Abstract

What forms of interpretation can effectively promote tourists' desirable behaviors? This research tests and refines (a) how the presence vs absence, and (b) high vs low presence, of linguistic and visual anthropomorphic cues can promote civilized behavioral intentions, (c) how these intentions are mediated by the perception of tourists' meaningful experience, and (d) how they can be enhanced by using narrative storytelling. The research hypotheses are developed by integrating the social information theory with the Three-Factor theory of anthropomorphism and the narrative transportation theory, in three experiments. First, in three instances, we confirm how anthropomorphic interpretation cues substantially enhance civilized behavioral intentions. Second, we show that the perception of meaningful experience mediates the effect of anthropomorphic interpretation cues in interpretive communication. Third, we show that the presence (vs. absence) of narrative within anthropomorphic interpretation cues amplifies the intervention effect.

1. Introduction

Common tourists' uncivilized behaviors include littering, noise, graffiti, spitting, smoking in public, trampling on lawns and climbing trees to take photos (Su et al., 2022;Volgger & Huang, 2019). These behaviors damage the destinations' environments and affect the experiences of others (Wan, Hui, & Qiu, 2021). Moreover, they increase the contagion effect of transgressive behavior by residents (Su et al., 2023), which can further undermine the sustainability of the destination (Peng et al., 2022;Tsaur, Cheng, & Hong, 2019;Zhang, Pearce, & Chen, 2019).

Interpretation, as a specific form of environmental education, encompasses the provision of information by guides, on-site interpreters, visitor centers, displays, brochures, and videos (Huang, Weng, & Bao, 2022;Moscardo, Woods, & Saltzer, 2004). Interpretation is often used to manage uncivilized behaviors (Ke & Liu, 2019;Wang, Zhong, & Chen, 2015), promote tourists' environmentally protective behavior (McNamara & Prideaux, 2010) and sustainable behavioral intention (Huang, Weng, & Bao, 2022). The influence of interpretation on tourists' behaviors stems from its inherent nature as information. According to social information processing (SIP) theory, external information can shape individual behavior (Huang et al., 2024;Priesemuth et al., 2014;Salancik & Pfeffer, 1978). Interpretive information helps tourists to understand the destination and management rules (Jacobs & Harms, 2014;Wang, 2020). Naturally, the effectiveness of interpretation is influenced by various factors, such as the medium used, and the content of the information

itself (Huang, Weng, & Bao, 2022;Wolf, Stricker, & Hagenloh, 2013).

Both researchers and destination managers seek effective strategies to present interpretive information. Anthropomorphism is a potent communication strategy that significantly impacts consumer attitudes (Epley, Waytz, & Cacioppo, 2007;Perez-Vega et al., 2018). Previous studies have observed that different characteristics of anthropomorphic images (Chen & Yang, 2017), and the balance between humanlike and animal traits in communication, can impact consumer preferences (Wang, Ming, & Zhang, 2020). Mechanisms behind the influence of anthropomorphic features on pro-environmental behavior include the use of language that establishes implicit connections between the reader and nature (Liu et al., 2019), either evoking feelings of guilt about the environment (Tam, 2019), or empathy with it (Ding et al., 2021;Ketron & Naletelich, 2019). However, the efficacy of employing anthropomorphism to manage tourists' civilized behaviors remains unclear. Specifically, this research seeks to address the following questions: Would integrating anthropomorphism with interpretative messages impact tourists' civilized behavioral intentions? If so, what are some of the underlying mechanisms that facilitate such behavior? And can narrative techniques amplify this influence?

To answer these questions, we develop a research framework that leverages the SIP theory and the Three-Factor theory of anthropomorphism. We propose that the presence of anthropomorphic interpretation cues (vs. their absence) can motivate tourists to display civilized behavioral intentions. Moreover, we argue that anthropomorphic interpretation cues may increase a tourist's search for meaningful social connections and restrain their uncivilized behaviors. Additionally, we consider the role of narrative as a moderating variable. When tourists encounter narrative anthropomorphic interpretation cues, they are immersed in a narrative world that allows them to acknowledge what is socially acceptable behavior (Shi, Huang, & Zhang, 2021). This research makes three significant contributions to the literature. First, although the features of anthropomorphism are well researched in tourism (Letheren, Martin, & Jin, 2017;Radomskaya & Pearce, 2021), few scholars have focused on their capabilities for tourist behavior management. This research conceptualizes anthropomorphic interpretation cues as a form of environmental information and tests their effectiveness; thus, contributing to the literature on social information processing theory and civilized behavior management. Second, this research views civilized behavior at the individual level as an adaptive response of tourists after being exposed to interpretive information. This research introduces the meaningful experience as a mediator, contributing to a deeper exploration of the "black box" of how tourists' civilized behavior is formed. Third, this research identifies the moderating role of narrative. Together, these three theoretical contributions also provide clear operational guidance for destination managers.

2. Literature Review and hypothesis development

2.1. Tourists' (un)civilized behavior

Civility is a sign of a cooperative participation that manifests itself by people following social norms and showing consideration, tolerance, or respect to others (Calhoun, 2000). Civility, as a moral concept, focuses on the standards of behavior of people in their daily interactions with others (Edyvane, 2017). Accordingly, tourists behave in a civilized way when they acknowledge, and choose to comply with, the societal norms of

the places they visit (Chen & Hsu, 2021), including acknowledging the environmental fragility of the destination being visited and choosing to protect it (Qiu et al., 2022). Unfortunately, misbehaviors are very common (Lages et al., 2023), resulting from both internal and external reasons. The internal factors mainly relate to a lack of awareness, low moral quality, low personal values, or deliberate misbehavior. The external reasons mainly relate to poor management of tourist destinations, low service levels, or poor communication of cultural norms and differences (Hu, 2014).

Uncivilized behavior damages the environment at tourist destinations (Wan, Hui, & Qiu, 2021), causing residents to have negative emotions towards tourists (Tsang, Prideaux, & Lee, 2016;Wu & Lin, 2020). Uncivilized behavior also impacts negatively on the experience of other tourists, and the image of the destination visited (Li & Chen, 2015;Wu & Zhou, 2016). Tourists who develop a strong sense of responsibility and emotional attachment to the place they are visiting are more likely to adopt civilized behaviors (Liu, An, & Jang, 2020). A sense of belonging and psychological ownership play roles in mediating this connection (Qu et al., 2021). Additionally, fear of "losing collective face" can motivate Chinese tourists to reduce uncivilized behaviors, and to adopt and promote civilized behaviors (Zhang, Pearce, & Chen, 2019).

From previous research, it is evident that attitudes, subjective norms, and personal norms contribute to shape civilized behavioral intentions (Liu, An, & Jang, 2020). However, we know little about the theoretical perspectives that can be applied to comprehend tourist behavior changes, and the strategies that destination managers can employ.

