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RESEARCH FRONTIERS

New approaches to the study of tourist experiences in time and space

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ABSTRACT

Nowadays, a growing number of researchers are investigating subjective attitudes of people toward their environment with ever-increasing spatial and temporal resolutions. It seems that researchers' interest in daily experiences is not merely a passing research fad, but rather that individuals in current societies find more interest in their own momentary experiences. They talk about their affective states, they spend considerable portions of their income on intangible experiences, and they instantly share personal 'moments' through various online social media platforms. These trends are even more apparent in the tourism and leisure industries which aim to generate positive experiences among individuals. This research note points out new directions in the exploration of experiences during tourism and leisure activities. It discusses a new relevant concept, subjective momentary experiences on one hand and presents novel methodological opportunities on the other. In order to portray these new trends, a case study that describes the episodic experiences of festival attendants in a high tempo-spatial resolution is presented.

摘要

现今，越来越多的研究人员以更精细时空分辨力下调查人们对其环境的主观态度。研究人员对人们日常体验感兴趣似乎不止是一个转瞬即逝的研究热潮，相反，当今社会中的个人对他们自己的瞬时体验发现更多的乐趣。他们谈论他们的情感状态，花费不菲的收入寻求无形体验，他们利用各种社交媒体平台实时地分享他们的个人瞬间。这些趋势在旅游休闲产业中更趋明显，因为旅游休闲产业旨在在个人中间生产正向的体验。本研究笔记指出了旅游休闲活动中体验研究的新方向。它一个方面讨论了一个新的概念，主观瞬时体验；另一个方面展示了一些新颖的研究方法。为了描绘这些新的研究趋势，本文展示了一个案例研究，描述了高度精密时空分辨力环境中节日参与者的短暂的瞬时体验。

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主观瞬时体验; 情感; 旅游体验; 智能手机; 耶路撒冷; 体验抽样方法; 全球定位系统

Introduction

It has been almost two decades since Pine and Gilmore presented the notion of 'experience economy' according to which we live in an era where people consume experiences rather than tangible commodities or services (Pine & Gilmore, 1998). While the experience

economy is considered to be a controversial concept, it did grasp an important trend that characterizes late-modern or post-modern society according to which, today, people talk about, look for, and share their experiences more frequently. In this sense, the experience economy is even more relevant today than it had been at the end of the previous millennium when it was first introduced.

This research note presents new research frontiers in the study of tourist subjective experiences while focusing on a new concept – subjective momentary experiences – which describe the more immediate affective experiences that many researchers explore nowadays. In order to illustrate the concept and the new data collection approaches that are implemented in this type of studies, a case study that analyzed the subjective momentary experiences of young adults during a music festival is presented.

The enhanced role of subjective perceptions in late-modern society and the study of subjective momentary experiences

Late-modern society had gone through some major cultural and structural shifts. In developed countries, these changes are reflected in a transformation from materialist to post-materialist values (Inglehart, 1977; 1990). Following these transformations, individuals started to pay more attention to various affective and subjective aspects of their life, such as happiness, satisfaction, and self-actualization.

The structural–cultural shifts that occurred in the late-modern society had an impact on academic thought. This impact can be traced in disciplines such as psychology (see, e.g. the emergence of the humanistic approach: Brinkmann, 2008) and economics (see happiness economics: Easterlin, 1974). As a result, we witnessed an increased number of studies that implement subjective indicators of well-being and life satisfaction (Kahneman & Krueger, 2006).

While the implementation of subjective indicators in studies has been on the rise in many disciplines for some time now, in the last few years, we are witnessing the emergence of a new interrelated research trend – the study of episodic, more immediate affective states of people (Doherty, Lemieux, & Canally, 2014; Ettema & Smajic, 2014; MacKerron & Mourato, 2013; Schwanen & Wang, 2014). I refer to this type of investigation as the study of subjective momentary experiences.

