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DESIGNING TOURISM PLACES: UNDERSTANDING THE TOURISM EXPERIENCE THROUGH OUR SENSES

Jeongmi Jamie Kim
University of Florida

Daniel R. Fesenmaier
University of Florida

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Designing Tourism Places: Understanding the Tourism Experience through Our Senses

Introduction

Senses are core of how human body collects information and used as the foundation for understanding or developing meanings wherein “our bodily states, situated actions, and mental simulations are used to generate our cognitive activity” such as attitude, behavior, and memory (Krishna, 2012, p. 344). In the context of tourism, when people explore a place, they see, hear, smell, touch and taste in combination with their own thought and prior experiences simultaneously insides and as their bodies (Csordas 1994). Thus, it is a traveler’s body that senses, and therefore, mediates the relationship between the place and meaning (Tuan, 1977). Since our emotional and cognitive responses of places can also be explained by embodied experiences (Gibson, 1966), understanding this process holds a key to ‘designing meaningful touristic experience’. Building upon this literature, the purpose of this study is to differentiate traveler’s sensory experience from other cognitive process and to propose an innovative way to measure this process through various sensory modalities so as to provide a strong theoretical foundation for tourism experience design.

Literature Review

It is generally agreed that tourism experiences are socially and culturally produced (Tussyadiah & Fesenmaier, 2009). Recent research points out the active role of the traveler is to create his or her own experiences by providing feedback for the next phases of trip or future trip (Ek et al., 2006; Bosangit et al., 2012). Ek and his colleagues (2006) argue that the outcomes of travelers’ experiences such as emotions, satisfactions, and memories can build the anticipation for the future trip and affect their participation during the next trip. Figure 1 describes this process whereby the the tourism experience is situated within the tourist environment, which in turn, sets the stage for tourists to mentally and/or physically interact within the setting in order to create meaningful experiences (Gretzel et al., 2006). Within this context, the tourism experience should be considered as a dynamic and reflective process involving a series of sub-experiences and produces series of sensory, emotional, cognitive, behavioral and social outcomes (Schmitt, 1999). Furthermore, recent studies point out that each stage of the travel experience is actually comprised of a series of events which occur through interaction with physical, social, and virtual environmental stimuli (Tussyadia & Fesenmaier, 2009). Based on this event segmentation perspective, the tourism experience can be conceptualized as a series of meaningful ‘chunks’ of activity-based events that form the units of perception, action planning, and memory (Zacks & Swallow, 2007). As such, deconstructing a travel experience into a series of events and then examining what constitutes each event, how travelers perceive the elements or components within the event and the outcomes of these components enable us to understand how tourism experiences are created and translated into meaning (Zacks & Tversky, 2001).

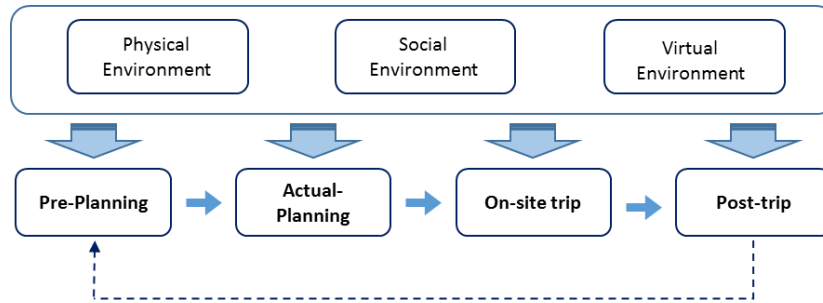


Figure 1. Stages of Tourism Experience

Conceptual Framework

Figure 2 describes conceptual framework for the tourism experience creation process which is based upon the embodied cognition and emotion perspective and describes the elements that play a role in the tourism experience and posits that the sensory process starts where the environmental stimuli come across the human body's sense organs, the gates of the emotional and cognitive responses. Thus, the tourism experience can be seen as comprised of four facets: 1. A sensory level – of which are below the conscious level (Craig, 2009); 2. A perceptive level – of which travelers are fully aware (Volo, 2009); 3. A cognitive and emotional level where travelers' brains, minds, and bodies respond to the world around them; and, 4. An action level where the transformation, learning, and memory happen (Volo, 2009).

