

# If you want to learn about real behaviour, measure real behaviour

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## ABSTRACT

We argue that research aiming to understand or change human behavior must measure real behavior, not just behavioral intentions, to draw valid conclusions. The work highlights the well-established gap between people's intentions and behavior across various tourism and hospitality contexts. Methodologically, we encourage authors not to rely on behavioral intentions and instead measure real behavior. We provide an overview of methods available to capture real behavior either automatically or manually in tourism contexts. The article also introduces a special issue in the *Journal of Sustainable Tourism* that showcases the measurement of real environmentally significant tourist behavior using diverse methods, such as biometric techniques, big data analytics, field observations, and experiments. We conclude by discussing five issues that prevent studies from drawing causal conclusions about behavior, namely, (i) reliance on behavioral intentions; (ii) a sample that does not reflect the population of interest; (iii) errors in measuring latent psychological constructs; (iv) consumer hypocrisy and social desirability bias; and (v) situational factors and habits. By advocating for a transition towards measuring real behavior, the article and the special issue aim to increase the validity and impact of research seeking to understand human behavior and drive effective behavior change for addressing global challenges.

## HIGHLIGHTS

- Much tourism research aims to understand or change behavior.
- Yet, behavior is not routinely measured, limiting the validity of findings.
- This article discusses the many possible approaches to capturing real behavior.
- This article outlines the most valid research design to study behavior (change).
- This article introduces the special issue on measuring real behavior.

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## Introduction

Every year, millions of people around the world say: “I do”. They pledge to love and cherish each other from this day forward, for better, for worse, for richer, for poorer, in sickness and in health, till death them do part. Most of them truly do intend to stay married to their spouse for the rest of their life. Yet, half of all first-time marriages end in divorce. For people who have expressed their intention to stay married until death do them part for the third time, the divorce rate is 73% (Banschick, 2012).

Behavioral intentions are not reliable predictors of behavior. The marriage example, admittedly, is extreme because carrying through with the behavioral intention to stay married requires a life-long effort. However, the gap between stated behavioral intention and actual behavior is similarly high for behaviors that occur within a much shorter time span (Hassan et al., 2016). In the context of engaging in physical activity, for example, Rhodes and de Bruijn (2013) conclude from their meta-analysis that only 36% of those who expressed an intention to engage in physical activity followed through. In the context of ethical behavior, behavioral intention and perceived behavioral control – that is, the consumer perception of the extent to which performing a behavior is under their control – combined can only explain 43% of the variance in actual behavior (Hassan et al., 2016). The reason for the behavior-intention gap being larger in the context of ethical behavior can be explained by social desirability bias (Pinna, 2020) – survey respondents’ desire to present themselves in the best possible light and, as a result, giving answers that are more aligned with social expectations held by their society. A tourism example that illustrates the behavior – intention gap relates to booking boat tours. Of all boat tourists who buy a boat ticket, 60% consider environmental sustainability when selecting a boat tour. Only 14% correctly recall whether the boat trip they booked is eco-certified or not (Karlsson & Dolnicar, 2016).

Many explanations have been offered for the gap between behavioral intentions and actual behavior. Some of these explanations relate to methodology (e.g., social desirability bias in survey studies), others consider factors external to the person, such as implementation and implementation planning (Nguyen et al., 2022) or, more generally, factors out of a person’s control that make it impossible or difficult to display the intended behavior. Despite this, according to the “fundamental attribution error”, individuals tend to overestimate the influence of personality factors while underestimating the influence of situational or contextual factors (Shrum et al., 2023). Recently, the literature has also drawn attention to the role of habits – automatic behaviors acquired through repetition and in response to a cue – as an additional key driver of sustainable behavior on vacation. MacInnes et al. (2022) propose that pro-environmental behaviors that are strongly habitual are more likely to be enacted also on vacation. An alternative explanation for the gap between behavioral intentions and actual behavior is that people find justifications and excuses for behaviors they wish to engage in – in line with cognitive dissonance theory (Acuti et al., 2022; Juvan & Dolnicar, 2014). Finding such justifications allows people to abandon their good behavioral intentions without suffering from tension resulting from the misalignment of beliefs and behavioral intentions and actual behavior. This mechanism is illustrated by a study of environmental volunteers who – despite their awareness of the negative environmental consequences of going on vacation – generated a substantial number of diverse justifications why it is acceptable for them to engage in this environmentally unsustainable behavior (Juvan & Dolnicar, 2014).