2.2. Social Information Processing theory

We employ the Social Information Processing (SIP) theory as the framework for this research. SIP theory emerged from research in cognitive psychology (Salancik, 1975;Salancik & Pfeffer, 1978). The SIP theory was first used to explain how individuals are influenced by both the salience and relevance of environmental information, and impacted by the acceptability of other individuals' behaviors. In other words, people seek acceptable justifications for their actions, giving meaning and interpretability to their behavior (Salancik & Pfeffer, 1978). SIP theory is commonly applied in the field of organizational psychology to explain the influence of work environment factors on employee reactions, such as satisfaction, turnover intentions, motivation, and goal setting (Liu et al., 2023;Yam et al., 2018;Zalesny & Ford, 1990). To our knowledge, SIP theory has only been used in hospitality research to explain aspects of employee behaviors (Li et al., 2023)(Shi & Shi, 2022) and to promote green human resource management (Tuan, 2022). We integrate SIP to reveal the underlying mechanisms behind the impact of anthropomorphic interpretation on tourists' civilized behaviors.

2.3. Anthropomorphism

This research aims to examine whether anthropomorphism can be used to enhance the impact of interpretive information on tourist civilized behavior. Anthropomorphism can be defined as a cognitive process wherein human attributes are ascribed to abstract concepts or inanimate objects, conferring upon external entities a semblance of human qualities or characteristics (Epley, Waytz, & Cacioppo, 2007). Anthropomorphism can

activate individuals' cognition through visual or verbal portrayals (Triantos et al., 2016). Anthropomorphism allows individuals to extrapolate qualities of non-human entities by drawing from their pre-existing conceptions of human behavior. This cognitive strategy facilitates expedient decision-making within one's environmental context (Aggarwal & McGill, 2012). When faced with anthropomorphic interpretation cues, people perceive anthropomorphic concepts or objects as being related to themselves (Zong & Wang, 2016). This is because anthropomorphism enhances individuals' implicit attitudes and associations, which can influence their pro-environmental behaviors (Liu et al., 2019). Anthropomorphic communications have been successfully used to increase recipients' behavioral intentions to protect the environment (Schein & Gray, 2018;Tam, 2019), environmental conservation (Li et al., 2021) and pro-environmental government policies more generally (Williams, Whitmarsh, & Mac Giolla Chríost, 2021). Anthropomorphism has also gained prominence amongst tourism and hospitality researchers as a significant communicative modality (Husain, Ratna, & Saxena, 2023).

The Three-Factor Theory of anthropomorphism explains the influence of anthropomorphism on human behavior in terms of: (a) elicited agent knowledge, (b) effectance motivation, and (c) sociality motivation (Epley, Waytz, & Cacioppo, 2007). SIP theory explains that during the formation of attitudes, behavior is shaped by attention-grabbing information (Salancik & Pfeffer, 1978;Zalesny & Ford, 1990). Distinctive social background information not only grabs individuals' attention but also serves as a reference, shaping expectations for their personal behavior (Salancik & Pfeffer, 1978;Zalesny & Ford, 1990).

Hence, we argue that anthropomorphism can strengthen the efficacy of the interpretative interpretation, based on the Three-Factor Theory and the SIP theory. First, *elicited agent knowledge* is the basis for inductive reasoning. When confronted with anthropomorphic settings, individuals utilize their understanding and self-awareness to guide their reasoning. This accessible knowledge intensifies individuals' perception of similarities between natural and human, influencing individuals' environmentally friendly behavior (Zong & Wang, 2016). Second, *effectance motivation* refers to an individual's primary motivation to seek effective interactions with their surrounding environment. This motivation can help people to actively seek meaning in something, increasing their chances of understanding and interacting with the natural environment. Anthropomorphism can help reduce uncertainty, which affects individuals perceptions and behaviors (Cai, Li, & Law, 2022). Finally, *sociality motivation* refers to a fundamental human need of longing and inclination to form social bonds. This motivation drives people to actively pursue social interactions, connections, and validation, which predisposes them to recognize anthropomorphic traits in non-human entities (Epley, Waytz, & Cacioppo, 2007). Anthropomorphic interpretation cues increase individuals' willingness to engage in civilized behavior by: (a) enhancing their ability to perceive human traits (Zong & Wang, 2016), (b) meeting their social needs (Ding et al., 2021), and (c) increasing their connection to the natural world (Liu et al., 2019).

SIP theory posits that individuals, after undergoing learning, attribution and judgment, may adjust their attitudes and behaviors accordingly (Zalesny & Ford, 1990). This change process involves individuals collecting and processing information (such as encountering anthropomorphized interpretive information) and making judgments and responses (such as exhibiting civilized behavior). A destination's interpretive

information serves as a formal, normative cue, influencing the behavior of tourists. Moreover, anthropomorphism can increase individuals' pro-environmental behaviors (Ding et al., 2021). Therefore, the following hypothesis is proposed:

Hypothesis 1: Anthropomorphic present (vs. absent) in interpretation cues creates stronger civilized behavioral intentions.

2.4. The mediating role of meaningful experience

Tourists perceive an experience as being meaningful when their understanding of the activities they are part of gives them the perception that they are engaging in something that is material and consequential (Shi, Huang, & Zhang, 2021). When individuals find themselves in the psychological state of partaking in a meaningful experience, their attention becomes focused on a domain of actions that holds significance (Bronowski, 1978;Suh et al., 2017). Furthermore, people who encounter moments of significance consistently acknowledge the context in which their tasks unfolded(Suh et al., 2017). The essence of a meaningful experience is captured in its continuous, developmental nature, implying that even after an activity comes to an end, the meaningful sensation endures (Beardsley, 1970). Experiences become more meaningful when individuals' actions align with their self-beliefs, values, and abilities; also, when their actions contribute to achieving goals that they perceive as meaningful (McGregor & Little, 1998).

Meaningful experiences encompass three dimensions: meaning, self-expansion, and active discovery. *Meaning* refers to the extent that individuals come to comprehend the meaning of an activity (Bronowski, 1978;Dewey, 1934;McCarthy & Wright, 2004). *Self-expansion* refers to the degree to which an individual's sense of self has expanded through acquiring knowledge or broadening their perspective (Bronowski, 1978;Dewey, 1934;Jennings, 2000). *Active discovery* entails actively pursuing solutions or resolutions to cognitive challenges in order to achieve personal goals. These dimensions are exemplified in a research by Suh et al. (2017), who argue that providing users with avenues to explore, reflect, and gain information from activities helps them to experience meaning.

Interpretation not only involves conveying information per se; it can also be regarded as an educational endeavor that elucidates meanings and connections using firsthand experiences and visual media (Tilden, 1977). Interpretive information is presented in various forms, such as signs, brochures, mascots, and videos (Huang, Weng, & Bao, 2022), which are perceived by tourists as cues. The anthropomorphic interpretation cues used in this paper encompass both language and visual aspects. According to SIP theory, cues shaping behavior can be either formal or informal. Formal cues, such as rules and standards, impact on people's expectations of acceptable behavior (Gutworth, Cushenbery, & Hunter, 2018). Social background information provides socially acceptable justifications for actions, and meaning to individuals' behaviors. In other words, individuals find acceptable reasons for their actions, making behavioral changes meaningful and interpretable. The term "acceptable" implies that the reasons are meaningful, and that they are deemed reasonable and legitimate by the individuals themselves and others in their environment. Prior to behavior change, effective communication of formulated, acceptable reasons can increase the likelihood of the change taking place (Gutworth, Cushenbery, & Hunter, 2018;Salancik, 1975).

