

Tourist Prosocial Behavior: Scale Development and its Role between Tourist Destination Social Exclusion and Wellbeing

Abstract: Prosocial behavior plays an important role in promoting a sustainable and inclusive society. However, the academic investigations regarding tourist prosocial behavior have been limited and ambiguous. This research aimed to develop the measurement instruments to measure tourist prosocial behavior. Through a mixed methods approach across four different studies, this research established a 27-item, six-dimensional measurement scale of tourist prosocial behavior. Using the proposed scale, this study examined the relationship between social exclusion, tourist prosocial behavior, and tourist well-being to assess the nomological validity. This research extends the current knowledge of prosocial behaviors by defining tourist prosocial behavior and examining its dimensionality. It also provides practical insights related to destination marketing and interventions to promote tourist prosocial behavior.

Keywords: tourist prosocial behavior, social exclusion, tourist well-being, scale development

1. Introduction

Humans not only regularly act with others but also act on behalf of others (Dunfield, 2014). This tendency to act on behalf of others, however, has long been considered an intriguing puzzle. Prosocial behavior, broadly defined as any act on behalf of others or any behavior that is intended to benefit others, is considered difficult to evaluate (Dunfield, 2014). This difficulty has resulted in limited progress in prosocial behavior research. Nevertheless, the potential benefits of prosocial behavior (including the benefits to individuals and societies) have been clearly identified by researchers. Previous research has indicated that engaging in prosocial behavior has numerous positive effects on both the benefactor and recipient, such as enhancing cognitive and physical health, improving subjective well-being, and reducing their emotional distress, etc. (Lay & Hoppmann, 2015).

In the context of tourism research, tourist pro-social behaviors have been shown to have numerous benefits which can contribute to the sustainable development of destinations, create a travel environment with harmony and conviviality, boost tourists' intentions to visit a destination, and provide tourists a sense of attachment and belonging to the destination (Chi, Han, & Kim, 2022; Seo, Choi, & Shin, 2021; Kim, Bonn, & Hall, 2022). It is precisely because of its widespread social implications and acknowledged importance that travelers' prosocial acts deserve greater attention from scholars and relevant industry practitioners, especially now when competition in the

tourism market is still fierce and the controversy between tourist and host is by no means a rarity.

Rooted in the field of social psychology, prosocial behavior has attracted extensive attention from researchers with different theoretical perspectives (e.g., the evolutionary perspective, cognitive perspective, and biological affective perspective) (Wispe, 1972; Xiao, Zheng, & Chen, 2014). These perspectives have yielded valuable and provocative results. However, progress has been hindered by its conceptual vagueness and disagreement about measurement, with different scholars using the same term for various situations or employing different terms for the identical situation (Xiao et al., 2014). So, while prosocial behavior has clearly captured the curiosity of scholars from the field of tourism (Liu & Tsaur, 2014; Coghlan, 2015), it also faces the challenge of unclear definitions and lack of effective measurement tools.

Research on prosocial behavior in the tourism context has mainly focused on residents' prosocial behavior toward tourists, while studies on tourist behavior is limited (Tung, 2019; Wu, Wu, Li, & Tong, 2022). Moreover, the differences between tourist prosocial behavior and some similar concepts - such as tourist citizenship behavior, pro-environment behavior, helping behavior, and altruistic behavior – have not been clearly specified (Assiouras et al., 2019; Holmes, Dodds, & Frochot, 2021; Chen, Bai, & Luo, 2021). These analyses of tourist behavior have mainly focused on specific behaviors, and the measures are often uncorrelated. Consequently, the literature lacks a comprehensive discussion on tourist prosocial behavior. It becomes imperative to delve deeper into the subject, exploring its unique logical structure and connotations to obtain a more comprehensive perspective. Considering the growing consensus that understanding prosocial behavior requires a multidimensional approach, this study develops a multi-dimensional Tourist Prosocial Behavior Scale (TPBS) to promote a clearer understanding of tourist prosocial acts.

According to the social exclusion theory, individuals who experience rejection and exclusion are likely to exhibit less prosocial and interpersonally beneficial behavior (Twenge et al., 2007). Moreover, those who act aggressively and against the benefit of others may experience greater negative psychological consequences, such as lower subjective well-being (Baumeister, DeWall, Ciarocco, & Twenge, 2005). This suggests that experiencing rejection and discrimination can lead to a decreased desire to engage in prosocial activities, which can further reduce one's sense of well-being (Lay & Hoppmann, 2015). Visitors feeling unwelcome and discriminated against (i.e., tourist social exclusion) has been a focal issue in the tourism context (Sedgley et al., 2017), as discrimination and resentment towards tourists by service providers and local residents are widespread in many travel circumstances (Maruyama & Woosnam, 2015; Fan & Jia, 2023). Well-being, meanwhile, has also long been a topic of interest in the tourism field, as tourists often travel for health and wellness benefits (Kim et al., 2022). However, how perceived social exclusion in a destination may impact on tourist well-being as mediated by prosocial behavior is unclear. Given tourists' social exclusion has long been reported in many regions and countries and the recognized importance of prosocial behavior and tourist well-being, the exploration of whether perceived social exclusion

can influence tourists' well-being through their prosocial behavior deserves more academic attention.

Therefore, this study investigates the nomological network of tourist prosocial behavior by examining the associations among social exclusion, tourist prosocial behavior, and tourist well-being. Specifically, the research objectives are as follows: 1) developing a reliable and valid measurement scale of TPBS; 2) examining the nomological validity of the proposed scale by investigating a structural model linking social exclusion to tourist prosocial behavior and well-being. The new TPBS can help researchers understand tourists' prosocial behaviors and its influencing mechanism, and provide a holistic view for practitioners to fully understand prosocial behaviors within a tourism context. Findings may also deepen the understanding around social exclusion theory by introducing the influence of social exclusion felt by tourists at destinations on their prosocial behavior and wellbeing. This research provides immediate practical implications on understanding tourist prosocial behavior and insights for the development of interventions to promote prosocial behavior among tourists.

2. Literature Review

2.1 Defining prosocial behavior

Wispe (1972) first introduced the concept of prosocial behavior (distinguishing it from aggressive behavior or assault), defining it as acts done by individuals of their own free will that are beneficial to others or to society. Theory of norms and roles can explicitly explain prosocial behavior (Cialdini, Kallgren, & Reno, 1991; Gao, Huang, & Zhang, 2017). Accordingly, roles are the typical and anticipated actions of people who hold a specific place in society, whereas norms are the standards established by the community as a whole regarding acceptable behavior for members in those roles. People pick up the social norms and roles voluntarily that are suitable for a particular circumstance through exposure to social modeling and reinforcement (Simpson & Willer, 2008). Prosocial behavior has not been consistently defined across various sources, with different definitions emphasizing different facets of such conduct. For instance, Batson et al. (2008) underscored the deliberate nature of prosocial behavior, encompassing a broad spectrum of actions intended to benefit others. Conversely, certain definitions place greater emphasis on the outcomes of prosocial behavior rather than its underlying motivations. Schroeder and Graziano (2015), for example, states that prosocial behavior includes any action that benefits another person.

Numerous concepts similar to prosocial behavior are found in the literature, each with its own distinct emphasis. For example, collaborative behavior, the act of two or more individuals working together towards a shared objective, can be dubbed prosocial behavior as it implies mutual benefit and a prospect of return (Rand et al., 2016). Beyond that, donation is also considered a prosocial behavior as it can benefit another and is intended to do so (Han, Shi, Yong, & Wang, 2012). Further, citizenship behavior, pro-environmental activity, and altruistic behavior are all thought to be the examples of prosocial behaviors (Lin, Wong, Wu, Lian, & Lin, 2022; Liu & Tsaur, 2014). Customer citizenship behaviors encompass three components that exemplify prosocial behavior:

recommending, aiding fellow customers, and offering feedback (Groth, 2005). Pro-environmental behavior encompasses consumer actions that have a positive impact on the environment (Yan & Jia, 2021). Altruistic behavior means acts of helping others at the expense of one's own interests and without expecting anything in return, which has been ranked as the highest level of prosocial behavior (Fehr & Fischbacher, 2003). Table 1 presents the terms that have been used in the literature, with their definitions and focuses highlighted.