Despite the strong evidence that behavioral intentions are not a reliable indicator of actual behavior, across most social science disciplines, behavioral intentions remain the primary dependent variable of choice in research studies aiming to gain insights into human behavior or develop and test ways to change human behavior. This article seeks to discuss the dangers associated with relying on behavioral intentions as the dependent variable, to illustrate how the current status quo can be changed to measuring real behavior as the default approach for both association and experimental studies, and to introduce the special issue on “Real behavior

in sustainable tourism. A methodological shift”, which offers a kaleidoscope of examples of research studies focusing specifically on behavior.

### Reliance on behavioral intentions (status quo) versus measurement of behavior

Figure 1 illustrates the currently dominant approaches to association and experimental studies (marked in red) and what would need to be changed to transition towards more valid approaches to understanding and being able to change human behavior (marked in green).

The current dominant approach to association studies (short red bracket in Figure 1) is referred to as a Type AL study in a recent study proposing a typology of quantitative approaches to discovery in tourism (Dolnicar et al., 2024). The “A” stands for Association and the “L” stands for Latent constructs. This type of study typically relies on data collected in a one-off cross-sectional survey study where respondents respond to questions about several latent constructs as well as behavioral intention. A correlation-based analysis is then conducted to determine the association between latent constructs and intention. A typical example is the investigation of guest satisfaction (latent construct) and revisit intention (behavioral intention). Type AL studies cannot draw causal conclusions because all measures have been taken at the same time and cannot draw conclusions about behavior because they rely on behavioral intentions only. In 2022, 31% of all studies published in *Annals of Tourism Research*, *Tourism Management* and the *Journal of Travel Research* were of Type AL (Dolnicar et al., 2024).

The validity of Type AL studies could be improved by collecting data on actual behavior and using it as dependent variable (see short green bracket in Figure 1). This would ensure that any conclusions drawn about associations between latent constructs and behavior are valid. Such Type AB studies represented 20% of all 2022 articles in the three journals listed above. The substantial proportion of type AB studies can be explained by the much wider availability of data capturing actual behavior.

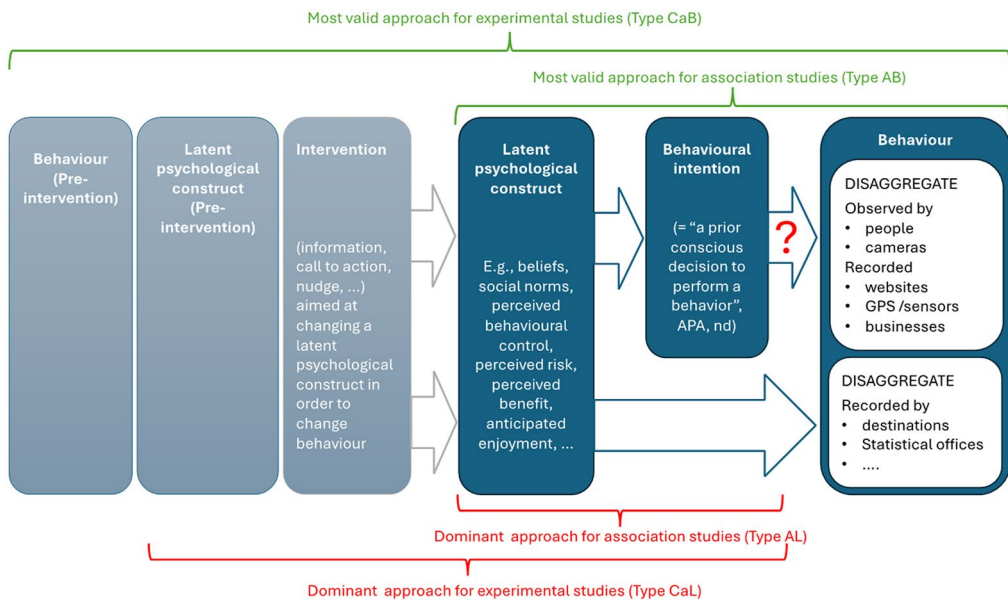


Figure 1. Contrasting the currently dominant approaches to association (short red bracket) and experimental studies (long red bracket) and the extensions that would ensure such studies can draw valid conclusions about behavior (short green bracket for association studies using actual behavior as dependent variable; long green bracket for experimental studies using actual behavior as dependent variable).

