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3 Examining the change in wellbeing following a holiday

4

5 Abstract

6 Building on existing evidence that tourism contributes to wellbeing, this study aims to 7 investigate how both hedonic and eudaimonic wellbeing changes after a holiday. A 8 longitudinal inquiry involving three waves of observation (during, the fourth week, and the 9 eighth week following a holiday) was carried out in five tourism cities in China, using Latent 10 Growth Curve models to analyze change. Results suggest that life satisfaction – an indicator 11 of hedonic wellbeing – does not decline as expected whereas other indicators of hedonic 12 wellbeing declined dramatically in the first month and then mildly in the second month 13 following a holiday. Comparatively, eudaimonic wellbeing declined gradually and mildly 14 during the same two-month intervals. Higher levels of optimal tourism experiences predicted 15 slower declines of both hedonic and eudaimonic wellbeing. Theoretical, methodological, and 16 practical implications are discussed. 17 Key words: hedonic wellbeing, eudaimonic wellbeing, wellbeing change, optimal tourism 18 19 experience, latent growth curve model, longitudinal design

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21

22 **1. Introduction**

23 Living a quality life is an essential pursuit of all human beings. Most human activities 24 are driven by this very basic motivation, and tourism has frequently been cited as one of these 25 activities. The contribution of tourism to wellbeing has drawn much interest for the last few 26 decades, and research efforts on this subject - many of which involve longitudinal studies -27 have generated sound evidence that tourism facilitates wellbeing (Chen et al., 2013; Gao et 28 al., 2020; Gilbert & Abdullah, 2004; McCabe & Johnson, 2013). Further, these longitudinal 29 studies have also revealed that the promotion of wellbeing triggered by tourism fades in a 30 short time following the experience (De Bloom et al., 2013; De Bloom et al., 2010; Kwon & 31 Lee, 2020; Su et al., 2020). Consequently, a common assumption is that tourism facilitates 32 wellbeing, but the effect fades soon after.

33 These longitudinal studies are of substantial value in helping us understand the 34 contribution of tourism to wellbeing. Nevertheless, how the promoted wellbeing changes 35 following a holiday remains unclear. This study therefore aims to solve this problem. A critical review of existing longitudinal studies on tourists' wellbeing reveals three questions 36 37 that remain unanswered which would push research on tourists' wellbeing to another level. 38 First, how does wellbeing change? Or what is the trajectory of wellbeing change? Second, 39 most studies have focused exclusively on tourism's impact on hedonic wellbeing, so the 40 question remains, what is its impact on eudaimonic wellbeing. Third, and more importantly, 41 does the nature of a holiday experience influence the change in wellbeing after the holiday? 42 In other words, are there experiential properties of tourism that are more strongly associated 43 with changes in wellbeing after a holiday? This study will advance research on tourist's 44 wellbeing from a group level to an individual level.

Building on existing evidence on the fading effects of tourism on wellbeing, this
study examines how wellbeing changes after a holiday by answering these three substantive
questions. To that end, this study carried out three observations on wellbeing during and after
a holiday to delineate the trajectory of change in both hedonic and eudaimonic wellbeing.
Latent Growth Curve models were used to investigate the variation in the trajectories of

wellbeing change across individuals, and included different aspects of optimal tourism
experiences into the models to explain wellbeing change after a holiday.

52 **2.** Literature review

53 2.1 Wellbeing

54 Wellbeing indicates how well a person has been living his/her life. Ryan and Deci 55 (2001) have identified two dominating paradigms of wellbeing: hedonic and eudaimonic 56 wellbeing. Hedonic wellbeing places more emphasis on subjects' sensory pleasure. In this 57 sense, people have been living well when they experience more pleasant and less unpleasant 58 emotions, and when they are satisfied overall with their lives (Diener, 2000). The eudaimonic 59 view contends that wellbeing comes from fulfilling or realizing one's human nature, 60 capacities, and talents. In this view, hedonic happiness is not a principal criterion of 61 wellbeing. They argue that subjectively felt goods are naturally different from objectively 62 valid goods. The fulfillment of former goods just produces, at best, positive emotion while 63 the latter is conducive to human flourishing (Fromm, 1978; Ryan & Deci, 2001; Waterman, 64 1993).

65 Although both hedonic and eudaimonic wellbeing have been constructed and developed in the Western culture, they are transferable to the Chinese culture despite its 66 67 notable difference. There is a substantial overlap between the Aristotelian notion of 68 eudamonic wellbeing and the Chinese/Confucian concept of 'Le' (Zeng & Guo, 2020, as cited in Rahmani et al., 2018). 'Le' corresponds to '幸福' in modern language, which is the 69 70 literal translation of wellbeing. A review of Chinese studies of hedonic wellbeing 71 (operationalized as subjective wellbeing), suggests that its resilience is consistent with 72 findings of research conducted in Western countries, and that the reliability and validity of 73 corresponding measures carried out in China are also as good as those in Western countries. 74 In addition, empirical studies applying hedonic and eudaimonic wellbeing concepts in the 75 Chinese context have reached the quite similar results as Western studies, such as positive 76 relationships between meaning in life and hedonic wellbeing (Yang et al., 2017), positive 77 relationships between mindfulness and eudaimonic wellbeing (Chang et al., 2015), and

positive relationships of existential authenticity to both hedonic and eudaimonic wellbeing
(Yu et al., 2020). Thus, the hedonic and eudaimonic wellbeing concepts are transferable to the
Chinese culture.

ob chinese culture.

81 *Wellbeing in tourism research*

82 Scholars have shown increasing interest in tourists' wellbeing, and their efforts have 83 generated considerable insights. Studies employing cross-sectional data have identified many 84 factors related to tourists' wellbeing, such as motivation (Kim et al., 2015), recreational 85 involvement and flow experience (Cheng & Lu, 2015), satisfaction (Kim et al., 2016), and 86 service quality (Su et al., 2015). Notably, most of these studies focused on tourists' hedonic 87 wellbeing.

88 Tourism promotes wellbeing

89 Studies that deserve particular attention are the ones that employed a longitudinal 90 design because they provide tremendous insights into the tourism-wellbeing relationship. In 91 studies that have involved regular British tourists (Gilbert & Abdullah, 2004), regular 92 Chinese tourists (Chen et al., 2013), British social tourists (McCabe & Johnson, 2013), and 93 Chinese adolescent tourists (Gao et al., 2020), researchers have compared people's wellbeing 94 before and after a holiday, and have provided fundamental evidence of tourism facilitating 95 wellbeing. De Bloom and his colleagues did much more meticulous studies by observing 96 tourists' wellbeing before, during, and after a holiday, with one making five observations (De 97 Bloom et al., 2010) and the other making 10 observations (De Bloom et al., 2013), both of 98 which suggested that tourists' self-reported health and wellbeing increased quickly during the 99 vacation, but faded rapidly within the first week after they returned home. Further, it did not 100 appear that the length of the vacation was linked to the amount of change in wellbeing. They 101 also reported that vacation experiences, especially the experiences of pleasure, relaxation, 102 savoring, and control, have served to preserve the effect of vacation on wellbeing. Recently, 103 Kwon and Lee (2020) reported that travel satisfaction has a direct effect on the decline of life 104 satisfaction after a holiday, and that expectation and serendipity prolongs the happiness after 105 a holiday.

106Drawing on prior studies, we assume that tourism promotes wellbeing with a positive107effect fading after a holiday, and that more optimal tourism experiences could buffer the108fading effect. This leads to the three vital questions that (in)form the purpose of this study.

109 *Three vital yet unanswered questions*

110 The first vital yet unanswered question is: What is the trajectory of wellbeing change 111 after a holiday? Chen et al. (2013) observed tourists' wellbeing before a holiday, three days 112 after, and again two months after. Because there were only two observations used to delineate 113 the trajectory of wellbeing change after the tourism experience, the trajectory was assumed to 114 be linear. While this conclusion might seem reasonable, it might not necessarily be the case 115 because of the limited available evidence. In the study by Gao et al. (2020) of Chinese 116 adolescents, wellbeing was assessed one week before, one week after, and one month after a 117 holiday; their study suffers from the same problem of limited evidence. Gilbert and Abdullah 118 (2004) and McCabe and Johnson (2013) have just observed tourists' wellbeing before and 119 after a holiday, so they were not able to project the trajectory of wellbeing change in either 120 study.

To provide a valid delineation of the trajectory of wellbeing change after a holiday, the present study makes observations of tourists' wellbeing during, in the fourth week, and in the eighth week after their tourism experience, and uses Latent Growth Curve modeling to estimate the trajectory. Such a research design allows for the comparison of wellbeing change in two time intervals, providing a more detailed and precise calculation of the wellbeing change after a holiday.

127 The second vital yet unanswered question is: *Are there any differences between the* 128 *change in hedonic and eudaimonic wellbeing after a holiday*? Gilbert and Abdullah (2004), 129 Chen et al. (2013), and Gao et al. (2020) have focused exclusively on the effects of tourism 130 on hedonic wellbeing, although some specific life domains associated with hedonic wellbeing 131 were also considered. While McCabe and Johnson (2013) have observed both hedonic and 132 eudaimonic wellbeing, and have also included the dimensions of positive functioning and 133 social wellbeing to indicate eudaimonic wellbeing, their observations nevertheless were on

one time point after the tourism experience, and were therefore unable to draw muchinformation about how eudaimonic wellbeing changes over time.

136 Notably, as an insight on this second question, Su et al. (2020) have investigated the 137 change patterns of wellbeing. Their results suggested that both hedonic and eudaimonic 138 wellbeing have gone through a 'first rise and then fall' trajectory of change over the course of 139 a vacation, and the intensity of change in eudaimonic wellbeing is lower than that of hedonic 140 wellbeing. While this study is of great value in understanding the different change characters 141 of hedonic and eudaimonic wellbeing, its longitudinal process was initiated by an experimental stimulus. For example, the time point of During-trip was initiated by the 142 143 stimulus, 'I have been at tourist attraction X for two days', and the Post₂-trip was initiated by, 144 'It's been a week since I returned from attraction X'. Thus, more valid and reliable evidence 145 is needed for examining how hedonic and eudaimonic wellbeing changes.

