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What is to be sustained? The polysemy of sustainability and sustainable tourism across languages and cultures

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ABSTRACT

“Sustainability” and “sustainable tourism” are widely debated concepts in tourism worldwide. However, the specific meaning of both concepts across different cultures has not been fully researched, and the terms are frequently assumed to have identical meanings to audiences from different cultures. We aim to close this research gap by studying how tourists from four different countries define and conceptualise “sustainability” and “sustainable tourism.” Specifically, we asked participants from Germany, Italy, Norway, and the United States to define “sustainability” and “sustainable tourism” using open ended questions in a qualitative study. We study the responses using an interdisciplinary framework which is based on research from tourism, intercultural studies, linguistics, and cognitive psychology. The findings show significant cross-cultural differences in respondents’ interpretations of sustainability and sustainable tourism, regarding both the content and the linguistic form of the definitions. Our research challenges the silent assumption that consumers worldwide share a common understanding of sustainability in tourism. We conclude that strategies for promoting sustainability and sustainable tourism must use strong verbal and visual cues tailored to the culture and language of diverse target groups. This includes the use of meaningful culture-specific symbols representing sustainability. Additionally, tourism researchers should be aware that an injudicious transfer of polysemous terms such as “sustainability” and “sustainable tourism” across different contexts and study designs may bias research results.

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Sustainability; sustainable tourism; cross-cultural differences; linguistic analysis; cognitive styles; personal values

Introduction

Sustainability and sustainable tourism have become increasingly part of tourism development debates and strategies worldwide (Serrano et al., 2019). Sustainability was defined by the UN as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.” More specifically, according to the UNWTO, sustainable tourism is a “tourism that takes full account of its current and future economic, social and environmental impacts, addressing the needs of visitors, the industry, the environment and host communities.” In recent years, both terms have been the subject of intense discussions among tourism researchers and practitioners across the globe. The cited definitions of both terms, however, are

relatively abstract and vague. There is significant room for interpretation when it comes to identifying concrete sustainable behaviours of tourists or industry practices of sustainable tourism.

In any debate, a precise and common understanding of key terms is a *sine qua non* (Reeves, 2005). The use of ambiguous or polysemic words, in contrast, impedes mutual understanding and leads to dissatisfying results, as no common ground can be established among discussion participants (Slisko & Dykstra, 1997). This is particularly pertinent for debates that transgress disciplinary or cultural boundaries. The issue becomes even more complex in debates with participants of different linguistic and cultural backgrounds (Kramsch, 2014). When translating words from or into another language, dimensions of meaning may be added, changed, or lost. Moreover, several factors such as an individual's culture, cognitive style, education or exposure to media discourse (Barkemeyer et al., 2017) can significantly impact the understanding and interpretation of technical terms. Concerning the factors of culture and cognitive style, which will be in the focus of this paper, people tend to assume a shared understanding of key terms across individuals and cultures. However, even common everyday words can be conceptualised differently across individuals (Martí et al., 2021). Despite the fact that polysemic terms may entail a lack of mutual comprehensibility, the understanding of key terms is seldomly addressed in research and concepts such as "sustainability" and "sustainable tourism" have been taken for granted without problematising their connotations across different contexts (Yamada et al., 2022).

In this paper, we aim to close this research gap by studying different interpretations of "sustainability" and "sustainable tourism." Our specific objective is to show how tourists with diverse linguistic and cultural backgrounds interpret both concepts. To this end, this paper adopts an interdisciplinary approach by integrating research lines from the fields of tourism, linguistics, intercultural studies, and cognitive psychology. We study the understanding of both terms among travellers from four different countries and analyse linguistic features of the interpretations. Moreover, we discuss semantic variations of the sustainability concept in different languages, as well as the potential impact of culture-specific cognitive styles, and the role of symbols in language. First, this paper reviews relevant literature on culture and tourist behaviour, sustainability across cultures, the conceptual history of sustainability and culture-specific cognitive styles. Based on the literature review we introduce our main research questions. By addressing the issue from a holistic perspective, we aim to add a new angle to existing research on sustainability and sustainable tourism. We also intend to initiate critical reflections on the use of technical terms in other academic fields.

Literature review

Sustainability across cultures

The increasing salience of sustainability has motivated scholars to include this topic into their cross-cultural research. Consumers' sustainability-related attitudes and behaviours as well as their interpretation of the term have been found to be culture specific (Berglund et al., 2020). Culture affects how consumers evaluate sustainability initiatives (Laroche et al., 2009) and how they view sustainability issues in different contexts (Berglund et al., 2020). Different sustainability interpretations can, in turn, result in different sustainable consumption behaviours.

Several intercultural studies on sustainability-related attitudes and behaviours have used the cultural dimension framework developed by Hofstede et al. (2010) or Schwartz's (2004) theory of basic values. Both models allow for establishing connections between culture and sustainability, albeit from different angles: Hofstede et al. (2010) apply a set of six cultural dimensions to identify cross-cultural differences between countries (top-down), whereas Schwartz departs from individuals' value preferences which are determined by culture-specific norms (bottom-up) (Filimonau et al., 2018).

Of the six cultural dimensions posited by Hofstede et al. (2010), five have been studied in terms of their connection to sustainability-related beliefs and behaviors:

- Power distance: in high power distance cultures, status differences and tall hierarchies are important. In low power distance cultures, the focus lies on participation and social equality.
- Collectivism: in collectivist cultures, group interests prevail over individual interests, whereas members of individualist cultures tend to pursue their individual interests.
- Masculinity: Masculine societies incline towards achievement, heroism, and success while femininity reflects cooperation, modesty and caring for the weak. Masculinity describes the extent to which the use of force is socially accepted.
- Uncertainty avoidance: high uncertainty avoidant cultures feel threatened by ambiguous situations whereas low uncertainty avoidant cultures are more comfortable with change and unknown situations.
- Long-term orientation: long-term oriented cultures are oriented towards future rewards, whereas short-term oriented cultures are concerned with fulfilling past and present obligations.

Low power distance cultures have been associated with higher environmental performance and higher concern for sustainability-related initiatives (Cox et al., 2011; Tata & Prasad, 2015), as individuals' experience with democratic participation promotes engagement with societal and global issues (Lahuerta-Otero & González-Bravo, 2018). Additionally, individualism was found to be connected to higher levels of sustainable behaviours, since individualist cultures encourage personal initiative which, in such cultures, is more likely to turn into larger social movements that lead to general policy changes (Dangelico et al., 2020). Collectivism, however, has also been linked to sustainable behaviours, given that such behaviours ensure the well-being of fellow ingroup members (Mi et al., 2020; Tata & Prasad, 2015). Masculinity, on the other hand, has mostly been associated with low levels of sustainable behaviours, since masculine cultures see individual achievement and material success as more important than concerns about sustainability (Dangelico et al., 2020; Lahuerta-Otero & González-Bravo, 2018). However, Mi et al. (2020) relate masculinity to higher levels of publicly displayed sustainable behaviour, given that such behaviour promotes an individual's image of achievement and heroism. In contrast, research about uncertainty avoidance shows limited (Dangelico et al., 2020; Mi et al., 2020) or no connections to sustainable behaviours (Cox et al., 2011). Finally, several studies were able to link long-term orientation to sustainable behaviour, since long-term oriented cultures do not see present sustainable actions as an inconvenience, but rather as an investment towards future benefits (Dangelico et al., 2020; Lahuerta-Otero & González-Bravo, 2018; Mi et al., 2020; Tata & Prasad, 2015). In other words, participation and social equality, a focus on cooperation instead of achievement and an orientation towards the future are particularly likely to encourage sustainable behaviours.