The currently dominant approach to experimental studies (long red bracket in [Figure 1](#)) is of Type CaL, which involves measuring latent constructs before and after exposing study participants to an intervention. Such a design typically involves two separate survey waves but can also be implemented in one survey where the intervention occurs in the middle. Type CaL studies are survey experiments and, as such, can draw conclusions about cause and effect (the intervention may or may not influence the value of the targeted latent construct). Type CaL studies cannot, however, draw valid conclusions about behavior because they rely on measures of behavioral intentions only. Because collecting survey data is now so easy and affordable, the amount of Type CaL studies has increased dramatically over the past decade, representing 41% of published studies in 2022 in the three journals listed above.

The validity of Type CaL studies could also be improved by collecting data on actual behavior and using it as the dependent variable, making it a Type CaB study – an experimental study that tests whether a researcher-controlled intervention affects actual behavior. Only 1% of 2022 journal articles published in *Annals of Tourism Research*, *Tourism Management* and the *Journal of Travel Research* are of Type CaB.

As can be seen, the validity of currently dominant research approaches can be increased by measuring behavior for association studies and both pre and post-intervention behavior for experimental studies.

## **Five issues that prevent understanding the causal effect of one variable on another one for the population of interest**

### ***Behavioral intention***

According to the American Psychological Association (APA, 2023), an intention is “a prior conscious decision to perform a behavior”. Using behavioral intentions as a proxy for behavior is convenient because study participants can express their intentions in surveys. It cannot be assumed, however, that intentions surely translate to actual behavior, as illustrated by the arrow with the question mark in [Figure 1](#). Nevertheless, most studies currently investigating associations between latent psychological constructs and behavior rely on stated behavioral intentions only, thus substantially reducing the validity of conclusions drawn. A recent study attempting to minimize food waste generation among hotel guests at the breakfast buffet illustrates how sole reliance on survey experimentation and behavioral intentions can lead to misleading conclusions (Juvan et al., [in press](#)), encouraging decision-makers to implement practical measures that, in reality, do not work.

### ***Study participants are not from the population of interest***

Even when measuring real behavior instead of behavioral intentions, a problematic situation is when the study participants are not from the population of interest. An example of a similar study is provided by Ding et al. (2005) who measure actual behavior – actual Chinese dinner purchases – but use a convenience sample. This might lead to distorted results as the target population will likely differ from the (unrepresentative) sample (Viglia & Dolnicar, 2020).

### ***Latent psychological constructs***

Such constructs cannot be observed by definition; researchers can only rely on people’s self-reports (Machleit, 2019). Examples of latent constructs commonly used in studying human behavior include beliefs, social norms, perceived behavioral control, and moral obligation, among

many others. Latent psychological constructs play a crucial role in understanding the mechanisms that drive behavior change.

### ***Tourists' hypocrisy and social desirability bias***

Tourists' hypocrisy refers to the discrepancy between what consumers say about their intentions to behave sustainably and what they actually do (Nieto-García et al., 2024). This can be unintentional, when consumers have multiple conflicting ethical priorities, or intentional, when consumers lie about their intentions and behaviors to present themselves favorably. Social desirability bias (i.e. under-reporting undesirable traits or behaviors and over-reporting desirable ones) also leads tourists to exaggerate their sustainable intentions and behaviors because they want to appear good citizens.

### ***Situational factors and habits***

Tourists are confronted with situations that are different from those in their daily lives. This means that different ethical priorities can arise, affecting how tourists behave. What is sustainable and convenient at home may become problematic or less convenient in other regions or countries. For instance, buying package-free products may be more complicated when traveling, as it may require consumers to bring several bags or containers with them. Despite challenging external factors, tourists who habitually behave sustainably at home are more likely to take responsible actions when traveling.