Subjective momentary experiences display substantial variation within person over time and they are considered to be related to affective processes rather than cognitive ones (Ettema, Gärling, Olsson, & Friman, 2010). In addition, momentary experiences are more likely to be dependent on situational variables, including spatial characteristics of an event. As a result, this emerging research area is often engaged by researchers with environmental or geographical orientation. My main argument in this research note is that the fast pace of life in late-modern and post-modern societies focus our attention on episodic occurrences and immediate experiences. At the same time, we are exposed to new data sources and data collection techniques that improve our ability to investigate such momentary experiences.

Subjective experiences and tourism

One of the main motivations that facilitate individuals to engage in tourism and leisure activities is the search for new experiences (Kim, Ritchie, & McCormick, 2010; Mannell &

Iso-Ahola, 1987). It is often the case that the type of experiences that tourists expect to encounter is inherent to the destination that they choose (see, e.g. Cohen, 1979). The centrality of experiences to the tourism industry is also evident in the supply side. Providers of touristic and leisure attractions and services strive to generate positive experiences for their customers which will attract new and repeated visitors (Hosany & Gilbert, 2009; Morgan, Lugosi, & Ritchie, 2010). The intense competition has led industry players to come up with new forms of attractions and new types of facilities that aim to cater the growing demand for quality experiences.

The number of studies in the field of tourism that deal with subjective perception of tourists has increased in the last decades. However, as is the case with other disciplines, it is not only that the number of studies is higher but also the spatial and temporal resolutions of many of these studies are increasing in the last few years. Therefore, the concept of subjective momentary experiences is relevant to tourism studies as much as it is relevant to other disciplines and probably even more so.

The work of Mannell and Iso-Ahola (1987) is an important milestone in the study of momentary experiences in tourism and recreational activities. In their work, Mannell and Iso-Ahola present, for the first time, a systematic review of three relevant theoretical approaches to the study of episodic experiences among tourists. In addition, they engage in a discussion about the role of experiences in the tourism industry while indicating the importance of subjective perceptions for tourists. Up until the recent years, we could only find a handful of studies that realized these ideas into empirical studies (Hull & Stewart, 1995; Lee, Dattilo, & Howard, 1994; Stewart & Hull, 1992). In the last few years, we find a substantial growth in the number of studies that deal with this topic.

A review of recent published works that explore momentary experiences during tourist and leisure activities reveals a variation of studies that utilized different approaches and methods which took place in various settings. Research approaches that were implemented range from qualitative, interpretive approaches (Cutler, Carmichael, & Doherty, 2014) to more positivist ones (Bigné, Andreu, & Gnoth, 2005). Data collection methods vary between low-tech pen and paper surveys (Bigné & Andreu, 2004), to participant observation (Pettersson & Getz, 2009) to more technological GPS-style studies (Birenboim, Reinau, Shoal, & Harder, 2015; Pettersson & Zillinger, 2011), and the settings of the recreational activity that is investigated include natural environments (Chhetri, Arrowsmith, & Jackson, 2004; Chhetri, 2015; Doherty, Lemieux, & Canally, 2014), artificial sites (Birenboim, Reinau, Shoal, & Harder, 2015; Loiteron & Bishop, 2008), and urban environments (Kim & Fesenmaier, 2014).

It is not a mere coincidence that all of the studies that are mentioned above emphasize the specific time–space locations in which experiences take place. The situation and the settings are believed to be an inherent part of momentary affects. Therefore, our ability to understand momentary experience is highly dependent on our ability to recognize the exact location and time in which the experiences are reported. Having this in mind, we can realize why the development of new location technologies, such as GPS and Wi-Fi positioning, that allow researchers to geo-tag and record locations, facilitates the study of momentary experiences. In the next section, I briefly describe a recent research that demonstrates how the implementation of smartphone applications can enhance researchers' investigations of subjective momentary experiences. This section is followed by a discussion about theoretical challenges and technological opportunities that tourism and leisure

researchers are likely to encounter in the following years when exploring subjective momentary experiences.