We believe that by integrating the Three-Factor theory of anthropomorphism and the three dimensions of meaningful experience within the framework based on the SIP theory, we can better explain how anthropomorphic interpretive cues can facilitate tourists' meaningful experiences and, subsequently, influence their behaviors. First, by enhancing individuals' cognitive fluency, anthropomorphic interpretation cues facilitate the tourist process of active discovery (Delbaere, McQuarrie, & Phillips, 2011) and comprehension (Epley, Waytz, & Cacioppo, 2007). Second, anthropomorphic interpretation cues stimulate tourists' efficacy motivations (Epley, Waytz, & Cacioppo, 2007), empowering them to diminish uncertainty and effectively grasp the significance in the interpretive information (Ding et al., 2021). Third, anthropomorphic interpretation cues can foster social motivations and relationships in individuals, by increasing tourists' abilities to perceive human traits, fulfil their social needs, and strengthen their connection to the natural world (Liu & Wei, 2021;Rauschnabel & Ahuvia, 2014). This deepened awareness and sense of self-expansion can lead to a more profound understanding of the interpretive information, as well as the impact their own actions have on the environment.

Considering the above, we posit that a thoughtful design of anthropomorphic interpretation cues, aligned with environmental and social values, can stimulate the perception of an experience as meaningful. Moreover, this perception can increase in tourists' predispositions to engage in civilized behaviors. Based on these premises, we propose:

Hypothesis 2: The perception of an experience as meaningful mediates the effects of anthropomorphic interpretation cues on tourists' behavioral intentions.

2.5. The moderating effect of narrative

The concept of narrative transportation explains how a story's recipient is absorbed by, and transported into, the narrative world. Being immersed in a story leads to heightened cognitive and emotional involvement. Narrative transportation theory examines how stories influence individuals' beliefs in the real world (Green & Brock, 2000), and complements attitude change theory by explaining how the persuasive power of stories stems from their narrative nature (Kim, Song, & Shim, 2020). Narratives and storytelling can create immersive experiences, yielding desired positive outcomes and mitigating negative cognitive responses; in doing so, can transform an individual's real-world attitudes and beliefs (Fu et al., 2022;Green & Brock, 2000;Jiang & Tu, 2023).

A narrative story is composed of characters that experience situations with a structured and chronological order, including linked goals, actions, and outcomes over time, with an established causal relationship (Escalas & Edson, 2004). The structure of a story plays a significant role in the communicative effectiveness of a narrative, as it combines the consumer's cognitive absorption of events, imagery, and immersive emotions (Escalas & Edson, 2007), and, thus, the structure strengthens the narrative's message. Research indicates that the timeline of a narrative can enhance its credibility (Green & Brock, 2000) and reduce an individual's resistance to a story, as refuting a point may interrupt and undermine their pleasurable experience. Furthermore, the use of the first-person perspective significantly enhances the narrative and social tone of a message by involving recipients in the story (Pachucki, Grohs, & Scholl-Grissemann, 2021). Short videos

with a narrative structure provide tourists with an immersive experience, increasing their engagement, reducing their resistance to advertisements, and improving their attitudes toward the destination (Cao et al., 2021). Additionally, in user-generated content narratives, both chronological order and the roles of characters positively influence tourists' pro-environmental behavioral intentions (Wu, Xiang, & Jiao, 2019).

This research anthropomorphizes the interpretation cues by using a mascot and then employing this mascot to present the interpretation cues through storytelling. There is already some evidence that anthropomorphic cues, such as destination mascots, serve as social cues and promote social connection, serving to inform and educate tourists (Radomskaya & Pearce, 2021). According to the SIP and Three-Factor theories of anthropomorphism, presenting cues in destination narratives can make information more prominent, which helps to capture the attention of tourists and construct meaning for their actions. We argue that the use of mascots as an anthropomorphic medium can enhance tourists' meaningful experiences and promote their environmentally responsible behavior. Accordingly, this research proposes that:

Hypothesis 3: Narrative storytelling moderates the effect of anthropomorphic interpretation cues on tourists' civilized behavioral intentions via the mediation of meaningful experience, such that the effects of the cues are stronger where narrative is present (vs. absent), which results in higher civilized behavioral intentions.

3. Methods and results

3.1. Overview of studies

Figure 1 presents the research framework used to promote the motivation of civilized behavioral intentions through anthropomorphic interpretation cues, mediated by the perception of meaningful experience and moderated by narrative (present vs. absent).
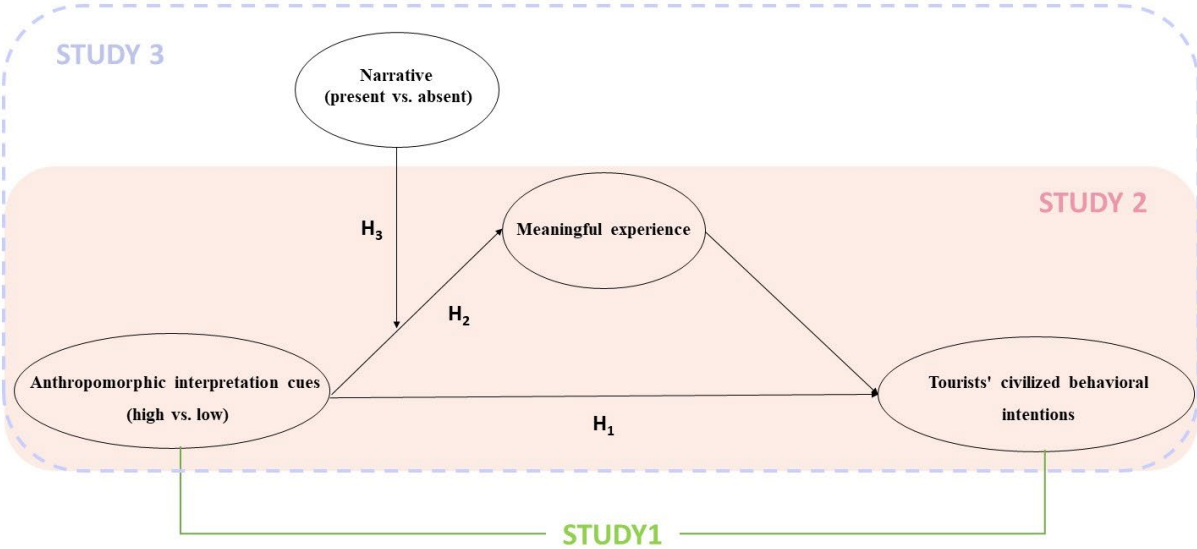

Figure 1. Research framework

This paper validates the proposed hypotheses through three studies. Table 1 summarizes our experiments'

hypotheses, the experimental designs and anthropomorphic interpretation cue types. First, we tested how the present (experimental group) or absent (control group) of language-based anthropomorphic interpretation cues affected tourists' civilized behavioral intentions. Second, we tested how the language and visual features of anthropomorphic interpretation cues affected tourists' civilized behavior intentions. Third, we tested how the presence (vs. absence) of narrative in an anthropomorphic interpretation cue affected tourists' civilized behavioral intentions via the narrative's ability to enhance meaningful experiences for the tourists. The three studies provide critical knowledge to design anthropomorphic interpretation cues for tourist destination managers.