## **Behavior**

The focal construct of research aiming to understand or change behavior is real behavior (far right box in Figure 1). As can be seen, and in stark contrast to 50 years ago, a wide range of behaviors can now be captured automatically because they leave electronic footprints (e.g. online booking; Araña & León, 2016) and because new technologies, such as GPS and sensor technologies, make it possible to capture them automatically and objectively. Examples of such technologies in the tourism context include GPS tracking (Cooper et al., 2024; Shoval et al., 2018, 2020; Shoval & Isaacson, 2007), automatic water monitoring in hotel showers (Pereira-Doel et al., 2024; Tiefenbeck et al., 2018), automatic monitoring of minifridge electricity use and guest use in hotel rooms (Dolnicar et al., 2024), and automatic monitoring of food waste generated by patrons at all-you-can-eat buffets by not eating everything taken from the buffet (Zhu et al., 2024). Some behaviors of interest are automatically recorded by organizations, for example the number of towels replaced in each hotel room every day (e.g. Baca-Motes et al., 2012; Goldstein et al., 2008) or the hotel rooms cleaned every day in a hotel (e.g. Dolnicar et al., 2019).

Behaviors can also be measured manually, as illustrated by studies aiming to reduce food waste where research assistants manually weighed the uneaten food left behind by hotel guests (Juvan et al., 2018; Dolnicar et al., 2023). This process is very labor intensive, expensive and prone to error. However, such an approach may be necessary when data cannot be recorded. For instance, Karlsson and Dolnicar (2016) observe whether tourists are purchasing a ticket for a tour with an eco-certified or with a not eco-certified tour provider, thus relying on an observational study to tap into real behaviors.

Importantly, recent research suggests that it is essential to measure real behavior when trying to achieve the Sustainable Development Goals set by the United Nations Tourism in order to avoid biases (Viglia & Acuti, 2023).

Secondary behavioral data holds significant value in tourism sustainability research because it provides insights into tourists' behaviors and revealed preferences (Nicolau, 2010), which, in

contrast with stated preferences, facilitates an accurate analysis of realistic consumption patterns related to sustainable tourism practices (Nicolau, 2012). Analyzing existing data can help researchers understand how tourists engage, in real life, with sustainable tourism initiatives, such as eco-friendly lodging decisions.

National or international tourism organizations often publish statistics and data on tourist arrivals, expenditures, and activities, which can be analyzed to understand trends in sustainable tourism engagement (Nepal et al., 2019). Likewise, publications and websites focused on sustainable tourism (e.g. Responsibletravel.com) may provide data on tourist behavior in relation to sustainability (Caruana et al., 2014; Confente et al., 2024). Importantly, in modern days, big data can enhance the management of tourist capacity. In this context, flights, number of overnights, and over-tourism can be predicted by using big data (Gallego & Font, 2021; Nurmi et al., 2020).

Relevant to this point are online reviews. The analysis of online reviews on reservation platforms can provide insights into tourists' experiences and preferences related with sustainable tourism practices (Serrano et al., 2021). Ratings, comments, and photos, as main representations of these platforms' user-generated content, reflect tourists' real-life experiences, preferences, and perceptions of sustainability initiatives (Bassolas et al., 2016; D'Acunto, Filieri & Amato, 2024; Londoño & Hernandez-Maskivker, 2016; Mariani & Borghi, 2020). Importantly, this user-generated content can lead to several types of analysis that could provide different views regarding sustainability:

- i. **Sentiment analysis.** Through the categorization of reviews based on the sentiment expressed by users – positive, negative, or neutral – sentiment analysis can enrich the understanding of overall satisfaction levels with sustainable tourism initiatives and identify areas for improvement (Serrano et al., 2021). In this sense, positive sentiments derived from users praising an organization's efforts materialized in eco-friendly practices (e.g. energy-efficient lighting in a hotel, or sustainable sourcing of materials and amenities) would contrast with negative sentiments that would result from criticism about perceived potential greenwashing. At the destination level, if tourists appreciate the commitment of a destination to environmental conservation, then positive sentiments would emerge. In the same vein, concerns about over-tourism, environmental degradation, cultural commodification, or inadequate infrastructure to support sustainable tourism would bring about negative sentiments (Tokarchuk et al., 2022).
- ii. **Thematic analysis.** The identification of recurring themes that tourists mention in the reviews that they post can be conducted through thematic analysis (Filieri et al., 2023). This type of analysis, where topics such as conservation activities, cultural experiences, local community engagement, or sustainability practices are explored, can help organizations detect strengths and weaknesses when implementing their sustainability strategies. Likewise, this analysis can assist destinations in addressing sustainability-related challenges and making the most of their strengths to enhance their sustainable tourism actions.
- iii. **Image analysis.** Analyzing photos shared by tourists can provide visual insights into their experiences and preferences regarding sustainable tourism. Posted images of scenic landscapes or eco-friendly accommodations allow researchers to understand tourists' preferences and perceptions of sustainability. Falk and Hagsten (2021) showed that Instagram posts have been effective to estimate visitor flows to World Heritage sites at the individual tourist attraction level. In a more managerially oriented way, in hotels, image analysis can focus on photos shared by guests depicting sustainable features and practices within the property, such as eco-friendly architecture, green spaces, renewable energy installations, recycling facilities, or organic gardens. In destinations, these images would refer to landscapes, wildlife encounters, cultural experiences, or eco-friendly activities, which would facilitate the assessment of the appeal and popularity of sustainable tourism offerings.

Beyond the intra-destination analysis derived from user-generated content, it is relevant to underscore the inter-destination examination. The comparison of reviews and ratings across different destinations and accommodation alternatives allows researchers to assess variations in sustainable tourism practices and tourist experiences. As a result, this comparative analysis can highlight best practices, challenges, and opportunities for improvement. Note that in the accommodation industry, this comparative analysis would establish a reference point of best practices by benchmarking a hotel's sustainability efforts against its competitors. Likewise, these comparisons could show destinations that outperform others in specific attributes of sustainability, providing insights for knowledge-sharing among cooperating destinations.

The combination of use-generated content with other secondary sources opens new relevant perspectives. Kim et al. (2024) analyzed the determinant factors of the popularity of destinations by employing users' ratings provided by Expedia Group and, at the same time, they utilized economic variables such as GDP and employment from official statistics, and environmental dimensions such as air quality indexes, in line with Wang et al. (2018). Kim et al. (2024) used open-source data, which have the advantage that permits regular updates. This benefit is not minor because it guarantees the replicability of the analysis over several years.

Geospatial analysis may be integrated in another potentially relevant data combination. GPS trackers have been widely used in tourism research with the purpose of tracking tourists' movements in destinations (Kou et al., 2024). Nevertheless, beyond this basic use, this mechanism is especially valuable when combined with other data sources that may capture interactions that occur in the context of sustainable tourism practices (Buning & Lulla, 2020; Confente et al., 2024; Hardy & Aryal, 2020).

For all these applications, secondary data based on real decisions made by tourists are critical to advancing sustainable tourism practices. The prevalence of user-generated content can produce valuable insights into tourists' behaviors and preferences with regard to sustainability initiatives. Recall that as this information provides a realistic depiction of consumption patterns, it may contribute better to decision-making for tourism organizations and policy implementation for public bodies. In addition, the integration of different secondary data sources offers comprehensive perspectives on tourism sustainability. Finally, as open-source data become widespread, it should ensure the effective replicability of secondary data analyses.

## Summaries of contributions in the special issue

The articles in this special issue reinforce the need to measure real behavior by adopting approaches that capture tourists' real behavior rather than intentions. Each article applies different methodologies and mixed methods to capture and analyze real behaviors pertinent to sustainable tourism, ranging from direct biometric measurements and geographic tracking to synchronous interviews and big data analysis. This diversity in methodological approaches enriches the understanding of behaviors in various contexts within sustainable tourism.

Mandić et al. (2023) investigate children's reactions to overtourism in Dubrovnik, Croatia, using a combination of biometric techniques and questionnaires. Instead of relying solely on self-reported data, they employ eye-tracking to measure visual attention and fixation on images depicting sustainable and unsustainable tourism scenarios. To assess physiological arousal levels in response to the images, they also adopt electrodermal activity and facial expression analysis. This allows to capture emotional responses (valence and type) evoked by the images. This multifaceted approach provides objective measures of children's reactions, complementing the subjective data gathered through questionnaires about nature connectedness, place attachment, and pro-environmental behavior.