As regards the ten basic values suggested by Schwartz connections between the following four values and people's sustainability-related beliefs and behaviours exist:

- Universalism: understanding, appreciation, tolerance, and protection for the welfare of all people and of nature
- Benevolence: preservation and enhancement of the welfare of people with whom one is in frequent personal contact
- Self-direction: independent thought and action, choosing, creating, and exploring
- Conformity: restraint of actions, inclinations, and impulses likely to upset or harm others and violate social expectations or norms

Universalism and benevolence which reflect concerns for others, partly overlap with Hofstede's description of collectivist cultures. Self-direction, on the other hand, exhibits

similarities with Hofstede's description of individualist cultures, while conformity shares features with collectivist cultures. However, comparing both frameworks is not without problems, given their different units of analysis as outlined above.

Berglund et al. (2020) argue that sustainable behaviours in self-direction cultures may be voluntary and based on internalized agreement, whereas sustainable behaviours in conformity cultures may be related to compliance with roles and expectations (Berglund et al., 2020). Stern (2000) uses research on individual values to develop a comprehensive value-belief-norm theory of pro-environmental behaviour. He argues that self-transcendence values positively shape people's general environmental beliefs. These beliefs influence the development of an individual's personal norms and can finally translate into specific pro-environmental behaviours. Self-transcendence values such as universalism and benevolence (Ballantyne et al., 2018), but also self-direction and conformity (Berglund et al., 2020) have been identified as drivers for sustainable behaviour.

For the field of tourism, Filimonau et al. (2018) find that collectivism and long-term orientation positively correlate with pro-environmental attitudes among Polish tourists. Russo et al. (2016) study how German and Italian individuals interpret the term "sustainable tourism" and find that respondents from both countries tend to associate sustainable tourism with ecological aspects, whereas the social and economic dimensions are only mentioned by a few German respondents. However, this study used closed questions to measure what is (not) meant by sustainable tourism. This way, the answers offered to survey participants already defined sustainability from the authors' perspective as participants were not given an open choice and were possibly offered answer options that they would not have connected to sustainable tourism otherwise.

Along similar lines, Bausch et al. (2021) find that German and Italian consumers interpret "sustainability" and "sustainable tourism" very individually. The study also uncovers major incongruencies between tourists' interpretations of "sustainability" and "sustainable tourism" and the way scholars and tourism professionals understand and use these terms, finding that sustainability is also a context dependent construct, confirming the findings of (Sze, 2018). Although using a qualitative method, Bausch et al. (2021) did not investigate the influence of language and linguistic aspects in the understanding of sustainability and sustainable tourism. In conclusion, it can be assumed that consumers' sustainability-related beliefs and behaviours vary across cultures, both inside and outside of the tourism sector. Cross-cultural interpretations of the term "sustainable tourism" have only been addressed by very few studies.

Sustainability: contrastive semantics

To this date, linguistic aspects have only played a marginal role in debates about sustainability (Canning, 2010). However, we assume that the conceptual history of the term "sustainability" and the formation of its meaning in different languages may actually lead to differences in consumers' interpretations. Rothkegel (2016) argues that the formation of a term's meaning is a dynamic process, where language users convert ideas into terms through discursive interactions. In interdisciplinary discourses with diverse participants, it is typical that key terms such as "sustainability" (or "future," "development") are semantically not entirely precise. A lack of precision ensures that diverse discourse participants can ascribe individual nuances of meaning to the term, so that it can be used across a variety of contexts. This semantic vagueness can explain the relative success of "sustainability" as a concept. Moreover, this means that the semantics of "sustainability" can continuously change through expansions or reductions of meaning (Rothkegel, 2016). Since the formation of meaning is specific to each linguistic community, cross-linguistic differences in the semantics of "sustainability" can be expected.

Grober (2014) shows that the very origins of the concept lie in the German forestry of the 18th century. The German term “nachhaltig” was coined in 1713 and referred to the rationing of scarce wooden resources in mining, with the objective of ensuring the future use of those resources. In the 19th century, this concept was translated to French as “soutenu,” based on lat. “sustinere” derived from lat. “tenere,” which also formed the base for the English translation “sustained yield” and the Italian translation “sostenére” (Treccani, n.d.). Later on, the concept of sustained yield reached the United States and the term “wise use” was coined by the forester Gifford Pinchot in 1905, adapting the European concept to the American forestry management (Grober, 2007). The current English noun “sustainability” is the result of a transfer with semantic modifications and expansions of “sustained yield” (Grober, 2007). The current Italian noun “sostenibilità” is a translation of the English “sustainability” and thus counts as an anglicism (Amari, 2012). In Norwegian, “sustainability” was translated to “baerekraft.”

For the German noun “Nachhaltigkeit,” the Duden dictionary refers to the forestry principle of only cutting the amount of wood that can grow back, and more generally to the idea of only using resources to the point where they can regenerate (Duden, n.d.). The Digital Dictionary of German (DWDS) defines “Nachhaltigkeit” as the ability to maintain and to be future-proof (DWDS, n.d.). However, the term has been described as somewhat arbitrary and semantically empty, given the multitude of meanings it has had in different discourses in German.

The Italian Treccani dictionary defines the noun “sostenibilità” as being “sostenibile,” which means something that can be held up or that is compatible with saving natural resources. The corresponding verb “sostenére” means to support, to hold up, to keep for a prolonged time, to resist, to endure and to protect (Treccani, n.d.).

For the noun “baerekraft,” the Norwegian dictionary lists meanings such as the power to carry, the ability to withstand the weight of something, and the upper limit for use of resources without depleting these (“Bokmålsordboka Og Nynorskordboka,” n.d.).

The American Merriam-Webster dictionary defines “sustainability” as “using a resource so that the resource is not depleted or permanently damaged,” but also as “capable of being sustained.” The adjective “sustained” is defined as lasting or prolonged, and the verb “to sustain” means to give support, to nourish, to keep up, to prolong, to suffer, to support as true, to allow as valid or to confirm (Merriam-Webster, n.d.). Ramsey (2014) asserts a certain “semantic openness” of the English word “sustainability,” and Owen (2012) speaks of “sustainability” as “one of the least meaningful and most overused words in the English language.” Consequently, Ramsey (2014) points out that there is no public consensus regarding who or what is supposed to be “sustained.”

To summarize, sustainability refers to saving natural resources across all four languages. The German, Italian and US-American dictionaries additionally relate sustainability to “maintaining” or “supporting” something, whereas the Norwegian definition includes the more specific notion of “carrying weight.” The semantic components “future” and “long-term” only become visible in the German, Italian and US-American dictionaries. The Italian and the US-American dictionaries also include the semantic feature of “endurance” or “suffering,” as well as the notion of “protection” or “nourishment.” The semantic component of “confirming something as valid” is only visible in the US-American dictionary. The term thus appears to be polysemic even within the same language, particularly in English, where it is a context-dependent construct whose meaning varies depending on its situational use (a so-called “strategically deployable shifter”).