Table 1. Research design

Studies	Hypothesis	Experimental design	Anthropomorphic interpretation cue types
Study 1	Anthropomorphic interpretation cues → civilized behavioral intentions (Main effect)	Anthropomorphic (present vs. absent) interpretation cues	Language
Study 2	Anthropomorphic cues → meaningful experience → civilized behavioral intentions (Mediating effect)	Anthropomorphic (present vs. absent) in interpretation cues	Language and visual
Study 3	Narrative (present vs. absent) in anthropomorphic interpretation cues→civilized behavioral intentions (Moderating effect)	Anthropomorphic (high vs. low) ×narrative (present vs. absent)	Language and visual

3.2. Study 1: Anthropomorphic interpretation cues → civilized behavioral intentions

In Study 1, the objective was to investigate the effects of anthropomorphic interpretation cues on tourists' civilized behavioral intentions.

3.2.1. Design and participants

We employed a between-subjects design with a single factor: anthropomorphic interpretation cues (presence vs. absence). We recruited 112 participants via the Credamo platform and divided the participants into two groups based on the final digit of their mobile phone numbers (odd or even). After eliminating individuals who failed attention checks, we retained 104 participants (45 males and 59 females). Of these, 54 participants were randomly placed in the experimental group, while 50 participants were allocated to the control group.

3.2.2. Stimuli and procedures

A scenario-based experimental study was conducted. The study involved text- and picture-based contextual, experimental priming methods, as illustrated in Figure 2. The participants were provided with the study's interpretation materials and asked to respond to a questionnaire. For the experimental group, Picture 1A featured a signboard conveying an anthropomorphic message in Chinese, which translates as: "*May my flourishing smile continue to shine brightly; courteously, please keep off the grass.*" Conversely, Picture 1B

was shown to the control group, with the sign carrying the message: " *Please keep off the grass*."

1A: Interpretation cues (anthropomorphic present)　　　1B: Interpretation cues (anthropomorphic absent)

Figure 2. Anthropomorphic interpretation cues (present vs. absent)

3.2.3. Measurement

A scale to measure tourists' civilized behavior intention was adapted from two studies by Qiu (2016) and Qu et al. (2021). These scales derived from China's "China Civilized Behavior Convention for Domestic Tourism", released in 2006 by the China Central Civilization Office and the National Tourism Administration (Qiu, 2016;Qu et al., 2021). The two scales each consisted of six items, for example: "When I read the instructions on the signboard, I will take steps to protect the local environment."

The anthropomorphic interpretation cues scale used in this study were adapted from research conducted by Bartneck et al. (2009). The scale assessed anthropomorphism using three items, for example "I perceive that this message has a human-like awareness." Each of the three items were measured using a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). To prevent the influences of age (Sharkey & Sharkey, 2011), gender (Kamide et al., 2013), education (Gnambs & Appel, 2019), income (Gnambs & Appel, 2019), environmental knowledge (Kronrod, Grinstein, & Wathieu, 2012), or environment concern (Dagher, Itani, & Kassar, 2015) affecting the experimental results, we treated these variables as control variables and tested for each of them accordingly.

3.2.4. Results

G* Power 3.1 was employed to assess power value estimation (Faul et al., 2009). The findings indicate that the power value for 104 samples exceeds 0.98, suggesting a high statistical power for the sample size, given that the minimum threshold is 0.80 (group number: 2, effect size: 0.4, significance level: 0.05, numerator df:1). Next, an independent sample t-test was conducted to examine whether each participant responded as expected to the manipulation of the interpretation cues, i.e., to the presence versus absence of anthropomorphism in the content of the cues ($M_{present} = 6.04$, $M_{absent} = 4.91$, $t = 6.71$, $p < 0.01$, KMO=0.82). The results indicate that the anthropomorphic manipulation of the interpretation cues was successful. We performed a linear regression analysis of the control variables and found that environmental knowledge is significant (see Table 2), while age, income, gender, education and environmental concern are insignificant. When controlling for the control variables, the anthropomorphic interpretation cues significantly and

positively affect the tourists' civilized behavioral intentions (see Supplemental Appendix). Anthropomorphic interpretation cues (α = 0.82) and tourists' civilized behavioral intentions (α = 0.84) showed good internal consistency. A one-way variance analysis (ANOVA) was conducted to test the difference between the presence and absence of anthropomorphism in the interpretation cues on tourists' civilized behavioral intentions. The results reveal that the presence (vs. absence) of anthropomorphic interpretation cues led to tourists stating stronger civilized behavioral intentions ($M_{present}$ =6.10, M_{absent} =5.81, F = 5.10, p =0.03). Therefore, H1 is supported, indicating that anthropomorphic present (vs. absent) in interpretation cues creates stronger civilized behavioral intentions.

Table 2. Effects of control variables on main effects

	Model	Unstandardized coefficient		Standardized coefficient	t	VIF
		B	SE	Beta		
	Constant	2.93	0.48		6.07 ***	
IV	Anthropomorphic interpretation cues	0.18	0.06	0.27	3.00 ***	1.60
CV	Environmental knowledge	0.21	0.06	0.32	3.39 ***	1.69
	R^2				0.54	
	F				6.98	
	P				＜0.001	
DV	Tourists' civilized behavioral intentions					

Note: *<0.05, **<0.01, ***<0.001.

3.3. Study 2: The mediating role of meaningful experience

The objective of Study 2 was to investigate how the perception of an experience as meaningful mediates the relationship between anthropomorphic interpretation cues and civilized behavioral intentions.

3.3.1. Design and participants

In Study 1, linguistic anthropomorphic interpretation cues were employed. Instead, in Study 2 we extended our linguistic anthropomorphism approach by also introducing a cartoon giraffe as a visual anthropomorphic cue. This adjustment not only to enhances the experiment's robustness but also offers destination managers additional insights. A total of 250 participants were recruited from the Credamo platform. After eliminating individuals who failed attention checks, we retained 224 participants (93 males and 131 females). Of these, 127 participants were randomly placed in the experimental group (with anthropomorphic interpretation cues), while 97 participants were allocated to the control group (with non-anthropomorphic interpretation cues).

3.3.2. Stimuli and procedures

The experimental procedures for Study 2 closely mirrored those adopted in Study 1. First, participants were shown one of the interpretation cues in Figure 3 and were asked to imagine encountering the signboard during a zoo visit. Participants in the experimental group (anthropomorphic interpretation cues) were shown the sign in Picture 2A, which includes a giraffe mascot and interpretation message. The message in Chinese means: *"My health matters; please don't feed me your human food."* Participants in the control group were shown Picture 2B, with the message: *" Please take care of these animals' health；feeding is prohibited."* Following

their interactions with the signboards, the participants were asked to complete a questionnaire.