High-resolution measurements of experiences: the student's day case study

Background and study area

The study that is described in this section took place in Sacher Park, the largest urban park in the center of Jerusalem, where the annual 'student's day' celebrations took place in 2013. The student's day festival is attended by more than 20,000 people every year most of which are students and young adults.

Method

As part of the study, 25 students were asked to download a dedicated application to their android-based mobile devices (smartphones). The application was set to trigger up to three micro-surveys an hour. In these surveys, participants were asked to subjectively evaluate their momentary sense of crowdedness and momentary sense of security. The location of the students was also monitored using the location sensors of the phone. Students received a 50 NIS incentive (~14 USD) for their participation.

The sampling technique that was implemented is known as the Experience Sampling Method (ESM) or Ecological Momentary Assessment. The method was developed and validated during the 1970s and was mostly implemented in psychological and psychiatric studies (Csikszentmihalyi, Larson, & Prescott, 1977; Csikszentmihalyi & Larson, 1987). ESM includes three variants which are distinguished from one another based on the reporting mechanism (Wheeler & Reis, 1991). (1) Event-based reporting in which participants complete a survey before, during, or after a specific event (e.g. if the study explores culinary tourism, participants will report their behavior and experiences when eating or drinking). (2) Reporting in predefined intervals. (3) Signal-based reporting in which participants complete a survey when signaled by the researchers, usually at random intervals (as was done in this study).

Results

The black curve in [Figure 1](#) presents the distribution of the number of students in the festival compound at intervals of 30 minutes. Based on participants' locations that were recorded by the mobile application, we could detect that all 25 students attended the park at 22:30 and that the students gradually started to leave the park from 00:30 onward. Participants were also asked to report their subjective sense of crowdedness during the festival by rating it on a scale that ranged from 1 to 5. The gray dashed curve in [Figure 1](#) represents the average level of subjective sense of crowdedness along the event at intervals of half an hour. The curves in [Figure 1](#) allow us to compare between the actual number of people in the park (assuming that research participants represent the spatial activity of the entire festival population) and their subjective sense of crowdedness. We can see that the objective (number of people) and subjective crowdedness levels have a very similar curve pattern. In fact, the correlation between the two series was found to be very high ($r = 0.815, \alpha < 0.05$).

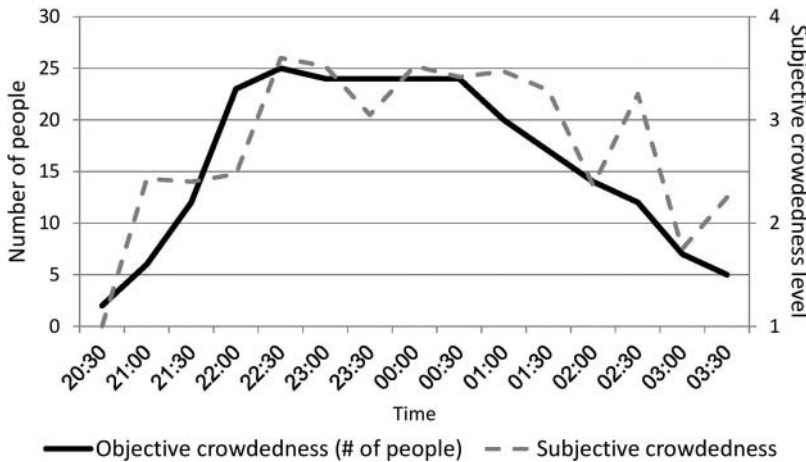


Figure 1. Objective and subjective crowdedness levels during the student's day festival.

Figure 2 focuses on the spatial distribution of the geo-tagged momentary experiences. It represents a spatial interpolation of students' reports about their subjective sense of security. The interpolation allows us to convert discrete experience reports into a continuous grid that represents the aggregative sense of security of festival attendees. The results reveal that students felt less secure in the area between the western bars and the toilets. This area was poorly illuminated.