146 Examining change in eudaimonic wellbeing is particularly of interest because it is 147 conceptually different from hedonic wellbeing (Ryan & Deci, 2001), and even though both 148 indicate how well a person has been living, hedonic wellbeing places more emphasis on the 149 subjects' sensory pleasure and emotion, whereas eudaimonic wellbeing focuses on exercising 150 human nature and fulfilling human potentials (Fromm, 1978; Ryan & Deci, 2001; Waterman, 151 1993). The stability of each over time differs as well; for example, hedonic treadmill theory 152 claims that every individual has a baseline of hedonic wellbeing and it is primarily 153 determined by the person's inborn dispositions. Consequently, hedonic wellbeing fluctuates 154 temporarily around its baseline following life events (Brickman & Campbell, 1971; Headey & Wearing, 1992; Lykken & Tellegen, 1996). Therefore, hedonic wellbeing may be elevated 155 156 temporarily by an event, such as tourism, but is likely to return fairly quickly to its baseline 157 level. In contrast, Smith and Diekmann (2017) argued that following an event, an increase in 158 eudaimonic wellbeing is sustained for a relatively longer period of time, but they did not 159 provide any empirical evidence to support their argument.

Given these distinct properties, any changes in hedonic and eudaimonic wellbeing
after a holiday are expected to present different trajectories. This study aims to determine if

162 changes in eudaimonic wellbeing do in fact differ from hedonic wellbeing in its response to a
163 holiday and thereby offer valuable insight on how tourism may help people live – and
164 perhaps sustain – a quality life.

165 The third unanswered vital question is: Does the nature of a holiday experience 166 influence the change in wellbeing after the holiday? Most existing studies either just reported 167 the change, if any, in wellbeing by comparing measures of it before and after a holiday, or 168 simply compared the wellbeing of people who engaged in tourism with those who did not 169 (Chen et al., 2013; Gao et al., 2020; Gilbert & Abdullah, 2004; McCabe & Johnson, 2013). 170 From these studies, we only know if change in wellbeing has occurred, but do not know how 171 the change has come about. In other words, we do not know what mechanisms are 172 responsible for bringing about any changes in wellbeing. A limitation of these studies is that 173 they report the effect of tourism on wellbeing at the group level and impose an overall mean 174 trajectory for all tourists. However, the trajectory of change in wellbeing might differ across 175 individuals - the change could be faster, flatter, or slower for some than for others. These 176 variations might be attributed to particular tourism experiences; for example, De Bloom et al. 177 (2013) reported that vacation experiences, especially those that were characterized by 178 pleasure, relaxation, savoring, and control, served to sustain the effect of a vacation on 179 wellbeing. The recent longitudinal study by Kwon and Lee (2020) has revealed that tourism 180 satisfaction influences the change in wellbeing after a holiday. Thus, a tourism experience is 181 very likely to influence the change in wellbeing after the holiday, which is one focus of the 182 present study.

183 To capture individual variations, this study employs Latent Growth Curve modeling 184 to understand how different tourism experiences explain change in wellbeing following a 185 holiday. In other words, this study explores whether people who have different tourism 186 experiences have different trajectories of change in their wellbeing after their holiday. To that 187 end, this study examines three optimal tourism experiences that might influence the change 188 and sustainability in wellbeing after a holiday.

189 **2.2 Optimal tourism experiences**

190 Tourism is essentially defined by experience, which includes everything that people 191 go through when they are traveling on a holiday or vacation (Oh, Fiore, & Jeoung, 2007). 192 Tourism experiences are not, however, homogeneous (Knobloch, Robertson, & Aitken, 193 2014). When people are travelling, their experiences may encompass the feeling of fully 194 functioning, the exercising of human nature, and the fulfillment of human potential, which all 195 reflect the experiential dimension of wellbeing. As such, these experiences specify and 196 embody a flourishing life, and are characterized as optimal tourism experiences. This study 197 uses optimal tourism experiences as an umbrella term to cover diverse tourism experiences 198 that give rise to optimal psychological functioning, rather than a unique construct that 199 identifies a specific tourism experience. Self-Determination theory posits that experiencing 200 competence, autonomy, and relatedness is conducive to wellbeing (Ryan & Deci, 2000, 201 2001), and taking a similar approach, this study argues that occurrences of optimal tourism 202 experiences contribute to wellbeing. Three optimal tourism experiences are considered in this 203 study to explore how they predict change in wellbeing after a holiday.

The first optimal tourism experience is Sense of Meaning in Life, which is "the extent to which people comprehend, make sense of, or see significance in their lives" (Steger, 2009, p.682). Experiencing sense of meaning in life is reported in many tourism activities, such as volunteering (Zahra & McIntosh, 2007), pilgrimage (Nilsson & Tesfahuney, 2016), and adventure (Knobloch et al., 2016).

209 The second optimal tourism experience is Sense of Growth. People develop from 210 experiencing conflicts, difference, and disagreements in specific activities, along with which 211 their thinking, knowledge, and beliefs are involved (Kolb, 2015). The consequence of such 212 experiences could result in the transformation from a fixed and closed mind to a more 213 inclusive, discriminating, open, and reflective one (Mezirow, 2003). Tourism has often been 214 seen as a medium to life extension (Chen et al., 2014); for example, many backpackers 215 (Pearce & Foster, 2007), volunteer tourists (Pan, 2012), and general tourists (Liang et al. 216 2015) have reported a positive transformation arising from an optimal tourism experience.

The third optimal tourism experience is Sense of Positive Relations. Human beings are social animals and social relations are a salient part of our lives (Reis, 2001). Social relations could be recurring interactions between individuals who know each other and the transitory social interactions between strangers; both types of interactions are crucial to wellbeing (Cox et al., 2016; Reis, 2001). Indeed, many tourists enjoy the company of families (Germann, 2016) and the kindness extended by strangers (Filep et al., 2017).

These three types of optimal tourism experiences could be replaced by others, such as the experiences of competence, autonomy, inspiration, and achievement. But in this study, these three types are chosen because they are very often reported by tourists (Chen et al., 2014; Knobloch et al., 2016; Nilsson & Tesfahuney, 2016) and emphasized in wellbeing definitions and theories (Ryan & Deci, 2000, 2001), which suggests their potential to contribute to a change in wellbeing after a holiday.

Building on these types of optimal tourism experiences, this study makes observations of tourists' wellbeing during, in the fourth week after, and in the eighth week after a holiday, and by using Latent Growth Curve model analysis, examines how optimal tourism experiences predict change in hedonic and eudaimonic wellbeing after a holiday.

233 The time lag between two waves of survey is critical in a longitudinal study. When the 234 time lag is too short, any change in X has likely not unfolded completely yet; however, when 235 the time lag is too long, there may be other factors coming into play that contribute to change 236 (Ployhart & Vandenberg, 2010). Thus, the length of the time lag should correspond well with the actual causal lag, but it is almost impossible to know what the actual causal interval is 237 238 (Mitchell & James, 2001). Although most longitudinal studies adopt the time interval based 239 upon pragmatic grounds, such as funding, support, and time that the researchers have, 240 Mitchell and James (2001) suggested that good studies should avoid pragmatic stands, and 241 instead should draw on related theories and extant findings for appropriate time intervals. 242 Chen et al. (2013) have claimed that two months "provided sufficient time to gauge the 243 potential enduring effect of vacation" (p.293). Their longitudinal study has supported this 244 estimation, which revealed that 70.5% growth of global life satisfaction induced by tourism

245 fades out in two months after the tour. Gao et al (2020), in their longitudinal study, revealed 246 that almost 100% growth in global life satisfaction fades out in one month after the tour. 247 Although some decline of wellbeing might still happen after two months following the 248 holiday, the decline is more likely to be influenced by other life events occurring in the 249 interim rather than the tourism experience. Thus, two months are sufficient to trace most of 250 the decline of wellbeing after a holiday and the time interval cannot be too short for a change 251 in wellbeing to unfold. For example, the most recent longitudinal study by Kwon and Lee (2020) did not find any significant change in life satisfaction or affect immediately after the 252 253 trip to 15 days after the trip, but the change was significant when a 30-day time interval was 254 considered. Thus, one or two weeks is too short to observe a significant change in wellbeing, 255 and one month is attested to be an appropriate time interval.

256

3. Methods

To capture changes in wellbeing following a holiday, the study administered three waves of survey to the same tourists over an eight-week period. The first survey was conducted during the holiday, the second was conducted four weeks after the holiday ended, and the third survey was conducted eight weeks after the holiday ended. Information concerning the nature of the holiday experience (i.e., optimal tourism experiences) and the characteristics of the tourists and their trip was gathered in the first survey, while measures of wellbeing were gathered in all three waves to assess changes over time.

265 **3.1 Instrument**

The instrument includes three sections. The first section assessed the occurrence of the three optimal tourism experiences, and the second section assessed tourists' hedonic and eudaimonic wellbeing. The third section collected information about the participants and characteristics of their trip. For all items, modifications were made according to the context under which each survey was executed, a blind back-to-back translation technique was used to ensure equivalence (see Table 1 for details about the items used in the questionnaire). *Wellbeing*

273 Hedonic wellbeing encompasses two aspects – affective and cognitive. The affective 274 aspect was measured by the Scale of Positive and Negative Feelings (Diener et al., 2010), 275 which is a 12-item scale comprising six items respectively in assessing negative and 276 positive feelings. Each item was measured on a 7-point scale ranging from 1 = "Almost never" to 7 = "Almost always". The psychometric properties of this scale have been 277 278 supported by Li et al.'s (2013) study with 21,322 Chinese respondents. The cognitive aspect 279 was measured by the Satisfaction with Life Scale (Diener et al., 1985), which comprised five 280 items and was measured on a 7-point scale ranging from 1 = "Strongly disagree" to 7 =281 "Strongly agree". This scale has been used by many tourism studies that involve Chinese 282 tourists' wellbeing (Chen et al., 2013; Gao et al., 2020). Finally, the Flourishing Scale 283 (Diener et al., 2010) was used to assess eudaimonic wellbeing. This scale covers primary 284 aspects of optimal psychological functioning from the respondent's own point of view and 285 comprises eight items, each of which is also assessed using a 7-poit agreement scale. This 286 study used the Chinese version validated by Tang et al. (2016).

287 *Optimal tourism experiences*

288 The assessment of Sense of Meaning in Life was adapted from the Meaning in Life 289 Questionnaire by Steger et al. (2006), which includes five items. The assessment of Sense of 290 Growth was adapted from the Personal Growth subscale of the Psychological Wellbeing 291 Scale (Ryff, 1989), which includes seven items. The assessment of Sense of Positive 292 Relations was adapted from the subscale for Relatedness, one of the three basic psychological 293 needs recognized in Self-Determination theory (Deci & Ryan, 2000; Gagné, 2003). This 294 subscale includes eight items. For all items, slight modifications were made to the wording to 295 fit the tourism context and all were measured using a 7-point agreement scale. The scales for 296 optimal tourism experiences were only used in the first wave of survey so they captured the 297 experiences *during* the tourists' holidays.