Cognitive styles across cultures

When reflecting on technical concepts such as “sustainability,” respondents from different cultures may apply culture-specific modes of reasoning and interpreting. In intercultural psychology, there are opposing views regarding the relationship between cognition and culture. Some argue

that cognition is universal, and that specific modes of reasoning are not determined by an individual's culture, but rather by the specific context and environment (Dasen & Mishra, 2010). Others see cognitive patterns as culture-specific and differentiate between a holistic and an analytical way of reasoning (Nisbett et al., 2001). According to this theory, East Asian cultures exhibit a more holistic way of reasoning: individuals perceive things or events as a whole, pay attention to context and background and detect relationships and similarities among items. Western cultures, in contrast, display a more analytic way of reasoning: individuals focus on central objects and their attributes and use categories and logic to break down larger systems into their details (Knight & Nisbett, 2007; Yamada et al., 2022). These different cognitive styles are assumed to be related to culturally different social orientations. East Asians are more socially interdependent, i.e. more collectivist, which explains a relatively stronger focus on the social context and interpersonal relationships. Westerners are more independent, i.e. more individualistic, which leads them to focus on central objects and their attributes, irrespective of the context (Knight & Nisbett, 2007; Varnum et al., 2008). Research on differences in cognition has mostly compared East Asians and North Americans (Chua et al., 2005; Kastanakis & Voyer, 2014; Norenzayan et al., 2002). However, there is evidence that differences in cognitive habits also occur between cultures that are relatively more similar, and that the independence/interdependence dimension is a continuum rather than a dichotomy.

Research has found that Italians (Dennis et al., 2014) and Brazilians (de Oliveira & Nisbett, 2017) tend towards the interdependence end of the continuum and a more holistic mode of reasoning, whereas North Americans tend towards independence and a more analytic way of reasoning. Similarly, Eastern Europeans were found to tend towards interdependence and holistic reasoning, while Western Europeans appear to tend towards independence and analytic cognition (Varnum et al., 2008). Within Italy, southern Italians tend towards interdependence and show more holistic thought patterns, while their northern Italian compatriots lean towards the independence end of the continuum and analytic cognition (Knight & Nisbett, 2007).

The relationship between culture and cognition is closely related to the question of linguistic relativity or universalism. The Sapir-Whorf hypothesis of linguistic relativity suggests that grammatical structures determine individual thought patterns (Whorf & Carroll, 1956), whereas the universalist position argues that cognition is independent of language (Pinker, 1994). While the universalist position has more supporters, it can be assumed that the truth lies somewhere in between both extremes (Samuel et al., 2019). In a study among Chinese and European Americans, L.-J. Ji et al. (2004) found evidence that culture affects modes of reasoning irrespective of the testing language.

For the present research, an influence of language-specific grammatical structures on interpretations of "sustainability" and "sustainable tourism" seems unlikely. In contrast, the way consumers define these terms may reflect different cognitive styles which can be a consequence of different levels of independence vs. interdependence, or, in terms of Hofstede et al. (2010), differences in individualism vs. collectivism.

Language and symbols

Any interpersonal communication is based on verbal or nonverbal signs systems such as language or body language. The signs within a system, e.g. words or gestures, carry meaning for users of the system (Jakobson, 2019). In language as a sign system, the relationship between a sign and its meaning is arbitrary: words only carry meaning because of conventions or social norms. Following the semiotic theory of Peirce (1883), such arbitrary signs can be classified as "symbols," as opposed to signs that represent objects based on causality (a tear representing sadness) or physical similarities (a wheelchair pictogram representing accessibility).

Symbols play an important role in human conceptualisations of the world (Parsons, 1988). Individuals tend to rely on familiar symbols particularly when explaining complex realities (Moscovici, 1981). The representational value of symbols, however, can vary across cultures, as symbols are constructed and diffused through communication within social groups (Hofstede et al., 2010). Examples for symbols that are known in many Western cultures are the cross that represents Christianity and the dove as a symbol for peace. In contrast, a dragon does not carry any specific meaning in Western cultures but stands for power and strength in many Asian cultures. Among the symbols that represent sustainability are trees, leaves and the colour green.

Methodology

Research questions

The literature review has highlighted various cultural and linguistic influences on consumers' interpretation of sustainability and their attitudes towards sustainable behaviour. Intercultural differences in the interpretation of the term can pose problems when promoting sustainability and sustainable tourism among culturally heterogeneous target groups. As such, Berglund et al. (2020) see the need for more intercultural research about people's sustainability-related beliefs and behaviours. The present study aims to close this gap by addressing the following research questions:

1. Do consumers from different cultures interpret the terms sustainability and sustainable tourism in divergent ways?
2. Which linguistic aspects in style and form characterise the descriptions of sustainability and sustainable tourism of consumers across different languages and cultures?

To answer these questions, this paper uses an interdisciplinary approach to study how respondents from four different countries with different languages and from different cultural areas define the terms "sustainability" and "sustainable tourism," and how their definitions can be described in formal and linguistic terms.

Research approach

Following the findings of Hofstede et al. (2010) and Schwartz (2004), we used countries as unit of analysis for cross-cultural research. As regards tourism, several scholars posit congruencies between tourists' cultural backgrounds and their nationalities (Hsieh & Tsai, 2009), assuming that individuals with the same nationality share a common language and history as well as a similar understanding of politics, institutions and identity, which lead to comparable beliefs and values (Woodside et al., 2011). It must be recognized, however, that such findings may include some level of generalization, since other factors besides nationality (e.g. gender, religion, profession, etc.) influence peoples' beliefs and behaviours in general as well as when travelling (Woodside et al., 2011). Moreover, cultural and national boundaries are not always congruent (Reisinger & Crofts, 2010).

The selection of the four countries we investigated in this study followed considerations linked to differences in culture and cognitive style. Based on the literature review we looked for countries with

- different vernacular languages
- differences in cultural values
- different legal and political structures and
- different levels of sustainability-related policy-making

Finally, Germany, Italy, Norway, and the United States were selected, as they cover all four aspects. The Norwegian company NORSTAT was contracted as a partner, since it offers large online panels for each of the countries. The four countries fit well into our general considerations as

1. The countries use different languages with different roots (Germanic/Romance) as vernaculars.
2. The four countries differ in cultural terms (Hofstede et al., 2010; Roozmand et al., 2011).
3. A country's legal and political structures tend to be closely interrelated with its culture. While Germany and Italy are members of the European Union and thus comparable in terms of legal frameworks for environmental policy, social standards, and welfare, Norway was chosen as a European country that is not an EU member. With the United States, we included an overseas country with different legal and political structures.
4. History and culture can determine the value a society assigns to specific issues, and thus shape the level of policy-making concerning issues such as sustainability. Conversely, official policies can influence people's understanding of sustainability. Norway can historically be seen as a frontrunner in the field of sustainable development and has thus a long tradition of sustainable policies. Sustainability also plays an important role in policy-making in Germany and Italy. In contrast, the situation in the United States is heterogeneous. Some federal states have debated sustainability-related policies for more than two decades and passed corresponding legislation (e.g. the Sustainable Communities and Climate Protection Act of California approved in 2008). In other federal states sustainable policy-making is largely absent: as of November 2021, the official website of the State of Texas does not reference any documents about a sustainability strategy. Ideas around sustainability may be linked to political affiliation in the US and may vary across the country. The US sample included participants from 31 states who voted Democratic (55.83%) and Republican (44.17%) in the 2020 presidential elections. The regional distribution was balanced between states in West (22.6%), Midwest (25.8%), Northeast (16.3%) and South (35.5%) of the United States.

Concerning the four above mentioned aspects, including countries from Asia, Africa and Southern America would have delivered greater differences. However, the selection of the countries also followed practical considerations concerning the availability of online panels with comparable structure and the fulfilment of European privacy standards.