2A: Interpretation cues (anthropomorphic present)   2B: Interpretation cues (anthropomorphic absent)

Figure 3. Language and visual anthropomorphic interpretation cues (present versus absent)

3.3.3. Measurement

Study 2 employed the same measures as Study 1 to assess the effect of interpretation cues on tourists' behavioral intentions. Furthermore, the construct of 'meaningful experience' was assessed using three dimensions (self-expansion, meaning and active discovery) with nine items adapted from Suh et al. (2017) and Shi, Huang,and Zhang (2021), such as "I feel that my ability to protect animals has increased." As in Study 1, Study 2 controlled for gender, age, education, income, environmental knowledge, and environmental concern.

3.3.4. Results

Similar to Study 1, we also employed G* Power 3.1 to estimate the power values. The results indicate that the power value for 224 samples exceeds 0.99, significantly surpassing the minimum threshold of 0.80 (input group number: 2, effect size: 0.4, significance level: 0.05, numerator df:1). Next, the results reveal that the participants responded as anticipated to the interpretation cues involving the presence vs. absence of anthropomorphism: ($M_{present} = 6.09$, $M_{absent} = 4.68$, $t = 11.44$, $p < 0.01$, KMO=0.83). All three measurements had good internal consistency: anthropomorphic ($\alpha = 0.85$), tourists' civilized behavioral intentions ($\alpha = 0.67$), and meaningful experience ($\alpha = 0.78$). We performed linear regression analyses of the control variables and found that gender and environmental concern are significant (see Table 3); age, income, education and environmental knowledge are not significant. When controlling for the control variables, the anthropomorphic interpretation cues significantly and positively affect the tourists' civilized behavioral intentions (see Supplemental Appendix).

According to the results of a one-way variance analysis (ANOVA), the presence of anthropomorphism (vs its absence) in the interpretation cues, led to stronger tourists' civilized behavioral intentions ($M_{present} = 6.35$, $M_{absent} = 6.21$, $F = 4.75$, $p < 0.05$). Furthermore, the ANOVA revealed a significant difference between

the experimental and control groups. The anthropomorphic interpretation cues generated a higher perception of meaningful experiences (M $_{present}$ = 6.17, M $_{absent}$ = 5.96, F = 9.85, $p < 0.01$) than was generated by exposure to non-anthropomorphic interpretation cues.

However, the coefficients of meaningful experiences (β = 0.65, $p < 0.001$) on tourists' civilized behavioral intentions were significant when controlling for age, gender, education, income, environmental concern and environmental knowledge. Therefore, the findings of Study 2 support and validate the results obtained in Study 1.

Furthermore, Study 2 examined the mediating effect of meaningful experience. The PROCESS program of SPSS was used to test the mediation effect (Model 4 with 5,000 bootstrapped, anthropomorphic interpretation cues = 1, non-anthropomorphic interpretation cues = 2). The results demonstrate a significant mediating effect of meaningful experience (indirect effect = 0.05, LLCI = 0.02, ULCI = 0.10) (see Table 4). Thus, H2 is supported, indicating that meaningful experience mediates the effects of anthropomorphic interpretation cues on tourists' civilized behavioral intentions.

Table 3. Effects of control variables on main effects

	Model	Unstandardized coefficient		standardized coefficient	t	VIF
		B	SE	Beta		
	Constant	4.48	0.52		8.63***	
IV	Anthropomorphic interpretation cues	0.07	0.03	0.15	2.22*	1.24
CV	Gender male	-0.14	0.07	-0.14	-2.09*	1.21
	Gender female	0				
	Environmental concern	0.23	0.05	0.37	5.09***	1.41
	R^2				0.23	
	F				3.32	
	P				＜0.001	
DV	Tourists' civilized behavioral intentions					

Note: *<0.05, **<0.01, ***<0.001.

Table 4. Output of the bootstrap test of mediating effects

	Mediator	Effect	SE	t-value	p-value	95% confidence interval lower limit LLCI	95% confidence interval upper limit ULCI
Direct effect	—	0.02	0.02	0.69	0.49	-0.03	0.07
Indirect effect	meaningful experience	0.05	0.02	—	—	0.02	0.10

3.4. Study 3: The moderating role of narrative

Having confirmed the effects of presence (vs. absence) of anthropomorphic interpretation cues on tourists' civilized behavioral intentions in Studies 1 and 2, in Study 3 we considered the effects of anthropomorphic interpretation cues, high (vs. low), and narrative presence (vs. absence). Therefore, the purpose of Study 3

was to have a more nuanced understanding of the level of presence of anthropomorphism on civilized behavioral intentions; to examine whether the inclusion of narrative cues with high anthropomorphic interpretation amplified the effect of simply the presence of those anthropomorphic interpretation cues.

3.4.1. Design and participants

Study 3 used a 2 × 2 (anthropomorphic interpretation cues: high vs. low × narrative: present vs. absent), between-participants design, with the participants randomly divided into four groups. However, in contrast to the earlier two studies, Study 3 incorporated two screening questions to verify the participants' adherence to a specific criterion; the participants had to be unfamiliar with two television series: "Pingu" and "A Miss Mallard Mystery". This was because the protagonist in the experimental interpretative cues, MOMO, bore a resemblance to the PINGU and Miss Mallard TV characters. *Anthropomorphic interpretation cues:* The high anthropomorphic interpretation cues consisted of actions by MOMO; the low anthropomorphic interpretation cues were presented by a signboard with the visual of MOMO. *Narrative:* Present consisted of MOMO's weekly diary, time, place, and weather; Absent showed no narrative information (see Supplemental Appendix). A total of 398 participants were recruited through the Credamo platform. After eliminating participants who failed attention checks, we retained 359 participants (137 males and 222 females). These were divided into four sample groups, a high anthropomorphic/ narrative present group (n=90), a high anthropomorphic/ narrative absent group (n=90), a low anthropomorphic/ narrative present group (n=90), and a low anthropomorphic/ narrative absent group (n=89).

3.4.2. Stimuli and procedures

Participants were instructed to envision receiving a brochure at a tourist attraction's visitor center. Participants in the high anthropomorphic/ narrative present group received a narrative brochure (see Figure 4 and Table 5) that featured the diary of MOMO (the anthropomorphic mascot and main character) engaging in various activities at a scenic spot throughout the week. The story narrates that, initially, MOMO exhibited uncivilized behaviors, but, as a tourist, MOMO was affected by the uncivilized behaviors of other tourists. Eventually, MOMO assumed the role of advocate of civilized behavior (see Figure 4 and Table 5).

Figure 4. Brochure 3A, involving high anthropomorphic/ narrative presence: the diary of MOMO's week.

Table 5. Brochure 3A (high anthropomorphic/ narrative presence): summary and translation of MOMO's week

Date	Weather	Place	Behavior	What MOMO says
Mon	Sunny	Park	Climbing a tree	Ah, it hurts! Please do not climb on me.
Tues	Sunny	Theme Park	Throwing a boomerang	I'm sorry; we are on a tour, please follow the rules.
Weds	Sunny	Seaside	Being impolite to others	I like it when you are polite to other tourists.
Thurs	Cloudy	Museum	Whispering	Keep it down, I can hear you.
Fri	Rainy	Hotel	Removing trash	I take care of my waste. Do you?
Sat	Sunny	Scenic entrance	Collecting litter voluntarily	Please join me to protect our environment by keeping it clean.
Sun	Sunny	At every attraction's entrance	Encouraging tourists to be civilized	I behave well every day. I protect the environment of the scenic spot and do not graffiti. I behave well and don't climb trees.

