

Measuring Tourists' Emotional Experiences: Further Validation of the Destination Emotion Scale

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Abstract

This study is an extension of Hosany and Gilbert's (2010) original research on the development of a scale measuring the diversity and intensity of tourists' emotional experiences toward destinations: the destination emotion scale (DES). The DES consists of 15 items, representing three emotional dimensions: joy, love and positive surprise. Although the DES displays solid psychometric properties, additional evidence is required of the scale's validity. Using data collected from international tourists visiting two distinct destinations, Petra (Jordan) and Thailand, this study further examines the scale's construct validity. Adopting state of the art procedures guiding scale validation, results confirm the unidimensionality, reliability, convergent, discriminant and nomological validity of the DES. In particular, discriminant validity tests show that emotions and place attachment are related but distinct constructs. The DES provides a useful tool for marketers and researchers to measure tourists' emotional responses toward destinations.

Keywords: tourists' emotional experiences, destination emotion scale, place attachment, behavioral intentions, scale validation, Thailand, Petra

Introduction

Emotions are ubiquitous in tourism (Aho 2001) and play a central role in defining memorable experiences (Tung and Ritchie 2011). Tourist's emotional reactions are fundamental precursors of post-consumption behaviors (Gnoth 1997). Previous studies show emotions affect tourists' satisfaction (e.g., del Bosque and San Martín 2008; de Rojas and Camarero 2008; Yuksel and Yuksel 2007) and behavioral intentions (e.g. Bigné, Andreu and Gnoth 2005; Grappi and Montanari 2011). Emotions also influence decisions to purchase tourism and leisure services (e.g., Chuang 2007; Goossens 2000; Kwortnik and Ross 2007). In addition, Bigné and Andreu (2004) demonstrate emotion's suitability as a segmentation variable for tourism and leisure services. Despite the relevance of emotion in tourism, empirical studies to determine emotional associations tourists attach to destinations remains limited (Yuksel et al., 2010). Prior research has established that people develop relationships with places (e.g., Hidalgo and Hernandez 2001) and have emotional responses to their immediate environment (Farber and Hall 2007; Manzo 2003).

Recognizing the paucity of research on emotional content of destination experiences and adopting a rigorous scale development process consistent with conventional guidelines (e.g. Churchill 1979; Gerbing and Anderson 1988), Hosany and Gilbert (2010) constructed the Destination Emotion Scale (DES). The DES measures the diversity and intensity of tourists' emotional experiences and consists of three dimensions: (1) Joy, (2) Love, and (3) Positive Surprise. It is worth mentioning that the DES only captures positive valence emotions. Vacations are characterized as a set of positive experiential processes (Mannell and Iso-Ahola 1987; Nawijn 2011),

primarily consumed for hedonic purposes (Otto and Ritchie 1996). Tourists seek pleasurable and memorable experiences when on holidays (Currie 1997). The lack of negative emotions in tourists recalled experiences could also be attributed to the “rosy view” phenomenon (Mitchell et al. 1997). The rosy view effect mitigates negative occurrences in people’s retrospective assessments of events and magnifies positive experiences (Gilbert et al. 1998; Lee and Kyle 2012).

Although the 15-item DES displays solid psychometric properties, additional evidence is required of the scale’s validity. In Hosany and Gilbert’s (2010) study, the sample was limited to one culture (British nationals). To aid theoretical development, Steenkamp and Burgess (2002) emphasize the need for researchers to test measures in different contexts using new population sample. The current study extends Hosany and Gilbert (2010) original research and reexamines construct validity of the destination emotion scale. Data were collected from international tourists, at the end of their holidays, visiting two distinct destinations: Thailand and Petra (Jordan). Discriminant validity of the DES was assessed using a theoretically related but distinct construct: place attachment (Scannell and Gifford 2010). Place attachment refers to the emotional and psychological bonds formed between an individual and a particular spatial setting (Williams, Patterson, Roggenbuck and Watson 1992). The study adopts a two-dimensional conceptualization of place attachment: place dependence (functional attachment) and place identity (emotional attachment). The study also tests nomological validity by examining the relationship between the DES and the theoretically related construct behavioral intentions. Prior research confirms emotions as important precursors to tourist behavioral intentions (e.g. Grappi and

Montanari 2011; Jang and Namkung 2009; Lee, Lee, Lee and Babin 2008; Yuksel and Yuksel 2007).

The contribution of this research is two-fold. First, the paper extends the literature on tourist experiences by providing further validation of the DES in different settings using new samples. In particular, addressing the limitations in Hosany and Gilbert's (2010) research wherein respondents had to recall their own idiosyncratic target destination, in this study tourists reported their emotional experience towards two common destinations just after the *consumption* has taken place. Second, the study follows a systematic process to scale validation based on psychological, sociological, marketing and tourism literatures. Although notable efforts exist in developing new scales (e.g. Boley, Nickerson and Bosak 2010; Wong and Wan 2013), relatively less attention has been dedicated to scale validation in tourism. The paper offers state of the art standards for future scale validation research in tourism.

