

## Tourists' Emotions: A Longitudinal Study

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## ABSTRACT

*This study examines the changes in positive and negative emotions during vacation and their interactions with personality and life satisfaction. The emotions of 39 American and Dutch vacationers were tracked daily during their vacation using a diary. Findings indicated that emotions high in both positivity and arousal exhibit the same pattern (an inverted U-shape curve) during vacation, while the emotions ranked high in positivity and low in arousal do not. None of the negative emotions exhibited significant changes over time. Personality and life satisfaction moderated the change in several emotions over time, which suggests it is necessary to take those two factors into account when analyzing the change of emotions during a vacation.*

**Keywords:** *diary study, emotions, longitudinal, personality, life satisfaction*

## INTRODUCTION

One of the major selling points for the tourism industry is that vacations enhance positive emotions from beginning to end. Mitas (in press) provided anecdotal evidence that people expect to “have a great time” when they vacation and Bigne and Andreu (2004) documented a link between positive emotions and level of satisfaction. Most recently, Nawijn (2011) confirmed that, overall, positive emotions were elevated and some negative emotions were reduced during vacation. However, to our knowledge, researchers have not studied the potential change of specific emotions (e.g., joy, interest, sad) *during* vacation. Different emotions lead to distinct and sometimes powerful outcomes, in some cases contributing substantially to quality of life (Fredrickson 2000). Furthermore, personality (Sheldon and Lyubomirsky 2004) and life satisfaction (Pavot and Diener 2008) have been linked to emotional outcomes of vacationing. Yet, few researchers have explored the interactions

emphasizes a limited number of specific, basic emotions (Zelenski and Larsen 2000), while the other focuses on broad and general dimensions of human emotions (Russell 1980). Building on this categorization of emotions, Watson, Clark, and Tellegen (1988) proposed a positive-negative human emotions dichotomy. They ascribed emotions such as joy, interest, and hope to positive emotions and other emotions such as disgust, sadness, and embarrassment to negative emotions. This approach is most commonly used in the tourism literature as it allows researchers to exemplify the positive effects vacationing has on people's emotions.

When measuring overall positive and negative emotions researchers have (a) averaged strength of individual positive/negative emotions, assuming that every positive emotion carries the same weight when calculating the total positive emotions score (Mitas in press), or (b) added up the frequencies of positive/negative experiences, regardless of what types of emotions they represent (Pearce 1981). Veenhoven (1984) proposed an alternative approach—"Affect Balance." With this approach the average negative emotions score is subtracted from the average positive emotions score. Nawijn (2010) used this approach when developing the "holiday happiness curve," an inverted U-shape pattern in vacationers' affect balance overtime during vacation. None of these approaches account for how specific emotions change during a vacation.

## METHODOLOGY

The sample was comprised of 20 Dutch and 20 American adults aged 45 to 65 years. The American participants were recruited through an on-line listserv and snowball sampling. The criteria used to select participants were: (a) age 45 years or older and (b) vacationing for 5 days or longer in August or September 2010. Our Dutch participants were recruited through the Dutch Association of Travel Agents and Tour Operators using the same criteria. Participants were asked to complete questionnaires three times: before their vacation, one week after their vacation, and four weeks after their vacation. Each questionnaire included the Satisfaction With Life Scale (SWLS; Pavot and Diener 2008) and the modified Differential Emotions Scale (mDES; Cohn et al. 2009). The pre-vacation questionnaire also included Ten-Item Personality Inventory (TIPI; Sheldon and Lyubomirsky 2004) and questions about respondents' demographic characteristics. A separate diary was provided to study participants during the pre-vacation interview. For each day of the vacation study participants were asked to complete the mDES and an open-ended question (I.e., Please feel free to write about anything meaningful that may have happened today.).

On the TIPI individuals indicated how strongly they agreed with 10 statements representing the Big Five personality traits that have repeatedly emerged from personality research (Macrae & Costa 1997). On the SWLS participants indicate their level of agreement with five life satisfaction statements that are averaged together into a single life satisfaction

To assess potential changes in individuals' emotions during their vacation, we created 20% sections for length of stay (from now on referred to as "sections"). For example, with a 10-day trip days 1 and day 2 fell into the first section, days 3 and day 4 in the second section, and so forth. This is comparable to Nawijn's (2010) assessment of mood changes during a holiday trip. Repeated measures analysis of variance (ANOVA) with a mixed design was used to address the two research questions.

## RESULTS AND DISCUSSION

We excluded one Dutch participant because of a failure to complete the diary on a daily basis; thus, the final sample size was 39. Mean age was 53.3 (SD = 5.4), most participants were female ( $n = 30$ ) and the majority was employed either full-time (25) or part-time (7). Most participants were married (27). In terms of their vacation, participants' average length of stay was 10 days (SD = 3.27, range = 5 to 16 days).

Out of the nine positive emotions, five (amused, interested, joyful, loving, and proud) changed significantly during individuals' vacations. Eta squares of the five repeated measures ANOVA tests were all above .07, indicating a medium to large effect size (Cohen, 1988). The five emotions peaked at the middle section of the vacation and bottomed at the last section of the vacation. With respect to the remaining four positive emotions (awed, content, grateful, and hopeful), there were no significant differences across the five trip sections. None of the eight negative emotions changed significantly through time. For the two neutral emotions, surprised changed significantly over time,  $F(4, 152) = 2.90$ ,  $p < .05$ ,  $\eta^2 = .07$ , while compassionate showed no significant change over time,  $F(3.18, 120.95) = 1.21$ ,  $p = .31$ ,  $\eta^2 = .03$ .

After adding personality and life satisfaction into the repeated measures ANOVA model, *within-subject interactions* involving four negative and one positive emotion (I.e., angry, ashamed, content, contemptuous, and disgusted) were significant. Participants with a slightly below average life satisfaction level exhibited a significant stronger emotional experience during the middle occasion of the trip, compared to the groups with higher life satisfaction levels. Disgusted was the only emotion that had a significant interaction after adding personality into the model.

Extraversion had a significant *between-subject effect* for two emotions, sad and afraid. Participants who were neutral on extraversion reported significantly higher sadness levels (1.93) compared to participants who agreed moderately (1.18) and strongly (1.38) that they were extraverted. Similarly, participants who were neutral on extraversion reported significantly higher levels of being afraid (1.50) compared to those who strongly agree that they are extraverted (1.14). Life satisfaction exhibited a significant between-subject effect for

emotions over time. This result may be because amusement, interest, joy, love, and pride are higher in arousal when compared with awe, contentment, gratitude, and hope (Barrett and Russell 1998). Specifically, emotions high in both positivity and arousal exhibit the same pattern (an inverted U-shape happiness curve) during vacation, while the emotions ranked high in positivity and low in arousal do not. Further research should be conducted to determine if a two-dimensional categorization strategy (positivity\*activation) might be better for analyzing change in tourists' emotions during vacation.

None of the negative emotions exhibited significant changes over time. However, after adding personality and life satisfaction into the model, multiple negative emotions exhibited significant interactions, indicating that individual negative emotions interact with outside effects differently. Personality and life satisfaction also moderated change with three positive emotions. Overall, the fact that personality and life satisfaction moderate the change in emotions over time suggests it is necessary to take those two factors into account when analyzing the change of emotions during a vacation.

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