298 Characteristics of the tourists and their holidays

In addition to wellbeing and optimal tourism experiences, the survey also collected information about the participants and their holidays. Demographic information included age,

301 sex, marital status, education, and income. Information concerning the participants' holiday 302 trip included the time participants had already been travelling by the time they completed the 303 first survey, their anticipated time of finishing their current holiday (used to determine the 304 timing of the subsequent two waves of surveys), the type of accommodation where 305 participants most often stayed, and with whom participants were traveling. The time interval 306 between each wave of the survey was four weeks, so it was possible that participants had also 307 travelled between two of the surveys, which might influence their responses to the second 308 and third surveys. Thus, participants were also asked to indicate how many days, if any, they 309 had travelled during the four weeks prior to the second and third surveys respectively. This 310 information was used to control for its possible influence on responses to subsequent surveys.

311 **3.2 Data collection**

Data collection was conducted from mid-September 2018 to early February 2019. The first wave of the survey took place in five cities in China: Lijiang, Dali, Kunming, Chengdu, and Xi'an. These cities were chosen because they are among the most popular destinations for domestic tourists and offered a large variety of attractions, such as culture, nature, food, history, fashion, ethnicity, and both rural and urban features, all of which portends a diverse sample. Further, there are a large number of hostels in these five cities, and they provided the sites where the data were collected.

319 Three waves of surveys were administered so it was necessary to obtain, with 320 permission, participants' contact information in the first wave. Hostels were chosen as the 321 site to conduct the initial survey to gain access to a larger pool of potential participants at a 322 site that encouraged interactions among guests, thereby giving the researcher and potential 323 participants a chance to get acquainted. It is important to note that the hostel guests who were 324 approached were not just low-budget tourists as might be normally expected, but rather, they 325 were very diverse with annual incomes ranging from low to very high. The price for one bed for one night ranged from 15 Yuan up to 99 Yuan, which is relatively expensive especially 326 327 during non-peak season. As a reference, the price for some hotels was less than 60 Yuan for a 328 single room for one night during the time of data collection. The selection of a specific hostel

within each city was based on those with the most online reviews posted on travel agencywebsites.

331 The first wave of the survey was conducted between mid-September and mid-332 December 2018, at 23 hostels in the five cities. A convenience sampling method was used, 333 with the researcher approaching every available guest in a common space at each hostel. 334 Almost all participants provided WeChat for their contact information (only three individuals 335 provided email address instead), which allowed the researcher and participants to chat, post, 336 and transfer money. All questionnaires for the three waves of the survey were administered 337 and completed electronically. The second wave of survey was carried out from mid-October 338 2018 to early January 2019 with every participant contacted in the fourth week following 339 their holiday. The third wave of survey was conducted from early November 2018 to early 340 February 2019, with every participant again contacted in the eighth week after their holiday.

Overall, 228 participants were recruited in the first wave, 215 of them engaged in the second survey, and 212 in the third survey, so the study only lost 16 individuals by attrition. Participants were compensated ± 5 , 10 and 15 Yuan for finishing the first, second, and third surveys respectively. Throughout all three waves, the researcher kept in touch with participants on WeChat by giving thumbs up, liking, or commenting on their posts, which helped to keep attrition low.

347 **3.3 Analysis plan**

This study investigates how optimal tourism experiences predict change in wellbeing after a holiday by employing Latent Growth Curve modeling, which has only recently been introduced to hospitality and tourism research (Hsu, 2014; Xu & Martinez, 2018; Xu et al., 2018). Even though attrition was relatively low in this longitudinal study, it used a Full Information Maximum Likelihood approach to handle missing data, a strategy that has been increasingly used in Structural Equation Modeling to handle incomplete data (Cham et al., 2017; Duncan et al., 2013; Von Hippel, 2016).

Latent Growth Curve modeling is based on the analysis of mean and covariance
 structures, and is used in longitudinal studies to focus on within-individual and inter-

individual changes (Burns et al., 2018; Cheong et al., 2003; Xu & Martinez, 2018). To
achieve this, the minimum sample size for Latent Growth Curve models is 200 at each time
point (Byrne, 2016), which this study met. The Latent Growth Curve modeling analysis was
carried out using the statistical software package AMOS.

361 The Latent Growth Curve model presented in Figure 1 illustrates observed measures 362 of wellbeing (denoted by X₁, X₂, and X₃) taken at each of the three time points. The Intercept 363 and Slope, which are latent factors, together capture the trajectory of the wellbeing change over time. The numerical values assigned to paths leading from the Intercept and Slope 364 indicate fixed parameters and they define the trajectory. The paths leading from the Intercept 365 366 to each of the measures of wellbeing are specified with 1, fully constraining the model to a 367 value of 1 so the value of the intercept remains constant across the three times for each 368 individual (Byrne, 2016). The path from the Slope to X₁ is specified with 0, to X₂ is specified 369 with "a", and to X₃ is specified with "b", which are estimated values and determine the 370 function form of the trajectory. For example, if linear growth is anticipated, "a" could be 371 constrained to 1 and "b" constrained to 2 to reflect equal time intervals between 372 measurements. If quadratic growth is anticipated, the "a" could be constrained to 1 and "b" 373 constrained to 4. If no specific function form is anticipated, "b" could be constrained to 2, 374 and free the second path, this unspecified model lets data determine the value of "a" (Chan & 375 Schmitt, 2000; Serva et al., 2011). While the values assigned to paths are somewhat arbitrary, the specific choice determines the interpretation of the Intercept and Slope factors. 376

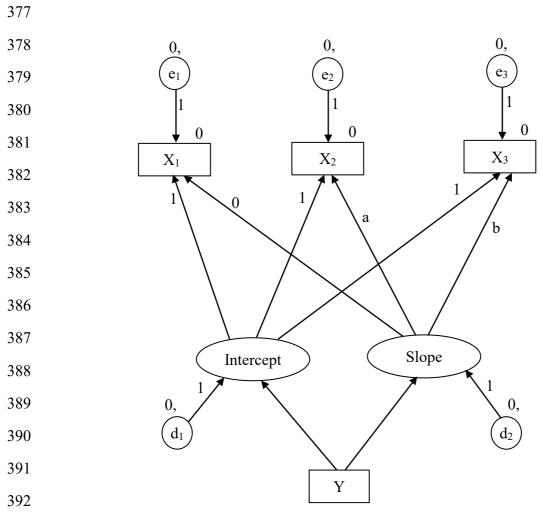


Figure 1. Latent Growth Curve model with the second order predictors

Constructs	Items	Mean	SD	Ske.	Kur.	AVE	CR
Sense of	I feel I have a clear sense of purpose about my life when I am travelling						
Meaning in	I find my life purpose on this trip						
Life	I feel I have a good sense of what makes my life meaningful when I am						
	travelling	4.61	1.04	26	42	.54	.85
	I feel I have a good understanding about my life's meaning when I am travelling						
	I feel I have a clear life orientation when I am travelling						
Sense of	I feel my horizons have been expanded on this trip						
Growth	I feel I am becoming a better person on this trip						
	I feel I am becoming a person I've always wanted to be on the trip						
	I have a more positive attitude to life when I am travelling	5 20	.90	61	.47	.48	.87
	I feel I am becoming more confident to life when I am travelling	5.29	.90	64	.4/	.48	.87
	I feel I am growing when I am travelling						
	How I think about the world has been changed on the trip						
Sense of	I get along well with people I come into contact with on the trip						
Positive	I really like the people I interact with during the trip						
Relations	The people I interact with during the trip seem to don't like me much	5.97	.72	67	.21	.44	.75
	People I interact with during the trip are generally pretty friendly towards me						

394 Table 1. The items, normality, unidimensionality, validity, and reliability of constructs

Positive							
Emotions		5.38/	.87/	55/	.47/	.64/	.91/
Time 1/		5.38/ 4.71/	.87/	30/	.06/	.04/ .64/	
Time 2/	Contented, Happy, Joyful, Pleasant, Good, Positive						.91/
Time 3		4.69	.92	48	31	.65	.92
Negative							
Emotions							
Time 1/		2.35/	.75/	1.1/	2.23/	.46/	.83/
Time 2/	Negative, Unpleasant, Sad, Afraid, Bad, Angry	2.87/	.80/	.54/	.31/	.46/	.83/
Time 3		2.96	.81	.50	37	.52	.86
Life	I am satisfied with my life						
Satisfaction	So far I have gotten the important things I want in my life						
Time 1/	The conditions of my life are excellent generally	3.87/	1.01/	.26/	20/	.46/	.77/
Time 2/	In most ways my life is close to my ideal	4.17/	1.03/	15/	21/	.43/	.79/
Time 3		3.99	1.06	04	73	.42	.78
Flourishing	In my life, I am always optimistic about my future						
0	My social relationships in my life are supportive and rewarding						
Time 1/	In my life, people respect me	5.09/	.82/	16/	27/	.36/	.81/
Time 2/	I lead a purposeful and meaningful life	5.00/	.75/	47/	.18/	.33/	.79/
Time 3	I am competent and capable in the activities that are important to me	4.87	.78	22	65	.37	.82
	I am engaged and interested in daily activities						
	I actively contribute to the happiness and wellbeing of others						
	I am a good person and live a good life						

Note: Four items for the Sense of Positive Relations and one item for the Life Satisfaction were deleted for low factor loadings.

396 SD = Standard Deviation, Ske. = Skewness, Kur. = Kurtosis, AVE = Average Variance Extracted, CR = Composite Reliability

397 The basic Latent Growth Curve model reveals within-individual information about 398 how the construct of interest - in this case, wellbeing - changes over time, and inter-399 individual differences in change over time are estimated by incorporating a second level 400 factor (Y). Two paths flow from the predictor variable "Y" to the Intercept and Slope (see Figure 1), which explains how the Intercept and Slope differ across individuals. To determine 401 402 how the trajectories differ across individuals, the means of the Intercept and Slope factors and 403 their matching variances are first checked to indicate deviations from the mean. While the 404 mean provides information concerning average population values of the Intercept and Slope 405 factors, the variances provide information concerning individual deviations from those 406 population means (Byrne, 2016). Thus, variance in the Intercept indicates whether individuals 407 differ from each other in their initial score on wellbeing, and variance in the Slope indicates 408 whether individuals differ from each other in the rate of change over time. Notably, the 409 variance must be significant before incorporating a second level factor into the model to 410 examine if it predicts the Intercept and Slope factors (Barnes, Reifman, Farrell, & Dintcheff, 411 2000) because non-significant variance indicates that the average trajectory reflects 412 individual trajectories (Serva et al., 2011).