Literature Review

Tourists Emotional Experiences and the Destination Emotion Scale

The theorization of emotion has received unprecedented attention in contemporary tourism literature. Prior studies focus on emotional experiences associated with festivals (e.g. Grappi and Montanari 2011; Lee et al. 2008), shopping (e.g. Yuksel 2007; Yuksel and Yuksel 2007), restaurants (e.g. Han and Jeong 2013), theme parks (e.g. Bigné et al. 2005; Ma, Gao, Scott and Ding 2013), holidays (Nawijn,

Mitas, Lin and Kerstetter 2013), and adventure tourism (e.g. Faullant, Matzler and Montanari 2011). These studies show emotions have a pervasive influence on various aspects of tourist experiences. For example, at the pre-travel stage, emotions play an important role in tourist motivation (e.g. Gnoth 1997; Goossens 2000) and choice process (e.g. Chuang 2007). Tourist emotional reactions are also fundamental determinants of post-consumption behaviors. Emotions influence tourist satisfaction (e.g. Faullant et al. 2011), trust and commitment (Han and Jeong 2013) and behavioral intentions (e.g. Grappi and Montanari 2011).

The measurement of emotion in marketing and tourism is largely influenced by earlier research in the psychology literature. Self-reports remain the most popular method to capture emotional experiences (Diener 2000). Typically, respondents rate their emotional reactions to a stimulus. Self-reports effectively and efficiently capture emotional states (Parrott and Hertel 1999). Researchers often borrow psychology-based self-report emotion measures to understand tourist experiences. Four commonly adapted scales include Plutchik's (1980) eight primary emotions, Izard's (1977) Differential Emotion Scale, Mehrabian and Russell's (1974) Pleasure, Arousal, and Dominance Scale (PAD), and Watson, Clark, and Tellegen (1988) Positive Affect and Negative Affect Scales (PANAS).

Despite their widespread application, in recent years, researchers have questioned the applicability, reliability and validity of psychological emotion scales in consumer studies (see Richins 1997; Laros and Steenkamp 2005; Schoefer and Diamantopoulos 2008). Emotion taxonomies from psychology are not conceived *per se* to measure emotions in a consumption context because consumer experiences are

situation-specific (Richins 1997). For example, emotional intensity varies when comparing intimate relationships to going on a luxury holiday. As a result, adapting scales from psychology often fails to achieve content validity (Haynes, Richard and Kubany 1995) leading to erroneous conclusions.

Realizing the need to improve measurement validity, some marketing scholars have constructed context-specific emotion scales. Edell and Burke (1987) and Holbrook and Batra (1987) are two influential scale development studies measuring consumers' emotional responses toward ads. Furthermore, to study emotions encountered during consumption experiences, Richins (1997) develops the "Consumption Emotion Set" (CES). CES includes 47 emotion descriptors grouped into 16 dimensions. Honea and Dahl's (2005) Promotion Affect Scale (PAS) assesses consumers' emotional reactions to sales promotion offers. The 10 PAS dimensions represent both positive and negative valence emotions. Schoefer and Diamantopoulos's (2008) ESRE scale measures emotions during service encounters.

Although it is well established that people elicit emotions toward their immediate physical and social environment (Farber and Hall 2007), systematic attempt to measure tourists' emotional responses toward destinations remains scarce. Existing psychology and marketing based emotion scales are inadequate, context-specific and fail to capture the richness of tourists' and destinations' characteristics. To address this lacuna, Hosany and Gilbert (2010), adopting a rigorous process, developed the Destination Emotion Scale. The DES is a parsimonious three-dimensional (joy, love, and positive surprise), 15-items measure with solid psychometric properties. Overall, the DES dimensions are theoretically consistent

with the conceptualizations of emotion in consumer (e.g. Westbrook and Oliver 1991; Batra, Ahuvia and Bagozzi 2012) and tourism research (Bigné and Andreu 2004; Bigné et al. 2005; Magnini, Crotts, and Zehrer 2011; Faullant et al. 2011). In addition, the scale meaningfully predicts tourist satisfaction and behavioural intentions (see Hosany and Gilbert 2010; Hosany and Prayag 2013; Prayag, Hosany, and Odeh 2013).

Place Attachment

Social theorists hypothesize places are sources of identification and affiliation that provide meaning and purpose to life (e.g. Gustafson 2001). Places have meanings through attitudes, values, and beliefs attached to them (Sack 1992). Research in environmental psychology, leisure and recreation and tourism, establishes that people develop strong relationships with places (e.g. Hidalgo and Hernandez 2001; Williams and Vaske 2003; Yuksel et al. 2010). The nature and nuances of people's relationship with places have been commonly conceptualized as place attachment (Kaltenborn 1998; Kyle, Mowen, and Tarrant 2004). Place attachment "involves an interplay of affect and emotions, knowledge and beliefs, and behaviors and actions in reference to a place" (Altman and Low 1992, p.5).

Existing models of place attachment are diverse and integrative (Hidalgo and Hernandez 2001; Lewicka 2008) but two primary conceptualization dominate both environmental psychology (e.g., Hidalgo and Hernandez 2001; Manzo 2003; Williams and Vaske 2003) and tourism literatures (e.g., George and George 2004; Gross and Brown 2008; Lee, Kyle and Scott 2012; Tsai 2012; Yuksel et al. 2010):

place identity (emotional attachment) and place dependence (functional attachment). Place identity refers to the connection between a place and one's self-identity (Prohansky 1978). Budruk, Thomas and Tyrell (2009) note places can offer an individual the opportunity to express and affirm his/her identity. Tourist's self-identity contributes to a sense of belonging toward destinations leading to feelings of attachment (Lee et al. 2012; Prayag and Ryan 2012; Yuksel et al. 2010). Salient features of a place (e.g. attractions, historical monuments) can connect to one's self-concept (Scannell and Gifford 2010).