In the low anthropomorphic/ narrative present group, the participants were shown a narrative brochure presenting MOMO' signboard guidelines for civilized behavior throughout the week (see Figure 5 and Table 6). In the high anthropomorphic/ narrative absent group, the participants were shown a brochure with an absence of narrative that contained seven photos displaying slogans "spoken" by MOMO (see Figure 6 and Table 7). In the low anthropomorphic/ narrative absent group, the participants were shown a brochure documenting MOMO' signboard with guidelines for civilized behavior (see Figure 7 and Table 8). After reviewing the interpretation cues, participants from all four groups completed the same questionnaire.

1

2 **Figure 5.** Brochure 3B, involving low anthropomorphic/ narrative presence: the diary of MOMO's week.

3

4 **Table 6.** Brochure 3B (low anthropomorphic/ narrative presence): summary and translation of MOMO's

5 week

Date	Weather	Place	What MOMO says
Mon	Sunny	Park	No climbing.
Tues	Sunny	Theme Park	Please follow the rules.
Weds	Sunny	Seaside	Please avoid disturbing others.
Thurs	Cloudy	Museum	Making noise is not allowed.
Fri	Rainy	Hotel	No littering.
Sat	Sunny	Scenic entrance	Please keep the park clean and tidy.
Sun	Sunny	At every attraction's entrance	Strive to be a civilized persuader. No graffiti. No tree climbing.

6
7

8 Figure 6. Brochure 4A, involving high anthropomorphic/ narrative absence: MOMO Brochure

9

10 Table 7. Brochure 4A (high anthropomorphic/ narrative absence): summary and translation of MOMO' words

Pictures	What MOMO says
Picture 1	Please do not climb on me.
Picture 2	We are on a tour, please follow the rules.
Picture 3	I like it when you are polite to other tourists.
Picture 4	Keep it down, I can hear you.
Picture 5	I take care of my waste. Do you?
Picture 6	Please join me to protect our environment by keeping it clean.

Picture 7	I protect the environment of the scenic spot and do not graffiti.

Figure 7. Brochure 4B, involving low anthropomorphic/ narrative absence: MOMO Brochure

Table 8. Brochure 4B (low anthropomorphic/ narrative absence): summary and translation of MOMO' words

Pictures	What MOMO says
Picture 1	No climbing.
Picture 2	Please follow the rules.
Picture 3	Please avoid disturbing others.
Picture 4	Making noise is not allowed.
Picture 5	No littering.
Picture 6	Please keep the park clean and tidy.
Picture 7	No graffiti.

3.4.3. Measurement

Expanding upon the findings from the results of Study 2, one of the brochures in Study 3 incorporated a narrative storyline. The narrative was adapted from a study conducted by Escalas and Edson (2004) and consisted of six items; for example, the item used for the narrative manipulation check was: "The brochure documents MOMO's journey of becoming a civilized traveler." The perceived anthropomorphism scale was adapted from a study by Bartneck et al. (2009) and included three items, such as: "I perceive that MOMO conveys a human-like consciousness to me." Furthermore, in Study 3 we excluded alternative explanations for connectedness to nature and perceived warmth. The connectedness to nature scale was adapted from a study by Chen and Wei (2022), Mayer and Frantz (2004), and included items such as: "I consider myself a part of nature." The perceived warmth scale was adapted from a study by Fiske et al. (2002), Xu, Yan,and Pratt (2022), and included items such as: "The brochure is friendly."

3.4.4. Results

The results of a two-factor ANOVA show that the participants were able to distinguish different anthropomorphic interpretation cues (M $_{high}$ = 6.19, SD=0.47, M $_{low}$ = 4.92, SD=1.54, $p < 0.001$) and different narratives (M $_{narrative\ presence}$ = 5.78, SD=0.96, M $_{narrative\ absence}$ = 4.59, SD=1.26, $p < 0.001$). Thus, the manipulations of anthropomorphic interpretation cues and narrative were successful. The reliability analysis demonstrates that four variables, namely perceived anthropomorphism (α = 0.90), civilized behavioral intention (α = 0.60), meaningful experience (α = 0.78), and narrative (α = 0.86), all exhibit good internal consistency. The control variables were gender, age, education, income, environmental knowledge, and environmental concern, as per studies 1 and 2. We performed linear regression analysis of the control variables and found that environmental concern is significant in the model (see Table 9), while age, income, gender, education and environmental knowledge are insignificant. When we exclude the control variables,

the anthropomorphic interpretation cues significantly and positively affect the tourists' civilized behavioral intentions (see Supplemental Appendix).

The results of G*Power's test for power values indicate that the power value for 359 samples exceeds 0.99 (input group number: 4, effect size: 0.4, significance level: 0.05, numerator df:1). To examine the moderating impact of narrative on the relationship between anthropomorphic interpretation cues and tourists' civilized behavioral intentions, a 2×2 ANOVA was employed with anthropomorphic interpretation cues and narrative as between-subjects factors. The ANOVA outcomes highlight a significant interaction effect of anthropomorphic interpretation cues and narrative in predicting meaningful experiences (F (1, 355) = 4.28, p = 0.039, η_p^2 = 0.01). The high anthropomorphic interpretation cues lead to higher levels of meaningful experiences compared to low anthropomorphic interpretation cues, observed in both the narrative presence and narrative absence groups (M $_{high}$ = 6.35, SD = 0.27 vs. M $_{low}$ = 5.99, SD = 0.60, F (1, 355) = 17.84, p < .001, η_p^2 = 0.05, see Figure 8). These findings suggest that narrative strengthens and reinforces the mediating effect of meaningful experience.

This study employed PROCESS (Model 7 with 5,000 bootstrapped) to test the mediated model with moderation at 95% confidence intervals. The independent variable, anthropomorphic interpretation cues, was coded as 2 for high and 1 for low. Narrative served as a moderator variable, coded as 2 for narrative present and 1 for narrative absent. The mediator variable, meaningful experience, was designated, and tourists' civilized behavioral intentions were set as the dependent variable. The results demonstrate the significant moderating effects of narrative on the mediation of meaningful experience (index of moderated mediation = 0.15, SE = 0.05, 95% CI = [0.06, 0.25]). Specifically, narrative presence (compared to narrative absence) enhances the mediating role of meaningful experience (indirect effect = 0.19, SE = 0.04, 95% CI = [0.11, 0.26]). Finally, a parallel moderated mediation analysis (PROCESS Model 7) incorporating the six control variables (environmental concern, environmental knowledge, gender, age, education, and income) as covariates indicates that the moderated mediation effect of narrative remains significant (narrative → meaningful experience → tourists' civilized behavioral intentions: index of moderated mediation = 0.09, SE = 0.04, 95% CI = [0.01, 0.17]). Consequently, H3 is supported (see Table 10 and Table 11).