413 **4. Results**

414 **4.1 Characteristics of the sample**

A total of 224 complete and usable questionnaires were completed during the first wave of the survey. Following the second wave of the survey, the usable sample was 211, and following the third survey, it comprised 208 individuals, all of whom completed all three waves of the survey. The characteristics of the sample are presented in Table 2. The adequacy of the sampling was examined by running the Kaiser-Meyer-Olkin (KMO) and Bartlett's test, the value of KMO test is higher than the low limit of .60, and the Bartlett's test of sphericity is significant (Tabachnick & Fidell, 2012).

422

423

Variable	Attribute	Mean / Pct.
Age		26.4
Female		41.9
Marital status	Never married	87.5
	Married	9.4
	Divorced/Separated	3.1
	Widowed	0
Education	High school and lower	8.0
	College or university	82.1
	Master's	8.9
	Ph.D.	0.9
Income (RMB)	<10,00	17.4
	10,000 to 40, 000	11.2
	40000 to 70,000	13.8
	70,000 to 100,000	13.8
	100,000 to 130,000	11.2
	130,000 to 160,000	5.4
	160,000 to 190,000	1.8
	190,000 to 220,000	0.4
	220,000 to 250,000	1.3
	> 250,000	5.4
	Prefer not to say	18.3
Company	Partner	3.0
	Families	4.6
	Friends	21.3
	Alone	71.1
Travel days less th	nan 1 week by the first survey	68.3
Primary	Hostel	86.2
Accommodation	Hotel	8.5
	Airbnb	2.7
	Friend's place	0
	Relative's place	0
	Others	2.7

425 Table 2. Profile of the sample (*N*=224)

426

427 **4.2 Measurement models**

428 Before undertaking the Latent Growth Curve analysis, the normality of each construct

429 was examined, and the criterion was met (see Table 1) (George & Mallery, 2016; West et al.,

430 1995). Confirmatory factor analysis (CFA) was then undertaken using maximum likelihood

431 estimation to assess the unidimensionality, validity, and reliability of measurement models.

To establish the unidimensionality, the standardized factor loadings of all items for the
matching construct should be larger than .40 (Hair et al., 1998). To assess validity and
reliability, the Average Variance Extracted of a construct should be larger than .50, although
the criterion could be extended to .40 if the composite reliability is higher than .60 (Fornell &
Larcker, 1981). In most cases, if any of these criteria was violated, the item with low factor
loading should be deleted, and this procedure continued until all criteria were met. In this
study, this approach was applied (see Table 1).

439 All of the measurement models except the one for Flourishing met the suggested 440 criteria. The average variance extracted of Flourishing for the three surveys was .36, .33, 441 and .37 respectively, each of which was lower than the minimum standard of .40 with the 442 composite reliability larger than .60. Although average variance extracted could be improved 443 by deleting items, this was not done because unlike other scales with different items assessing 444 the same construct, the Flourishing Scale generates a summary measure of respondent's 445 perceived satisfaction based on different essences of life. It provides a composite measure of 446 eudaimonic wellbeing and yields an overview of full functioning across diverse and 447 important domains of life (Diener et al., 2010). The psychometric properties of the 448 Flourishing Scale have been demonstrated by substantive empirical studies (Hone et al., 449 2014; Silva & Caetano, 2013; Sumi, 2014), and the Chinese version of the Flourishing scale 450 validated by Tang et al. (2016) used in this study has shown "excellent internal consistency, 451 solid one-factor structure, strong convergent and discriminant validity, and incremental 452 validity" (p.591).

453 **4.3 Structural models**

This study used Latent Growth Curve modeling to examine the change in wellbeing following a holiday. The first step was variance analysis, which produces the initial score and slope of the construct of interest across time, and depict the trajectory at the group level. The unspecified model recommended by Chan and Schmitt (2000) and Duncan and Duncan (2004) was employed to explore the trajectory form. In addition to the value of intercept and

slope, the variance analysis also served to identify their variation across individuals, whichserved to depict the trajectory at the individual level.

- 461 **4.4 Variance in wellbeing changes across individuals**
- 462 *Change in Positive Emotions*

The Latent Growth Curve model on Positive Emotions fit the data well ($\chi^2 = 3.41$, 463 CFI = .99, RMSEA = .056). The average for Positive Emotions at the time of travelling was 464 465 5.376, and the mean slope was -.345, which indicates a declining trajectory (see Table 3). The significant variance of intercept suggested the incorporation of the optimal tourism 466 experiences explained the inter-individual difference. The results suggested all optimal 467 468 tourism experiences were positive predictors of Positive Emotions when tourists were 469 travelling and the significant variance of the slope suggested the incorporation of the three 470 optimal tourism experiences explained the inter-individual difference. The results for optimal tourism experiences were also all negatively related to the slope, indicating that higher levels 471 472 of optimal tourism experiences lead to slower decline of Positive Emotions (see Figure 2). The regression weight (b = 1.84, p < .001) of the path from the Slope to the second 473 474 observation suggested that Positive Emotions decreased by 11.83% in the first month, then 475 decreased by 1.01% in the second month, so 92.13% of the decline happened in the first 476 month (calculation based on Duncan et al., 2013, p.34) (see Table 4 and Figure 2). 477

479 Table 3. Results of Latent Growth Curve modeling analysis

		Constructs				
		Positive	Negative	Life		
		Emotions	Emotions	Satisfaction	Flourishing	
b of the 2 nd path		1.843***	1.743***	12.207	1.144***	
Intercept		5.376***	2.347***	3.905***	5.095***	
Slope		345***	.301***	.022	108***	
Variance of Intercept		$.408^{***}$.161*	.561***	.433***	
Variance of Slope		$.056^{*}$.023	002	.051**	
The intercept is	SoMiL	.357***	126***	.297***	.369***	
predicted by (b)	SoG	.460***	176***	.327***	.455***	
	SoPR	.663***	421***	.340***	.410***	
The slope is	SoMiL	059*			075**	
predicted by (b)	SoG	077*			099***	
	SoPR	172***			090*	

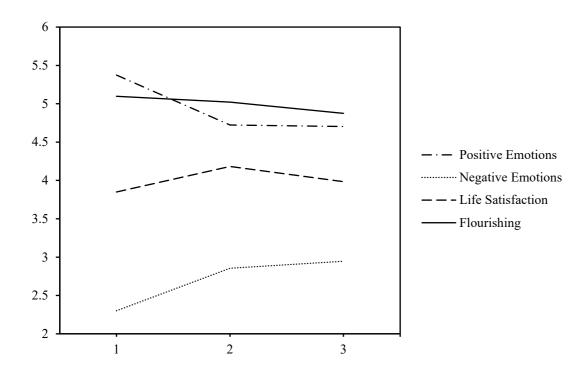
Notes: SoMiL = Sense of Meaning in Life, SoG = Sense of Growth, SoPR = Sense of Positive Relations.

p < .05, p < .01, p < .001

484	Table 4. Percentage change in wellbeing across three observations
-----	---

			Total	Ratio of
Constructs	1 st month	2^{nd} month	change	1 st month
Positive Emotions	-11.83	-1.01	-12.84	92.13
Negative Emotions	+22.35	+3.30	+25.65	87.14
Life Satisfaction	-	-	-	-
Flourishing	-2.42	-1.81	-4.23	57.21

Note: The amount of change is based on the regression weight of the path from Slope to the second observation, the second path for the Life satisfaction is not significant, thus its change is not reported.





489

490 Figure 2. Change in Positive Emotions, Negative Emotions, Life Satisfaction, and Flourishing491 in the two months following a holiday

492 Change in Negative Emotions

493 Consistent with the findings for Positive Emotions, the optimal tourism experience model on Negative Emotions fit the data well ($\chi^2 = .005$, CFI = 1.00, RMSEA = .00). The 494 mean of Negative Emotions at the time of travelling was 2.347, and the mean slope was .301, 495 496 which in this case indicates a growing trajectory (see Table 3), such that all optimal tourism experiences were negative predictors of Negative Emotions. The variance of the slope was 497 498 not significant, indicating that individual trajectories of Negative Emotions were not 499 significantly different from the mean trajectory, thus optimal tourism experiences were not 500 incorporated. The regression weight suggested that Negative Emotions increased by 22.35% 501 in the first month, then increased by 3.30% in the second month, so overall, 87.14% of the 502 growth happened in the first month (see Table 4 and Figure 2).

503 Change in Life Satisfaction

504 The Latent Growth Curve model on Life Satisfaction also fit the data well ($\chi^2 = 2.27$,

505 CFI = 1.00, RMSEA = .025). The mean of Life Satisfaction at the time of travelling was

506 3.905, and the mean slope was not significantly different from zero (see Table 3). This non-

507 significant result might be because Life Satisfaction on average grew in the first month, but 508 then declined in the second month, thereby canceling the initial growth (see Figure 2). The 509 results suggested that all optimal tourism experiences were positive predictors of Life 510 Satisfaction. The variance of the slope was not significant, so individual trajectories of Life 511 Satisfaction were not significantly different from the mean trajectory, and therefore, optimal 512 tourism experiences were not incorporated. The regression weight of the path from the Slope 513 to the second observation was not significant, and the slope was not significant either, thus 514 the amount of change for the two-time intervals and the ratio of change in the first month 515 were not reported (see Table 4).

516 *Change in Flourishing*

Finally, the Latent Growth Curve model on Flourishing also fit the data well ($\chi^2 = .86$, 517 CFI = 1.00, RMSEA = .00). Average Flourishing at the time of travelling was 5.095, and the 518 mean slope was -.108, indicating a small declining trajectory (see Table 3). The results 519 520 suggested that all optimal tourism experiences were positive predictors of Flourishing when 521 tourists were travelling on holiday. The results also revealed that all optimal tourism 522 experiences were negatively related to the slope, indicating that higher level of optimal 523 tourism experiences led to a slower decline of Flourishing (see Figure 2). The regression weight (b = 1.144, p < .001) suggested that Flourishing decreased by 2.42% in the first 524 525 month, then decreased by another 1.81% in the second month, and 57.21% of decline happened in the first month (see Table 4). 526

527 **5. Discussion**

528 Building on previous studies that demonstrated tourism promotes wellbeing, this 529 study focused on how wellbeing changes after a holiday, the amount of change over a 530 specific period of time, how optimal tourism experiences predict the change in wellbeing, and 531 the difference in the nature of change between hedonic and eudaimonic wellbeing.