In fall 2019, participants from Germany (N = 87) and Italy (N = 69) as well as one year later, in 2020, participants from Norway (N = 85) and the United States (N = 120) were asked to define the terms "sustainability" and "sustainable tourism" in an online forum. Besides the online panels, NORSTAT also provided the English-language translations for the Norwegian sample. QDC-Studio was used to host the forum. A quota plan was used to ensure a representative sample for each country for gender, age structure, marital status, number of children, income, and education level (see Table 1). A further selection criterion was that the participants had to be active travelers that had yearly departed on a holiday trip of at least five days in the previous five years.

All study participants were presented with two questions:

- a. "What does sustainability actually mean? How would you explain it to a friend or neighbour?"
- b. "And how would you explain to a relative or good friend what sustainable tourism is?"

The questions were translated from English into German, Italian and Norwegian, and the translations were subsequently controlled and cross-checked by native speakers to eliminate any

Table 1. Sociodemographic structure of the samples.

Variable	Item	DE N = 87	IT N = 69	NOR N = 85	USA N = 120
Gender	Male	44.7%	47.8%	44.7%	49.2%
	Female	55.3%	52.2%	55.3%	50.8%
Age	18–29 years	17.6%	15.9%	23.5%	26.7%
	30–44 years	34.1%	43.5%	31.8%	35.0%
	45–65 years	48.2%	40.6%	44.7%	38.3%
Income	Up to 2,000 Euro	22.4%	23.2%		
	2,000 Euro to 4,000 Euro	34.1%	44.9%		
	4,000 Euro and more	43.5%	31.9%		
	Below NOK 25,000			23.5%	
	NOK 25,000–40,000			31.8%	
	NOK 40,000–60,000			24.7%	
	NOK 60,000+			20.0%	
	Below \$ 3,000				30.0%
	\$ 3,000–below \$ 6,000				28.3%
	\$ 6,000–below \$ 10,000				17.5%
Children under the age of 14	Yes	35.3%	46.4%	30.6%	30.0%
	No	64.7%	53.6%	69.4%	70.0%
Household size	1 person	18.8%	5.8%	41.2%	23.3%
	2 persons	36.5%	27.5%	34.1%	35.0%
	3 or more persons	44.7%	66.7%	24.7%	41.7%

Table 2. Codes used to describe sustainability and sustainable tourism.

Avoiding negative impacts	Gentle/spare use of resources
Avoiding pollution	Global responsibility human beings
Awareness by education	Independence from others
Buzz-word/marketing	Individual responsibility
Capacity/capacity building	Longevity of goods/consumption
Careful dealing with environment and nature	Principle/Concept
Climate protection/stopping climate change	Process/change
Considering the environmental impact	Profitability
Economical & technological development	Quality of life
Economy and environment balanced	Reducing/avoiding waste
Endurance/preserve status quo	Regionality (principle/prioritisation)
Ensuring individual subsistence/lifestyle	Renewability as basic principle
Environmental policy	Renouncement (consumption/daily life)
Environmental protection	Resource cycle/circular economy
Environmentally friendly mobility	Respectful social behaviour
Equality/gender equity	Responsibility for planet
Fair working conditions	Satisfying present needs
Financial independence/prudence	Securing the future/future generations
Food (way of production/consumption)	Three Pillar Model

risk of misunderstanding. Both questions were open-ended: participants could freely describe their ideas about sustainability and sustainable tourism in separate text boxes.

Participants' answers were studied from two different cross-cultural angles. First, a content analysis was performed. Second, the data were studied for linguistic and formal-stylistic features. For the content analysis, participants' contributions were analysed and coded independently by two researchers, i.e. both researchers read all texts individually and assigned codes to each contribution. The obtained codes were compared and discussed in line with Grounded Theory (Glaser & Strauss, 2017) and consolidated over multiple coding cycles. An initial set of codes was developed based on the German and Italian contributions, and subsequently used to analyse the Norwegian and US-American postings. This second step yielded additional codes which were added to the code set after multiple readings and discussions. As a result, a final code set was created (see Table 2) and used to categorize the texts of all participants. The native language of

Table 3. Linguistic and formal aspects studied.

Aspect	Categorization
Abstract	Theoretical definition of the term e.g. "sustainability is the principle that only as many resources are consumed as can be regrown"
Concrete	Explaining the term using examples e.g. "shop consciously and avoid packaging waste whenever possible"
Positive definition	Explaining what is sustainable e.g. "eco-friendly, recyclable, minimal consumption, secure labour and wage conditions for workers"
Negative definition	Explaining what is not sustainable e.g. "those activities that do not have negative consequences on the ecosystem"
Personal writing style	e.g. "for me, sustainability is a way of life with which we preserve the planet for our posterity to the best of our ability."
Impersonal writing style	e.g. "products made from natural biological materials as well as naturally degradable after consumption"

the researchers conducting the analyses was German, but both researchers were bilingual (German/Italian and German/English) on level C1 according to the Common European Framework of Reference for Languages (CEFR), hence are also able to capture finer or implicit meanings. Moreover, English native and Italian native speakers supported our analysis of the responses. For the Norwegian contributions only, the English translations were available that were provided by NORSTAT, a Norwegian company specialized in market research that offers also professional translation services, delivering reliable translations of texts. A further review of the translations was conducted by a native speaker of Norwegian doing research in the field of sustainability.

For studying the linguistic and formal aspects we used a similar approach as with the content analysis. Two researchers explored the data independently and examined whether respondents defined sustainability in terms of positives or negatives and if they presented their definitions as individual guesses or universal truths. Moreover, we studied the participants' way of reasoning and evaluated if the definitions had a personal or an impersonal focus. After comparing and discussing the results, a consolidated set of criteria were developed and used for further analyses (see [Table 3](#)).

In addition, the codes and linguistic-formal features were analysed quantitatively using SPSS 25, with the objective of highlighting possible intercultural differences and facilitating interpretation of results. To do so, we used descriptive statistics, analysing frequencies, and comparing the code distribution across countries using crosstabs to find significant differences.

Findings

Consumers' understanding of sustainability

When comparing the four countries regarding which codes participants used most frequently to define sustainability, first differences appeared (see [Table 4](#)). German respondents tended to link sustainability with a gentle/spare use of resources (41.4%), renewability as a basic principle and avoiding negative impacts that damage nature or fellow humans. Moreover, German participants connected sustainability with a careful treatment of nature and the environment and saw leading a sustainable lifestyle as an individual responsibility which included reducing/avoiding waste. Most Italian contributions in our sample included the codes avoiding negative impacts and renewability as a basic principle. Participating Italians described sustainability as treating the environment and nature with care and linked the concept to balancing the economy and the environment. They also saw sustainability as an individual responsibility, with the holistic objective of saving the planet. For the Norwegian sample, sustainability meant securing the future for

Table 4. Top 10 codes associated to sustainability in country comparison.