Further, to rule out alternative explanatory mechanisms for connectedness to nature and perceived warmth, we followed Hayes (2017) Bootstrapping approach to mediate the analysis of connectedness to nature and perceived warmth. The sample size was chosen to be 5000, and Model 4 was used at 95% confidence interval. The results show that the indirect effect of anthropomorphic interpretation cues influencing tourists' civilized behavioral intentions through connectedness to nature is not significant (LLCI = -0.0063, ULUI = 0.0278, inclusion 0). This suggests that connectedness to nature does not have a mediating effect. Similarly, the indirect effect of anthropomorphic interpretation cues influencing tourists' civilized behavioral intentions through perceived warmth is not significant (LLCI = -0.0003, ULUI = 0.0401, inclusion 0), suggesting that perceived warmth does not have a mediating effect.

Table 9. Effects of control variables on main effects

	Model	Unstandardized coefficient		Standardized coefficient	t	VIF
		B	SE	Beta		
	Constant	4.78	0.34		13.97***	
IV	Anthropomorphic interpretation cues	0.07	0.02	0.22	4.39***	1.06
CV	Environmental concern	0.18	0.03	0.31	5.97***	1.13
	R^2				0.22	
	F				5.21	
	P				<0.001	
DV	Tourists' civilized behavioral intentions					

Note: *<0.05, **<0.01, ***<0.001.
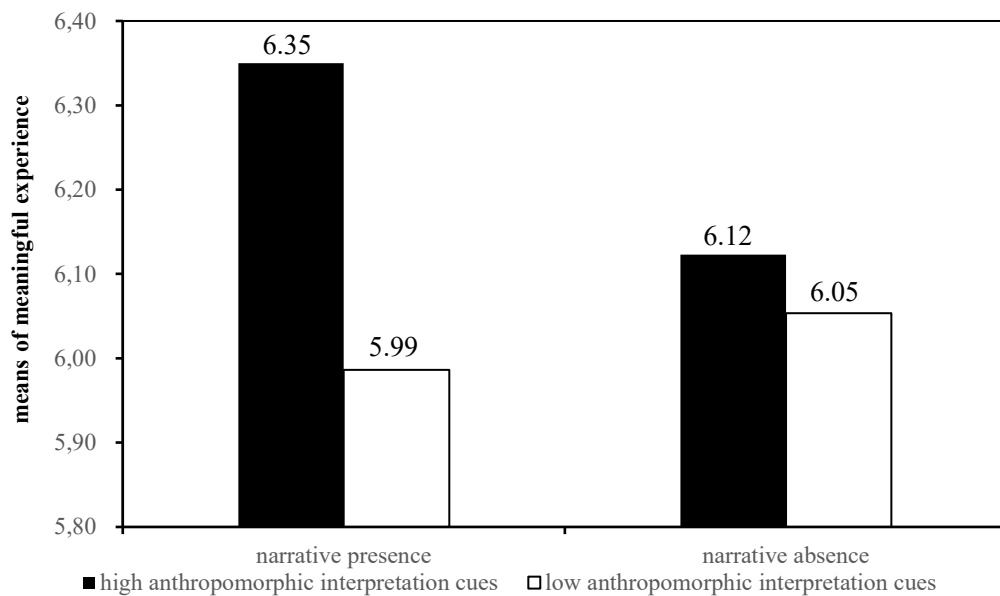
Figure 8. The moderating effect of narrative between anthropomorphic interpretation cues and meaningful experience.

Table 10. Results of the moderated mediation

	Analysis of moderated mediation					
	ME			TCBI		
	coeff	se	t	coeff	se	t
constant	4.84	0.38	12.87***	2.88	0.28	10.31***
AIC	-0.11	0.15	-0.72	0.04	0.04	0.97
narrative	-0.23	0.15	-1.57			
ME				0.48	0.04	12.06***
EC	0.20	0.03	5.82***	0.10	0.03	3.77***
EK	0.07	0.03	2.64***	-0.03	0.02	-1.45
gender	-0.05	0.05	-1.02	0.018	0.04	0.51
age	0.01	0.03	0.54	-0.041	0.02	-2.05***

education	-0.04	0.03	-1.20	0.03	0.03	0.97
income	-0.0001	0.03	-0.0035	-0.0012	0.02	-0.05
AIC x narrative	0.19	0.09	2.07*			
R-sq		0.21			0.63	
F		10.17			28.97	

Note: *<0.05, **<0.01, ***<0.001.

ME=meaningful experience; TCBI=tourists' civilized behavioral intentions; AIC=anthropomorphic interpretation cues; EC=environmental concern; EK=environmental knowledge.

Table 11. Results of the simple effects test

	Narrative	Effect	BootSE	BootLLCI	BootULCI
Moderating mediating effect	eff1	0.042	0.03	-0.02	0.11
	eff2	0.14	0.03	0.07	0.21
Moderated mediating effect contrast	eff2-eff1	0.09	0.04	0.01	0.18

4. Conclusions and Discussion

4.1 Conclusions

Drawing upon the SIP and Three-Factor theories of anthropomorphism and the narrative transportation theory, this research develops and tests a model that examines the relationships between anthropomorphic interpretation cues, meaningful experiences, narrative, and tourists' civilized behavioral intentions. Our research contributes unique theoretical and practical implications for destination managers by exploring how anthropomorphic interpretation cues can effectively promote tourists civilized behavioral intentions. We put forward three conclusions from our three studies.

First, anthropomorphic interpretation cues positively impact tourists' civilized behavioral intentions. Interpretative information serves as a social cue for tourists, and anthropomorphic strategies enhance the prominence of interpretative information by directing the attention of tourists towards personified narrative cues. Moreover, tourists establish connections between their existing knowledge and the anthropomorphic cues, which leads to them making assessments of the cues and, subsequently, to behavioral changes.

Second, anthropomorphic interpretation cues impact on tourists' civilized behavioral intentions through the mediating role of meaningful experience. High anthropomorphic interpretation cues are more easily understood and accepted by tourists than those with low anthropomorphic interpretation cues. This is because they facilitate individuals to find acceptable justifications for their behavior, which, in turn, promotes individuals to construct meaning for their actions.

Third, narrative elements significantly bolster the impact of anthropomorphic interpretation cues on both meaningful experience and tourists' civilized behavioral intentions. In our study, a mascot that exhibited positive behavioral changes resonated with tourists, enabling them to connect with the character and events within the narrative. Participants exposed to such a mascot exhibited a higher willingness to adopt more civilized behaviors compared to those exposed to a mascot that conveyed information without a narrative.

4.2. Theoretical Contribution

We designed our study based on the two core perspectives of the SIP theory, which posits that information can provide logical anticipations of individual behavior outcomes and guide individuals in constructing the meaning of their behavior (Salancik & Pfeffer, 1978;Zalesny & Ford, 1990). We incorporated anthropomorphic cues into the theoretical framework of civilized behavior, and provided further evidence that the content and form of tourist brochures or signboards constitutes social cues.