532 **5.1** How wellbeing changes after a holiday

533 *Positive Emotions.* The results suggest that tourists' Positive Emotions were relatively
534 high during their holiday, but declined in the two months following the trip. The decline was

rapid in the first month, then slowed in the second month, so most of the decline happened inthe first month following the holiday.

Results also suggest that people who experienced greater optimal tourism experiences
had a higher level of Positive Emotions during the trip. These findings reflected the positive
association of optimal tourism experiences to Positive Emotions found in other substantive
studies (Garcia & Siddiqui, 2009; Hicks et al., 2012; Siedlecki et al., 2014; Steger et al.,
2006).

542 *Negative Emotions.* The results suggested that tourists' Negative Emotions were 543 relatively low when they were traveling, but they increased in the two months following a 544 holiday. The growth in Negative Emotions was rapid in the first month, but then slowed in 545 the second month, so most of the growth happened in the first month following a holiday.

The results also suggested that people who had greater optimal tourism experiences reported less Negative Emotions during the trip, which has been reported in other substantive studies that showed negative associations of optimal tourism experiences with Negative Emotions (Park et al., 2010; Sanjuán, 2011; Siedlecki et al., 2014).

550 Life Satisfaction. Results suggested that the average level of Life Satisfaction did not 551 significantly change across the times when three observations were carried out. The reason 552 could be that life satisfaction is a stable construct. Diener (1994) argued that the whole life 553 experience should be considered in the assessment of life satisfaction, and that it would 554 remain relatively stable over time unless life circumstances change considerably (Steger & 555 Kashdan, 2007), in response to an event such as divorce or unemployment (Lucas, 2005; 556 Lucas et al., 2004). Consequently, a single holiday does not represent a significant event that 557 could change life satisfaction dramatically.

Indeed, this relative stability in life satisfaction has been demonstrated by most longitudinal studies that examined tourism's impact on wellbeing. For example, Gilbert and Abdullah (2004) reported the change in life satisfaction from 30.78 before tourism to 31.78 after tourism. Chen et al. (2013) reported the change from 6.85 three days after tourism to 6.42 two months after tourism. McCabe and Johnson (2013) revealed that only one of five

items of life satisfaction was significantly changed by tourism (from 3.66 to 4.07). Thus, life satisfaction was only mildly changed by a tourism experience when it was examined in a time range less than three months following the trip. When a longer period is examined, the stability in life satisfaction is even more apparent; for example, Steger and Kashdan (2007) reported that life satisfaction remained the same one year after the initial assessment.

The analysis also indicated that people who had greater optimal tourism experiences reported somewhat higher Life Satisfaction during the trip, which actually supports the positive association of optimal tourism experiences to Life Satisfaction as revealed in other substantive studies (Butler & Kern, 2016; Siedlecki et al., 2014; Steger et al., 2006). The nonsignificant variance of slope indicated that, no matter how much optimal tourism experiences individuals experienced, Life Satisfaction did not change significantly across individuals, which again points to the stability in Life Satisfaction.

575 *Flourishing*. Turning to eudaimonic wellbeing, the Latent Growth Curve model 576 analysis suggested that people had a high level of Flourishing during the trip, but it declined 577 in the two months following the trip. Differing from hedonic wellbeing, the decline in 578 Flourishing was relatively gradual, with the decline in the first month just a little bit greater 579 than the decline in the second month. Overall, the total change in Flourishing in the two 580 months following the holiday was also much less than the change in hedonic wellbeing.

The analysis also suggested that people who had greater optimal tourism experiences also reported a higher level of Flourishing during the trip, which is also consistent with the positive associations of optimal tourism experiences with Flourishing reported in other substantive studies (Butler & Kern, 2016; Diener et al., 2010; Howell, Passmore, & Holder, 2016).

586 **5.2 Optimal tourism experiences predict the change in wellbeing**

Positive Emotion. The results further revealed that the decline of Positive Emotions
was slower for those individuals who experienced greater optimal tourism experiences during
the trip; in other words, optimal tourism experiences buffered the decline of Positive
Emotions after a holiday. This buffering effect could be attributable to a long-term memory

591 effect of optimal tourism experiences on people's daily life (Campos et al., 2017; Tung & 592 Ritchie, 2011) such that positive emotions would still be triggered when people reflected 593 back on peak moments from the trip. For example, Curtin (2006) reported that one participant 594 had the same wonderful feeling in the water as she did when she reflected upon her 595 experience of swimming with dolphins. Tung and Ritchie (2011) also found that positive 596 emotions related to a holiday were most often recalled. Thus, optimal tourism experiences 597 establish good memories that evoke positive emotions whenever people reflect on them in 598 daily life, which helps to slow their decline following a holiday.

599 Negative Emotions. The results further indicated that what happened during the trip 600 was not necessarily related to how much Negative Emotions people experienced in their daily 601 lives. When people were traveling, optimal tourism experiences just led to the absence of 602 Negative Emotions, which was reflected in their lower levels, and compared to the presence 603 of positive emotions, Negative Emotions acted as a weaker predictor of wellbeing (Kuppens 604 et al., 2008). In other words, the absence of negative emotions while travelling cannot be felt 605 (e.g., we cannot feel "not angry"), so their absence would not be experienced and a memory 606 effect would not result. Thus, the level of Negative Emotions after a holiday is more likely 607 influenced by bothersome factors in people's daily life, and what they experienced during the 608 trip does not spill over and influence their wellbeing.

609 *Flourishing*. The decline of Flourishing after the holiday was slower for individuals 610 who experienced greater optimal tourism experiences during the trip. The reason could be an 611 optimal experience is a "generalization for the best moments of the human being, for the 612 happiest moments of life" (Maslow, 1971, p.101), which are naturally conducive to 613 wellbeing. This argument resonates with the Self-Determination theory that posits 614 experiencing competence, autonomy, and relatedness facilitates both hedonic and eudaimonic 615 wellbeing (Ryan & Deci, 2000, 2001). Having multiple optimal experiences in the long run 616 are additive and contribute to wellbeing (Huta, 2013; Nakamura & Csikszentmihalyi, 2014). 617 This argument is also in line with bottom-up spillover theory (Kim et al., 2015; Neal et al.,

618 1999), which is frequently used to explain the contribution of tourism experiences to

619 wellbeing. Thus, the accumulation of optimal tourism experiences is conducive to wellbeing.

620 **5.3 Differences in the nature of change between hedonic and eudaimonic wellbeing**

Hedonic wellbeing declined rapidly while eudaimonic wellbeing declined slowly after
a holiday. This is in line with recent findings by Su et al. (2020) that the change intensity of
eudaimonic wellbeing after a holiday is significantly lower than that of hedonic wellbeing.

The distinct patterns of decline in hedonic and eudaimonic wellbeing are grounded in their unique properties. Distinct from hedonic wellbeing which is essentially a momentary pleasure (Ryan & Deci, 2001), eudaimonic wellbeing is based on the presence of meaning and self-realization (Ryan & Deci, 2001). It reflects a process of striving to fully functioning and the engagement with existential challenges of life (Keyes et al., 2002), and tends to be more stable once higher eudaimonic wellbeing is attained.

630 The results revealed that Positive Emotions declined and Negative Emotions 631 increased rapidly after a holiday. Emotion is "a reaction to personally significant events" 632 (Parrott, 2001, p.376) and positive emotions are essentially momentary experiences of good 633 feelings, and are typically brief (Fredrickson, 2001). This outcome is consistent with 634 empirical evidence reported by Chen et al. (2013) and Gao et al. (2020), who also reported 635 that positive emotions declined in a short time following a holiday. When people are 636 traveling, positive emotions are dominant and people are less likely to experience negative 637 emotions although sometimes they do (Grappi & Montanari, 2011; Nawijn, 2016). However, 638 when a holiday is over, people typically return immediately to daily life, which re-introduces 639 many factors that can cause negative emotions, such as pressure from work, conflicts in 640 social relations, and boredom from a repetitious life. A holiday provides people with 641 opportunities to relax mentally, avoid the hustle and bustle of daily life, and relax physically 642 (Ryan & Glendon, 1998), and to escape from daily routine and release work pressure (Li & 643 Cai, 2012). Considering the momentary and context-specific nature of negative emotions, the 644 nettlesome factors in daily life might induce the growth of negative emotions rapidly after a 645 holiday.

646 The results also suggested that the sense of Flourishing declined slowly after a 647 holiday. The reason could be that optimal tourism experiences may inspire people on how to live, which then decelerates the decline of eudaimonic wellbeing after a holiday. Tourism 648 649 offers people a liminal space to reflect on the life they live and the changes they can make, 650 and such reflections help people experience moments of vision – a vision of an authentic self 651 and a life worth living – and serves as a catalyst for authentic living after tourism (Brown, 652 2013). More than just a theoretical inference, empirical studies have provided considerable evidence that tourism influences people's life in a positive way, such as finding purpose and 653 654 meaning in life after a significant loss (Knobloch et al., 2016), starting life over with 655 positivity after a cancer diagnosis (Morgan et al., 2015), and becoming more confident in 656 themselves (Cutler et al., 2014). All these transformations arising from optimal tourism 657 experiences will influence how people live after tourism in a positive way, which slows the 658 decline of eudaimonic wellbeing.

659

660 **6. Conclusion**

661 **6.1 Summary**

662 Building on previous studies that illustrated tourism promotes wellbeing and 663 wellbeing fades out after a holiday, this study focused on how wellbeing declines after a 664 holiday, how tourism experiences influence the decline, and differences in the nature of decline between hedonic and eudaimonic wellbeing. To this end, Latent Growth Curving 665 666 model was used, and the results revealed that people who had greater optimal tourism experiences during their trip also reported higher levels of both hedonic and eudaimonic 667 668 wellbeing. The decline in Positive Emotions after the holiday was slower for people who 669 reported a higher level of optimal tourism experiences, and while Negative Emotions grew 670 for the two months following the trip, the growth was very homogeneous, with no inter-671 individual differences being found. Life satisfaction did not change significantly across individuals or over time following the holiday. With respect to eudaimonic wellbeing, the 672

decline of Flourishing was slower for people who reported a higher level of optimal tourismexperiences.