The aforementioned examples clearly demonstrate that prosocial behavior is a comprehensive term that encompasses a wide array of diverse behaviors. This also explains why the question of how it should be defined remains unanswered. Definitions remain overly broad with blurred boundaries. However, on the basis of the aforementioned literature, prosocial behavior can be broadly defined as actions that bring benefits to those other than oneself (Kim et al., 2018). As such, we define the prosocial behavior of tourists in this current research as voluntary, intentional, and positive behavior by tourists that results in benefits for the destination (i.e., economy, culture), local people, service providers, or other tourists. This can come in many different forms - donating, altruistic behavior, pro-environmental behavior, and citizenship behavior of tourists are all considered prosocial behaviors. This is different from other conceptualizations of prosocial behavior as it explicitly considers tourists rather than regular consumers or general actors in the context of social interaction.

Table 1. Terms in defining prosocial behavior

Terminologies	Definition	Focus	Reference
Prosocial behavior	It encompasses a wide spectrum of actions aimed at benefiting one or more individuals other than oneself. It can be broadly defined as "any action that brings benefits to others."	Spontaneous consideration of other people's benefits.	Schroeder & Graziano, 2015
Civilized tourism behavior	It encompasses the fundamental conduct of tourists at the destination, which entails maintaining cleanliness and tidiness in the environment, adhering to public order, responsibly utilizing public facilities, etc.	Courtesy and well-educated manners.	Qu, Cao, Ge, & Liu, 2021; Groth, 2005
Pro-environmental behavior	It can be perceived as customer behavior that is discretionary and voluntary, not directly or explicitly demanded or rewarded, but which, when combined, contributes to environmental improvement.	Behavior that benefits the environment.	Tuan, 2018; Yan & Jia, 2021

Helping behavior	It includes donating money to non-profit organizations, volunteering time, spreading positive word of mouth, promoting or recommending brands to other customers, forgiving negative experiences and participating in marketing research.	Giving of aid or assistance toward a definite object.	Dovidio, 1984; Johnson & Rapp, 2010
Altruistic behavior	It is a voluntary behavior aimed at benefiting others, driven by the intrinsic motivation to contribute without expecting external rewards or seeking to avoid external aversive stimuli or punishments.	Voluntary behavior intended to benefit another without expecting anything in return.	Fehr & Fischbacher, 2003
Collaborative behavior	It is an act where two or more individuals collaborate to accomplish a shared objective, which can be dubbed prosocial behavior as it implies mutual benefit and a prospect of return.	With a common goal and mutual benefit	Rand et al., 2016
Donation	It can benefit another and is intended to do so.	Being considered as a prosocial behavior	Han, Shi, Yong, & Wang, 2012

2.2 Measurements of prosocial behavior

Recent studies have started to view prosocial behavior as a multi-dimensional construct (Liu & Tsaur, 2014; Torres-Moraga, Rodriguez-Sanchez, & Sancho-Esper, 2021) rather than as a universal, unidimensional one. However, it is still unclear what specific dimensions or psychological domains underpin prosocial behavior and what the implications are for tourists. Indeed, one of the most basic steps toward a more objective analysis of prosocial behavior is differentiation and measurement (Schroeder & Graziano, 2015). Therefore, we consider briefly various measurements of prosocial actions from previous research before we present our own.

Prosocial behavior has been operationalized in multiple ways and measured with different tools, including personality scales, psychological instruments, and behavioral variables (Georganas, Laliotis, & Velias, 2022). Among these, behavioral variables are the most commonly used by scholars. For example, helping, altruism, volunteerism, and cooperation were considered as significant subcategories of prosocial actions by Schroeder and Graziano (2015). A three-dimensional concept of prosocial behavior consisting of recommendation, helping, and feedback was proposed by Torres-Moraga et al. (2021). Furthermore, various measurements for similar concepts of prosocial behavior have been proposed. For instance, a scale of consumer pro-environmental behavior that includes several dimensions (encompass items measuring behavior and pro-environmental intention) has been produced (Lee, Jan, & Yang, 2013). The scale of customer helping behavior with eight distinct but interrelated dimensions has also been

developed (Johnson & Rapp, 2010). Despite the inconsistencies in interpretation and differentiation, the above studies have measured prosocial behavior in diverse situations from multiple perspectives. They provide an important theoretical foundation for the tourist prosocial behavior scale that this study proposes.

Additionally, there are three primary approaches to measuring prosocial behavior: self-report questionnaires, behavioral ratings, and observational methods. Self-report questionnaires offer unique insights that can significantly advance our knowledge of and advocacy for prosocial conduct (Carlo & Randall, 2002). Although they may be susceptible to response biases (e.g., social desirability bias) unrelated to the goal concept, research suggests that such biases are more prevalent in self-reported attitudes compared to self-reported actions (Fernandes & Randall, 1992). Behavioral ratings are commonly employed by researchers to complement and validate self-report findings (Whitcomb, 2013). Observational methods yield valuable contextual information, allowing for a more systematic approach or an open-ended exploration of behaviors without predefined criteria (Lange, & Dewitte, 2019). Among these three techniques, the first two are considered to possess clear economic and practical advantages (Fernandes & Randall, 1992; Whitcomb, 2013).

2.3 Prosocial behavior in tourism

Prosocial behavior is an emerging topic in tourism studies (Chi et al., 2022; Coghlan, 2015). It has been mostly used in the context of explaining the behavior of residents in tourist destinations (Tung, 2019; Frost & Frost, 2022). Specifically, studies from the perspective of social exchange theory argued that prosocial behavior of residents was an exchange for visitors' word-of-mouth marketing, satisfaction, and return for additional visits (Kim & Qu, 2020). Prosocial behavior of residents was shown to be motivated by both altruistic and egoistic factors (Chen et al., 2021). Residents' prosocial behaviors towards tourists were also affected by their emotional state, with those more emotionally aroused more likely to perform prosocial behavior (Kim & Qu, 2020). In addition, research has shown that residents tend to use prosocial behavior (e.g., helping a tourist) as a means of refuting negative meta-stereotypes from tourists (Tung, 2019).

Though more limited than that on residents of tourist locations, research on tourist prosocial behavior has received some scholarly interest. Due to the various range of tourism contexts, studies on tourist prosocial behavior have explored definitions and dimensions unique to specific contexts. For instance, in the realm of responsible tourism, the prosocial behavior of tourists has been defined as actively engaging in or endorsing responsible tourism practices as an ethically correct action, a virtuous behavior, and a moral obligation (Kim et al., 2022). In another study, tourist prosocial behavior in the context of volunteer tourism was seen as making a constructive impact on the social, natural, and economic environment within which a volunteer is placed (Frost & Frost, 2022). Meanwhile, tourism researchers have enriched the discussion of tourists' prosocial behavior by exploring its antecedents and consequences. Other tourists' acts of kindness were found to contribute to tourist prosocial behavior (Su et

al., 2022). Tourists' prosocial behavior affects their intention to visit a destination that is grappling with homelessness issues (Seo et al., 2021) as well as their responsible attitude and intention to travel responsibly (Kim et al., 2018).