Our research substantiates the power of using an anthropomorphism strategy to communicate more persuasively how to behave in a civilized way in a tourist destination. We find that anthropomorphic messaging makes it easier for individuals to acquire knowledge, and that it enhances their understanding of the world and facilitates interactions with others. We show how anthropomorphic interpretation cues alter tourists' attitudes towards, and influence their relationships with, destination features, thus, increasing their predisposition towards the target behaviors elucidated in the cues (Chen & Yang, 2017;Lin et al., 2022;Wang, Ming, & Zhang, 2020). We also show how the perception of an experience as meaningful has a mediating effect. The mediating role of a perceived meaningful experience highlights how anthropomorphic messages prompt tourists to consider the connections between their own behaviors and the environment. Anthropomorphic messaging allows tourists to experience activities as being more meaningful, thereby expanding their sense of self. Moreover, placing the effectiveness of anthropomorphic strategies within the framework of the SIP theory allows for a deeper insight into why this strategy is effective in a tourism context. This research also enhances our understanding of why meaningful experiences are crucial in the domain of managing tourists' civilized behavior. This research not only extends the Three-Factor theory of anthropomorphism but also unveils a new mechanism by which we can improve our understanding of tourists' civilized behaviors. Our work makes a theoretical contribution in three ways.

First, while many scholars have investigated the origins of attributive analysis, and strategies to manage tourists' uncivilized conduct (Chien & Ritchie, 2018;Hu, 2014;Hu, 2016;Khoo, Oh, & Nah, 2021;Li & Chen, 2021;Loi & Pearce, 2015;Lu, Yin, & Tao, 2019;Tolkach, Pratt, & Zeng, 2017;Tsang, Prideaux, & Lee, 2016;Tsaur, Cheng, & Hong, 2019), tourists' uncivilized behaviors are growing. More research is needed to translate our understanding of uncivilized behaviors into interventions to change such behavior. Interpretative information is one of the social cues encountered by tourists, who analyze and judge this information, potentially adjusting their behavior accordingly (van Riper & Kyle, 2014;Zalesny & Ford, 1990). Drawing from the SIP theory, we provide a new theoretical perspective to understand tourists' civilized behaviors. Thus, our research enriches the literature on SIP theory.

Second, pro-sustainability messages that appeal to social norms have limited effectiveness in changing tourists' behaviors (Greene, Demeter, & Dolnicar, 2023), hence, it is important to consider how to increase the persuasiveness of such messages. We show that these social norm messages can be more effective by exploiting the features of anthropomorphism as a communication tool (Williams, Whitmarsh, & Mac Giolla Chríost, 2021). Our findings expand the boundary conditions of previous research that also found that anthropomorphic destination descriptions can enhance consumers' attitudes and willingness to travel (Letheren, Martin, & Jin, 2017) and that mascots with personified characteristics for destinations can serve

as marketing tools (Radomskaya & Pearce, 2021). Yet, the use of anthropomorphic characteristics to promote compliance with civilized behavior in unfamiliar environments has rarely been explored. This research establishes an empirical foundation to understand the influence of anthropomorphic interpretation cues on civilized behavior intentions within the context of tourism.

Third, we demonstrate the positive effect of including narrative in anthropomorphic cues to deliver more meaningful experiences, subsequently promoting tourists' intentions to behave in a civilized manner. Previous research indicates that narrative can enhance tourists' visit intention, positive attitude to brand advertisements and short videos (Cao et al., 2021;Moin, Hosany, & O'Brien, 2020;Wu, Xiang, & Jiao, 2019). In this paper, the narrative is introduced into the context of tourists' uncivilized behavior at the destination, once tourists are immersed in a specific situation and experience with a high level of cognitive and emotional interactions. In this context, tourists identify more closely with the destination; they generate more meaningful experiences and have behavioral intentions to are more likely comply with the content of the interpretative cues they are presented with. Ultimately, those cues enhance their civilized behavioral intentions. By introducing narrative into the context of tourists' civilized behaviors, we provide insights into effective strategies for managing tourists' uncivilized behaviors and expand the application scenarios of narrative theory.

4.3. Managerial Implications

The practical implications of this research are noteworthy for destination managers. While some destinations already incorporate anthropomorphic elements in their interpretation information, their focus has primarily been on language anthropomorphism rather than visual representations. This research shows the benefits of amalgamating both language and visual anthropomorphism, to amplify the persuasive impact of interpretive cues. Moreover, it confirms the untapped potential of expanding the use of mascots (beyond their use in branding tourism destinations or companies (Ding et al., 2022)) at destinations, as ambassadors for civilized behavior.

Destinations managers can leverage the power of narratives to evoke deep thinking and meaningful experiences in tourists, thus, enhancing the effectiveness of anthropomorphic cues. For instance, narratives can be employed to promote tourists' civilized behaviors through mascot storytelling. This can involve creating an exclusive mascot for a destination and narrating the destination's story from the mascot's perspective. The aim is to both stimulate tourists' compliance with social norms and to encourage contemplation of the significance of civilized behavior and self-expansion. While this research focused solely on signage, the findings can be applied further, for example, to the creation of a social media account for a mascot, featuring the mascot in destination travel guides, or presenting the mascot at tourist information centers. In summary, destinations can leverage various channels and embrace destination mascot storytelling to guide tourists' civilized behaviors effectively.

4.4. Limitations and Future Research

This research provides a new perspective for understanding the management strategies of tourists' civilized behaviors, and empirically tests the effectiveness of anthropomorphism strategies. However, it must be acknowledged that the practical contributions of this research outweigh the theoretical contributions.

Additionally, there are some limitations, which offer directions for future research. First, this research has not fully encompassed the complexity of civilized behavior. The behavioral stimuli materials used in the three studies focus on pro-environmental and pro-social behaviors. In the future, exploration could delve into more intricate tourist civilized behaviors, such as attention to vulnerable groups and respect for local cultures. Second, all three studies conducted scenario experiments, which do not fully capture real-world behaviors. Field experiments are necessary to observe tourists' actual civilized behaviors, to strengthen the external validity of the results. Third, the experimental scenarios in this research were limited to a few common types of scenic spots, and future studies could expand the scope by including other destination types.

Furthermore, future research could explore the underlying mechanisms and boundary conditions of the effects observed in this research. For example, investigating the role of individual differences, such as personality traits or cultural backgrounds, could provide valuable insights into the variability of tourists' responses to anthropomorphic cues and narratives, as well as the differential impact of various anthropomorphic factors or features on tourists' intentions for civilized behavior. Additionally, it would be beneficial to explore the long-term effects of anthropomorphic cues and narratives on tourists' behaviors. Conducting longitudinal studies or follow-up assessments could reveal the sustainability of the observed behavior intentions and whether they translate into actual behavioral changes over time. Lastly, incorporating qualitative research methods, such as in-depth interviews or focus groups, could provide a deeper understanding of tourists' perceptions and experiences related to anthropomorphic cues and narratives. This qualitative approach could capture nuanced insights and shed light on the underlying psychological processes involved. By addressing these limitations and pursuing future research in these directions, we can further enhance our understanding of the role of anthropomorphic cues, narratives, and their implications for promoting civilized behavior in the tourism context.

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