675 The results also suggested that Positive Emotions declined dramatically in the first 676 month and then marginally in the second month, that Negative Emotions increased 677 dramatically in the first month and then marginally in the second month, that Life 678 Satisfaction did not decline or increase significantly in the two months following a holiday, 679 and that the sense of Flourishing declined gradually and marginally in the same two time 680 intervals after a holiday. In conclusion, tourists' wellbeing declines after a holiday, with 681 hedonic wellbeing declining more quickly than eudaimonic wellbeing, but more optimal 682 tourism experiences could serve to buffer the decline.

683 6.2 Implications

684 Psychologists recognize that hedonic and eudaimonic wellbeing are related but 685 distinct aspects of positive psychological functioning, and neither alone depicts a complete 686 picture of wellbeing. However, studies on tourists' wellbeing have been dominated by a 687 consideration only of hedonism, so most of our knowledge on the contribution of tourism to 688 wellbeing is built on this singular perspective. In recent years, tourism scholars have realized 689 the imbalance and started calling for more attention to tourists' eudaimonic wellbeing (Hao & 690 Xiao, 2021), but empirical studies on the effect of tourism on eudaimonic wellbeing are still 691 lacking. This study, by incorporating both hedonic and eudaimonic wellbeing, provides 692 evidence that their patterns of change following a holiday are different, as is the influence of 693 optimal tourism experiences on such changes.

Previous studies that adopted longitudinal and quasi-experimental methods have contributed much to our understanding the impact of tourism on wellbeing. However, all of these studies focused solely on the change in wellbeing before and after the tour, which provide little insight into the nature of the change in wellbeing following a vacation. Thus, by observing wellbeing during, four weeks after, and eight weeks after a holiday, this study has extended the knowledge gained from previous studies to better understand *how* wellbeing changes. Overall, we conclude that tourism can boost hedonic and eudaimonic wellbeing, and

that they both decline in distinct ways following a holiday. Consequently, this study has
helped us better understand the *process* of change in wellbeing.

Further, previous studies just considered the impact of tourism on wellbeing at the group level, and inter-individual differences in the change in wellbeing have been neglected. In other words, we only have come to know how much change in wellbeing was triggered by tourism on average. By incorporating a consideration of optimal tourism experiences to explain the variations in the change in wellbeing across individuals, this study strengthens the connection between tourism experiences and wellbeing after a holiday, and provides evidence on how tourism experience may influence tourists' wellbeing in their daily life.

710 This study is of value to positive psychology research in tourism as well. Positive 711 psychology is concerned with flourishing that entails engagement, meaning, positive 712 relationships, and other aspects that contribute to authentic happiness. Echoing Filep and Laing (2019), this study examined eudaimonic tourist experience through a positive 713 714 psychology lens, and demonstrated that authentic happiness can be attained in eudaimonic 715 tourist experiences, and these experiences further buffer the wellbeing adaptation after a 716 holiday. Positive psychology has provided an important perspective to understanding tourism 717 experiences in depth and helps to explain how tourism facilitates wellbeing. In addition, this 718 research elicits questions concerning why optimal tourism experiences lead to slower decline 719 of wellbeing; in other words, what are the mechanisms that help minimise the decline? The 720 latest development of positive psychology in capitalization (i.e., the cognitive and behavioral 721 strategies for augmenting and prolonging the happiness caused by positive events, such as 722 recalling and sharing) can be used to probe the mechanism (Gable et al., 2004; Kaczmarek et 723 at., 2021). When people have optimal tourism experiences, they tend to recall and share them 724 with friends, which contribute to wellbeing and result in slower adaption. Future studies are 725 recommended to examine this mechanism using a positive psychology perspective.

Methodologically, the longitudinal design has not been prevalent in tourism studies, as most quantitative inquiries are based on cross-sectional data, which restricts their ability to examine the dynamic nature of key variables and their interrelationships (Ployhart &

729 Vandenberg, 2010). Among the limited number of longitudinal tourism studies, most use 730 repeated measures analysis of variance (ANOVA) or hierarchical linear models. The use 731 Latent Growth Curve modeling has shown substantial advantages, such as the ability to 732 examine within-individual and inter-individual changes over time; access to better methods 733 of handling missing data; the ability to assess higher-order constructs in predicting the change 734 of lower-order constructs; the ability to test models with multiple levels of hierarchically 735 structured data; and the opportunity to estimate changes in more complex causal models that 736 involves antecedents, mediators, moderators, and outcomes of change (Tomarken & Waller, 737 2005). Consequently, the application of Latent Growth Curve modeling in this study has 738 provided an example for future studies using longitudinal designs.

739 In addition to academic contributions, this study has practical implications for tourists 740 and tourism managers. This study informs tourists that the effect of a holiday on hedonic 741 wellbeing will fade out in a short time whereas the positive effect on eudaimonic wellbeing is 742 sustained for a longer time. Although pleasure tourism might bring about hedonic wellbeing, 743 such trips are less likely to foster eudaimonic wellbeing. Instead, higher eudaimonic 744 wellbeing is more likely to be derived from more "serious" tourism, such as volunteer 745 tourism or nature tourism – tourism linked more seriously to a purpose or a meaningful life. 746 Therefore, this study could provide insights for tourists in making decisions about the kinds 747 of holidays they want to take and what outcomes they could expect from their choices.

748 For managers of tourism companies, this study helps them rethink what benefits their 749 services could offer to their customers. If the result of their service evaluation is primarily 750 hedonic wellbeing, they should consider how long the benefits may last, so they can target 751 their marketing accordingly. For example, a plan within one month following a holiday might 752 not be the best time point to follow up with ads to their recent customers because they are 753 still likely enjoying the hedonic wellbeing outcomes from their last trips. The ads should be 754 delivered at least two months after the trip because the effect of the most recent holiday on 755 hedonic wellbeing will have dissipated by that time. In addition, if the result of a service 756 evaluation is primarily that eudaimonic wellbeing can been enhanced, managers could adjust

their marketing strategies to place less emphasis on the pleasure, fun, and happiness associated with their tourism products. Rather, they should highlight the eudaimonic benefits such as personal growth, positive relations, knowledge, presence of meaning in life, and selfdiscovery. Such a strategy might attract potential tourists who want to derive more meaning from their tourism experiences.

762 6.3 Limitations and future research

763 Notwithstanding the aforementioned benefits, this study has limitations that can be 764 considered as opportunities for future research. First, while this longitudinal study did reveal 765 how tourism was significantly associated with eudaimonic wellbeing, the evidence does not 766 permit the making of a solid conclusion that tourism *promotes* eudaimonic wellbeing. Thus, 767 this study is limited in that the eudaimonic wellbeing was not observed before the holiday was initiated, so we cannot conclude that eudaimonic wellbeing was enhanced during the 768 769 holiday, even though we have attested that it declined gradually and marginally following the 770 holiday. To understand the whole life cycle of eudaimonic wellbeing and its association with 771 tourism experiences, future studies should assess wellbeing before, during, and after a 772 holiday, and when possible, over multiple time periods.

Second, this study, like previous studies, showed how wellbeing generally declines after a holiday. We still do not know why the decline takes place. Although there have been conjectures that the return to the challenges of daily life counteract any benefits derived from tourism, we need empirical evidence to confirm it. Future studies therefore should consider including aspects and events of people's daily lives that might inhibit or cancel any enhancements to their wellbeing arising from tourism. Doing so could help us better understand how to live a quality life that includes the benefits of tourism.

It is important to note that this longitudinal study did its data collection at the hostels to recruit as many committed participants as possible, which might produce a biased sample. As has turned out in this study, the majority of participants are older than 26, never married, receiving at least college education, traveling alone, and with an annual income under 130,000 RMB. These demographic characteristics could have well influenced the results.

Although they are an important segment of domestic travelers, they cannot represent the
entirety of Chinese tourists. Hence, caution must be exercised before making any
generalizations. In addition, prior research suggests that life events after a tour could
influence the change in wellbeing. While this research has controlled for their potential
influence, future studies are suggested to take more life events into consideration.

792 References

- Barnes, G.M., Reifman, A.S., Farrell, M.P., & Dintcheff, B.A. (2000). The effects of
 parenting on the development of adolescent alcohol misuse: A six-wave latent growth
 model. *Journal of Marriage and Family*, 62(1), 175-186.
- 796 https://doi.org/10.1111/j.1741-3737.2000.00175.x
- Brickman, P.D., & Campbell, D.T. (1971). Hedonic relativism and planning the good society.
 In M. H. Appley (Ed.), *Adaptation-level theory* (pp. 287-305). Academic Press.
- Brown, L. (2013). Tourism: A catalyst for existential authenticity. *Annals of Tourism Research, 40*, 176-190. https://doi.org/10.1016/j.annals.2012.08.004
- Burns, E.C., Martin, A.J., & Collie, R.J. (2018). Understanding the role of personal best (PB)
 goal setting in students' declining engagement: A latent growth model. *Journal of Educational Psychology, 111*(4), 557-572. https://doi.org/10.1037/edu0000291
- 804 Butler, J., & Kern, M.L. (2016). The PERMA-Profiler: A brief multidimensional measure of 805 flourishing. *International Journal of Wellbeing*, 6(3), 1-48. doi:10.5502/ijw.v6i3.526
- Byrne, B.M. (2016). Structural equation modeling with AMOS: Basic concepts, applications,
 and programming. Routledge.
- Campos, A.C., Mendes, J., do Valle, P.O., & Scott, N. (2017). Co-creating animal-based
 tourist experiences: Attention, involvement and memorability. *Tourism Management*,
 63, 100-114. https://doi.org/10.1016/j.tourman.2017.06.001
- 811 Cham, H., Reshetnyak, E., Rosenfeld, B., & Breitbart, W. (2017). Full information maximum
 812 likelihood estimation for latent variable interactions with incomplete indicators.
 813 *Multivariate Behavioral Research*, 52(1), 12-30.
- 814 https://doi.org/10.1080/00273171.2016.1245600
- 815 Chan, D., & Schmitt, N. (2000). Interindividual differences in intraindividual changes in
 816 proactivity during organizational entry: A latent growth modeling approach to
 817 understanding newcomer adaptation. *Journal of Applied Psychology*, 85(2), 190-210.
 818 https://doi.org/10.1037/0021-9010.85.2.190
- Chen, G., Bao, J., & Huang, S. (2014). Developing a scale to measure backpackers' personal
 development. *Journal of Travel Research*, *53*(4), 522-536.
- 821 https://doi.org/10.1177/0047287513500392