Further, some scholars have studied tourist prosocial behavior during the pandemic. For example, Chi et al. (2022) investigated the formation of travelers' prosocial intentions in the context of festival tourism during COVID-19. This involved integrating the extended norm activation model with the theory of planned behavior, focusing on behaviors such as wearing masks, practicing social distancing, and maintaining hygiene actions. Despite an increasing number of relevant publications in recent decades that have explored the definitions, antecedents and consequences of some elements of tourist prosocial behavior (Coghlan, 2015), so far there is not a reliable and valid scale that is both detailed and comprehensive of its associated variables. To learn more about tourist prosocial behavior and assess the effectiveness of measures aimed at encouraging this behavior by tourists, it is necessary to develop a reliable and valid scale of TPBS.

2.4 Tourist destination social exclusion and prosocial behavior

Social exclusion occurs when an individual experiences feelings of being overlooked, rejected, or excluded during interpersonal interactions (Hwang & Mattila, 2019). Being excluded or isolated in relationships with others is a ubiquitous experience that is unavoidable in social life (Xie, Chen, & Guo, 2020). Generally, people who are socially excluded often feel like they are treated improperly, with little dignity or respect (Tu et al., 2020). Exclusion can manifest in various facets of social existence, with examples ranging from receiving rejection letters from universities, ending a friendship, to being disregarded in office conversations (Su et al., 2017). Social exclusion occurs frequently in tourism contexts. Tourists often report suffering social exclusion at their destinations, including experiencing resentment from local residents, service providers, and other visitors (Sedgley et al., 2017). Moreover, the COVID-19 pandemic has exacerbated the social exclusion of tourists, bullying and discrimination against tourists has been described in many countries and regions, which draws our attention to study this dangerous phenomenon (Yang & Wong, 2020).

Scholarly research in the fields of social and consumer psychology has largely examined the effects of social exclusion in the interpersonal domain, which include positive effects, such as greater desire to work with others, strong interest in making new friends, and being more friendly toward others (Chen, Wan, & Levy, 2017; Thomas & Saenger, 2020), as well as negative effects, such as norm-violating behaviors, self-defeating behaviors, and becoming less helpful and cooperative (Xie et al., 2020; Twenge et al., 2007). As per the social exclusion theory, social exclusion is a detrimental social occurrence characterized by rejection and isolation. Experiencing exclusion can hinder individuals from forming relationships and seeking a sense of belonging, leading them to perceive the world as hostile and interpret others' actions as aggressive. Consequently, they may respond in a similar manner (Baumeister, DeWall, Ciarocco, & Twenge, 2005). That is, perceived social exclusion may lead to a substantial

reduction in a person's prosocial and interpersonally beneficial behavior (Twenge et al., 2007). Individuals who have experienced rejection are more prone than others to engaging in aggressive behavior and less inclined to exhibit prosocial behavior (Baumeister et al., 2005). As such, we expect that travelers who experience social exclusion during travel may also exhibit less prosocial behavior because feelings of isolation and rejection can make them hostile to others, and their motivation to perform prosocial behavior may be restrained by these negative feelings. Therefore, we put forth the following hypothesis.

H1: Tourists' perception of social exclusion in a destination has a negative effect on their prosocial behavior.

2.5 Tourist prosocial behavior and subjective well-being

Well-being pertains to an individual's reaction to the experiences they have had or would like to have (Rahmani, Gnoth, & Mather, 2018). Pursuing well-being has become an increasingly significant objective in modern society for individuals engaged in diverse activities. Various research has identified a positive effect of travel experience on tourists' subjective well-being (Kim et al., 2022). Subjective well-being is an integrative concept that provides an opportunity to examine how travel experiences intertwine with various dimensions of well-being (Fan et al., 2020). Therefore, this study uses subjective well-being as the outcome variable to measure tourists' evaluation of their lives after travel.

Prosocial behavior is a potentially effective means of fostering one's well-being, which has been investigated by marketing, psychology and environmental researcher (Hui, 2022; Nelson et al., 2015). Increased prosocial engagement has been found to enhance individuals' well-being due to increased self-esteem, sense of self-worth, and positive emotions that accompany those acts (Guo, Sun, & Li, 2018). That is, performing acts of kindness may boost the happiness of the performer (Nelson et al., 2015). Just as some scholars claim that true human happiness is enhanced more through acts of love than by being loved in return (Netta, 2010). In addition, Guo et al. (2018) demonstrated that engaging in online prosocial behavior promotes individuals' psychological and social well-being. Nelson et al. (2015) discovered a robust relationship between prosocial behavior, specifically autonomous prosocial behavior, and subjective well-being. Furthermore, it has been observed that engaging in prosocial behavior can contribute to the enhancement of well-being even during the COVID-19 pandemic (Kim et al., 2022). Given prosocial behavior has been shown greatly contribute to well-being, we predict that the prosocial behavior of tourists will enhance their experience of well-being at the destination, so we propose hypothesis 2.

H2: Tourist prosocial behavior has a positive effect on tourist well-being.

In sum, extensive research has produced substantial evidence that social exclusion affects prosocial behavior (Tu et al., 2020) and of a strong link between prosocial behavior and well-being (Hui, 2022). As social exclusion theory suggested, people deprived of a sense of belonging will suffer more negative physical and psychological

consequences, which further predicts their well-being (Baumeister et al., 2005). That is, perception of rejection and discrimination will reduce one's motivation to act prosocially, and not participating in prosocial activities will decrease an individual's sense of well-being (Lay & Hoppmann, 2015). Based on this, we believe that tourist prosocial behavior may play a mediating role in the relationship between social exclusion and tourist well-being. Experiencing social exclusion at the destination may inhibit tourists' prosocial behavior, which in turn may reduce their well-being. Thus, the hypotheses 3 is proposed.

H3: Tourist prosocial behavior plays a negative mediating role between social exclusion and tourist well-being.

3. Research design

This research aimed to develop and validate a measurement of tourist prosocial behavior by using a mixed method design incorporating qualitative and quantitative approaches. A four-stage study (see Fig. 1) following Churchill's (1979) steps for scale development was applied. Study 1 was designed to develop and refine the measurement items through an extensive process involving literature review, in-depth interviews, as well as expert and target audience panel data. Study 2 aimed at purifying the measures through Exploratory Factor Analysis (EFA) and then verify the validity and reliability of scale through Confirmatory Factor Analysis (CFA). Then, the scale constructed is used in Study 3 to verify its nomological validity. The objective of Study 4 was to test the external validity of the scale and to generalize it to a different context.

Each study comprised a distinct group of participants. Study 1 to 3 developed and validated the TPBS by using a sample of mainland Chinese residents with domestic tourism experience. Study 4 validated the scale using a sample of Chinese tourists based on their international travel experience to test the external validity of the scale. By exploring prosocial from the perspective of both Chinese domestic and international tourist experiences, the study can gain better insight into the essence and manifestations of prosocial behavior among tourists, and develop a TPBS that can be generalized in different contexts. The following sections detail the methods and results of four studies. The subsequent sections provide a detailed account of the methodologies and findings from four distinct studies.