Place dependence reflects the importance of a place in providing features, amenities, activities and conditions that support a person's goals (Stokols and Shumaker 1981; Williams et al. 1992). The functional attachment is embodied in a destination or area's physical characteristics and increase as a result of frequent visits (Gross and Brown 2008; Prayag and Ryan 2012; Williams and Vaske 2003). Places satisfying people needs generate deeper place dependence (Stokols and Shumaker 1981). The greater an individual's association with the physical characteristics of a place, the more likely he/she will be loyal (Scannell and Gifford 2010).

In the literature, there is an overlap between emotions and place attachment. Place-people relationship consists of an array of positive emotions such as love, pride and contentment (Manzo 2005; Scannell and Gifford 2010). However, there is a consensus that emotions and place attachment are related but distinct constructs (Altman and Low 1992; Hidalgo and Hernandez 2001). Empirical studies in tourism investigating the relationship between emotions and attachment are limited. In this study, the discriminant validity of destination emotion scale is established using with

place identity and place dependence. By doing so, the study extends the literature on the relationship between tourists' emotional experiences and place attachment.

Methods

Emotion Measure

Respondents had to rate the intensity of their emotional experience toward the destinations (e.g., "I felt a sense of pleasure") on a 7-point scale ranging from [1]=not at all and [7]=very much. The emotion items were adapted from Hosany and Gilbert's (2010) destination emotion scale (DES). The DES consists of three dimensions (joy, love, and positive surprise) representing tourists' emotional experiences. Joy was measured using five items (cheerful, delight, enthusiasm, joy, and pleasure); love was also captured with five items (affection, caring, love, tenderness, and warm-hearted); and finally, positive surprise was measured using five items (amazement, astonishment, fascinated, inspired, and surprise).

Place Attachment Measure

Place attachment was operationalized using items adapted from Williams and Vaske's (2003) scale. Several studies have confirmed the reliability and validity of Williams and Vaske's (2003) place attachment measure in tourism (e.g., Gross and Brown 2008; Prayag and Ryan 2012; Yuksel et al. 2010). Place identity was measured using four statements: "Thailand/Petra is a very special destination to me"; "I identify strongly with Thailand/Petra"; "Holidaying in Thailand/Petra means a lot to me"; and

“I am very attached to Thailand/Petra”. Place dependence was also captured using four statements: “Holidays in Thailand/Petra is more important to me than holidays in other places”; “Thailand/Petra is the best place for what I like to do on holidays”; “I will not substitute Thailand/Petra with any other place for the experience I had here”; and “I get more satisfaction out of holidays in Thailand/Petra than from visiting any other similar destinations”. Respondents had to rate their level of agreement or disagreement with the place identity and place dependence items on a 7-point scale (1=strongly disagree and 7=strongly agree).

Behavioral Intentions Measure

Behavioral intentions (Thailand Sample: $\alpha=0.85$; Petra Sample: $\alpha=0.73$) were measured using 4 statements: “I will recommend this destination to other people”; “I will say positive things about this destination to other people”; “I will encourage friends and relatives to visit this destination”; and “I will revisit this destination in the next 3 years”. The measures were adapted from previous studies (e.g. González, Comesana, and Brea 2007; Lee et al. 2008; Žabkar, Brenic and Dmitrovic 2010; Zeithaml, Berry and Parasuraman 1996). Respondents had to rate their level of agreement or disagreement with each statement on a 7-point Likert scale ranging from 1=strongly disagree and 7=strongly agree.

Sampling and Data Collection

To demonstrate the DES is a valid instrument in capturing tourists’ emotional experiences, data were collected from international tourists at the end of their visit to

Thailand (Sample 1) and Petra (Sample 2). The study focuses on tourists' holistic experiences as opposed to attribute-level evaluations, consistent with the conceptualization of tourist destinations (e.g. Xu, 2010). In addition, unlike Hosany and Gilbert's (2010) study focusing solely on British respondents, sample diversity in terms of nationality was sought to increase variability of item responses.

According to the Department of Tourism (2013), around 22 million international tourists visited Thailand in 2012. Thailand was ranked as the second most popular tourist destination in South-East Asia (World Tourism Organization 2012). A team of five trained research assistants administered the questionnaire face-to-face with tourists at the departure hall of the Suwannapoomi International Airport. A total of 300 questionnaires were distributed and 251 completed the survey. The sample was equally split between males and females. The age groups of respondent were as follows: 18 to 24 years old (23%); 25-34 years old (37%); 35-44 years old (18%); 45-54 years old (10%); and over 54 years old (12%). Respondents were well educated with 63% college graduates or above and 19% holding a professional qualification. In terms of nationalities, 2 main groups were identified: European (63%), and Americans (15%). The European group consists of tourists from countries such as United Kingdom, France, Germany and Italy. The 'others' category (20%) includes Australians and New Zealanders. The sample had a high proportion of repeat visitors (66%) and respondents either travel accompanied with friends (29%), a partner (24%) or alone (23%).