- Chen, Y., Lehto, X.Y., & Cai, L. (2013). Vacation and well-being: A study of Chinese tourists. *Annals of Tourism Research*, *42*, 284-310.
 - https://doi.org/10.1016/j.annals.2013.02.003
- Cheng, T.-M., & Lu, C.-C. (2015). The causal relationships among recreational involvement,
 flow experience, and well-being for surfing activities. *Asia Pacific Journal of Tourism Research, 20*(sup1), 1486-1504. https://doi.org/10.1080/10941665.2014.999099
- Cheong, J., MacKinnon, D.P., & Khoo, S.T. (2003). Investigation of mediational processes
 using parallel process latent growth curve modeling. *Structural Equation Modeling*, *10*(2), 238-262. https://doi.org/10.1207/S15328007SEM1002_5
- 831 Cox, D.W., Buhr, E.E., Owen, J.J., & Davidson, E. (2016). Linking partner emotional
 832 support, partner negative interaction, and trauma with psychological distress: Direct

833 and moderating effects. Journal of Social and Personal Relationships, 33(3), 303-319. https://doi.org/10.1177/0265407515574467 834 835 Curtin, S. (2006). Swimming with dolphins: A phenomenological exploration of tourist 836 recollections. International Journal of Tourism Research, 8(4), 301-315. 837 https://doi.org/10.1002/jtr.577 838 Cutler, S.Q., Carmichael, B., & Doherty, S. (2014). The Inca Trail experience: Does the 839 journey matter? Annals of Tourism Research, 45, 152-166. 840 https://doi.org/10.1016/j.annals.2013.12.016 841 De Bloom, J., Geurts, S.A., & Kompier, M.A. (2013). Vacation (after-) effects on employee 842 health and well-being, and the role of vacation activities, experiences and sleep. 843 Journal of Happiness Studies, 14(2), 613-633. DOI 10.1007/s10902-012-9345-3 844 de Bloom, J., Geurts, S.A., Taris, T.W., Sonnentag, S., de Weerth, C., & Kompier, M.A. 845 (2010). Effects of vacation from work on health and well-being: Lots of fun, quickly 846 gone. Work & Stress, 24(2), 196-216. https://doi.org/10.1080/02678373.2010.493385 847 Deci, E.L., & Ryan, R.M. (2000). The "what" and "why" of goal pursuits: Human needs and 848 the self-determination of behavior. Psychological Inquiry, 11(4), 227-268. 849 https://doi.org/10.1207/S15327965PLI1104 01 850 Diener, E. (1994). Assessing subjective well-being: Progress and opportunities. Social Indicators Research, 31(2), 103-157. 851 852 https://link.springer.com/content/pdf/10.1007/BF01207052.pdf Diener, E. (2000). Subjective well-being: The science of happiness and a proposal for a 853 854 national index. American Psychologist, 55(1), 34-43. doi:10.1037/0003-066X.55.1.34 855 Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The satisfaction with life scale. 856 Journal of Personality Assessment, 49(1), 71-75. 857 https://doi.org/10.1207/s15327752jpa4901 13 Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D.-w., Oishi, S., & Biswas-Diener, R. 858 859 (2010). New well-being measures: Short scales to assess flourishing and positive and 860 negative feelings. Social Indicators Research, 97(2), 143-156. DOI 10.1007/s11205-861 009-9493-y 862 Duncan, T.E., & Duncan, S.C. (2004). An introduction to latent growth curve modeling. Behavior Therapy, 35(2), 333-363. https://doi.org/10.1016/S0005-7894(04)80042-X 863 864 Duncan, T.E., Duncan, S.C., & Strycker, L.A. (2013). An introduction to latent variable 865 growth curve modeling: Concepts, issues, and application. Routledge. 866 Filep, S., Macnaughton, J., & Glover, T. (2017). Tourism and gratitude: Valuing acts of 867 kindness. Annals of Tourism Research, 66, 26-36. https://doi.org/10.1016/j.annals.2017.05.015 868 869 Fornell, C., & Larcker, D.F. (1981). Evaluating structural equation models with unobservable 870 variables and measurement error. Journal of Marketing Research, 18(1), 39-50. 871 https://doi.org/10.1177/002224378101800104 Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: The broaden-872 873 and-build theory of positive emotions. American Psychologist, 56(3), 218-226. 874 https://doi.org/10.1037/0003-066X.56.3.218

- 875 Fromm, E. (1978). Primary and secondary process in waking and in altered states of 876 consciousness. Journal of Altered States of Consciousness, 4(2), 115-128.
- 877 Gagné, M. (2003). The role of autonomy support and autonomy orientation in prosocial 878 behavior engagement. Motivation and Emotion, 27(3), 199-223. DOI: 0146-879 7239/03/0900-0199/0
- 880 Gao, M., Havitz, M.E., & Potwarka, L.R. (2020). Exploring the influence of family holiday travel on the subjective well-being of Chinese adolescents. Journal of China Tourism 881 882 Research, 16(1), 45-61. https://doi.org/10.1080/19388160.2018.1513883
- 883 Garcia, D., & Siddiqui, A. (2009). Adolescents' psychological well-being and memory for 884 life events: influences on life satisfaction with respect to temperamental dispositions. 885 Journal of Happiness Studies, 10(4), 407-419. DOI 10.1007/s10902-008-9096-3
- 886 George, D., & Mallery, P. (2016). IBM SPSS statistics 23 step by step: A simple guide and 887 reference. Routledge.
- Germann Molz, J. (2016). Making a difference together: Discourses of transformation in 888 889 family voluntourism. Journal of Sustainable Tourism, 24(6), 805-823. 890 https://doi.org/10.1080/09669582.2015.1088862
- 891 Gilbert, D., & Abdullah, J. (2004). Holidaytaking and the sense of well-being. Annals of 892 Tourism Research, 31(1), 103-121. https://doi.org/10.1016/j.annals.2003.06.001
- 893 Grappi, S., & Montanari, F. (2011). The role of social identification and hedonism in 894 affecting tourist re-patronizing behaviours: The case of an Italian festival. Tourism 895 Management, 32(5), 1128-1140. https://doi.org/10.1016/j.tourman.2010.10.001
- 896 Hair, J.F., Tatham, R.L., Anderson, R.E., & Black, W. (1998). Multivariate data analysis (5th 897 ed.). Prentice Hall.
- 898 Hao, F., & Xiao, H. (2021). Residential tourism and eudaimonic well-being: A 'value-adding' 899 analysis. Annals of Tourism Research, 87. 900
 - https://doi.org/10.1016/j.annals.2021.103150
- 901 Headey, B., & Wearing, A.J. (1992). Understanding happiness: A theory of subjective well-902 being. Longman.
- 903 Hicks, J. A., Trent, J., Davis, W. E., & King, L. A. (2012). Positive affect, meaning in life, 904 and future time perspective: An application of socioemotional selectivity theory. 905 Psychology and Aging, 27(1), 181-189. https://doi.org/10.1037/a0023965
- 906 Hone, L., Jarden, A., & Schofield, G. (2014). Psychometric properties of the Flourishing 907 Scale in a New Zealand sample. Social Indicators Research, 119(2), 1031-1045. DOI 908 10.1007/s11205-013-0501-x
- 909 Howell, A.J., Passmore, H.-A., & Holder, M.D. (2016). Implicit theories of well-being 910 predict well-being and the endorsement of therapeutic lifestyle changes. Journal of 911 Happiness Studies, 17(6), 2347-2363. DOI 10.1007/s10902-015-9697-6
- 912 Hsu, L. (2014). Effectiveness of English for specific purposes courses for non-English 913 speaking students of hospitality and tourism: A latent growth curve analysis. Journal
- 914 of Hospitality, Leisure, Sport & Tourism Education, 15, 50-57.
- 915 https://doi.org/10.1016/j.jhlste.2014.05.001

- Huta, V. (2013). Pursuing eudaimonia versus hedonia: Distinctions, similarities, and
 relationships. In A. S. Waterman (Ed.), *The best within us: Positive psychology perspectives on eudaimonia* (pp. 139-158). APA Books.
- Keyes, C.L., Shmotkin, D., & Ryff, C.D. (2002). Optimizing well-being: The empirical
 encounter of two traditions. *Journal of Personality and Social Psychology*, 82(6),
 1007-1022. http://dx.doi.org/10.1037/0022-3514.82.6.1007
- Kim, H.J., Lee, T.J., & Ko, T.G. (2016). Satisfaction and subjective well-being of health
 tourists: The case of Japanese and Korean tourists. *Journal of Travel & Tourism Marketing*, 33(5), 742-756. <u>https://doi.org/10.1080/10548408.2016.1167392</u>
- Kim, H., Lee, S., Uysal, M., Kim, J., & Ahn, K. (2015). Nature-based tourism: Motivation
 and subjective well-being. *Journal of Travel & Tourism Marketing*, 32(sup1), S76S96. <u>https://doi.org/10.1080/10548408.2014.997958</u>
- Kim, H., Woo, E., & Uysal, M. (2015). Tourism experience and quality of life among elderly
 tourists. *Tourism Management*, 46, 465-476.
- 930 <u>https://doi.org/10.1016/j.tourman.2014.08.002</u>
- Knobloch, U., Robertson, K., & Aitken, R. (2014). (Mis)Understanding the nature of tourist
 experiences. *Tourism Analysis*, 19(5), 599-608.
- 933 <u>https://doi.org/10.3727/108354214X14116690097891</u>
- Knobloch, U., Robertson, K., & Aitken, R. (2016). Experience, emotion, and eudaimonia: A
 consideration of tourist experiences and well-being. *Journal of Travel Research*,
 56(5), 651-662. <u>https://doi.org/10.1177/0047287516650937</u>
- Kolb, D.A. (2015). *Experiential learning: Experience as the source of learning and development* (2nd ed.). Pearson Education.
- Kuppens, P., Realo, A., & Diener, E. (2008). The role of positive and negative emotions in
 life satisfaction judgment across nations. *Journal of Personality and Social Psychology*, 95(1), 66-75. https://doi.org/10.1037/0022-3514.95.1.66
- 942 Li, M., & Cai, L.A. (2012). The effects of personal values on travel motivation and
 943 behavioral intention. *Journal of Travel Research*, *51*, 473-487.
 944 https://doi.org/10.1177/0047287511418366
- Liang, K., Caton, K., & Hill, D.J. (2015). Lessons from the road: Travel, lifewide learning,
 and higher education. *Journal of Teaching in Travel & Tourism*, 15(3), 225-241.
 https://doi.org/10.1080/15313220.2015.1059307
- Lucas, R.E. (2005). Time does not heal all wounds: A longitudinal study of reaction and
 adaptation to divorce. *Psychological Science*, *16*(12), 945-950.
 https://doi.org/10.1111/j.1467-9280.2005.01642.x
- Lucas, R.E., Clark, A.E., Georgellis, Y., & Diener, E. (2004). Unemployment alters the set
 point for life satisfaction. *Psychological Science*, 15(1), 8-13.
 <u>https://doi.org/10.1111/j.0963-7214.2004.01501002.x</u>
- Lykken, D., & Tellegen, A. (1996). Happiness is a stochastic phenomenon. *Psychological Science*, 7(3), 186-189. <u>https://doi.org/10.1111/j.1467-9280.1996.tb00355.x</u>
- 956 Maslow, A.H. (1971). The farther reaches of human nature. Viking.

