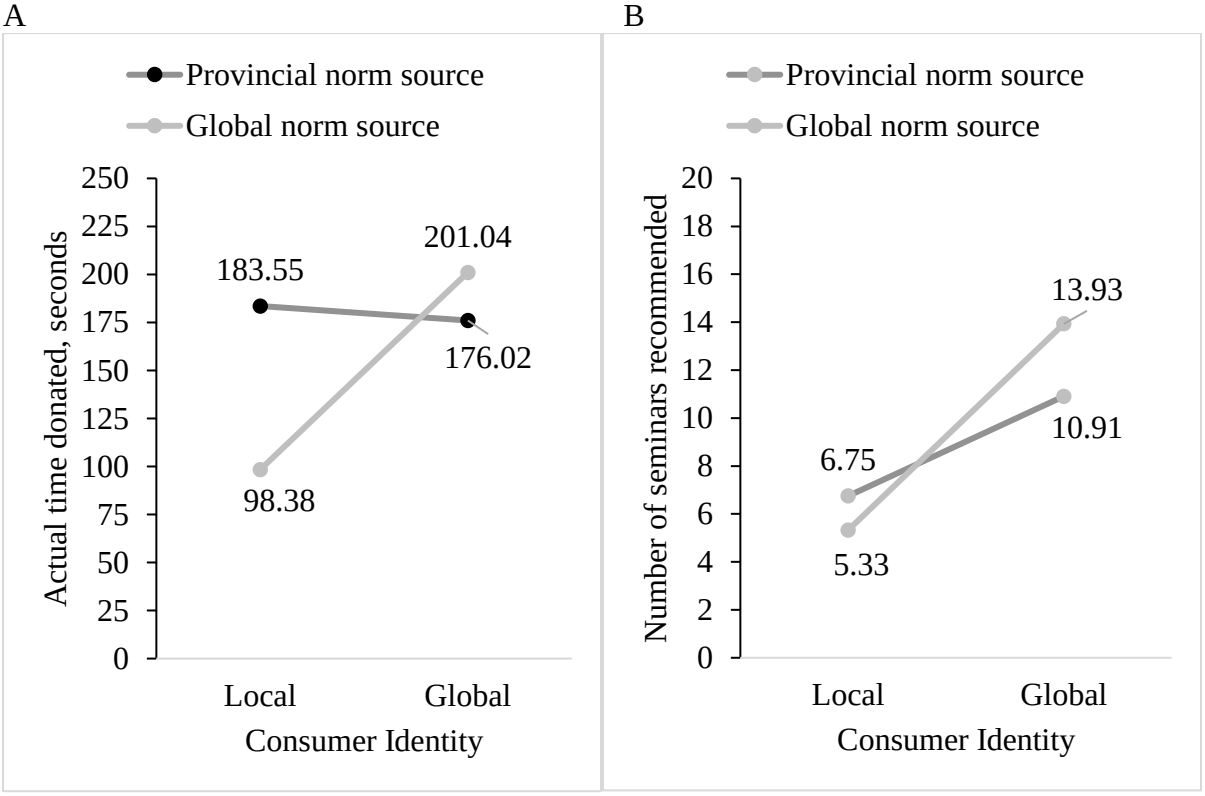
For the time donation task, participants were asked to write an essay about the importance of clean water and how one can help in water observance and sanitation efforts. Actual time (in seconds) donated by participants and the number of words written in the essay were used to measure actual behavior. Following the donation task, participants were engaged in a co-creation task - recommending topics for the seminars related to sustainable laundry practices and general water observance organized by *Green and Clean*. The number of seminars recommended was recorded and used as an additional measure of sustainable consumer behavior. Using PROCESS, we analyzed the interaction of normative source and consumer identity covarying effects of global consumption orientation (GCO; Steenkamp and Jong 2010; Westjohn et al. 2016; $\alpha = .80$), green consumer values (Haws et al. 2014; $\alpha = .93$), and consumer trust in corporate sustainability, age, and gender.