While the study that is described here is limited in its scope, it illustrates the potential of implementing mobile devices in ESM studies for the purpose of investigating momentary experiences and especially the high spatial and temporal resolutions of this method. The results that are presented here focus on aggregative aspects of experiences, but the information that was collected can be utilized in studies that consider the affective states of individuals during leisure activity as well.

Theoretical challenges and technological opportunities for future studies

The study of momentary experiences in the context of tourism and leisure is still in its early stages. From a theoretical point of view, a clear definition and conceptualization of momentary experiences should be developed. More specifically, the underlying affective components of experiences should be better understood and theorized. At present, there are two main approaches that researchers employ when evaluating momentary experiences (Kim & Fesenmaier, 2014). The first one considers experiences as holistic in their nature (Bigné & Andreu, 2004; Bigné, Andreu, & Gnoth, 2005). The core affect model (Russell, 1980) is an example for the operationalization of such an approach. It makes use of two dimensions, hedonic (i.e. from unpleasant to pleasant) and activation (i.e. from passive to active), in order to generally represent a holistic episodic affect. Russell's model, and other more quantitative holistic approaches for the assessment of affect and emotion, could be highly suitable for the depiction of tourists' experiences. Nevertheless, some studies require the adoption of more differentiating approaches that distinguish between specific types or components of experiences (see, e.g. Chhetri, 2015). Thus, the second approach that researchers utilize when studying experiences focuses on one or several specific