[PLEASE INSERT TABLE 1 HERE]

For sample 2, data were collected from international tourists at the end of their visit to Petra, Jordan. Petra is a historical and archaeological city located to the south of Amman (capital of Jordan) and is Jordan's most visited tourist attraction. According to Jordan Ministry of Tourism and Antiquities (2013), around 522,290 international tourists of various nationalities, visited Petra in 2012. Due to its unique cultural properties and heritage, Petra is recognized as a UNESCO World Heritage Site and was chosen as one of the New Seven Wonders of the World. The questionnaire was administered face-to-face with tourists at Petra visitor center. Respondents were approached randomly to participate in the study. A total of 350 questionnaires were distributed and 297 completed the survey. The sample was split between 44% males and 56% females. Respondents' age groups were as follows: 18 to 24 years old (18%); 25-34 years old (31%); 35-44 years old (17%); 45-54 years old (13%); and over 54 years old (21%). Respondents were well educated with 42% college graduates or above and 41% holding a professional qualification. In terms of nationalities, 3 main groups were identified: European (43%), Americans (32%), and Asians (10%). The European group consists of tourists from countries such as United Kingdom, France, Germany, Italy, Spain and Poland among others. The sample had a high proportion of first-time visitors (75%) and respondents mainly travel accompanied with friends (35%), a partner (23%) and family (10%).

Validation of the Destination Emotion Scale

Construct validation is a necessary condition for theory testing and development of quality measures in social sciences (Schmitt and Klimoski 1991; Steenkamp and van Trijp 1991). Validity refers to the extent to which a scale

measures the concept it purports to measure (Cook and Campbell 1979; Nunnally and Bernstein 1994; Peter 1979). For a scale to achieve construct validity, the literature identifies six criteria that must be met: i) content validity, ii) unidimensionality, iii) reliability, iv) convergent validity, v) discriminant validity and vi) nomological validity (e.g., Bagozzi 1980; Churchill 1979; Garver and Mentzer 1999; Gerbing and Anderson 1988; O’Leary-Kelly and Vokurka 1998; Ping 2004; Steenkamp and Van Trijp 1991).

Content validity is the extent to which measurement items are relevant to and representative of the targeted construct (Kerlinger and Lee 2000; Pedhazur and Schmelkin 1991). Failure to determine content validity can lead to erroneous conclusions (Haynes et al., 1995). Hosany and Gilbert (2010) establish *a priori* content validity (Sørensen and Slater 2008) in their original study. Five expert judges rigorously assessed the content adequacy of the emotion items using a variant of Zaichkowsky’s (1985) procedure. Emotion items were retained if at least three of the five judges rated them as ‘somewhat representative’ of the construct. As a result, there was no need to re-examine the content validity of the scale in this study.

Unidimensionality

Unidimensionality refers to the existence of a single trait or construct underlying a set of items (Gerbing and Anderson 1988) and is “one of the most critical and basic assumptions of measurement theory” (Hattie 1985, p. 139). According to Bagozzi (1980, p. 126), “it is a matter of logical and empirical necessity that a variable be unidimensional”. Measures must satisfy two explicit conditions to

be considered unidimensional. First, an indicator should be significantly associated with the underlying latent variable and, second, the indicator must represent a single factor (Anderson and Gerbing 1982; Phillips and Bagozzi 1986). Confirmatory factor analysis (CFA) was used to test for unidimensionality (Pedhazur and Schmelkin 1991). A 15-item, 3-dimensional (joy, love, positive surprise) CFA model was estimated using AMOS. Such a procedure systematically guides refinements and ensures that constructs exhibit both internal and external consistency (Anderson, Gerbing and Hunter 1987; Garver and Mentzer 1999). Standardized factor loadings, Cronbach's alpha, construct reliabilities and average variance extracted (AVE) are presented in Table 2.

[PLEASE INSERT TABLE 2 HERE]

The overall fit of the CFA models was examined using common parameters namely: chi-square statistics; Goodness of Fit Index (GFI); Normed Fit Index (NFI), Comparative Fit Index (CFI); Root Mean Square Error of Approximation (RMSEA); and the Root Mean Square Residual (RMR). Recommended cut-off value for GFI, CFI, NFI and TLI is ≥ 0.90 whereas the acceptable threshold level for RMR and RMSEA is ≤ 0.08 (Hu and Bentler 1998). Overall, results for both samples (see Table 3) indicate a satisfactory measurement model fit - Sample 1: GFI=0.91; CFI=0.96; NFI=0.93; TLI=0.94; RMR=0.07; RMSEA=0.06; and Sample 2: GFI=0.91; CFI=0.91; NFI=0.92; TLI=0.92; RMR=0.08; and RMSEA=0.07). For both samples, the chi-square value (Sample 1: $\chi^2_{(76)}=180.73$; Sample 2: $\chi^2_{(75)}=219.87$) did not exceed three times its degrees of freedom indicating that the confirmatory factor model is acceptable (Bollen 1989).

[PLEASE INSERT TABLE 3 HERE]

Reliability Assessment

Once unidimensionality has been demonstrated, next step is to assess the scale's reliability (Gerbing and Anderson 1988). Reliability refers to the internal consistency of a scale's measure of the latent construct (Churchill and Peter 1984; Peter 1979). Cronbach's (1951) coefficient alpha remains the most widely accepted and pervasive index for assessing a scale's internal consistency (Peter 1979; Peterson 1994). In simple terms, coefficient alpha represents "the proportion of a scale's total variance that is attributable to a common source" (DeVellis 1991, p. 27). A large coefficient alpha provides an indication of strong item covariance or homogeneity and adequately captures the sampling domain (Churchill 1979). Although what constitutes adequate reliability is dependent on the measurement situation (Lance, Butts, and Michels 2006), Nunnally (1978) recommends a minimum value of 0.70 for early stages of research (e.g. scale development) and 0.80 for basic or applied research as adequate. From Table 2, Cronbach's alpha coefficients range from 0.80 to 0.86 for Sample 1 and from 0.78 to 0.86 for Sample 2, indicating that the scale display strong level of consistency.