Results

Manipulation check showed that the priming was successful in activating global vs. local consumer identity ($M_{\text{global citizenship condition}} = 4.54$, $M_{\text{local citizenship condition}} = 2.81$, $t = 7.07$, $p < .001$). In addition, the results of the second manipulation check of proximal vs. global norms confirmed

that participants in a global/local norm source condition perceived the norm coming from more global/provincial norm source ($M_{\text{global norm source condition}} = 4.92$, $M_{\text{provincial norm source condition}} = 1.71$, $t = 9.75$, $p < .001$).

Figure 4. Study 3: Behavioral change in sustainable behavior influenced by normative source frames across consumer identity conditions



H3 predicts that normative source moderates the effect of consumer identity on consumer behavioral response to sustainable messages of local service firms. The interaction was significant for actual time donated in seconds ($\Delta R^2 = .02$, ΔF (1,237) = 4.87; b = 110.19, t (237) = 2.21, $p < .05$, LLCI = 11.81, ULCI = 208.57) and the number of seminars recommended by participants ($\Delta R^2 = .02$, ΔF (1,237) = 4.48; b = 4.43, t (237) = 2.12, $p < .05$, LLCI = .31, ULCI = 8.56). Trust in corporate sustainability was a significant covariate included in the model for the actual time donated (b = 30.43, t (237) = 2.65, $p < .01$, LLCI = 7.84, ULCI = 53.03). Green consumer values was a significant covariate included in the model for number of seminars recommended by

participants (b =.85, t (237) = 1.97, $p < .05$, LLCI = -.01, ULCI = 1.73). The interaction was not significant for the number of words written in the essay ($\Delta R^2 = .01$, ΔF (1,238) = 1.58, $p = .21$; b = 17.60, t (238) = 1.26, LLCI = -9.97, ULCI = 45.16). Therefore, H3 was partially supported.

As shown in Figure 4, consumers with activated global identity donated more time to a charitable cause (b = 102.66, t (237) = 2.89, $p < .01$, LLCI = 32.57, ULCI = 172.74) and recommended more topics for seminars (b = 8.60, t (237) = 2.43, $p < .05$, LLCI = 1.64, ULCI = 15.56) when presented with descriptive norm appeal coming from a more global (vs. provincial) norm source, thus supporting H4a. There was not enough evidence to support H4b.

Discussion

Study 3 demonstrates that when consumers are presented with descriptive norms, the effect of global identity on sustainable consumer behavior is moderated by the proximity of the norm source. When the descriptive norm is presented as global (vs. provincial) norm, i.e., depicting the behavior of people all over the World, participants donated more time to a charitable cause and had higher engagement with co-creation of the sustainable component of the firm, i.e., the recommendation of topics for seminars.

General Discussion

Current research examines the role of consumer identity in consumer responses to sustainable practices of local firms from the integrative perspective of consumer cultural identity and social influence. It provides converging evidence that salient global identity is consistent with the use of descriptive social norms appeal. Findings from these studies in the randomized experimental settings also suggest that the proximity of normative source moderates the relationship between consumer identity and social norms. The results of Study 1 show that when using descriptive norm appeal, salient global identity leads to greater positive attitudes towards local firms with

sustainable business practices. Study 2 extends the results of Study 1 and demonstrates that activated global identity is consistent with the descriptive norms appeal in the behavioral settings of actual donation towards sustainable charities. Finally, Study 3 shows that the effect of global consumer identity on sustainable consumer behavior is amplified when the descriptive norms appeal is presented in the form of global norms (more distant reference group).

This research makes theoretical contributions to globalization and consumer cultural identity, sustainability, and normative conduct streams of literature, along with practical contributions that can be used by local firms with sustainable practices.

Theoretical implications

Recent research demonstrates emerging impacts of globalization and in some cases rejection of such, i.e., localization, on self, identities, attitudes, and consumer behavior (Arnett 2002; Hermans and Dimaggio 2007), which gives rise to situationally dominant globally- and locally-oriented consumer identity segments (Ng and Batra 2017; Strizhakova and Coulter 2013; Zhang and Khare 2009). Current research advances preceding literature by providing insights into the impact of globalization and consequent consumer identities on sustainable consumer behavior. We contribute to globalization research by demonstrating that consumer identity can play a significant role in sustainable consumer behavior and by exploring psychological and situational factors that can lead consumers with salient global or local identities to engage in sustainable behavior.