DE	%	IT	%
Gentle/spare use of resources	41.4%	Avoiding negative impacts	31.9%
Renewability as basic principle	29.9%	Renewability as basic principle	31.9%
Avoiding negative impacts	21.8%	Gentle/spare use of resources	23.2%
Careful dealing with environment and nature	21.8%	Careful dealing with environment and nature	21.7%
Reducing/avoiding waste	21.8%	Resource cycle/circular economy	18.8%
Individual responsibility	20.7%	Economy and environment balanced	15.9%
Resource cycle/circular economy	19.5%	Individual responsibility	15.9%
Securing the future/future generations	16.1%	Responsibility for planet	14.5%
Endurance/preserve status quo	12.6%	Avoiding pollution	13.0%
Renouncement (consumption/daily life)	11.5%	Securing the future/future generations	13.0%
NOR	%	USA	%
Securing the future/future generations	27.7%	Endurance/preserve status quo	29.7%
Renewability as basic principle	21.7%	Ensuring individual subsistence/lifestyle	21.6%
Avoiding negative impacts	20.5%	Renewability as basic principle	12.6%
Gentle/spare use of resources	16.9%	Avoiding negative impacts	9.9%
Careful dealing with environment and nature	14.5%	Financial independence/prudence	9.9%
Responsibility for planet	12.0%	Independence from others	9.9%
Resource cycle/circular economy	10.8%	Reducing/avoiding waste	9.9%
Individual responsibility	9.6%	Capacity/capacity building	9.0%
Considering the environmental impact	8.4%	Gentle/spare use of resources	8.1%
Economy and environment balanced	8.4%	Longevity of goods/consumption	7.2%

future generations as well as renewability and avoiding negative impacts. Additionally, they associated sustainability with a gentle and spare use of resources and the careful dealing with the environment and nature. The US-Americans taking part in the survey focused on endurance/preserving the status quo. The personal level was dominant: ensuring ones’ individual subsistence and continuing one’s lifestyle were considered a main aspect of sustainability. The financial independence/prudence and independence from others were also mentioned frequently: for US-Americans a sustainable lifestyle involved the ability to pay their bills and live comfortably without relying on the help of others. Comparable to our European samples, renewability as a basic principle and the avoidance of negative impacts were also mentioned when describing sustainability. Around 1/10 of the participants admitted not having any idea about the meaning of sustainability.

Linguistic aspects of consumers’ sustainability definitions

Participants across all four samples tended to define sustainability in terms of positives, i.e. respondents stated what they thought sustainability was instead of saying what it was not. Additionally, participants from all countries presented their definitions of sustainability as universally valid:

(Participant 36, Italy) “Sustainability is a process which ...”

(Participant 15, United States) “being able to take care of something without added help”

Hedges such as “I think” or “from my point of view,” which would have labelled definitions as individual guesses or opinions, were only found in a few cases.

As regards participants’ way of reasoning, it was found that Italians and Norwegians in our case were more likely to define sustainability in an abstract and holistic way:

(Participant 24, Italy) “Sustainability means using the earth’s resources wisely to preserve them”

(Participant 6, Norway) “Something that is useful for the future, something that helps to preserve the earth”

Table 5. Top 10 codes associated to sustainable tourism in country comparison.

DE	%	IT	%
Environmentally friendly mobility	53.7%	Environmentally friendly mobility	58.5%
Individual responsibility	51.9%	Individual responsibility	56.6%
Renouncement (consumption/daily life)	35.2%	Food (way of production/consumption)	24.5%
Buzz-word/marketing	33.3%	Regionality (principle/prioritisation)	20.8%
Avoiding negative impacts	14.8%	Renouncement (consumption/daily life)	20.8%
Food (way of production/consumption)	14.8%	Considering the environmental impact	17.0%
Regionality (principle/prioritisation)	14.8%	Buzz-word/marketing	15.1%
Reducing/avoiding waste	13.0%	Avoiding pollution	11.3%
Careful dealing with environment and nature	9.3%	Reducing/avoiding waste	11.3%
Gentle/spare use of resources	9.3%	Awareness by education	9.4%
NOR	%	USA	%
Avoiding negative impacts	28.4%	Economic & technological development	25.5%
Considering the environmental impact	21.0%	Endurance/preserve status quo	20.0%
Environmentally friendly mobility	19.8%	Avoiding negative impacts	17.3%
Renouncement (consumption/daily life)	19.8%	Individual responsibility	10.9%
Economic & technological development	16.6%	Considering the environmental impact	8.2%
Regionality (principle/prioritisation)	14.8%	Ensuring individual subsistence/lifestyle	8.2%
Satisfying present needs	12.3%	Financial independence/prudence	6.4%
Respectful social behaviour	8.6%	Capacity/capacity building	4.5%
Economy and environment balanced	7.4%	Economy and environment balanced	4.5%
Avoiding pollution	6.2%	Regionality (as principle/prioritisation)	4.5%

The sampled German and US-American definitions had no clear tendency: there were only slightly more abstract than concrete definitions. However, in comparison with the Norwegian and Italian participants, the German and US-American respondents provided a higher number of concrete sustainability definitions (even though abstract definitions were slightly more numerous).

(Participant 94, Germany) "Use equipment but also clothing as long as possible"

(Participant 31, United States) "Utilizing resources to the best of my ability. For example, repairing items rather than throwing them away"

Non-parametric tests (Kolmogorov-Smirnov- and Mann-Whitney-U-Test) confirmed that these differences were significant.

With respect to the personal focus of the definitions, Germans and Italians of the selected sample defined sustainability more frequently in impersonal ways.

(Participant 13, Italy) "Sustainability is consuming without polluting or doing it as little as possible"

In contrast, Norwegian and US-American respondents were more likely to present their definitions from a personal perspective ("for me ...," "we must ...").

(Participant 386, United States) "Sustainability to me means displaying a consistent pattern"

Consumers' understanding of sustainable tourism

Using the same approach of comparison of codes, we analysed the consumers' understanding of sustainable tourism by country. Again, we found significant differences in the investigated samples (see Table 5). German participants connected sustainable tourism especially with environmentally friendly mobility. Each tourist was seen as individually responsible to create a sustainable tourism experience, also by renouncing certain activities, such as flying. 1/3 of German participants considered sustainable tourism to be a buzz-word or a marketing scheme to deceive customers, which matches the findings of Wondirad (2019). Italian participants also associated sustainable tourism with environmentally friendly mobility and saw it as an individual

responsibility. In contrast to the other samples, Italians mentioned food, its production, and consumption, and regionality as a principle as important aspects of sustainable tourism. For Norwegian respondents, the environment played a major role in sustainable tourism: avoiding negative impacts and considering the environmental impact, i.e. being mindful of the consequences of individual actions were the most important aspects linked to sustainable tourism. Environmentally friendly mobility and renouncing benefits that might harm the environment were mentioned as ways to achieve sustainable tourism.

Also, economic and technological development were important aspects of sustainable tourism for Norwegian participants, i.e. appealing tourist destinations that can satisfy the needs of both tourists and locals. Our US-American sample connected sustainable tourism with economic and technological development, i.e. tourism that creates return visitors and shows constant volumes over time. Negative impacts should be avoided, and several US-American participants saw considering the environmental impact as an individual responsibility. Some respondents in the US-American sample connected the term to a personal level: sustainable tourism was seen as the financial ability to regularly depart on vacation.

Linguistic aspects of consumers' sustainable tourism descriptions

Like the sustainability definitions, the sustainable tourism descriptions were analysed in linguistic terms. The European samples provided both positive and negative descriptions of sustainable tourism, whereas US-American respondents tended to describe sustainable tourism in terms of positives. A significant number of German and Italian respondents used hedges such as "in my opinion" to label their sustainable tourism descriptions as personal guesses. The style of the Norwegian and US-American sustainable tourism descriptions, in contrast, suggested universal validity.