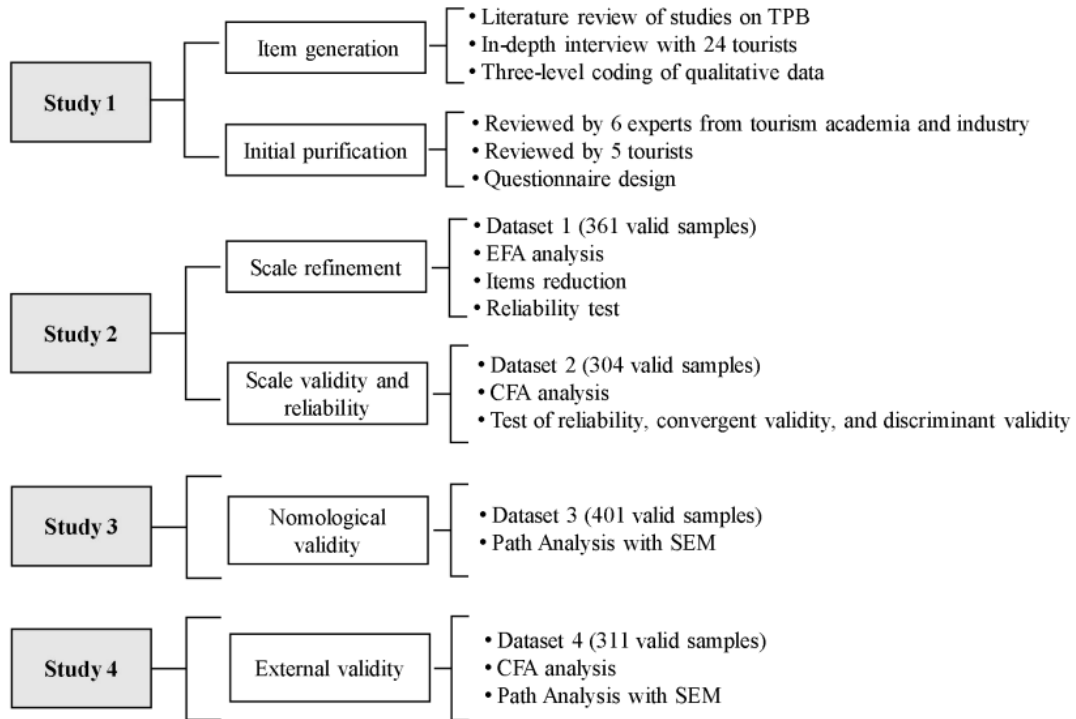


Fig 1. Four-stage research process

4. Study 1

4.1 Item generation

A search of prior literature and exploratory in-depth interviews for this study resulted in a pool of 72 initial items. In the interviews, 24 participants (8 males and 16 females) were asked to explain, in an open-ended manner, the behaviors they display while at the travel destination. The majority of the participants were well-educated individuals, and more than half of them were corporate employees. Their average age was 25. The initial items were generated based on (1) a thorough literature review on tourist prosocial behavior and (2) in-depth interviews conducted from September to November 2021 with subjects who had previous tourism experience within the last three years. Deductive scale development techniques were used to generate items based on the theoretical underpinnings and existing scales; this knowledge was sufficient to create a preliminary item pool.

First, relevant literature on tourist prosocial behavior was scanned to determine what needed to be measured to develop the scale. A systematic review of literature on prosocial behavior (including its various forms and manifestations) in psychology, organizational behavior, and tourism was conducted. To form the item pool for subsequent evaluation, pertinent measurement items were identified. Then, semi-structured in-depth interviews were conducted to add richness to the data used for the measuring scale. The initial step was to identify the eligible respondents via purposeful sampling. Mainland Chinese residents with domestic tourism experience within the past three years were selected for interviews. Respondents were selected based on their trip

destinations, frequency, and other relevant travel information, using the researchers' professional judgment after recruitment through social networking apps like WeChat. Second, using the snowball sampling technique, other qualified respondents were identified by asking previous respondents to invite members of their social network to participate.

During the interviews, respondents were prompted to define the TPBS and discuss their understanding of TPBS in light of their personal travel experience. They were also asked to provide examples of their own or other people's prosocial behaviors. Based on the literature review, the gathered information was categorized into two groups (interpersonal responsible behavior & environmental responsible behavior), which were subsequently transformed into measurement items. In total, 37 items were identified, consisting of 25 items sourced from the existing literature and 12 items obtained from the interviews conducted. We reviewed the available data until theoretical saturation was reached, and no new items could be identified.

4.2 Initial purification

To assess the content validity, clarity, adequacy, and conciseness of the initial items, an expert panel review of six 6 tourism experts was conducted, including representative from academia and industry. In particular, the panel members were invited to independently judge whether the items were appropriate measures of tourist prosocial behavior (Fan et al., 2022). If "inappropriate" was selected, they were invited to further give a detailed explanation. Consequently, 2 items that failed to obtain a two-thirds agreement among the panelists were eliminated, 8 new items were added, and 11 items were reformulated to enhance the instrument's comprehensibility. The involvement of the expert panel provided assurance regarding the content validity of the initial items (see Table 2).

Before the questionnaire was administered to native Chinese tourists, the measurement items were translated into Chinese by two authors who are fluent in both Chinese and English to clarify the expression of items and avoid potential sources of respondent confusion. After that, the translated version of the questionnaire was sent to 5 ordinary tourists for a pilot test. The respondents did not report any difficulty with the items. Consequently, the survey instrument for the quantitative research comprised the 43 items generated in this step. Items were scored on a 7-point Likert-type scale ranging from 1 (extremely disagree) to 7 (extremely agree). The questionnaire encompassed inquiries pertaining to the demographic details of the participants (i.e., age, gender, income, etc).

Table 2. Initial items of tourist prosocial behavior

Order	Items	Sources
1	I follow the healthy travel guidelines (i.e., mask-wearing, social distancing, and sanitary actives during the pandemic)	Chi et al., 2022; Expert Interview
2	I contribute to maintaining a safe tourism environment through complying personal and social norms	Expert Interview

3	I follow local public rules and instructions	Gao, Huang, & Zhang, 2017; Expert Interview
4	I queue while traveling	Interview with Tourists
5	I respect local culture and customary	Gao et al., 2017
6	I stop others when their negative behavior damages local culture and customs	Expert Interview
7	I respect local religion	Interview with Tourists
8	I comply with the regulations established by heritage sites	Interview with Tourists
9	I donate money to local people in need or to charities	Interview with Tourists
10	I purchase local products at the destination	Expert Interview
11	I recommend local products to others	Expert Interview
12	I purchase products at the destination that support the local poor	Expert Interview
13	I pay extra for products at the destination that support the local poor	Expert Interview
14	I would like to make economic contributions to the local society	Gao et al., 2017; Expert Interview
15	I engage in common task with others during the trip (i.e., repairing a broken car together, finding lost items together)	Interview with Tourists
16	I share tourism information with other tourists in need (i.e., transportation information)	Chen et al., 2021
17	I share personal resources with other tourists in need (i.e., medicine, food & drink)	Liu & Tsaur, 2014
18	I provide assistance and support to the elderly and children around me	Chen et al., 2021
19	I provide assistance to tourists with physical disabilities	Chen et al., 2021
20	I provide technical assistance to the elderly tourists in need (i.e., using smart phones, smart devices in scenic spots)	Expert Interview
21	I help others to take care of their belongings (i.e., luggage, pets, etc)	Chen et al., 2021; Interview with Tourists
22	I assist fellow tourists in capturing photographs	Chen et al., 2021
23	I am open to exchanging currency for fellow tourists if necessary	Chen et al., 2021
24	I provide helpful feedback to service provider (i.e., how to improve service)	Yi & Gong, 2013
25	I show tolerance to service provider in cases where the service falls short of expectations	Yi & Gong, 2013
26	I am patient when service providers make mistakes during the delivery of their services	Yi & Gong, 2013
27	I compliment the service provider when service provided exceeds my expectations	Liu & Tsaur, 2014
28	I am against any forms of discriminations or bias towards the service provider	Expert Interview
29	I recommend the service providers to others	Yi & Gong, 2013
30	I treat locals with respect	Expert Interview