In addition, for scale/model development and validation, recommended guidelines (e.g. Bagozzi and Yi 1988; Baumgartner and Homburg 1996; Medsker, Williams and Holahan 1994; Steenkamp and van Trijp 1991) require researchers to report construct (composite) reliability (CR). CR is computed using the squared sum

of factor loadings for each construct and the sum of the error variance terms (Werts, Linn, Jöreskog 1974; Fornell and Larcker 1981). The minimum critical value for CR estimate is 0.60 (Bagozzi and Yi 1988). From Table 2, construct reliability estimates for Sample 1 ranged from 0.84 to 0.86, and for Sample 2, from 0.84 to 0.87. Overall, results provide evidence of strong internal consistency for each dimension of the destination emotion scale.

Convergent Validity

Once unidimensionality and reliability of the scale are deemed acceptable, it is fundamental to establish convergent and discriminant validity (Campbell and Fiske 1959). Convergent validity is the extent to which scale items, designed to measure a latent variable, correlate. In other words, do the items intended to capture a latent variable statistically converge together. Anderson and Gerbing (1988) suggest that evidence of convergent validity exists if the observable indicators' factor loadings in the measurement model are statistically significant. For both samples, all confirmatory factor loadings are significant ($p < .01$), with t values greater than 2.57 (Netemeyer et al. 2003) providing evidence of convergent validity: Sample 1 - from 7.15 to 15.57; Sample 2- from 11.27 to 16.30.

Furthermore, in establishing convergent validity, individual factor loadings should also be assessed for their magnitude (Hair, Black, Babin, and Anderson 2010; Netemeyer et al. 2003). Steenkamp and van Trijp (1991, p. 289) note “a weak condition for convergent validity is that the factor regression coefficient on a particular item is statistically significant. A stronger condition is that the factor

regression is substantial”. A rigorous rule of thumb for substantial magnitude of standardized loading estimates is an average of 0.70 or higher (Garver and Mentzer 1999). However, standardized factor loadings $\geq .50$ are deemed acceptable (Hair et al. 2010). From Table 3, loading estimates for Sample 1 range from 0.51 to 0.89 and, for Sample 2 from 0.62 to 0.84. In addition to examining the magnitude and significance of factor loadings, average variance extracted (AVE) were used to assess convergent validity. Across the two samples, AVEs for all dimensions exceed 0.50 (Fornell and Larcker 1981) and provide further evidence of convergent validity of the destination emotion scale.

Discriminant Validity

Discriminant validity is the extent to which the items representing a latent variable discriminate that construct from items representing other theoretical variables (Fornell and Larcker 1981). Establishing discriminant validity is crucial for conducting latent variable analysis (Bollen 1989). The discriminant validity of the destination emotion scale was investigated in two ways. First, we examined correlations between the three subscales and the two dimensions of place attachment: place identity and place dependence. We followed a procedure recommended by Bagozzi, Yi and Phillips (1991). Constructs were assessed in sets of two. For example, the ‘joy’ dimension was tested against ‘place identity’. A series of one-and two-factor CFA models were conducted for every possible pairs of constructs. In the one-factor model, correlation between two constructs was set at 1.00. For the two-factor model, the correlation parameter was freely calculated (Anderson and Gerbing 1988). A chi-square difference test was performed between the congeneric (one-

factor) and discriminant (two-factor) measurement models. Discriminant validity is achieved if there is a significant difference in the chi-square statistic between the two- and one-factor models. Table 4 shows the results of the chi-square tests for the pairs of constructs across the two samples. All chi-square differences were significant ($p < .001$) and therefore establish the discriminant validity of the DES.

[PLEASE INSERT TABLE 4 HERE]

Discriminant validity of the destination emotion scale was further assessed using Fornell and Larcker's (1981) procedure. The squared correlation between a pair of constructs (shared variance) is compared against the average variance extracted (AVE) for each of the two constructs. If for each pair of constructs, the shared variance is smaller than both the AVEs, this indicates that the constructs exhibit discriminant validity. Table 5 shows average variance extracted and shared variance estimates for the destination emotion sub-scales and the place attachment dimensions.

[PLEASE INSERT TABLE 5 HERE]

From Table 5, for each datasets, all AVEs are greater than the corresponding inter-construct squared correlation estimates (above the diagonal) and therefore further support the discriminant validity of the destination emotion scale.

Nomological Validity

Nomological validity refers to the degree a scale is related to other constructs consistent with underlying theories or prior research (Bagozzi 1980; Hair et al. 2010; Peter 1981; Steenkamp and van Trijp 1991; Venkatraman 1989). In this study, examining the relationship between the scale dimensions and the theoretically related variable behavioral intentions tested nomological validity. Previous studies operationalize behavioral intentions in terms of three variables: intention to return, willingness to recommend and word-of-mouth communication (e.g. Cronin, Brady and Hult 2000; Ladhari 2007; Soscia 2007; Zeithaml et al. 1996). Research confirms the relationship between positive emotions and intention to return (Bloemer and de Ruyter 1999); willingness to recommend (Jang and Namkung 2009; Lee et al. 2008); and word-of-mouth (Ladhari 2007).