Additionally, we analysed if respondents of the countries studied described sustainable tourism in an abstract, concrete, or mixed way. While German participants described sustainable tourism with concrete examples, US-Americans tended to stick to the abstract level. Our Italian and Norwegian samples showed no clear tendency but exemplified their definitions more frequently than US-Americans. These differences were significant.

The sustainable tourism descriptions (ST) were then compared to the sustainability definitions (SD) regarding their concrete (C) or abstract (A) nature. We observed three combinations between SD and ST: A/A, A/C and C/C (C/A was not found). Most participants across all samples defined sustainability in an abstract way. When describing sustainable tourism, in contrast, our European respondents, particularly the Germans, were more likely to use concrete examples. The US-American descriptions of sustainable tourism, however, tended to be abstract, and the number of participants that reported to not have any knowledge about sustainable tourism was higher than in the European sample. When comparing SD and ST between the four samples, further significant intercultural differences became apparent. US-Americans presented an abstract SD often coupled with an abstract ST (A/A), whereas Germans were more likely to present both concrete SD and ST (C/C). Norwegians and Italians tended to provide abstract SD but showed no clear tendency regarding ST (mix of A/A and A/C).

In their concrete ST, German participants mentioned international travel (long distance travel, Croatia, Norway) as examples for unsustainable tourism. The concrete Italian ST discussed unsustainable tourism in the context of Italian overtourism destinations (South Tyrol, Venice, Sardinia). Norwegians and US-Americans, in contrast, did not provide specific destination examples to describe sustainable or unsustainable tourism. Finally, most definitions across all four samples used an impersonal style and did not include a personal perspective, e.g. "for me."

Symbols for sustainability and sustainable tourism

In our sample, we observed that respondents tended to use symbols when describing a rather complex concept such as sustainable tourism. Participants mentioned symbols that they considered indicative of sustainable or unsustainable choices or behaviours. It became evident that especially German and Italian participants used symbolic elements of daily life or their experiences with specific destinations to describe sustainability or sustainable tourism. Overall, the European samples used mobility-related symbols, with train and bike as sustainable examples and plane and car as unsustainable examples. European participants also mentioned regional products and regional food as symbols that represented sustainability. This was less the case for Norway and the United States. US-American participants did not use specific symbols to define sustainability or sustainable tourism, with carbon footprint mentioned only a few times.

(Participant 39, Germany) “Yes, there can be sustainable tourism, but diverse restrictions are necessary: transportation not by car or plane but by bus or train”

(Participant 57, Italy) “Sustainable tourism exists only with means of transport with low environmental impact such as bicycles or means of transport such as buses or trains”

(Participant 73, Italy) “Consuming typical local products and perhaps zero-kilometre products”

The potential role of cross-culturally different values

As we found cross-culturally different ways of defining sustainability and sustainable tourism, connecting these findings to the four countries’ basic social values (Schwartz, 2012) seemed to be promising, especially as recent research for Poland could prove the role of national culture as a determinant of pro-environmental attitudes (Filimonau et al., 2018). We therefore looked at the country-specific importance of individual values on the one hand, and the codes used to define sustainability (Table 4) and sustainable tourism (Table 5) on the other. In terms of Stern’s (2000) value-belief-norm theory, our codes can be considered expressions of the participants’ environmental beliefs, including “ecological worldview,” “adverse consequences for valued objects” and “perceived ability to reduce threat.”

Table 7 shows the importance ranking of Schwartz’s 10 basic values for Germany, Italy, Norway, and the United States, derived from the values’ mean scores for the countries. The data for the European countries is based on the European social survey (ESS, 2018). The data for the US were collected with the same questionnaire as in the ESS and provided by Schwartz for our research.

When trying to assign our codes from the content analysis (Table 2) to the best-fitting basic values from Table 6 we encountered a conceptual problem. The social values of Schwartz are strongly linked to an individual’s immediate personal environment, i.e. the in-group (Schwartz, 2012). The natural environment, in contrast, is only explicitly addressed by universalism (“understanding, appreciation, tolerance, and protection for the welfare of all people and of nature”). All other values focus either on the social environment or on the social living conditions of individuals. Linking benevolence with one of our codes would only have been justified if study participants had explicitly mentioned in-group members (e.g. family, friends, colleagues) in their sustainability definition. Since we could not find such references in the responses, the benevolence value was excluded here.

We did, however, see connections between some of our codes and the universalism and self-direction values:

- Aspects of universalism were mirrored in the codes “avoiding negative impacts,” “avoiding pollution,” “careful dealing with environment and nature,” “considering the environmental

Table 6. Symbol usage across investigated countries.

	DE (87)	IT (69)	NOR (85)	USA (120)
At least one symbol used (N participants)	44	38	24	11
% Total	50.6%	55.1%	28.2%	9.2%
Total sustainable symbols used	58	69	32	15
Total unsustainable symbols used	61	34	16	6
Symbol user: Average sustainable	1.32	1.82	1.33	1.36
Symbol user: Average unsustainable	1.39	0.89	0.67	0.55

Table 7. Ranking of Schwartz's 10 basic values by country.

Rank	DE	IT	NOR	USA	Basic values Schwartz	
1	BEN	SEC	BEN	BEN	ACH	Achievement
2	UNI	BEN	UNI	SDI	BEN	Benevolence
3	SDI	UNI	SDI	SEC	CON	Conformity
4	SEC	TR	CON	UNI	HED	Hedonism
5	TR	SDI	SEC	HE	POW	Power
6	HED	CON	HED	CON	SDI	Self-direction
7	CON	ACH	TR	AC	SEC	Security
8	ACH	POW	STIM	TR	STIM	Stimulation
9	STIM	HED	ACH	ST	TR	Tradition
10	POW	STIM	POW	POW	UNI	Universalism

impact," "gentle /spare use of resources," "reducing/avoiding waste," "renewability as basic principle" and "resource cycle/circular economy"

- Aspects of self-direction were mirrored in the codes "ensuring individual subsistence/life-style," "financial independence/prudence" and "independence from others"

Our German, Italian, and Norwegian respondents predominantly used codes that mirrored universalism. In contrast, US-American respondents were twice as likely to use self-direction-related codes than universalism-related codes. These findings are in line with the country-specific value ranking (Table 6), where universalism ranks higher than self-direction in all countries except for the United States.

We also compared our codes and findings against Hofstede's (2010) cultural dimensions and saw the following links:

- Aspects of individualism are reflected in the codes "individual responsibility," "ensuring individual subsistence/lifestyle," "financial independence/prudence" and "independence from others"; there is thus some overlap with Schwartz's self-direction values.
- Characteristics of feminine cultures are reflected in the code "quality of life."
- Features of long-term oriented cultures are visible in the codes "renouncement (consumption/daily life)" and "securing the future/future generations."

Codes that mirror individualism were found in all four samples; however, codes stressing independence from others were most frequently used by US-Americans. In contrast, the code "quality of life" was used by very few respondents. Codes that reflect long-term orientation appeared in the German, Italian and Norwegian sample.