31	I am kind/polite to locals	Yi & Gong, 2013; Expert Interview
32	I conducted myself with politeness and respect towards the locals	Yi & Gong, 2013; Expert Interview
33	I am happy to have interactions or conversations with the locals	Gao et al., 2017; Expert Interview
34	I help keep destination hygiene (i.e., pick up trash)	Hungerford & Volk, 1990; Interview with Tourists
35	I am kind to local plants and animals	Gao et al., 2017
36	I stop others when their negative behavior damages the destination's environment	Hungerford & Volk, 1990
37	I choose sustainable travel modes during trip	Yan & Jia, 2021
38	I try my best to reduce waste generation while travelling	Yan & Jia, 2021
39	I use or purchase green services or products when traveling	Wang et al., 2021; Interview with Tourists
40	I actively volunteer for initiatives or events that tackle environmental issues while traveling	Tuan, 2018
41	I make suggestions to others about ways to protect the environment	Tuan, 2018
42	I take environmentally friendly transportation during trip (e.g., a fuel-efficient car)	Interview with Tourists
43	I reduce energy consumption during trip (e.g., water, electricity)	Interview with Tourists

5. Study 2

5.1 Scale refinement

A convenience sample of responses was collected through Credamo.com, a professional Chinese online survey platform. A total of 451 questionnaires was administered during the period from August to September 2022, and Chinese domestic tourists were selected. There were 361 valid questionnaires kept after insincere responses were removed (e.g., those with missing data, excessively short or long completion times, or providing the same answer for all questions). The demographic characteristics of the sample are shown in Table 3.

To explore the dimensionality of the TPBS and refine its item pool, the EFA was performed in SPSS 25.0 with principal component analysis (PCA) and Promax rotation (Hair et al., 2010; Qin & Hsu, 2022). Before performing an EFA, we performed Kaiser–Meyer–Olkin (KMO) and Bartlett tests, revealing a KMO index of 0.896 and a significant Bartlett test of sphericity at the 0.000 level, indicating that the EFA was suitable. As shown in Table 4, 16 items were deleted during the EFA analysis process because of cross-loadings, low factor loadings (< 0.5), or because they were conceptually unrelated to the corresponding component. 27 items were retained under six domains: respect and compliance, peer monitoring, economic contribution, helping and sharing, environmental behavior, as well as tolerance and compliment. The

explained variance reached a cumulative percentage of 56.766%; the loading value of each factor was between 0.508 and 0.831; and the Cronbach's α for each factor ranged from 0.616 to 0.832, which was larger than the threshold for scale reliability (Cronbach's α of 0.6) (Tsai et al., 2017). All these measures indicate reasonable reliability of the 6-dimension TPBS.

The first dimension has the largest proportion of explained variance (11.764%). It includes 8 items that represent tourists' compliance with social norms as well as respect for local residents and the flora and fauna of the destination, so it is named "respect and compliance". The second dimension explains 11.499% of the total variance and includes four items that refer to tourists' supervision of the unreasonable behavior of others or the advice provided to others related to protecting the environment and culture of the destination and improving the quality of service. It is thus named "peer monitoring". The third dimension, which explains 11.194% of the total variance, consists of 5 items that are related to the contribution made by tourists to supporting local economic development and is therefore named "economic contribution." The fourth dimension called "helping and sharing," which explains 9.088% of the total variance, consists of four items. These items are all descriptions of friendly interactions between the tourists and show sharing (i.e., information, resources) and mutual helpfulness among tourists. The fifth dimension, explaining 6.664% of the total variance, contains three items that embody the pro-environment behavior of tourists, so it is named "environmental behavior." The sixth factor is "tolerance and compliment," which explains 6.557% of the total variance, and it contains three items that represent tourists' patience, understanding, and tolerance towards service providers.

Table 3. Demographics of respondents

Demographics		Study 2				Study 3		Study 4	
		Dataset 1 (361)		Dataset 2 (304)		Dataset 3 (401)		Dataset 4 (311)	
		N	%	N	%	N	%	N	%
Gender	Male	157	43.5	115	37.8	139	34.7	102	32.8
	Female	204	56.5	189	62.2	262	65.3	209	67.2
Age	18-29	178	49.3	124	40.8	235	58.6	130	41.8
	30-39	140	38.8	136	44.8	120	29.9	143	46.0
	40-49	23	6.4	22	7.2	27	6.8	17	5.5
	50 and above	20	5.5	22	7.2	19	4.7	21	6.7
Occupation	Civil servant/ Establishment	42	11.6	44	14.5	55	13.7	27	8.7
	Employees of the enterprises	234	64.8	190	62.5	192	47.9	194	62.4
	Private business owner/ self- employed people	16	4.4	13	4.3	24	6.0	17	5.5
	Freelancer	12	3.3	5	1.6	15	3.7	9	2.9
	Students	51	14.1	49	16.1	106	26.4	60	19.3

	Retiree	2	0.6	2	0.7	2	0.5	0	0
	Others	4	1.1	1	0.3	7	1.7	4	1.3
Personal monthly income (RMB/USD)	Less than 3000 (\$421.3)	47	13.0	41	13.5	93	23.2	45	14.5
	3001 (\$421.4) to 6000 (\$842.6)	73	20.2	52	17.1	90	22.4	71	22.8
	6001 (\$842.7) to 9000 (\$1,263.8)	111	30.7	69	22.7	103	25.7	78	25.1
	9001 (\$1,263.9) to 12000 (\$1,685.2)	62	17.2	70	23.0	57	14.2	53	17.0
	12001 (\$1,685.3) to 15000 (\$2,106.5)	31	8.6	35	11.5	36	9.0	29	9.3
	More than 15000 (\$2,106.6)	37	10.2	37	12.2	22	5.5	35	11.3
	Education	High school or below	6	1.7	10	3.3	16	4.0	9
Junior college		55	15.2	27	8.9	39	9.7	36	11.6
Bachelor's degree		269	74.5	215	70.7	306	76.3	227	73.0
Master's degree		27	7.5	45	14.8	30	7.5	33	10.6
Doctoral degree		4	1.1	7	2.3	10	2.5	6	1.9

Table 4. The results of EFA and CFA analysis

Observational variables	EFA				CFA		
	FL	Eigenvalue	Variance	Cronbach's	FL	CR	AVE
		%		α			
Factor 1: Respect and Compliance		7.307	11.764	0.769		0.880	0.480
I follow local public rules and instructions	0.697				0.789		
I respect local religion	0.645				0.710		
I am kind/polite to locals	0.644				0.691		
I treat locals with respect	0.614				0.719		
I comply with the regulations established by heritage sites	0.581				0.564		
I follow travel health guidelines (i.e., mask-wearing, social distancing, and sanitary actives during the pandemic)	0.553				0.695		
I conducted myself with politeness and respect towards the locals	0.542				0.626		
I am kind to local plants and animals	0.532				0.725		
Factor 2: Peer Monitoring		3.153	11.499	0.831		0.893	0.675
I stop others when their negative behavior damages local culture and customs	0.831				0.849		
I stop others when their negative behavior damages the destination's environment	0.820				0.851		

I make suggestions to others about ways to protect the environment	0.616				0.798
I provide helpful feedback to service providers (i.e., how to improve service)	0.611				0.787
Factor 3: Economic Contribution		1.619	11.194	0.832	0.872 0.578
I purchase local products at the destination	0.797				0.680
I purchase products at the destination that support the local poor	0.697				0.809
I would like to make economic contributions to the local society	0.628				0.711
I pay extra for products at the destination that support the local poor	0.601				0.839
I recommend local products to others	0.549				0.749
Factor 4: Helping and Sharing		1.213	9.088	0.756	0.831 0.553
I share tourism information with other tourists in need (e.g. transportation information)	0.772				0.686
I assist fellow tourists in capturing photographs	0.747				0.730
I share personal resources with other tourists in need (e.g., medicine, food & drink)	0.657				0.758
I provide technical assistance to elderly tourists in need (i.e., using smart phones, smart devices in scenic spots)	0.633				0.797
Factor 5: Environmental Behavior		1.025	6.664	0.616	0.854 0.661
I take environmentally friendly transportation during trips (e.g., a fuel-efficient car)	0.715				0.809
I reduce energy consumption during trips (e.g., water, electricity)	0.592				0.816
I choose sustainable travel modes during trips	0.508				0.813
Factor 6: Tolerance and Compliment		1.011	6.557	0.642	0.852 0.658
I am patient when service providers make mistakes during the delivery of their services	0.732				0.808
I show tolerance to service provider in cases where the service falls short of expectations	0.597				0.807
I compliment the service provider when service provided exceeds my expectations	0.537				0.818