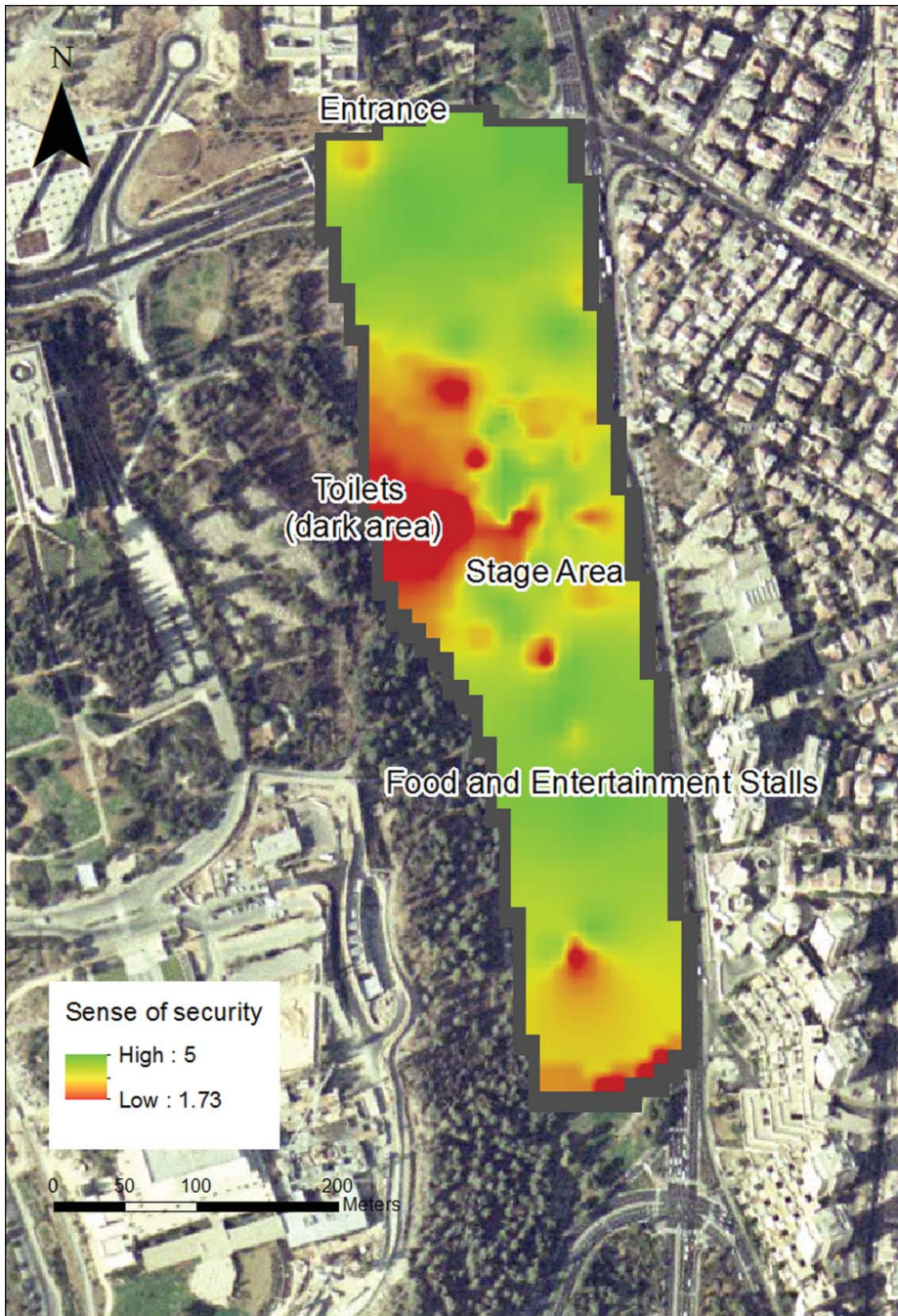


Figure 2. The interpolated subjective sense of security of festival attendees.

dimensions of experience (as did the current study) such as joy, sense of security, and comfort. This can be done, for example, by asking participants a direct question: are you happy? do you feel secure right now? or by implementing short, validated questionnaires about specific psychological states. The development of agreeable operational definition

and measure tools of tourists' experiences is necessary in order to further advance this field of investigation.

While the study of momentary experiences is expected to face theoretical challenges in the coming future on one hand, it is likely to benefit from the introduction of new high-resolution data sources and the implementation of advanced mobile technologies on the other. These technological developments make the study of momentary experiences to be more feasible now than in the past.

The student's day study that is presented here demonstrates how researchers may enhance their studies by recording high-resolution information about subjective experiences. Researchers may also take advantage of the built-in cameras that are available nowadays in mobile devices to perform participatory photography studies in which tourists document their most significant experiences through the phone's camera (see, e.g. Jones, Drury, & McBeath, 2011). This approach was implemented in the past in a leisure context with dedicated cameras (Hull & Stewart, 1995). New sensors that are expected to be embedded in standard smartphones in the future are likely to supply researchers with additional valuable information about the activity of participants (e.g. improved indoor location) and the characteristics of their immediate environment (e.g. temperature) and to further enhance the technological advantages of mobile devices.

The implementation of wearable sensors, such as a heart rate and electro-dermal activity sensors that measure biometric indicators, might be used to assess objective levels of arousal and excitement. We can already find attempts to utilize such technology to the measurement of experiences in tourism and leisure contexts (Kim & Fesenmaier, 2014). Other lab-style biometric measurements of fear during leisure activity were conducted even earlier using non-mobile instruments (Alpers & Adolph, 2008). However, the latter method is not practical for a dynamic measurement of tourists' experiences.

Finally, new sources of geo-tagged information which are available nowadays may be used for analyzing experiences during leisure and tourism activities. This includes geo-tagged photos (e.g. from Flickr) and social media information (e.g. from Twitter and Four-square) as well as other types of volunteered geographic information. While the implementation of such data holds many challenges and representativeness problems, it also has great potential in depicting subjective momentary experiences of tourists if treated correctly.

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No potential conflict of interest was reported by the authors.

Notes on contributor

Amit Birenboim is a postdoctoral researcher in the Department of Human Geography and Spatial Planning at Utrecht University. His research interests include the application of advanced tracking technologies to the study of spatial behavior, health geographies and the study of individuals' momentary experiences.

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