Consistent with existing guidelines (e.g., Hair et al. 2010) and prior research (e.g., Seiders, Voss, Godfrey and Grewal 2007; Wong and Wan 2013) in establishing nomological validity, correlation analysis was performed between the scale sub-dimensions and the theoretically related variable. Table 6 shows the correlation matrix establishing the nomological validity of the destination emotion scale. Across the two datasets, results are consistent with theoretical expectations. An examination of the correlation coefficients reveals a positive relationship between the destination emotion scale sub-dimensions and the outcome variable behavioral intentions. All the zero-order correlation coefficients are positive and significant ($p < .01$), ranging from 0.35 to 0.67 for Sample 1 (Thailand) and from 0.26 to 0.44 for Sample 2 (Petra, Jordan). Results therefore support the nomological validity of the destination emotion scale.

[PLEASE INSERT TABLE 6 HERE]

Discussions and Implications

Despite the significance of emotion in tourism, studies investigating emotional associations with tourist destinations remain scarce (Yuksel et al. 2010). Hosany and Gilbert's (2010) scale development study is an exception. The DES captures the three emotions of joy, love and positive surprise using multi-items. Hosany and Gilbert (2010) rigorously establish the reliability and validity of the scale. However, the sample consisted of British nationals only, recalling and evaluating their most recent idiosyncratic tourist destination visited for pleasure purposes. In contrast, to Hosany and Gilbert (2010), in this study, tourists at the end of their visit, evaluated common destinations using the DES. Data were collected from international tourists visiting two distinct destinations: Thailand and Petra, Jordan. Results provide an overwhelming support for the validity of the destination emotion scale in other contexts by establishing unidimensionality, reliability, convergent, discriminant and nomological validity. Consistent with prior consumer research (e.g. Ahuvia 2005; Batra et al. 2012; Westbrook and Oliver 1991), the study provides further evidence that positive emotions (such as joy, love and positive surprise) are ubiquitous in tourist experiences.

The study also examines the relationship between tourists' emotional experiences and place attachment. In the marketing literature, there is an overlap between emotions and attachment. For example, Carroll and Ahuvia (2006) conceptualized love for a brand as the degree of passionate emotional attachment in

the customer-brand relationship. Thomson, MacInnis and Park (2005) operationalized brand attachment as an emotion based construct consisting of three dimensions: affection, passion and connection, each measured using a set of emotions. However, in environmental psychology, researchers identify emotions as a distinct construct from place attachment (e.g. Altman and Low 1992; Hidalgo and Hernandez 2001). In this study, the three sub-scales joy, love and positive surprise achieved discriminant validity with the two dimensions of place attachment: place dependence and place identity. Hence, findings suggest that in tourism, positive emotions and place attachment are related but distinct constructs, consistent with environmental psychology literature.

Methodological Implications

Proper measurement of constructs is of utmost significance (Day and Montgomery 1999) and represents an important field of enquiry (Lee and Hooley 2005). Scale development studies in tourism (e.g. Boley et al. 2011; Kim, Ritchie, and McCormick 2012; Wong and Wan 2013) are largely guided by Churchill's (1979) influential paradigm. Broadly, the scale development process involves three phases: scale generation and initial purification, scale refinement, and scale validation. However, similar to research in marketing (e.g. Ping, 2004), less attention has been given to *scale validation* in tourism. Two notable exceptions include: the Sustainable Tourism Attitude Scale (SUS-TAS), originally developed by Choi and Sirakaya (2005), subsequently cross-culturally validated (Sirakaya-Turk, Ekinici, and Kaya 2008) and later shortened (Yu, Chancellor, and Cole 2011); and the Memorable

Tourism Experience Scale (MTES), developed by Kim, Ritchie and McCornick (2012) and recently cross-culturally validated (Kim and Ritchie, in press).

Validation is essential for the development of quality measures (Schmitt and Klimoski 1991). Cronbach and Meehl (1955) further note the complexities and challenge of establishing construct validity for a new measure. This study advances the literature by presenting a systematic process to validate new scales in future tourism studies. Following well-established guidelines in psychological, sociological and marketing literatures, the DES was tested using data from international tourists visiting two culturally different destinations. The rigorous steps to validate the DES offer researchers a valuable process for future extension and replication studies. Although recommended in the generic literature (see Clark and Watson 1995; Garver and Mentzer 1999; Hinkin 1995; O'Leary-Kelly and Vokurka 1998; Ping 2004; Steenkamp and Van Trijp 1991), few studies, if any, have systematically applied these guidelines in the tourism literature. This paper contributes to the quest for reliable and valid scales in tourism research. The use of standardized measures, such as the DES, enables comparisons and facilitates the development and testing of theories.

Managerial Implications

The scale's validity across different types of destinations holds important managerial implications. The DES ability to capture emotions associated with both a country (Thailand) and a heritage site (Petra), attests its suitability as a comprehensive and standardized measure of tourists' emotional experiences with destinations of various geographical sizes. Destination marketers are offered a simple, reliable and

easy to administer tool that can measure tourists' emotional experiences at the city, region or country levels. The scale can also provide a means to benchmark destinations on the type and intensity of positive emotions associated with the tourist experience. Hence, the DES can serve as a diagnostic tool to evaluate and monitor tourists' emotional responses.