5.2 Scale reliability and validity

Following the advice of Churchill (1979), we carried out an additional questionnaire survey and conducted further analysis to strength the TPBS. This step aimed to verify the reliability and validity of the proposed scale using diverse samples. The new sample of responses was collected in September 2022 through Credamo.com. A total of 392 mainland Chinese residents with domestic tourism experience in the past three years agreed to participate. However, 88 of the responses were incomplete or

unreliable (e.g., using too little time, scoring the same, etc), so the 304 valid responses remained for data analysis (see Table 3).

The six-dimensional structure of the TPBS was validated through an examination of the measurement model through PLS-SEM in Smart PLS 3. Compared with common factor-based SEM, PLS-SEM is more effective for examining measurement models, especially when it is unknown whether the data is common factor- or composite-based (Sarstedt et al., 2016). According to the findings presented in Table 4, the factor loadings of each item ranged from 0.564 to 0.851. With the exception of the item “I comply with the regulations established by heritage sites,” which had a factor loading of less than 0.6, all other items exhibited a standard factor loading exceeding 0.6. The composite reliability (CR) of each construct was higher than 0.7 (ranged from 0.831 to 0.893), indicating acceptable internal consistency. The average variance extracted (AVE) of the six constructs ranged from 0.480 to 0.675. Although the AVE of the factor “respect and compliance” was slightly lower than the ideal value of 0.5, it was still acceptable because previous research (Netemeyer, Bearden, and Sharma 2003; Fan et al., 2022) suggests that the AVE value of a newly designed scale should be more than 0.45. Meanwhile, Fornell-Larcker criterion and HTMT were used to examine the discriminant validity of the TPBS. The square root of the AVE for each construct was greater than the correlation coefficients for that structure and other structures, as indicated in Table 5. The HTMT between any two structures was less than 0.85 (see Table 6). This shows that the measuring model used in this investigation was reliable and valid.

Table 5. Fornell-Larcker analysis

Constructs	MF	EC	EB	HS	RC	TC
Peer Monitoring (PM)	0.822					
Economic Contribution (EC)	0.66	0.76				
Environmental Behavior (EB)	0.475	0.424	0.813			
Helping and Sharing (HS)	0.543	0.546	0.357	0.744		
Respect and Compliance (RC)	0.188	0.131	0.413	0.219	0.693	
Tolerance and Compliment (TC)	0.47	0.49	0.414	0.503	0.384	0.811

Notes: The diagonal value is the square root of the AVE for each construct.

Table 6. The HTMT of constructs

Constructs	PM	EC	EB	HS	RC	TC
Peer Monitoring (PM)						
Economic Contribution (EC)	0.792					
Environmental Behavior (EB)	0.601	0.540				
Helping and Sharing (HS)	0.694	0.703	0.485			
Respect and Compliance (RC)	0.223	0.160	0.525	0.273		
Tolerance and Compliment (TC)	0.596	0.621	0.559	0.684	0.486	

6. Study 3: Nomological validity

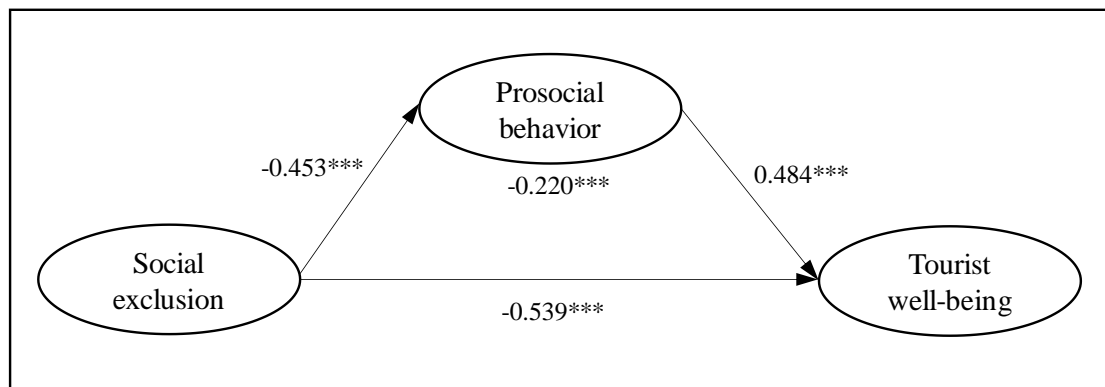
In study 3, the nomological validity of the proposed scale was assessed by testing whether social exclusion perceived by tourists at the destination predicts their prosocial behavior and well-being. Using its new scale, this study developed a structural model linking social exclusion and tourist prosocial behavior to tourist well-being.

Tourist prosocial behavior was assessed using the scale developed in this study. Social exclusion was measured using seven items developed by Dennis et al. (2016) and Chen et al. (2017). Sample items include “I felt ignored during trip,” “I felt rejected during trip,” “I felt like an outsider during trip.” Three items adopted from Fan et al. (2020) studies were used to measure tourist well-being (e.g., “Overall, my experience with this trip was memorable having enriched my quality of life). Each scale is measured with a 7- Likert-type scale.

Residents of Mainland China who had traveled domestically during the previous three years were chosen, and they were asked to fill out a questionnaire about their most recent domestic travel experience. A total of 435 questionnaires were distributed through Credamo.com and a mail survey in October 2022 to obtain a multi-source sample of people who traveled before or during the epidemic. The majority of the subjects (321) were collected from Credamo.com following snowball sampling, while a smaller group (114) was recruited through purposive sampling via colleagues, friends, and relatives who met our defined criteria. The 401 valid responses made up the final sample after incomplete responses were excluded. The demographic characteristics are shown in Table 3.

The PLS-SEM in Smart PLS 3 was used to evaluate the suggested structural model. To verify the hypothesis of the relationship between latent constructs in the model, tourist prosocial behavior was treated as a latent construct composed of six dimensions, and its antecedent and dependent factors as multi-item scales. As prosocial behavior is a term that covers a broad and diverse range of behaviors, it is more encompassing to conduct empirical research on prosocial behavior as an umbrella behavioral measure with the second-order format. Meanwhile, the second-order construct can also offer a parsimonious framework for prosocial behavior into broader categories (Chu, 2008). The study tested the common method variance (CMV) of the self-administered survey using Harman’s single factor analysis. Results showed that the first component captured only 28.307% of variance, indicating that common method bias was not an issue for this investigation. To test whether there was a collinearity relationship between variables, a collinearity test was conducted, and results revealed the VIF values in this study varied from 1.175 to 3.757, which fell below the criterion of 5 (Johnson & Rapp, 2010). In addition, the values of R-square of tourist prosocial behavior and well-being were 0.254 and 0.422, respectively, indicating an ideal predictive validity. The hypothesized model exhibited a good fit ($\chi^2 = 1640.268$, NFI = 0.772, SRMR = 0.059). The composite reliability of six constructs of TPBS, social exclusion, and tourist well-being was between 0.833 and 0.909, and the AVE of each construct ranged from 0.497 to 0.716, indicating the acceptable validity and reliability of the measurement model.