Kang et al. (2023) utilize a novel fuzzy Multi-Criteria Decision Making approach to prioritize sustainable post-pandemic tourism policy factors. They emphasize the importance of real-world

performance data in evaluating and prioritizing policy factors. They advocate for using data that reflects the actual impact of tourism activities on the economy, environment, and society, rather than relying solely on theoretical assumptions or expert opinions. This approach aligns with the call for measuring real behavior to inform effective policy decisions and shows how secondary data can be a valid source for investigating real behavior.

Pizzetti et al. (2024) explore moral disengagement and the "holiday mindset" of young travelers on a cruise ship. They employ a holistic case study approach, incorporating five quantitative and qualitative methods to capture real behavior. Of particular interest to the special call is the participant observation to document real-time behaviors related to consumption, waste generation, and engagement with sustainable options and the photo elicitation to capture visual evidence of behaviors and consumption patterns through participant-generated images.

Confente et al. (2024) introduce a novel methodology for tracking and analyzing tourists' real behaviors using big data sources. They combine structured data from mobile phone networks (TELCO data) with unstructured data from user-generated content (UGC) on TripAdvisor. Using Social Network Analysis (SNA), they map tourist flows and identify patterns of movement between attractions in Verona, Italy. This approach enables them to identify sustainable behavior patterns and measure the importance of sustainable behaviors. Importantly, by comparing network structures across different years, they track the evolution of sustainable behaviors over time revealing the impact of policies and shifts in tourist preferences.

Osman and Brown (2024) explore the travel experiences of Muslim women in the UK, focusing on how gender and religion intersect with sustainable tourism. They employ synchronous narrative interviews to capture the lived experiences of 21 participants, exploring themes related to sense of freedom, stereotyping, prejudice, and their own judgments of Western values. The study is conducted during the trip (i.e. not through subsequent interviews). The work, therefore, captures real feelings, highlighting how travel can catalyze transformative learning and a desire for greater gender equality, aligning with the social dimension of sustainable tourism.

Ma et al. (2024) investigate residents' attitudes toward land lease for rural tourism development in Longtan Village, China. They employ a longitudinal field research method, incorporating in-depth interviews, non-participant observation, and secondary data analysis to track changes in residents' attitudes over time. In this way they capture the evolution of attitudes and identify the mechanism of attitudinal change. Importantly, they observe real behavior related to land lease decisions, i.e. documenting the number of residents who agree to lease their land and the factors influencing their choices.

D'Acunto et al. (2024) explore the socio-demographic profile of customers who share green electronic word of mouth (eWOM) in the travel and tourism industry. They analyze a large dataset of online reviews (496,813 hotel reviews, 129,455 airline reviews, and 22,373 tourist attraction reviews) using text analytics and regression analysis. This big data approach enables them to (i) identify the segments most likely to share green eWOM, (ii) track the evolution of green eWOM over time and (iii) demonstrate the positive association between green eWOM and rating scores. This study, based on secondary data, provides valuable insights into real eWOM behavior, offering a tool for tourism organizations to understand the segments most engaged with sustainability and tailor their marketing strategies accordingly.

Chen and Wu (2024) examine the role of psychological ownership in fostering sustainable behavior among cultural tourists in Yunnan Province, China. They conduct a mixed-method study, integrating in-depth interviews with field observations to explore how guest-host interactions contribute to psychological ownership development and mitigate the attitude-behavior gap. Their findings reveal the importance of fostering psychological ownership through meaningful interactions, highlighting the role of real experiences in driving sustainable behavior change.

In conclusion, these eight studies demonstrate a diverse range of approaches to measuring real behavior in tourism research. They move beyond stated intentions and capture actual

actions, employing a variety of methods, including biometric methods, big data analysis, field observations, and in-depth synchronous interviews. This shift towards measuring real behavior is crucial for advancing our understanding of sustainable tourism and developing effective strategies for mitigating the negative impacts of tourism development.