In addition, the ability to engender joy, love and positive surprise at the destination level is an invaluable source of competitive advantage. In this study, results show that tourists' emotional experiences have a positive influence on behavioral intentions. Findings are consistent with other studies (e.g. Bloemer and de Ruyter 1999; Lee et al. 2008) indicating that positive emotions are related to a higher propensity for tourists to revisit and recommend a destination. Hence, destinations capable of offering tourist experiences that elicit strong positive emotions will be able to foster loyalty. Tourist destinations can also be differentiated and promoted using emotional associations. Positive emotions can be emphasized in branding and positioning strategies. For example, Thailand has successfully used 'Amazing' in their marketing campaign. Other destinations such as Malaysia, Cyprus and Hong Kong strongly emphasize the destination experience using emotive words in their advertising campaigns. Strong positive emotions feature prominently in the destinations slogan and brand identity.

Limitations and Directions for Further Research

Validation of measures is a continuous process (Nunnally and Bernstein 1994; Clark and Watson 1995). Multi-item scales are often modified, adapted for use in a

specific context and refined to improve psychometric properties (Finn and Kayande, 2004). The following sections discuss some research avenues to further validate the instrument. First, the DES was originally developed and, in this study, validated in the context of hedonic holiday destinations. However, some destinations around the world are judged risky, elicit negative emotions such as fear, and tourists worry about visiting them (Larsen, Brun, and Øgaard 2009). Other studies on dark tourism show that some places evoke negative emotions including fear, sadness, depression and empathy (Kang, Scott, Lee and Ballantyne 2012). Future research should attempt to revise the DES by adding negative emotions items.

The study's main objective was to test whether the DES is a valid instrument to capture tourists' emotional experiences across various types of destinations (e.g. country vs. heritage site). Future studies could embrace a cross-cultural research agenda by, for example, using the scale to compare emotional experiences of 2 groups of tourists (e.g. German vs. British) visiting a common destination (e.g. Turkey). Such line of research would require testing for measurement invariance before meaningful comparisons are conducted (Billiet 2003; Steenkamp and Baumgartner 2000; van de Vijver and Leung 2000). Measurement invariance allows the researcher to establish if scale items are ascribed the same meanings and latent constructs are presented on the same measurement scale (Byrne and van de Vijver 2010).

Similar to Hosany and Gilbert's (2010) study, emotions were measured using post-visit surveys. Relying on retrospective evaluations can be problematic in capturing tourists' emotional responses (Cutler, Larsen and Bruce 1996). Retrospective reports are vulnerable to memory reconstruction (Kahneman 1999).

Emotions are dynamic and time-dependent (Kuppens, Stouten and Mesquita 2009). Over the duration of a visit, tourists' self-reported emotions vary in type and intensity (Lee and Kyle 2012). Future studies should attempt to capture in-situ (on-site) tourists' emotional responses and compare the results with post-visit global evaluations. On-site emotions can be captured using experience-sampling procedures (Christensen et al. 2003; Scollon, Kim-Prieto and Diener 2003) or diary methods (Bolger, Davis and Rafaeli 2003).

The current study does not take into account the impacts of tourists' travel motivation. Tourists are motivated to travel in anticipation of positive emotions during their vacations (Mannell and Iso-Ahola 1987; Nawijn 2011; Sirgy 2010). Tourists seek pleasurable, memorable and satisfying experiences through the consumption of their vacation (Currie 1997; Goossens 2000). A close link exists between people's goals and emotional experiences (Carver and Scheier 1990). Congruity with tourists' achievement goals elicits positive emotions and incongruity generates negative emotions (Hosany 2012). Future studies should investigate the relationship between tourists' motives or goals (such as learning, socialization and relaxation) and emotional experiences.

In testing for nomological validity, the paper focuses on the relationship between emotional experiences and behavioral intentions. Future research should investigate the impact of tourists' emotional responses on other outcome variables such as satisfaction. Emotions arising from consumption experiences deposit affective memory traces which consumers process to form satisfaction judgements (Westbrook and Oliver 1991). Many studies in marketing (e.g., Liljander and Strandvik 1997;

Walsh et al. 2011) and tourism (e.g. Bigné et al. 2005; Yuksel and Yuksel 2007) confirm a relationship between positive emotions and satisfaction.

In addition, we encourage researchers to incorporate the DES scale into conceptual frameworks that promote a holistic understanding of tourists' experiences. For example, future research could include other variables such as service quality, destination personality, trust and commitment, in an integrative model of tourists' experiences. Finally, although findings show the DES performs well in two distinct contexts, across other tourists' destinations of differing geographical sizes is still necessary. For example, future studies can categorize/compare destinations along the DES based on tourists' evaluations of multiple familiar destinations.