Discussion

Consumers' sustainability definitions

Our findings exhibit various cross-cultural differences in the way consumers understand sustainability. In this sense, the results are in line with previous research on cultural differences in

consumers' sustainability-related beliefs and behaviours, such as the publication by Russo et al. (2016). Participants from the four countries tended to use different codes for defining the term. These discrepancies may be related to different media coverage of sustainability-related topics across countries (Barkemeyer et al., 2009). Yet, some parallels are visible between the European samples, where many respondents conceptualised sustainability in terms of saving resources, renewability and avoiding negative impacts. These issues mirror topics that frequently appear in sustainability-related public debates across Europe. In contrast, the US-American sustainability definitions tended to focus on the respondents' individual life, their financial situation and independence, which points to a different understanding of sustainability. This may be partly due to the term's polysemic nature in English and its rather broad definition in the dictionary, which can lead respondents to interpret "sustainability" as the ability to sustain themselves – as opposed to sustaining environment, economy, and society. Moreover, this finding may be a reflection of US-American individualism, performance orientation and materialism (Slate & Schroll-Machl, 2013). The codes participants used to define sustainability were mostly, but not always congruent with the dictionaries' definitions of the term. The semantic feature of saving resources, for instance, was present in all dictionaries and also appeared rather frequently in all samples. In contrast, the notion of securing the future was mentioned by many Norwegian respondents in our study, despite not being included in the Norwegian dictionary definition.

Comparing our findings with value-based cross-cultural research yielded more ambiguous results. The frequent mentions of individual responsibility across all samples are unsurprising, given that all countries in our sample are individualist cultures (Hofstede et al., 2010), and they mirror the results of previous research (Cox et al., 2011; Dangelico et al., 2020). The strong US-American focus on independence from others and ensuring individual subsistence may reflect the extraordinarily high scores of the United States in Hofstede's individualism ranking. In contrast, the frequent mentions of securing the world for future generations among Norwegian respondents seemed surprising, as the country is described as very short-term oriented (Hofstede et al., 2010). A reason for this Norwegian peculiarity might be the higher level of femininity in Norway compared to other Scandinavian countries. In a study about drivers for socially responsible investing, Scholtens and Sievänen (2013) found femininity to be a significant factor for Norway and Sweden as opposed to Finland and Denmark, two Scandinavian countries with lower levels of femininity.

We also see parallels between our findings and the country-specific importance of Schwartz's universalism and self-direction values: in Germany, Italy and Norway, universalism is relatively more important than self-direction, and our European respondents frequently used codes that mirror aspects of universalism. In contrast, the codes found in the US-American contributions reflect a higher importance of self-direction over universalism. This finding matches the data provided by Schwartz. Unlike previous research, however, we were unable to establish links between Schwartz's benevolence value and sustainability-related beliefs, as respondents did not reference their immediate social environment in the definitions. Instead, many respondents seemed to think that sustainability was an impersonal issue on a more general societal level. This notion is supported by our finding that the majority of respondents used an impersonal style in their definitions.

The codes we found in the "sustainability" definitions mirror aspects mentioned in the dictionaries across the four languages. The ideas of saving resources or supporting certain structures are generally visible. However, it appears that the term carries additional meanings beyond the dictionaries' definitions in some languages, such as the notions of avoiding waste (DE, US), renouncement (DE), balance of economy and environment (IT, NOR), securing the future (NOR), responsibility for the planet (NOR), to name but a few. What clearly stands out is the fact that the US-American respondents tended to understand "sustainability" as the ability to sustain themselves or their lifestyles. Additionally, US-Americans tended to interpret the notion of saving resources as saving individual or financial, not natural resources.

As regards the formal aspects, we found features of a holistic cognitive style in the Italian and Norwegian sustainability definitions, with an intuitive and creative way of processing information. This is underlined by the fact that the Italian respondents used the highest number of codes per definition. These findings may be a symptom of Italian impulsiveness and emotionality (Neudecker, 2007), as well as of Norwegian process-orientation and flexibility (Pahlke, 2009). In contrast, the German and US-American definitions exhibited a more analytic cognitive style with rational and concrete information processing (Miceli et al., 2018). Intercultural psychology has argued that independent and individualist cultures reason more analytically than interdependent and collectivist cultures (Nisbett et al., 2001; Redding, 1980), or that cognitive styles depend on a country's industrial development, with highly industrialised countries showing more intuitive cognitive styles than developing countries (Allinson & Hayes, 2000). Neither approach provides a suitable explanation for our observations: all four countries in the sample are industrialised nations within the Western hemisphere. It seems more likely that respondents chose a cognitive style based on their specific situation and context (Dasen & Mishra, 2010). However, the frequent use of concrete examples in the German sample may be connected to Germany's very direct, explicit and detailed communication style (Schroll-Machl, 2011). Similarly, the straightforward and example-based US-American definitions may be a symptom of US-Americans' pragmatism, where focusing on the immediate and most relevant aspects is preferred over theoretical reflections (Slate & Schroll-Machl, 2013). Finally, the fact that most German and Italian respondents did not define sustainability from a personal perspective was surprising, given that they frequently mentioned the notion of individual responsibility in their definitions.

Consumers' sustainable tourism descriptions

Cross-cultural differences also became evident in consumers' understanding of sustainable tourism in our data. Respondents mentioned different aspects when describing sustainable tourism, and also exhibited different degrees of confidence in the existence of sustainable tourism. Europeans connected sustainable tourism with environmentally friendly mobility, whereas US-Americans understood sustainable tourism as economically stable tourism. Germans, Italians and US-Americans tended to stress the notion of individual responsibility whereas Norwegians did not, despite the high individualism scores across all countries (Hofstede et al., 2010). The fact that Germans and Italians mentioned the notion of renouncement may be a symptom of both countries' long-term orientation (Hofstede et al., 2010), where giving up certain luxuries in the present can be interpreted as an investment towards future benefits. However, short-term oriented Norwegians also tended to see renouncement as an aspect of sustainable tourism; a finding that seems counterintuitive. The connections we observed between views on sustainable tourism and long-term orientation are congruent with previous research (Dangelico et al., 2020; Lahuerta-Otero & González-Bravo, 2018), except for Filimonau et al. (2018) who see a connection to collectivism.

Some US-Americans again described the phenomenon from an individual rather than a general point of view. German participants expressed more critical views on sustainable tourism than other respondents. Intercultural research argues that Germans see critical perspectives as an expression of intelligence, whereas a lack of scepticism is considered naïve (Schroll-Machl, 2013). Another factor may be that, in Germany, the environmentalist movement has been represented in the parliament since as early as 1983 and has thus shaped public debates for a longer period than in the other three countries.

In formal terms, US-Americans tended to describe sustainable tourism in terms of positives whereas European respondents also described sustainable tourism in terms of negatives. This may be explained by the fact that more Europeans than US-Americans have ideas about what is "unsustainable" in tourism. The frequent hedges in the German and Italian sustainable tourism

descriptions may hint to a certain insecurity about the concept: while people have heard of sustainable tourism, they are not entirely sure if their understanding is correct.

Most sustainability definitions in our sample were abstract, with the exception of the German sample. The sustainable tourism descriptions, in turn, tended to include more concrete examples, particularly among the European respondents. This could again be indicative of a higher knowledge about sustainable tourism forms among Europeans compared with US-Americans. It is interesting to note that previous research has found that an abstract sustainability understanding is coupled with lower engagement in sustainable behaviours, whereas a concrete understanding of sustainability acts as a driver for engaging in sustainable behaviours (Schill & Shaw, 2016). Future research is required to determine if abstract interpretations of sustainability actually entail fewer sustainable behaviours in the country samples we studied.