Along the same line, we contribute to sustainability research by finding a novel moderator affecting sustainable consumer behavior – consumer identity. Preceding research started to discuss social identity as a construct important in sustainable behavior (Gupta and Ogden 2009; Rabinovich et al. 2012; Tajfel and Turner 1986; Terry and Hogg 1996); however, consumer identity has not been considered one of the important variables affecting it. We found that the

effectiveness of sustainability communication is contingent on the consistency of consumer identity and social norms appeals. Consumer identity of the consumer is particularly important in encouraging individual sustainable consumer behavior due to the multifaceted nature of sustainability phenomenon that is construed globally but applied locally.

Further, we also contribute to research on the effects of social influences in the form of social norms in sustainability. Existing research is in disagreement whether descriptive, injunctive, or a combination of both norm appeals effectively encourage sustainable consumer behavior and engage consumers with companies' sustainable elements (Bicchieri and Xiao 2009; Cialdini et al. 1991 2006; Jachimowicz et al. 2018; Melnyk et al. 2011; Reno et al. 1993) with some researchers showing the boomerang effect of using social norms at all (Richter, Thøgersen, and Klöckner 2018; Schultz et al. 2007). We argue that either of them can be used successfully; however, the effectiveness of such appeals is constrained by situationally activated consumer identity. We show that global identity is consistent with descriptive norm appeal supporting the notion that consumers exhibiting such identities exhibit global-connectedness and world-mindedness; thus, they are willing to acquire information about what others are doing to make a more appropriate and objective decision for a situation.

Finally, we contribute to the research on social influences and focus theory of normative conduct by identifying the interaction of normative source and consumer identity. Focus theory of normative conduct argues that individuals are more likely to adhere to descriptive norms referring to a contextually comparable (more proximal – provincial norms) group of people in terms of time and location (Goldstein et al. 2008). This research shows that for consumers with global identity, "people around the world" are becoming more of a proximal reference group, therefore, shifting the "out-group" to become an "in-group." Our results reveal that referencing a distant, but more

inclusive reference group shifts what is usually a global norm to becoming a provincial norm for globally-oriented consumers.

Practical implications

The current research provides insights for policymakers, managers, and specifically, for small local service firms that are trying to comply with the global sustainability standards while acting locally. From a practical standpoint, we provide insights into how local firms can utilize the effects of social norm interventions while offering sustainable service, running their sustainability campaigns, and trying to encourage their consumers in sustainable behavior. The most effective strategy for local firms is to activate consumers' global identity through marketing communications and to use descriptive norm appeal interventions referencing a global norm source. For example, firms can activate the notion of global citizenship by emphasizing the "globalness" of a general sustainability phenomenon and the importance of being a responsible citizen in the world. Descriptive norms appeal can be crafted by providing the information of what other people do in a similar situation, e.g., "9 out of 10 people prefer to use sustainable laundry detergent when such option is presented". A normative source can amplify the effect of descriptive norms appeal interacting with the consumer identity. Marketing managers can achieve this effect by referencing a social group, with which global consumers are identifying themselves the most, for instance, "people all over the world use the service of sustainable hair salon when it is possible."

Further research

Further research could explore possible underlying mechanisms of the congruency effect between consumer identity and social norm appeals in the context of sustainable consumer behavior.

Sustainable consumer behavior is often viewed as the behavior that requires prioritizing other people rather than self even though often sustainable consumption comes at the expense of one's self (White et al. 2019). Further research could look into the role of self-construal in the relationship between consumer identity and social norms. More pronounced interdependent self-construal have traditionally been linked to sustainable consumer behavior (Arnocky, Stroink, and DeCicco 2007; White and Simpson 2013). However, it is important to explore the role of interdependent and independent self in the congruency effect of consumer identity and social norms. For example, the interaction of activated independent (vs. interdependent) self-construal and global consumer identity may be effective in engaging consumers with sustainable behavior, due to a more pro-active and independent nature of global consumers driven by the emphasis of global consumer culture on personal success and self-gratification (Steenkamp and Jong 2010). Consumers with local identities could adhere more to norms that highlight interdependent self due to a stronger attachment to local in-group members.