957 McCabe, S., & Johnson, S. (2013). The happiness factor in tourism: Subjective well-being 958 and social tourism. Annals of Tourism Research, 41, 42-65. 959 https://doi.org/10.1016/j.annals.2012.12.001 960 Mezirow, J. (2003). Transformative learning as discourse. Journal of Transformative 961 *Education*, 1(1), 58-63. https://doi.org/10.1177/1541344603252172 962 Morgan, N., Pritchard, A., & Sedgley, D. (2015). Social tourism and well-being in later life. 963 Annals of Tourism Research, 52, 1-15. https://doi.org/10.1016/j.annals.2015.02.015 964 Nakamura, J., & Csikszentmihalyi, M. (2014). The concept of flow. In M. Csikszentmihalyi 965 (Ed.), Flow and the foundations of positive psychology (pp. 239-263). Springer. 966 Nawijn, J. (2016). Positive psychology in tourism: A critique. Annals of Tourism Research, 967 56, 151-153. https://doi.org/10.1016/j.annals.2015.11.004 968 Neal, J.D., Sirgy, M.J., & Uysal, M. (1999). The role of satisfaction with leisure 969 travel/tourism services and experience in satisfaction with leisure life and overall life. 970 Journal of Business Research, 44(3), 153-163. https://doi.org/10.1016/S0148-971 2963(97)00197-5 972 Nilsson, M., & Tesfahuney, M. (2016). Performing the "post-secular" in Santiago de 973 Compostela. Annals of Tourism Research, 57, 18-30. 974 https://doi.org/10.1016/j.annals.2015.11.001 Oh, H., Fiore, A.M., & Jeoung, M. (2007). Measuring experience economy concepts: 975 976 Tourism applications. Journal of Travel Research, 46(2), 119-132. 977 https://doi.org/10.1177/0047287507304039 978 Pan, T.-J. (2012). Motivations of volunteer overseas and what have we learned-The 979 experience of Taiwanese students. Tourism Management, 33(6), 1493-1501. 980 https://doi.org/10.1016/j.tourman.2012.02.003 981 Park, N., Park, M., & Peterson, C. (2010). When is the search for meaning related to life 982 satisfaction? Applied Psychology: Health and Well-Being, 2(1), 1-13. 983 https://doi.org/10.1111/j.1758-0854.2009.01024.x 984 Parrott, W.G. (2001). The nature of emotion. In A. Tesser & N. Schwarz (Eds.), Blackwell 985 handbook of social psychology: Intraindividual processes (pp. 375-390). Blackwell. Pearce, P.L., & Foster, F. (2007). A "university of travel": Backpacker learning. Tourism 986 987 Management, 28(5), 1285-1298. https://doi.org/10.1016/j.tourman.2006.11.009 988 Ployhart, R.E., & Vandenberg, R.J. (2010). Longitudinal research: The theory, design, and 989 analysis of change. Journal of Management, 36(1), 94-120. 990 https://doi.org/10.1177/0149206309352110 991 Reis, H.T. (2001). Relationship experiences and emotional well-being. In C.D. Ryff & B.H. 992 Singer (Eds.), Emotion, social relationships, and health (pp. 57-86). Oxford 993 University Press. 994 Ryan, C., & Glendon, I. (1998). Application of leisure motivation scale to tourism. Annals of 995 Tourism Research, 25(1), 169-184. https://doi.org/10.1016/S0160-7383(97)00066-2 996 Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic 997 motivation, social development, and well-being. American Psychologist, 55(1), 68-78. 998 DOI: 10.1037110003-066X.55.1.68

- Ryan, R.M., & Deci, E.L. (2001). On happiness and human potentials: A review of research
 on hedonic and eudaimonic well-being. *Annual Review of Psychology*, 52(1), 141166. <u>https://doi.org/10.1146/annurev.psych.52.1.141</u>
- Ryff, C.D. (1989). Happiness is everything, or is it? Explorations on the meaning of
 psychological well-being. *Journal of Personality and Social Psychology*, *57*(6), 1069 1081. <u>https://doi.org/10.1037/0022-3514.57.6.1069</u>
- Sanjuán, P. (2011). Affect balance as mediating variable between effective psychological
 functioning and satisfaction with life. *Journal of Happiness Studies*, *12*(3), 373-384.
 DOI 10.1007/s10902-010-9199-5
- Serva, M.A., Kher, H.V., & Laurenceau, J.-P. (2011). Using latent growth modeling to
 understand longitudinal effects in MIS theory: A primer. *Communications of the Association for Information Systems*, 28, 213-232.
 https://doi.org/10.17705/100415.02914
- 1011 <u>https://doi.org/10.17705/1CAIS.02814</u>
- Siedlecki, K.L., Salthouse, T.A., Oishi, S., & Jeswani, S. (2014). The relationship between
 social support and subjective well-being across age. *Social Indicators Research*, *117*(2), 561-576. DOI 10.1007/s11205-013-0361-4
- Silva, A.J., & Caetano, A. (2013). Validation of the flourishing scale and scale of positive and
 negative experience in Portugal. *Social Indicators Research*, *110*(2), 469-478. DOI
 10.1007/s11205-011-9938-y
- Smith, M.K., & Diekmann, A. (2017). Tourism and wellbeing. *Annals of Tourism Research*,
 66, 1-13. <u>https://doi.org/10.1016/j.annals.2017.05.006</u>
- Steger, M.F. (2009). Meaning in Life. In S.J. Lopez & C.R. Snyder (Eds.), *Oxford handbook of positive psychology* (2nd ed., pp. 679-688). Oxford University Press.
- Steger, M.F., Frazier, P., Oishi, S., & Kaler, M. (2006). The meaning in life questionnaire:
 Assessing the presence of and search for meaning in life. *Journal of Counseling Psychology*, 53(1), 80-93. doi:10.1037/0022-0167.53.1.80
- Steger, M.F., & Kashdan, T.B. (2007). Stability and specificity of meaning in life and life
 satisfaction over one year. *Journal of Happiness Studies*, 8(2), 161-179. DOI
 10.1007/s10902-006-9011-8
- Su, L., Huang, S., & Chen, X. (2015). Effects of service fairness and service quality on
 tourists' behavioral intentions and subjective well-being. *Journal of Travel & Tourism Marketing*, 32(3), 290-307. https://doi.org/10.1080/10548408.2014.896766
- Sumi, K. (2014). Reliability and validity of Japanese versions of the Flourishing Scale and
 the Scale of Positive and Negative Experience. *Social Indicators Research*, *118*(2),
 601-615. DOI 10.1007/s11205-013-0432-6
- Tabachnick, B.G., & Fidell, L.S. (2012). Using multivariate statistics (6th ed.). Pearson
 Education.
- Tang, X., Duan, W., Wang, Z., & Liu, T. (2016). Psychometric evaluation of the simplified
 Chinese version of flourishing scale. *Research on Social Work Practice*, 26(5), 591599. <u>https://doi.org/10.1177/1049731514557832</u>

1039	Tomarken, A.J., & Waller, N.G. (2005). Structural equation modeling: Strengths, limitations,
1040	and misconceptions. Annul Review of Clinical Psychology, 1, 31-65.
1041	https://doi.org/10.1146/annurev.clinpsy.1.102803.144239
1042	Tung, V.W.S., & Ritchie, J.B. (2011). Exploring the essence of memorable tourism
1043	experiences. Annals of Tourism Research, 38(4), 1367-1386.
1044	https://doi.org/10.1016/j.annals.2011.03.009
1045	Von Hippel, P.T. (2016). New confidence intervals and bias comparisons show that maximum
1046	likelihood can beat multiple imputation in small samples. Structural Equation
1047	Modeling: A Multidisciplinary Journal, 23(3), 422-437.
1048	https://doi.org/10.1080/10705511.2015.1047931
1049	Waterman, A.S. (1993). Two conceptions of happiness: Contrasts of personal expressiveness
1050	(eudaimonia) and hedonic enjoyment. Journal of Personality and Social Psychology,
1051	64(4), 678-691. https://doi.org/10.1037/0022-3514.64.4.678
1052	West, S.G., Finch, J.F., & Curran, P.J. (1995). Structural equation models with nonnormal
1053	variables: Problems and remedies. In R.H.Hoyle (Ed.), Structural equation modeling:
1054	Concepts, issues, and applications (pp. 56-75). Sage.
1055	Xu, S., & Martinez, L. (2018). Applications of latent growth curve modeling: a research
1056	agenda for hospitality management. International Journal of Contemporary
1057	Hospitality Management, 30(11), 3268-3286. https://doi.org/10.1108/IJCHM-10-
1058	<u>2017-0650</u>
1059	Xu, S., Van Hoof, H., & Martinez, L.R. (2018). The use of latent growth curve modeling in
1060	measuring student perceptions about mandatory work experiences. Journal of
1061	Hospitality & Tourism Education, 30(4), 241-249.
1062	https://doi.org/10.1080/10963758.2018.1480379
1063	Zahra, A., & McIntosh, A.J. (2007). Volunteer tourism: Evidence of cathartic tourist
1064	experiences. Tourism Recreation Research, 32(1), 115-119.
1065	https://doi.org/10.1111/j.1745-6584.2005.00098.x