While the tourism experience is the result of unconscious sensations and conscious perceptions during the trip (Volo, 2009), outcomes of tourism experience process vary based on individual and situational filters (Sandström et al., 2008). Psychological filters such as goals, prior experiences, culture, or travel companions shape perceptions and they cause variations in the individual responses towards environmental stimuli. In other words, how people 'interpret' the stimulus and 'make' meaning from them is account for the mechanisms of the perception, whereas the basic processes of detecting environmental stimulus such as light, sound waves and encoding those information into neural energy so that our brains can process is referred as 'sensation' (Goldstien, 2010). Further, sensations occur before our conscious mind can evaluate or attach significance to current situations. Thus, this is why sensation has begun to receive attention from academia; it can provide objective and context-specific information (Krishna, 2012).

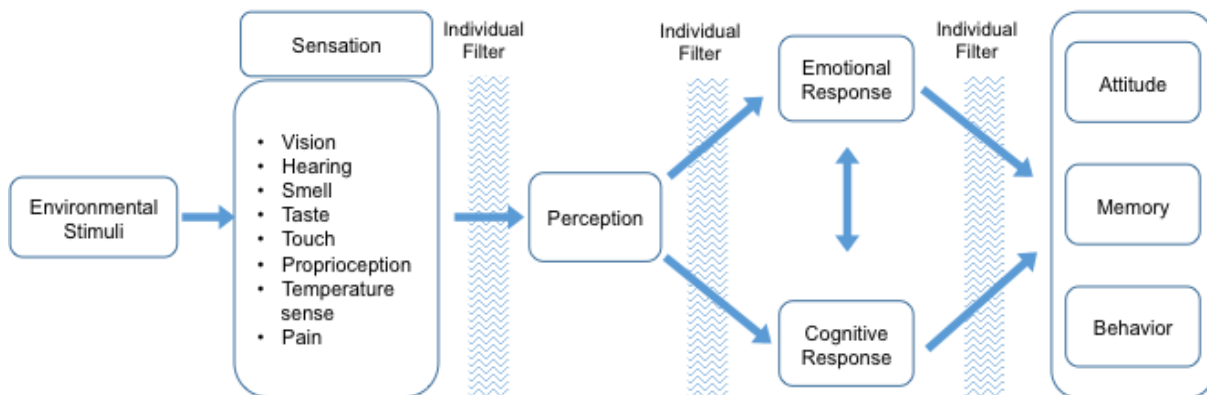


Figure 2. Framework of Tourism Experience Creation (Adapted from Krishna, 2012)

Capturing Traveler’s Senses: Challenges and Possible Solutions

As was pointed out earlier, the dynamic nature of tourism experiences and individual and situational differences pose substantial obstacles to understanding the nature and structure of tourism experiences. Indeed, most of studies focus on the specific senses in the specific phases of trips (Agapito et al., 2013). To account for this shortcoming, we propose to capture traveler sensory experiences by measuring multiple sensory modalities through wearable biophysiological sensors. Integrating multiple sensing data including their mobility opens new outlooks to physical and social dynamics at the traveler-place interaction. Of course, the tourism experience is more than a biological process; rather, it is tied to a range of motivational and situational factors (Agapito et al., 2013). Thus, the analysis of sensory experiences in the natural environment is expected to improve our understanding of the tourism experience creation process within which people are embedded (Larsen, 2007).

As described in Table 1, a range of new technologies has given rise to devices and techniques which enable objective evaluation of all five senses and across a range of settings – environments, resulting in more efficient measurement (Resch et al., 2014). In this paper, we describe these technologies, their use (and strengths and weakness) for experience measurement where it is argued that these systems should enable us to empirically gauge the effect of environments on traveler experiences (Teixeira et al., 2010).

Sense	Modalities	Energy	Sensor	Sample Application
Visual	Vision	Light	Photo detectors	Camera
			Ranging sensors	Glass (e.g., Google Glass)
Auditory	Hearing	Sound	Inertial sensors	Microphone
			Vibration sensors	Ear bud (e.g., SoundApp)
Olfactory	Smell	Chemical	Chemo sensors	Electronic nose
Gustatory	Taste	Chemical	Chemo sensors	Electronic tongue
Somato -sensory	Touch	Pressure	Contact sensors Pressure sensors	Silicon fingers
	Proprioception	Displacement	Accelerometer sensors Magnetometer sensors	Wearable clothing Shoes
	Temperature sense	Thermal	Thermal imagers	Thermoelectric bracelet

Table 1. Sensory Modalities and Measurement sensors for Tourism Experience

Conclusion

This study first proposes a framework describing the tourism experience creation process wherein ‘sensation’ or traveler’s sensory experience is considered an *a priori* and subsequent element that occur before and after the traveler is aware of the experience. As such, we posit that human senses should be considered as the foundation of how humans interact with environments and make meaning from these interactions. Further, it is argued that this deconstruction of the touristic experience provide the essential foundation for the design of tourism places and destination development (Gretzel & Fesenmaier, 2003).