Cialdini et al. (2006) found that negative-framed descriptive norm appeals (focusing on the undesirable outcomes) are the least effective at preventing undesirable conduct, whereas negative-framed injunctive appeals were the most effective. However, consumer identity might shift these effects. Further research could explore whether consumers with global identity are more likely to adhere to a positive-worded descriptive norm appeal than to any other combination due to the consistency of global identity with the prevention regulatory focus (Ng and Batra 2017; Westjohn et al. 2016).

We found effective strategies to communicate social norms to consumers with salient global identities. Further research could focus on engaging consumers with salient local identity with sustainable behavior from the perspective of social identity literature. Consumers associating

themselves with a specific social group do not want to see their group outperformed by some other, especially, dissociative group (Ferguson, Branscombe, and Reynolds 2011). White et al. (2014) found that individuals increased their positive sustainable behavior when they learned that members of dissociative groups performed better with such behavior. Individuals with salient local identities could be encouraged to engage in positive sustainable behavior when friendly competitions are in place. For example, challenges between neighborhoods or between fans of the local and competing sports team could be a strategy for local businesses to increase consumer engagement with sustainability when local identities of individuals are more salient.

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Appendix 1

Priming materials

Passages presented to participants in global and local conditions

GLOBAL citizenship

In a recent article, a team of researchers from the University of Oxford, UK discussed the phenomenon of **GLOBAL/LOCAL citizenship**. **A GLOBAL/LOCAL citizen** is someone who identifies with the **GLOBAL** world community rather than with his(er) local one, and whose actions contribute to building this community's values and practices.

GLOBAL/LOCAL citizenship in large part is made possible through taking part in the **GLOBAL/LOCAL** events, through participation in the **GLOBAL/LOCAL** economy, and through being a part of the **Think GLOBAL/LOCAL Movement**, which encourages people to take a **GLOBAL/LOCAL** perspective on their daily lives.

Specifically, **Think GLOBAL/LOCAL** means that you identify with the following behaviors:

- You belong to the **whole world / local community**
- You are a **global citizen / local citizen**
- You always **think globally / think locally**
- You hold a **global viewpoint / local viewpoint**
- You care about knowing **global events / local events**
- Your heart belongs to **the whole world / your local community**
- You believe you are connected **with the rest of the world / with your local community**

Priming reinforcements

4. Please, identify three points from the text you've just read that describe what being a **GLOBAL/LOCAL** citizen means to you.
5. Please, put the following sentences about the behaviors corresponding to the **Think GLOBAL/LOCAL** Movement description in an order that makes sense:
    a. I belong to the whole world / local community
    b. I am a global/local citizen
    c. I always think globally / locally
    d. I hold a global/local viewpoint
    e. I care about knowing global/local events
    f. My heart belongs to the whole world / local community
    g. I believe I am connected with the rest of the world / I respect my local traditions

Appendix 2
Study 1: Stimuli
Descriptive/Injunctive norm conditions

Cozy deli with a great mission is opening in the heart of your community

Cozy deli with a great mission is opening in the heart of your community

TooGoodToWaste Deli is in the works, promising to help communities make sustainable choices around delicious and healthy products. Meals will be made from food close to its expiration date and cosmetically blemished products that would otherwise end up in landfills. This non-profit, surplus food deli, which intends to battle food waste, should open by the end of this month.

Given **TooGoodToWaste Deli's** slogan, "**YOU CAN/SHOULD** help the food world", one can expect an emphasis on the highest principles of sustainability, blended with the comprehensive quality of food safety standards. **TooGoodToWaste Deli's** assortment features both "grab-n-go" ready to eat meals prepared daily in the onsite kitchen, and a selection of produce and grocery items all at competitive prices in a clean, friendly environment.

We talked to the founders of **TooGoodToWaste Deli**, and the message they want to send your community is simple:

"In a recent national survey, 9 out of 10 Americans believe **YOU** as an individual consumer **CAN** help the environment and tackle food waste by including food close to its expiration date and misshaped fruit and vegetables in their daily table. Your fellow Americans already incorporate close-to-expired foods and "ugly" produce into their meal plan. **YOU CAN** join them in reducing the impact that wasted food has on the environment, and start shopping at **TooGoodToWaste Deli**." / "In a recent national survey, 9 out of 10 Americans believe **YOU** as an individual consumer **SHOULD** help the environment and tackle food waste by including food close to its expiration date and misshaped fruit and vegetables in their daily table. Your fellow Americans want you to incorporate close-to-expired foods and "ugly" produce into your meal plan. **YOU SHOULD** help reduce the impact that wasted food has on the environment, and start shopping at **TooGoodToWaste Deli**."

