MATCH IT UP: STRATEGIES FOR REGULATING POSITIVE EMOTIONS

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INTRODUCTION

Evidence suggests that traveling is good for people because of positive outcomes, such as renewed energy, positive emotions, and more (Gilbert & Abdullah, 2004). Existing studies have revealed that in order to maximize the level of these positive outcomes from the vacation, tourists used regulation strategies to increase the intensity of positive emotions, and decrease the intensity of negative emotions (Gao et al., 2017). Tourists' use of regulation strategies varied through different stages of vacation (Gao et al., 2019). Despite that evidence indicates that tourists used a variety of emotion regulation strategies during vacation (Gao & Kerstetter, 2018), we have little knowledge about what specific strategies should be used for a select emotion, such as joy. Built on the emotion regulation construct, the purpose of this study was to examine the relationship between select positive emotions and their corresponding regulation strategies used during vacation. It is valuable to understand how individuals use regulation strategies for select positive emotions, which might influence the positive outcomes out of their vacation, as well as provide significant managerial implications to the travel industry.

LITERATURE REVIEW

Emotion is a multi-dimensional concept, for example, Russell (1980) has suggested that emotions can be conceptualized by the circumplex model, that even basic emotions can be located in a matrix based on their activation (active and passive) and valence (positive and negative). Watson, Clark, and Tellegen (1984) define the emotion to the positive and negative dichotomy. The positive emotion refers to pleasant responses to an event (Cohn, Fredrickson, Brown, Mikels, & Conway, 2009), and typical positive emotions may include joy, love, happiness, hope, and etc. Besides the differences in the valence among emotions, the impacts and outcomes of emotions on people's perceptions and experiences may vary even within the same valence. For example, the positive emotions of the same valence (e.g. joyful and playful) may yield different impacts and outcomes on people's perceptions and well-being (Schifferstein & Desmet, 2010).

Research on emotions in tourism receives increasing attention since the 2000s (Beesley, 2005; Nawijn, 2011; Nawijn & Filep, 2016; Nawijn, Isaac, van Liempt, & Gridnevskiy, 2016; Weaver, Ming-Feng, Burns, & Ang, 2018). One primary research pipeline of emotions in tourism focuses on the changes in emotions during vacations and travel experiences. For instance, Nawijn (2010) examined the variation in the moods of international tourists in the Netherland during holiday trips, and developed a holiday happiness curve. Rather than treating the emotion during a vacation as a static status, this study highlighted the changes in tourists' emotions over time. Building upon this study, Nawijn (2011) examined the emotion changes for tourists on 8 to 13 days trips. Results indicated there were significant variations in the balance of emotions over the course of their trips, however, the signal for the peak of happiness was not clear during their trips.

Emotion regulation emphasizes the process of regulation of emotions, instead of focusing on the perspective of how to be regulated by emotion (Gross, 1998). That is, emotion can be regulated or manipulated, especially negative emotions (Gross, 1998). Aligned with this definition, three primary characteristics of emotional regulation were identified in Gross's (2013) study, including (1) activation of a regulative goal; (2) engagement of the processes for changing emotion trajectory; and (3) the impacts on emotion dynamics. Rather than referring the emotion generation as a static process, emotion regulation highlights the changes in emotion dynamics. (Gross, 1998) developed a process model of emotion regulation that distinguished five levels of emotional regulation strategies, which were (1) situation selection; (2) situation Modification; (3) attentional deployment; (4) cognitive change; and (5) response modulation. Broadly, the first four ERS are considered as antecedent-focused ERS because these four families occur before appraisals give rise to emotional response tendencies, whereas the fifth ERS family is considered as response-focused ERS that occurs after emotional responses are fully generated (Gross, 1998, 2013).

Evidence has demonstrated the importance of ERS on emotional dynamics during vacations or travel experiences (Gao & Kerstetter, 2018). Tourists may generate different emotions during the vacations, including both positive emotions (e.g., joy, excitement, pride) and negative emotions (e.g., anger, fear), and the ERS towards different emotions might be varied. Although studies have found that ERS might be used to regulate both positive and negative emotion (Gross, 2013), the relationship between selective emotions and corresponding ERS during vacation have not been documented in the literature. Therefore, this extended abstract focuses on positive emotions only, and uses the theory of emotion regulation as a theoretical framework to examine what ERS tourists use to regulate select positive emotions.

METHODS

Data was collected in 2015 on tourists who traveled for vacation for at least five days. These tourists were traveling with carrying a hard copy of the travel diary, which asked participants to indicate their positive emotions, and use of positive emotion regulation strategies on a daily base. Positive emotions included in this study were joy, excitement, pride, love, amusement, interest and surprise. The instrument of positive emotion regulation was based on a revised instrument from Gross' (1998) emotion regulation theory and Heiy and Cheavens (2014) regulation strategy inventory. Participants responded to the strategies using a seven-point Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (7).

Data was analyzed with Linear Mixed-effects Models (LMM), using the MIXED procedure in SPSS 26. The LMM is not only able to analyze repeated measures data (i.e., the measures of emotions and regulation strategies over days in this study), but also can be asymptotically efficient regardless of the uneven number of repeated measures across participants (Garson 2013). With regulation strategies as fixed factors and accounting for the between-individual and within-individual variance structures, the LMM models examine the effect of positive regulation strategies on the occurrence frequencies of positive emotions over time. Given the assumption that the measures for a same participant on two adjacent days should have higher correlated errors than measures farther apart, we adopted the first-order autoregressive [AR(1)] covariance structure to fit the data. The restricted maximum likelihood (REML) estimation was also chosen

considering its capability of providing unbiased estimates of variances and covariances with smaller sample sizes.