Path coefficients were estimated using 5000 bootstrapped subsamples. The results suggested that social exclusion has significant negative effects on the TPBS ($\beta = -0.453$, $p < 0.001$). Meanwhile, TPBS could significantly and positively predict tourist well-being ($\beta = 0.484$, $p < 0.001$). Hence, H1 and H2 were supported (Fig. 2). The mediating effect of the TPBS on the relation between social exclusion and tourist well-being was also tested (Bootstrap times = 5000). The results show that TPBS played a mediating negative role in the relationship between social exclusion and tourist well-being ($\beta = -0.220$, $p < 0.001$). Meanwhile, the direct effect of social exclusion on tourist well-being was significant ($\beta = -0.319$, $p < 0.001$), indicating the TPBS plays a partial mediating role. Therefore, H3 was also supported.



Notes: *** $p < 0.001$.

Fig 2. Results of nomological validity model

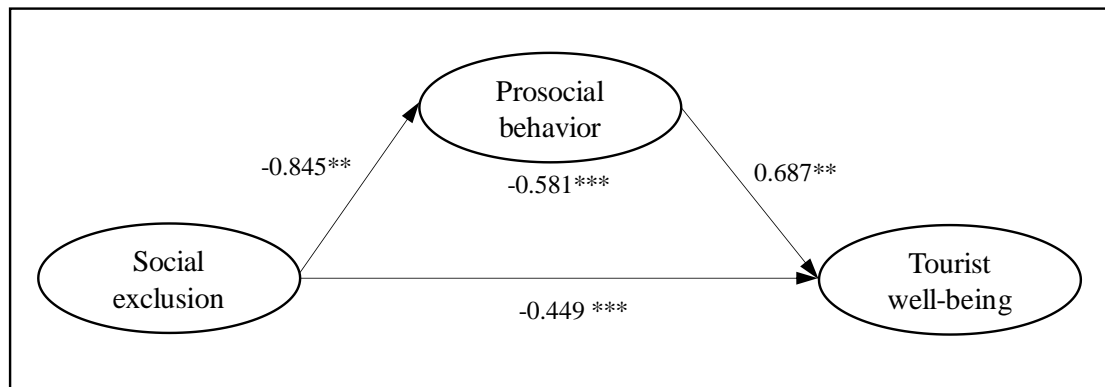
7. Study 4: External validity

While the TPBS was statistically well tested in the first three studies, it was based on the views of Chinese domestic tourists. Given that tourists may behave differently in different cultural contexts, the external validity of the TPBS need to be further tested in Study 4 by using a sample of international tourists. Mainland Chinese residents with international travel experience was chosen to examine the cross-cultural generalizability of the scale and enhance the understanding of TPBS. The sample was collected through Credamo.com in March 2023, and respondents who had international travel experience within the last few years were selected. After excluding those who provided incomplete responses, 311 samples were retained for analysis. The demographic characteristics are shown in Table 3.

Similar to Study 3, the CFA was also performed to test the convergent and discriminant validity of scale through PLS-SEM in Smart PLS 3. The results showed that the standardized factor loadings for the 27 items were between 0.564 and 0.851. The composite reliability of each construct was between 0.804 and 0.913, and the AVE of six constructs ranged from 0.492 to 0.708. Meanwhile, the square root of the AVE for each construct was larger than the correlation coefficients of that structure and other structures. This suggests that TPBS still has acceptable convergent and discriminant validity for the sample of international tourists. The composite reliability of social exclusion and tourist well-being are 0.913 and 0.824, respectively, while the AVE of

these two components is 0.600 and 0.61, both of which are larger than the threshold value.

The nomological validity of scale was further tested. The hypothesized model had acceptable fit indices ($\chi^2 = 1553.711$, $NFI = 0.709$, $SRMR = 0.066$). Social exclusion perceived by respondents at the destination negatively affected their prosocial behavior ($\beta = -0.845$, $p < 0.01$), while their prosocial behavior positively predicted their well-being ($\beta = 0.687$, $p < 0.01$). Through Bootstrapping analysis, TPBS was found to have a significant negative mediating role between social exclusion and tourist well-being ($\beta = -0.581$, $p < 0.001$). This indicates the TPBS meets the requirements for nomological validity, H1, H2, and H3 were further verified (see Table 7).



Notes: *** $p < 0.001$, ** $p < 0.01$.

Fig 3. Results of external validity model

Table 7. The results of structural equation model

Model	Path	Coefficients	<i>t</i> Statistics	Effect Sizes (f^2)	<i>P</i>	Model fit
Nomological validity model	Social exclusion → Tourist well-being	-0.539	10.508	0.155	0.000	$\chi^2 =$ 1640.268, $NFI =$ 0.772, $SRMR =$ 0.059
	Social exclusion → Prosocial behavior	-0.453	10.071	0.259	0.000	
	Prosocial behavior → Tourist well-being	0.484	7.354	0.356	0.000	
	Social exclusion → Prosocial behavior → Tourist well-being	-0.220	5.320	—	0.000	
External validity model	Social exclusion → Tourist well-being	-0.449	6.556	0.007	0.000	$\chi^2 =$ 1553.711, $NFI =$ 0.709, $SRMR =$ 0.066
	Social exclusion → Prosocial behavior	-0.845	3.196	2.504	0.001	
	Prosocial behavior → Tourist well-being	0.687	2.877	0.203	0.004	
	Social exclusion → Prosocial behavior → Tourist well-being	-0.581	6.030	—	0.000	

8. Discussion and Implications

8.1 Discussion

This study developed a comprehensive and reliable measurement scale that conceptualizes the multidimensionality of tourist prosocial behavior. Using a mixed methods approach, a TPBS with 27 items was developed, and six dimensions were identified: respect and compliance, peer monitoring, economic contribution, helping and sharing, environmental behavior, tolerance and compliment.

First, this research developed and validated a TPBS. Although research findings show some consistency with previous literature on prosocial behavior, such as prosocial behavior often considered helping (Tung, 2019), sharing (Dunfield, 2014), tolerating (Yi & Gong, 2013), and pro-environmental behavior (Liu et al., 2021) as significant manifestations of prosocial behavior, it also reveals unique components of the structure of TPBS, including economic contributions, peer monitoring, and respect and compliance. This study suggests that economic contributions, peer monitoring, and respect and compliance are newly identified subdimensions of prosocial behavior, which has not been identified in previous studies. This research revealed that tourists assess their prosocial behavior by emphasizing their contribution to local economies, compliance with social norms, respect for local residents, and the benign monitoring of others, rather than just emphasizing their helping and sharing (other tourists), tolerance and complimenting (of service providers), and pro-environmental behavior. As such, this study corresponds to and extends prior research on TPBS by illustrating the dimensions frequently mentioned in previous studies as well as identifying new relevant dimensions.

To validate the applicability of the scale for assessing tourist prosocial behavior, the relationships between social exclusion, TPBS, and tourist well-being were investigated based on the social exclusion theory. Corresponding to previous studies (Twenge et al., 2007), TPBS was negatively affected by social exclusion perceived by tourists at the destination. TPBS had significant positive effects on tourist well-being and played a significant negative mediating role between social exclusion and tourist well-being. This confirms that social exclusion is a detrimental social phenomenon. When tourists experience social exclusion at a destination, they become hesitant to engage in prosocial behavior, resulting in a further negative impact on their overall well-being during their trips (Baumeister et al., 2005).

In order to create a scale that was both empirically reliable and generalizable to different contexts, this research also examined the external validity of TPBS with international tourists. The CFA results and the scale's nomological validity test were found to be compatible with those of domestic travelers. Thus, TPBS developed in current research can be applied in both domestic and international tourist contexts.