Table 1 Demographic Profile of Respondents

	Sample 1: Bangkok, Thailand (N=251) %	Sample 2: Petra, Jordan (N=297) %
Gender		
Male	50	44
Female	50	56
Age		
18-24	23	18
25-34	37	31
35-44	18	17
45-54	10	13
55-64	9	13
Above 64	3	8
Highest Education Level Attained		
Doctoral degree	6	6
Postgraduate degree	18	19
College graduate	39	17
High school graduate or less	16	15
Professional qualification	19	41
Others	2	2
Number of Previous Visits		
No previous visit	34	75
1-2 times	39	19
3-4 times	10	2
More than 4 times	17	4
Travel Companion		
Alone	23	10
Partner	24	23
Family	15	10
Friends	29	35
Others	9	22
Nationality		
Europe	63	43
America	15	32
Asia	-	10
Africa	2	8
Arab	-	7
Others	20	-

Table 2 Item Descriptions and Measurement Model Results for the Destination Emotion Scale

Scale Items Descriptions ^a	Sample 1 (S1):Thailand		Sample 2 (S2): Petra, Jordan		Sample 1 & 2		
	Standardised Loading	t-values	Standardised Loading	t-values	Cronbach's Alpha ^b	Construct Reliability ^b	AVE ^b
Joy					0.86, 0.86	0.86, 0.87	0.57, 0.57
I feel Cheerful	0.77	N/A	0.80	N/A			
I feel a sense of Delight	0.74	15.78**	0.70	12.88**			
I feel a sense of Enthusiasm	0.51	7.78**	0.63	11.55**			
I feel a sense of Joy	0.84	13.80**	0.84	16.30**			
I feel a sense of Pleasure	0.85	14.16**	0.79	15.17**			
Love					0.85, 0.86	0.86, 0.86	0.56, 0.55
I feel a sense of Affection	0.78	N/A	0.73	N/A			
I feel a sense of Caring	0.82	14.13**	0.79	13.30**			
I feel a sense of Love	0.89	15.57**	0.79	13.42**			
I feel a sense of Tenderness	0.65	10.62**	0.68	11.64**			
I feel Warm-hearted	0.56	8.93**	0.72	12.39**			
Positive Surprise					0.80, 0.78	0.84, 0.84	0.52, 0.52
I feel a sense of Astonishment	0.72	N/A	0.80	N/A			
I feel a sense of Amazement	0.85	11.68**	0.78	13.26**			
I feel Fascinated	0.65	9.36**	0.63	11.74**			
I feel a sense of Inspiration	0.81	9.28**	0.75	12.49**			
I feel a sense of Surprise	0.51	7.15**	0.62	11.27**			

Note: ** $p < 0.01$; ^a Items measured on a 7-point scale, 1=strongly disagree and 7=strongly agree; ^b Cronbach's alpha, construct reliability and AVE for S1 (Thailand) appears first in each cell; S2 (Petra, Jordan) second.

Table 3 Goodness-of-Fit Indices for the Destination Emotion Scale

	Sample 1: Thailand (N=251)	Sample 2: Petra, Jordan (N=297)
χ^2	180.73	219.87
<i>df</i>	76	75
<i>p</i> value	0.00	0.00
GFI	0.91	0.91
CFI	0.96	0.94
NFI	0.93	0.92
TLI	0.94	0.92
RMR	0.07	0.08
RMSEA	0.06	0.07

Table 4 Results of Discriminant Validity Tests

	Congenic Model (one-factor)		Discriminant Model (two-factor)		$\Delta\chi^2$	Δ d.f.	Sig.
	χ^2	d.f	χ^2	d.f			
Sample 1: Thailand							
1-4	231.81	27	134.63	26	97	1	.0001
2-4	179.32	27	72.99	26	106	1	.0001
3-4	215.08	27	115.80	26	99	1	.0001
1-5	284.98	27	117.39	26	167	1	.0001
2-5	303.24	27	73.21	26	230	1	.0001
3-5	247.96	27	101.21	26	146	1	.0001
Sample 2: Petra, Jordan							
1-4	441.38	27	221.06	26	220	1	.0001
2-4	310.96	27	169.11	26	141	1	.0001
3-4	497.47	27	320.31	26	177	1	.0001
1-5	324.05	27	98.56	26	225	1	.0001
2-5	275.40	27	77.20	26	198	1	.0001
3-5	410.84	27	148.01	26	262	1	.0001

Note: 1= Joy; 2= Love; 3= Positive Surprise; 4= Place identity; 5= Place dependence

Table 5 Average Variance Extracted and Shared Variance Estimates

	1	2	3	4	5
1. Joy	.57, .57	.55, .53	.52, .50	.55, .41	.46, .25
2. Love	.74, .73	.56, .55	.47, .52	.49, .33	.34, .29
3. Positive Surprise	.72, .71	.69, .72	.52, .52	.41, .33	.32, .18
4. Place Identity	.74, .64	.70, .58	.64, .58	.67, .64	.60, .41
5. Place Dependence	.68, .50	.59, .54	.57, .43	.78, .64	.69, .53

Note: correlations are below the diagonal; squared correlations are above the diagonal; correlations are all significant at 0.01 level; AVE estimates are presented in bold on the diagonal; S1 (Thailand) estimates appear first in each cell; S2 (Petra, Jordan) second.

Table 6 Correlations between the Destination Emotion Scale Dimensions and Behavioral Intentions

	Joy	Love	Positive Surprise
I will recommend this destination to other people	0.64; 0.42	0.54; 0.37	0.50; 0.41
I will say positive things about this destination to other people	0.67; 0.38	0.59; 0.34	0.49; 0.34
I will encourage friends and relatives to visit this destination	0.66; 0.44	0.59; 0.44	0.51; 0.44
I will revisit this destination in the next 3 years	0.41; 0.35	0.39; 0.43	0.35; 0.26

Note: Correlations are all significant at 0.01 level; S1 (Thailand) estimates appear first in each cell; S2 (Petra, Jordan) estimates second

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