## Conclusions

Behavior change represents the key solution to global challenges such as the climate emergency and health pandemics. To solve real challenges, any research into human behavior and its change must draw valid conclusions. Valid conclusions about real behavior and behavior change can only be drawn if real behavior and real behavior change are measured. Measuring tourists' intentions – which remains the norm in tourism research – may be useful for several goals, such as understanding tourists' preferences or helping practitioners craft marketing campaigns that facilitate the translation of tourist intentions into actions. Additionally, the reliability of behavioral intention measurements can be increased by methodological expedients (e.g. behavioral realism) that help offering a better approximation of behavior (Jang & Irwin, 2021). There is also some evidence that consumers who strongly intend to perform an action are more likely to do so compared to tourists who do not have such intentions (Perugini & Bagozzi, 2001). Accordingly, several studies have measured and presented intentions as a valid proxy for behavior, consistent with the theory of planned behavior, which argues that behavioral intentions predict actual behavior (see Nieto-García et al., 2024, for a deeper discussion of the theory of planned behavior's evolution and limitations). However, relying on behavioral intentions as a proxy for actual behavior presents a significant challenge. As discussed, while intentions are easy to measure through surveys, they do not always translate into real actions, thereby providing misleading conclusions. Additionally, the use of self-reported data as a proxy for latent psychological constructs, along with tourists' hypocrisy and social desirability bias, further complicates the understanding of human behaviors. This bias is even more acute in sustainable behaviors, where individuals, driven by the desire to present themselves favorably, tend to overreport sustainable intentions, enlarging the discrepancy between stated intentions and actual behaviors.

Consequently, using actual behavior data helps to improve the validity and reliability of research findings the use, because, among other things, actual behavior data reflect "what people truly do rather than what they say they will do". Actual behavior data provide a more accurate representation of how individuals behave than self-reported intentions do – which are often aspirational and may not materialize in practice – thus minimizing the alluded discrepancies between stated intentions and real-world actions.

Therefore, at the very least, researchers who rely on empirical measures of behavioral intentions should accurately report the limitations of this approach. This is currently not the case. Most studies investigating only behavioral intentions take the liberty somewhere in the manuscript – most dangerously in the title, abstract or conclusions section – to draw conclusions about actual behavior (Greene & Dolnicar, 2024). This inaccuracy risks misguiding future research and managerial decision-making. Certainly, by not clearly delineating the limitations of using behavioral intentions as proxies for actual behavior, researchers risk overstating the practical implications of their findings. This lack of transparency can lead to a series of inaccuracies where subsequent studies build on these initial flawed results. This situation is especially relevant in sustainability tourism because of the implementation of specific interventions and policies. At the destination level, a tourism board might decide to roll out a costly sustainable tourism campaign based on survey data showing that tourists intend to engage in eco-friendly activities, such as taking part in local conservation efforts. However, when these tourists actually visit the destination, they may not have the time or interest to participate in these conservation activities. Notice that this unsuccessful campaign – consequence of not anticipating an eco-friendly

behavior properly – represents a financial loss but also a missed opportunity to implement more effective strategies that could truly enhance sustainable tourism practices. The same happens at the firm level. For instance, a hotel manager might invest in initiatives to reduce food waste based on studies indicating high consumer intentions to participate in such programs, only to find that actual participation is significantly lower. This mismatch between research findings and real-world application can result in wasted resources for the hotel and missed opportunities for genuinely effective interventions at the firm level.

Consequently, it is critical for researchers to report, in a transparent and accurate way, the limitations associated with using behavioral intentions as proxies for actual behavior. By clearly communicating the distinction between intentions and actions, researchers can contribute to a more reliable body of knowledge. Still, the ideal approach is to use actual behavior data to draw valid conclusions about behavior and behavior change.

The studies in this special issue offer a diverse range of examples on how researchers in sustainable tourism can measure actual behavior. We hope they inspire future studies to find the most effective and accessible ways to measure behavior, depending on the research scope, aims, and available resources. Researchers aspiring to create real change must commit to measuring real behavior and using it as their dependent variable. Today, this is often easier than ever before, as more and more sources of data capture actual behavioral data.

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