8.2 Theoretical contributions

This study offers several important theoretical contributions. First, it extends the research on prosocial behavior in the field of tourism. Existing research on tourism prosocial behaviors mainly focus on the perspectives of the residents of tourist

destinations rather than the tourists. The development of this study's TPBS provides a powerful and effective tool for facilitating future research on tourist prosocial behavior. Although it was known that understanding TPBS would help the local tourist industry professionals because of its numerous potential benefits, the vagueness of its conceptualization and the limited understanding of its dimensionality had created measurement constraints in previous studies that had limited its real-world applicability. Specifically, past research on TPBS mainly focused on one or some behavioral dimensions (i.e., helping other tourists, volunteering, co-operation, and empathy) that are unique to specific research contexts (Coghlan, 2015; Liu & Tsaur, 2014; Georgeou & Haas, 2019; Mahato, Phi & Prats, 2021). There was no tool to capture the prosocial behaviors of tourists comprehensively. As such, the TPBS developed in this study that has more general applicability to different contexts may address the limitations of earlier studies and serve as a useful tool for future investigations of TPBS. Moreover, TPBS in the current research was defined inclusively to include a diverse range of tourist behaviors that benefit multiple objects (i.e., destination, other tourists, local residents, and service providers). Understanding TPBS with a more integrated perspective makes a theoretical contribution and timely update to the tourism literature.

In addition, this paper extended the social exclusion theory in the tourism context by demonstrating that tourists, when experiencing resentment or unwelcomed in a destination, express lower propensity to conduct prosocial actions. According to the social exclusion theory, exclusion and rejection may create a deconstructed mental state, and people who are rejected and excluded tend to exhibit antisocial behavior and a lower willingness to work altruistically (Baumeister et al., 2005), which supports the finding of our research that experiencing social exclusion reduces tourist prosocial behavior. Finding also echoes to Fan and Jia (2023) who discovered that meta-stereotypes (one's perceptions about how they are seen by others) have a significant impact on tourist behavior, manifesting that if tourists believe the local residents or service providers hold negative evaluations about them, they tend to feel negatively towards the destination and respond with negative behaviors.

Further, this study reveals the significantly negative mediating effect of TPBS on the relationship between social exclusion and well-being. Through identifying the antecedents and consequences of tourist prosocial behavior, this study advances the current knowledge on the prosocial behavior of tourists and provides a better understanding of how tourists' prosocial actions will be suppressed at the destination and how it will promote tourist well-being. Prior research has uncovered the different effects of social exclusion, such as on self-improvement (Chen et al., 2017) and antisocial behavior (Twenge et al., 2007). This research revealed significant negative effects of social exclusion perceived by tourists at the destination, including negative effects on physical responses (i.e., inhibition of tourists' prosocial behavior) and on psychological responses (i.e., reduction of tourists' well-being). Our finding corresponds to social psychology research demonstrating the strong correlation between people's attitudes and behaviors toward one another, i.e., how an individual's beliefs about how others see them may impact their beliefs and behaviors in social

situations (Stathi et al., 2020). Meanwhile, this study reveals the consequence of tourist prosocial behavior in terms of well-being, verifying that prosocial behavior could lead to well-being benefits to tourists (Hui, 2022; Nelson et al., 2015; Netta, 2010).

8.3 Managerial implications

Both travelers and destination marketers can benefit from the study's conclusions. First, the findings of current research may help marketers to create a more pro-social tourism destination through better understanding of TPBS and developing interventions to promote them. In view of the potential benefits of tourist prosocial behavior on tourists' own experience of their travel, including perceptions of the quality of the destination, its value to tourism marketing is self-evident. Therefore, practices should be explored to effectively promote prosocial behavior among tourists. For example, activities involving multiple subjects - namely tourists, local residents, and service providers - can be designed (e.g., activities with the theme of tourist-host contact), not only to provide them with more opportunities to interact and understand each other and increasing the likelihood of interpersonally beneficial behaviors, but also stimulates the voluntary prosocial behavior by tourists due to their perceived welcome at the destination.

Second, participating in prosocial behavior during trips has a notable positive impact on tourists' well-being and hence enhances their overall tourism experience. Hence, it is crucial for marketers to educate tourists about the advantages of such behavior and provide guidance on appropriate conduct. For example, posters and pictures on social norms and environmental protection regulations can be used to remind tourists to follow the destination norms, and to care about the local environment and cultural traditions (Kim et al., 2022; Qin & Hsu, 2022). A hospitable atmosphere can be created at the destination in order to encourage tourists to voluntarily be patient and tolerant of service providers, as well as contribute more to local economy (i.e., purchasing pro-poor tourism products). Also, some scholars like Han et al. (2019) state that improving people's engagement in pro-social behavior requires addressing their idea that their behavior actually makes a difference. Therefore, in practice, assisting tourists in understanding their prosocial behavior and its direct/potential contributions to the destination community (e.g., enhancing the lives of local people/animals and the environment) can be a great way to effectively stimulate individual engagement, which in turn directly results in the enhancement of prosocial behavior. These are all effective ways to help them achieve a high level of tourist well-being. In addition, prosocial behavior of tourists can be encouraged by local marketers through offering discounts or other forms of appreciation for certain behaviors, as small rewards can motivate future prosocial behaviors. For instance, they could provide distinctive souvenirs to visitors who behave ethically towards the destination (Zhao, Wang, & Ji, 2020).

Lastly, one of the most important ways to encourage tourist prosocial behavior is to reduce the experience of social exclusion at the destination. The findings indicate that social exclusion is negatively associated with tourist prosocial behavior. As such, to encourage tourist prosocial acts and create a harmonious travel environment, all

factors that may result in the exclusion of tourists must be dealt with immediately. Specifically, for service providers, the number of training programs should be increased to improve the relations between tourists and providers, reducing negative interactions that lead to social exclusion. For local residents, more educational activities should be carried out to mitigate prejudice and discrimination against tourists. It is critical that destination tourism leaders give full protection and attention to tourists, and any policies or norms that may lead to social exclusion of tourists should be corrected. This was especially true in the post-COVID-19 period, when exclusion was even more pronounced and even greater attention to creating a positive travel environment was needed.

9. Conclusion and limitations

A six-dimensional measure of prosocial behavior among tourists was created and validated by a set of four research that integrated qualitative and quantitative methods. Specifically, in Study 1 and Study 2 the scale was developed, and the internal consistency, content validity, and convergent validity of scale were tested. Study 3 confirmed the nomological validity of the scale, and the relationships between social exclusion, tourist prosocial behavior, and tourist well-being were examined. Study 4 tested the external validity of the scale, and confirmed that the scale is applicable in a cross-cultural context. The findings of the research contribute to prosocial behavior literature that had seldom conceptualized the multidimensionality of tourist prosocial behavior, and it sheds light on how to encourage prosocial behavior in destinations to promote the well-being of tourists.

Some limitations should also be noted for the current study. First, this study is based on the views of Chinese citizens as tourists. As cultural contexts in which people grow up may also influence their prosocial behavior, future research could assess this developed scale with citizens of other countries. Second, scale validation and purification involved the use of a self-administered questionnaire, the limitations relating to self-reported measures of behavior are inevitable (i.e., ethical concerns, social desirability). It is useful to employ implicit measurements such as the implicit association test to further validate the identified relationships (Tse & Tung, 2023). In addition, simplifying the items by creating an additional study with fewer items will be considered in future research for promoting the usability of the scale. Finally, this study only focuses on assessing the prosocial behavior of tourists from the viewpoint of the behavior doers (i.e., the tourists themselves), which may not reflect the evaluation and feelings of the recipients. Future research should consider the perspectives of both parties involved in prosocial behavior by employing a dual investigation approach, such as dual interviews and surveys.

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