Please welcome **TooGoodToWaste Deli** to your community!

Appendix 3
Study 2: Stimuli
Experiment Instructions

We would like to introduce the business concept and sustainable business strategies of **Nature of Beauty**, a new eco-friendly beauty salon that is preparing to open its doors in **${City}, ${State}** within the next three months.

Nature of Beauty is a **local** beauty salon and spa that places equal importance on beauty, community, and nature. It integrates a green philosophy into their daily operations by using sustainable personal care products, and by implementing water-saving systems.

Next, we will talk about the **Nature of Beauty**'s participation in the sustainability initiative. Please read all the presented information carefully, and answer the following questions.

Information on the next page will appear for at least 40 seconds.

Sustainability initiative - Descriptive Norm condition

You **CAN/SHOULD** join the efforts to protect water resources by participating in **Water Day 2019** with **Nature of Beauty**

Due to their emphasis on water saving systems, **Nature of Beauty** Hair Salon and Spa decided to participate in **Water Day 2019** in cooperation with the environmental charity organization - **Water Conservancy**, which is dedicated to actively protecting water resources for the good of people and nature.

Environmental charity organization **Water Conservancy** reports that people consider participating in **Water Day** to be an effective way to help the environment. According to **Water Conservancy**'s survey, 9 out of 10 people think that protecting the water resources is critically important and are opting to participate in **Water Day** when presented with such an opportunity. **You can also join these efforts**! / Environmental charity organization Water Conservancy reports that people believe that participating in **Water Day** is an effective way to help the environment. According to **Water Conservancy**'s survey, 9 out of 10 people believe **you as individual** should protect the water resources and participate in **Water Day** when presented with such an opportunity. **You should join these efforts**!

On **Water Day 2019**, your **local** hair salon **Nature of Beauty** in collaboration with the charity organization **Water Conservancy** will inspire people to raise money for observance of fresh water, sanitation, and other water-related issues by posting inspirational messages on social media with the hash tag #WaterDayWithNatureOfBeauty.

You can now join your **local** hair salon **Nature of Beauty** and the charity organization **Water Conservancy** by monetizing your time for a good cause and donating time to participate in **Water Day 2019** here and now. You can choose how much time you would like to donate today, and you'll be asked to complete a simple task that will take the exact amount of time specified.

Note, although you will NOT get paid for the time you spend on this task, **Nature of Beauty** will donate 5 cents for every minute of your time to the environmental charity organization **Water Conservancy** dedicated to observance of fresh water, sanitation, and other water-related issues. Please indicate the amount of time you would like to donate, in minutes, by sliding the button below to match up with the above numbers. If you would rather not donate any time, by clicking on 0 you can opt-out of donating your time.

Sustainability initiative – No norm condition

Joining the efforts to protect water resources by participating in **Water Day 2019** with **Nature of Beauty**

Due to their emphasis on water saving systems, **Nature of Beauty** Hair Salon and Spa decided to participate in **Water Day 2019** in order to actively contribute to protection of water resources for the good of people and nature.

Participating in **Water Day** could be an effective way to help the environment. As water makes up 73% of our planet, protecting the water resources is critically important.

On **Water Day 2019**, **Nature of Beauty** will inspire people to raise money for observance of fresh water, sanitation, and other water-related issues by posting inspirational messages on social media with the hash tag #WaterDayWithNatureOfBeauty.

You have an opportunity to contribute and to monetize your time for a good cause with your **local** hair salon **Nature of Beauty** by donating time to participate in **Water Day 2019** here and now. You can choose how much time you would like to donate today, and you'll be asked to complete a simple task that will take the exact amount of time specified.