Symbols for sustainability and sustainable tourism

Symbolic repertoires vary across cultures, and this also concerns symbolic representations of sustainability and sustainable tourism. Media discourse about sustainability (Barkemeyer et al., 2009) contributes to shaping and disseminating culture-specific symbolic representations and influence people's evaluation of how important the related concepts are (Obar & Oeldorf-Hirsch, 2018). These effects were found to be particularly true for environmental issues, and more specifically, for bikes as a sustainable transportation option (Rimano et al., 2015). Along these lines, Kallenbach (2020) analysed German media discourse about urban mobility and found a dominant "air-quality narrative" with micro-narratives about improving public transportation and bicycle infrastructure. Additionally, the debates about flight shaming in European media may have led Europeans to connect planes with unsustainable tourism (Gössling et al., 2020). In the United States, in contrast, air transportation plays a significantly different role than in Europe (Goetz & Graham, 2004) which makes US-Americans less likely to mention planes as symbols for unsustainable tourism. We see a connection between these findings and our observations regarding the use of symbols for sustainable tourism in the sample. European respondents used numerous and mostly mobility-related symbols when conceptualising (un)sustainable tourism. In contrast, the weak presence of symbols in the US-American sample may be a consequence of the more business-related understanding of sustainable tourism in the US-American contributions. Moreover, the different frequencies of symbols may once again reflect different levels of public debate about sustainability and sustainable tourism in the four countries.

Conclusions

Implications for tourism marketing

Our findings have shown strong variations regarding the understanding of sustainability and sustainable tourism. The way individuals interpret these terms is influenced by language and culture, but also by individual values, by exposure to sustainability-related debates in the context of policy-making and by media consumption.

All of this has important consequences for future considerations of sustainability in product development and promotion in general and, more specifically, for the tourism industry. Sustainable products must generate concrete benefits linkable to symbolic attributes and product components. These symbolic attributes and components must be easily describable in verbal and visual promotion. Tourist destinations and tourism service providers should identify components in the service chain which, on the one hand, contribute to satisfying travellers' expectations and, on the other, symbolise the product's sustainability. The mere use of sustainability certifications is insufficient (Karlsson & Dolnicar, 2016), since such labels are abstract and do not generate any direct benefit. As we saw, symbols that represent sustainability can be cross-

culturally different and also change over time. At the moment, sustainability is frequently symbolized by low emissions or emission-free mobility, presumably as a result of the ongoing debates about the climate change crisis, air pollution by fuel-based car traffic in cities and the strong Fridays for Future movement with its high media coverage. In Italy, however, food traditionally plays a more important role, which increases the significance of regional “chilometro zero” products as symbols for sustainability. While mobility and food-related services are intangible, the service experience also has tangible elements, e.g. the hydrogen bus or fruits from the local farmer, which offer an opportunity for meaningful communication through images and stories.

Thus, promotional strategies used by destinations and tourism service providers for targeting culturally diverse customer segments need to be adapted to culture-specific ways of understanding what sustainable tourism means, and should be related to powerful symbols. This would help reduce the term’s polysemy, especially in the English language: combining the term “sustainability” with a meaningful symbol embeds the word into a distinct context with the product. As an example, “mobility” can be connected with “green” to symbolize sustainable transportation options. Such symbolic connections provide a contextual specification which can be underlined in images and stories in marketing discourse.

Depending on the target group, it is advisable for promotional discourse to highlight certain aspects over others, or to use abstract or specific cues when describing sustainability. However, marketers should be careful here: picking out isolated symbols which only lead to a marginal sustainability improvement may be viewed as greenwashing. LNG cruise ships, for example, may have lower emissions, but are still far away from climate neutral mobility.

Implications for tourism research

“Sustainability” and “sustainable tourism” are widely used concepts among tourism researchers and have been objects of tourism research for more than 25 years (Bramwell et al., 2017). Our study has demonstrated, however, that both terms are polysemic: individuals as well as researchers (Purvis et al., 2019) from different countries understand and interpret these terms differently, depending on the context. This must be considered in future research. One important implication is that researchers need to be careful when transferring research results from specific case studies to other research. In case studies, the research design is always specific to the location and the context, which includes the culture and language of both the involved local population and the incoming tourists. For example, a case study about sustainable tourism in an Asian national park creates an entirely different context for sustainability-related symbols than a case about a sun and beach resort in Florida or a city tourism study in Venice. In case studies, tourists’ perception of what might be sustainable tourism will thus differ in two ways: first, according to the context and its related symbols, and second, according to the cultural and linguistic background of the tourists. This also implies that transferring questionnaires or related models from one study to another may be problematic, as this can create a research artefact.

From the perspective of linguistics, further questions appeared during our research. Our focus on intercultural aspects exhibited that the different context provided by cultural diversity influences the understanding of the terms “sustainability” and “sustainable tourism.” However, research from the fields of environmental justice and social power shows that even within the same cultural framework, the social environment of a person has an impact on their behaviour and thus also their ways of thinking and acting towards sustainability (Sze, 2018; Voyles, 2018). For example, gender is a factor leading to significantly different consumption patterns of environmentally friendly or sustainable products (Brough et al., 2016) at individual level within the same cultural environment. The same can be observed regarding language and cognitive style within an identical cultural environment: everyday language use is determined by gender, age and

social class (Milroy & Milroy, 1992). This leads to the research question whether it is possible to identify group-specific meanings of our researched terms within the same culture.

Moreover, our research might be relevant for reconsidering the attitude-behaviour gap in sustainable tourism (Juvan & Dolnicar, 2014) which refers to people who show contra-environmental travel behaviour despite having a pro-environmental attitude. Empirical studies about this phenomenon have not yet taken a closer look at the aspect of language and interpretation. Most studies do not scrutinize if terms such as sustainability or sustainable tourism are perceived identically by all participants involved. Our results suggest that some of the attitude-behaviour gaps identified in previous research might be insufficiently founded, since they posit a uniform interpretation of sustainability among the respondents: if the participants of a study understand a “sustainable” trip to be something that brings travellers happiness, most trips will consequently be perceived as sustainable, and participants act consistently. Thus, there is a need for new methodological approaches to eliminate linguistic effects in surveys.

All in all, further studies are needed to uncover cross-cultural differences in the understanding and interpretation of key concepts in empirical research. Our findings have shown that the implicit notion of monosemic technical terms is difficult to sustain. Instead, the semantics of key terms must be thoroughly reviewed before using these terms in public, academic or business discourse.

Limitations

The current study produces exciting results, but as every research it has some drawbacks. The study was conducted as an online survey, with specific age categories (under 18 and 65+) excluded. Both parts of the research were conducted via an incentivised panel through a commercial market research company, and while the first part took place before the outbreak of the Corona pandemic, the second part was done in the middle of the ongoing pandemic. The pandemic might have increased the awareness about sustainability and sustainable tourism offers due to an increased media attention of positive impacts of lockdowns, such as cleaner water in ports or less smog in cities, so there could be a possible influence of the time frame on our findings. As the responses were written in four different languages, some information or details might be lost in translation or interpreted differently by the researchers than intended by the participants. The actual understanding of the terms in the original languages is shaped by the context of country-specific culture and policy contexts. Some nuances of meaning may thus not have been fully captured when translating the definitions to English. Moreover, since no involved researcher was able to speak Norwegian, no analysis of the original Norwegian texts could be conducted. Additionally, our analysis did not study differences between interpretations of respondents belonging to different political camps on a country level. While numerous intercultural publications focus on differences between Eastern and Western cultures, this study investigated differences between four Western countries. This gives this paper a Western-centric skew. As this study investigated the understanding of sustainability and sustainable tourism, the participants’ behaviour was outside the scope of this paper. Although some participants may have a thorough understanding of the concepts, this understanding may not necessarily mirror their actual (travel) behaviour.

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