In this paper we describe new technologies that can be used for extracting contextual information using various human-traits sensors in real-time. Although each sensory modality provides different information, combining various sensing data together allow us better understanding of how a traveler creates touristic experiences. It is important for tourism researchers and marketers to recognize how these sensory experiences play their role at different phase of trip as well as how

different senses can work together to create more meaningful tourism experiences. In sum, real-time and continuous data collection over different locations and time will help tourism marketers to evaluate their products and services and make comparison with their competitors. By doing so, they can offer highly personalized services and products which enabling more meaningful tourism experience.

References

- Agapito, D., Mendes, J., & Valle, P. (2013). Exploring the conceptualization of the sensory dimension of tourist experiences. *Journal of Destination Marketing & Management*, 2(2), 62-73.
- Bosangit, C., Dulnuan, J., & Mena, M. (2012). Using travel blogs to examine the postconsumption behavior of tourists. *Journal of Vacation Marketing*, 18(3), 207-219.
- Craig, A. D. (2009). How do you feel—now? The anterior insula and human awareness. *Nature Reviews Neuroscience*, 10, 59–70.
- Csordas, T. J. (Ed.). (1994). *Embodiment and experience: The existential ground of culture and self* (Vol. 2). Cambridge University Press.
- Ek, R., Larsen, J., Hornskov, S. B., & Mansfeldt, O. K. (2008). A dynamic framework of tourist experiences: Space-time and performances in the experience economy. *Scandinavian Journal of Hospitality and Tourism*, 8(2), 122-140.
- Gibson, J. J. (1966). *The senses considered as perceptual systems*.
- Goldstein, E. (2010). *Sensation and perception*. Cengage Learning.
- Gretzel, U., & Fesenmaier, D. (2003). Experience-based internet marketing: an exploratory study of sensory experiences associated with pleasure travel to the Midwest United States. In: A. Frew, M. Hitz, & P.O' Connor (Eds). *Information and communication technologies in tourism 2003* (pp. 49–57).
- Gretzel, U., Fesenmaier, D. R., and O'Leary, J. T. (2006). The transformation of consumer behaviour. In Buhalis, D. and Costa, C. (Eds.), *Tourism business frontier*. Oxford, UK: Elsevier.
- Krishna, A. (2012). An integrative review of sensory marketing: Engaging the senses to affect perception, judgment and behavior. *Journal of Consumer Psychology*, 22(3), 332-351.
- Larsen, S. (2007). Aspects of psychology of the tourist experience. *Scandinavian Journal of Hospitality and Tourism*, 7(1), 7–18.
- Resch, B., Summa, A., Sagl, G., Zeile, P., & Exner, J. P. (2015). Urban Emotions—Geo-Semantic Emotion Extraction from Technical Sensors, Human Sensors and Crowdsourced Data. In *Progress in Location-Based Services 2014*(pp. 199-212). Springer International Publishing.
- Sandström, S., Edvardsson, B., Kristensson, P., & Magnusson, P. (2008). Value in use through service experience. *Managing Service Quality*, 18(2), 112-126.
- Schmitt, B. (1999). Experiential marketing. *Journal of Marketing Management*, 15(1-3), 53–67.
- Teixeira, T., Dublon, G., & Savvides, A. (2010). A survey of human-sensing: Methods for detecting presence, count, location, track, and identity. *ACM Computing Surveys*, 5.
- Tuan, Y. F. (1977). *Space and place: The perspective of experience*. U of Minnesota Press.
- Tussyadiah, I., & Fesenmaier, D. R. (2009). Mediating tourist experiences: access to places via shared videos. *Annals of Tourism Research*, 36(1), 24–40.
- Volo, S. (2009). Conceptualizing experience: a tourist based approach. *Journal of Hospitality Marketing and Management*, 18(2-3): 111–126.

- Zacks, J. M., & Swallow, K. M. (2007). Event segmentation. *Current Directions in Psychological Science*, 16, 80–84.
- Zacks, J. M., & Tversky, B. (2001). Event structure in perception and conception. *Psychological bulletin*, 127(1), 3.