Note, although you will NOT get paid for the time you spend on this task, **Nature of Beauty** will donate 5 cents for every minute of your time to observance of fresh water, sanitation, and other water-related issues. Please indicate the amount of time you would like to donate, in minutes, by sliding the button below to match up with the above numbers. If you would rather not donate any time, by clicking on 0 you can opt-out of donating your time.

Appendix 4
Study 3: Stimuli
Sustainability initiative Global/Provincial normative source conditions

You can adopt an eco-friendly lifestyle by participating in **Water Day 2019** with **Green and Clean**!

Inspired by **people around the world/people in your local community, Green and Clean** decided to participate in **Water Day 2019**. On this day **Green and Clean** will inspire people to raise money for a charity devoted to observance on fresh water, sanitation, and other water-related issues by posting inspirational messages on social media with the hash tag #WaterDayWithGreenNClean.

Most of the **people around the World/people in your local community** believe individuals **can** start adopting an eco-friendly lifestyle by participating in the **Water Day 2019** initiative.

You can join them and monetize your time for a good cause with **Green and Clean** by donating time to participate in **Water Day 2019** here and now. You can choose how much time you would like to donate today, and you'll be asked to complete a simple task that will take the exact amount of time specified.

Note, although you will NOT get paid for the time you spend on this task, **Green and Clean** will donate 5 cents for every minute of your time to a charity devoted to observance on fresh water, sanitation, and other water-related issues.

Please indicate the amount of time you would like to donate, in minutes, by sliding the button below to match up with the above numbers.

If you would rather not donate any time, by clicking on 0 you can opt-out of donating your time.

Appendix
- Author Statements -

AARHUS BSS SCHOOL OF BUSINESS AND SOCIAL SCIENCES
AARHUS UNIVERSITY

Declaration of co-authorship*

Full name of the PhD student: Ekaterina Salnikova

This declaration concerns the following article/manuscript:

Title:	The role of consumption orientation in consumer food preferences in emerging markets
Authors:	Ekaterina Salnikova and Klaus G. Grunert

The article/manuscript is: Published ☐ Accepted ☒ Submitted ☐ In preparation ☐

If published, state full reference:

If accepted or submitted, state journal: Journal of Business Research

Has the article/manuscript previously been used in other PhD or doctoral dissertations?

No ☒ Yes ☐ If yes, give details:

The PhD student has contributed to the elements of this article/manuscript as follows:

A. Has essentially done all the work
B. Major contribution
C. Equal contribution
D. Minor contribution
E. Not relevant

Element	Extent (A-E)
1. Formulation/identification of the scientific problem	B
2. Planning of the experiments/methodology design and development	C
3. Involvement in the experimental work/clinical studies/data collection	C
4. Interpretation of the results	A
5. Writing of the first draft of the manuscript	A
6. Finalization of the manuscript and submission	B

Signatures of the co-authors

Date	Name	Signature
2016/14	Klaus G. Grunert	

In case of further co-authors please attach appendix

Date: June 14, 2019

Signature of the PhD student

*As per policy the co-author statement will be published with the dissertation.

AARHUS BSS SCHOOL OF BUSINESS AND SOCIAL SCIENCES
AARHUS UNIVERSITY

Declaration of co-authorship*

Full name of the PhD student: Ekaterina Salnikova

This declaration concerns the following article/manuscript:

Title:	The role of global consumer identity in consumer response to global brands' sustainability messages
Authors:	Ekaterina Salnikova and Yuliya Strizhakova

The article/manuscript is: Published ☐ Accepted ☐ Submitted ☐ In preparation ☒

If published, state full reference:

If accepted or submitted, state journal:

Has the article/manuscript previously been used in other PhD or doctoral dissertations?

No ☒ Yes ☐ If yes, give details:

The PhD student has contributed to the elements of this article/manuscript as follows:

A. Has essentially done all the work
B. Major contribution
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3. Involvement in the experimental work/clinical studies/data collection	B
4. Interpretation of the results	C
5. Writing of the first draft of the manuscript	B
6. Finalization of the manuscript and submission	C

Signatures of the co-authors

Date	Name	Signature
06/14/19	Yuliya Strizhakova	Yuliya Strizhakova

In case of further co-authors please attach appendix

Date: June 14, 2019

Signature of the PhD student

*As per policy the co-author statement will be published with the dissertation.