To simplify the result interpretation, the fixed factors (i.e., regulatory strategies) have been centered before analyses by subtracting the global means, according to the common practice for centering continuous variables in LMM (Hox, Moerbeek, and Van de Schoot 2017). Also, only responses within 15 travel days are analyzed, so that each day has at least 10 responses to ensure a power level exceeding .8, based on the minimal sample size calculation for LMMs using the GLIMMPSE software (Kreidler et al. 2013). Following are detailed discussions on the LMM results.

RESULTS AND DISCUSSIONS

Descriptive statistics showed that all participants (N = 152) completed the diaries for at least 5 days, among whom 31 participants (20.4%) completed for at least 10 days, and 10 participants (6.6%) completed for at least 15 days. Overall, participants appeared to experience positive emotions more often than negative ones; some positive regulatory strategies also seemed to be more likely to be used, including strategies of *Social Sharing* (M = 5.92, SD = 1.32), *Expressive Suppression* (M = 5.79, SD = 1.1), and *Savoring* (M = 5.55, SD = 1.36).

Resulted showed that when a tourist was at an average level of regulatory strategy adoption, the baseline frequency levels for all positive emotions are at least half of the time ($Joy_{Intercept}$ = 4.51, $Interest_{Intercept}$ = 4.48, $Excitement_{Intercept}$ = 4.18, $Love_{Intercept}$ = 5.1, $Amusement_{Intercept}$ = 4.14). The coefficients of regulatory strategies demonstrated the most effective strategy corresponding to fostering each positive emotion, as well as the strategies that can simultaneously influence different emotions. Both strategies of *Expressive Suppression* and *Stimulus Control* cultivated the most types of positive emotions. The strategy of *Expressive Suppression* cultivated *Joy* (β = .15, SE = .04, p < .001), *Excitement* (β = .16, SE = .05, p < .001), *Love* (β = .18, SE = .04, p < .001), *Amusement* (β = .22, SE = .04, p < .001), *Interest* (β = .22, SE = .05, p < .001), and *Surprise* (β = .09, SE = .05, p < .05). *Expressive Suppression* was also the most effective fostering strategy for these emotions except for *Joy*. The strategy of *Stimulus Control* cultivated *Joy* (β = .13, SE = .03, p < .001), *Excitement* (β = .13, SE = .03, p < .001), *Pride* (β = .06, SE = .03, p < .05), *Amusement* (β = .1, SE = .03, p < .001), *Interest* (β = .07, SE = .03, p < .05), and *Surprise* (β = .08, SE = .03, p < .05).

The strategy of *Savoring* fostered five different positive emotions, *Joy* (β = .21, SE = .04, p < .001), *Excitement* (β = .13, SE = .04, p = .001), *Amusement* (β = .15, SE = .04, p < .001), *Interest* (β = .13, SE = .04, p = .001), and *Surprise* (β = .15, SE = .04, p < .001). *Savoring* is also the most effective strategy for *Joy* and *Surprise*. Moreover, strategies of *Replaying* and *Behavioral Activation* fostered four different positive emotions. *Replaying* enhanced *Joy* (β = .09, SE = .03, p < .01), *Excitement* (β = .08, SE = .03, p < .05), *Interest* (β = .07, SE = .03, p < .05), and *Surprise* (β = .11, SE = .03, p = .001), while *Behavioral Activation* enhanced *Joy* (β = .07, SE = .02, p < .01), *Excitement* (β = .06, SE = .03, p < .05), *Amusement* (β = .13, SE = .03, p < .001), and *Interest* (β = .13, SE = .03, p < .001). Strategies of *Broadening* and *Substance Use* only cultivated two positive emotions, where the strategy of *Broadening* helped with *Pride* (β = .11,

SE = .04, $p < .01$) and *Love* (β = .09, *SE* = .03, $p < .01$), and the strategy of *Substance Use* enhanced the occurrence of *Joy* (β = .06, *SE* = .02, $p = .001$) and *Interest* (β = .04, *SE* = .02, $p < .05$). Several strategies are more exclusive to some select positive emotions, such as the strategy of *Social sharing* that only facilitated *Excitement* (β = .08, *SE* = .04, $p < .05$), and the strategy of *Other-Credit* that only facilitated *Pride* (β = .07, *SE* = .03, $p < .05$). A surprising finding is that, the strategy of Capitalizing inhibited *Interest* (β = -.06, *SE* = .03, $p < .05$).

Additionally, the explanatory power of regulatory strategies was explored. Given the complications of calculating R^2 in the mixed models which have multiple error terms, this study adopted the proposed and broadly validated approach by Nakagawa and Schielzeth (2013) to calculate the marginal R^2 for fixed effects. Results revealed that the fixed effects of positive emotion regulatory strategies together explain 22.6% of variance in the *Joy*, 19.4% in *Amusement*, 17.4% in *Excitement*, 17.1% in *Interest*, and 10.7% in *Surprise*. Future studies should explore and include more regulatory strategies that tourists used during vacation.

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