



# The Dual Effects of Passion on Leisure Wellbeing: Toward a Theory of Engagement in Diverse Leisure Activities

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## Abstract

We report on a study that examines the effects of type of leisure passion (harmonious vs. obsessive passion) on leisure engagement diversity, which in turn contributes to leisure wellbeing. This study also tests whether the relationship between engagement diversity and leisure wellbeing is moderated by participants' age. Our study involved a survey of leisure sport participants in Korea (n=501), and the results indicate that harmonious passion increases diversity in leisure engagement, which enhances wellbeing, especially for the young. This study also demonstrated that obsessive passion decreases diversity in leisure engagement which, in turn, decreases leisure wellbeing, especially for the young. Decreased diversity did not have a significant negative impact on leisure wellbeing for the old. The study findings also indicate that satisfaction in other life domains (family, job, and health) spills over onto leisure life to influence leisure wellbeing, as predicted. Theoretical and managerial implications are discussed.

**Keywords** Harmonious passion · Obsessive passion · Leisure engagement diversity · Leisure wellbeing · Subjective wellbeing · Domain satisfaction · Age

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## Introduction

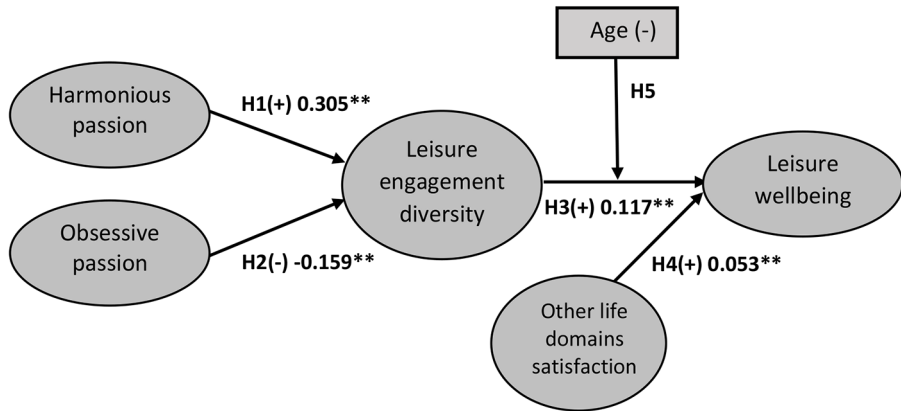
The theory of passion (Vallerand, 2015; Vallerand et al., 2003) asserts that people can experience two different types of passion toward a leisure activity: harmonious and obsessive passion. Harmonious passion refers to a motivational state that stems from an autonomous interest in an activity resulting in positive emotions and general wellbeing. In contrast, obsessive passion stems from a controlled internalization of the activity that undermines flexible engagement in the activity and constitutes a threat to wellbeing.

Studies have identified various theoretical mechanisms linking passion type and leisure wellbeing. Specifically, research has shown that harmonious passion is positively associated with subjective and psychological wellbeing (e.g., Vallerand et al., 2003, 2010), savoring experiences (e.g., Schellenberg & Gaudreau, 2020), and satisfaction in other life domains (e.g., Stenseng, 2008). Additionally, the positive effect of harmonious passion on wellbeing is explained using self-determination theory (e.g., Stenseng, 2008; Vallerand et al., 2003). That is, harmonious passion leads to wellbeing by heightening self-determined and autonomous engagement in the activity, increasing control over the choice of leisure activities, enhancing self-esteem, and elevating vitality.

Research also found that obsessive passion is closely associated with anxiety and depression (e.g., Philippe et al., 2009), experience of negative emotions and engagement of escapist behavior (e.g., Stenseng et al., 2011). Evidence also suggests that obsessive passion is negatively related or unrelated to wellbeing (e.g., Philippe et al., 2009). This may be due to activity addiction and intrapersonal conflict (e.g., Stenseng et al., 2011), lack of control over the leisure activities (e.g., Mageau et al., 2005), reduced self-esteem (e.g., Vallerand et al., 2003), and decreased vitality (e.g., Curran et al., 2015).

Despite extensive research that examined the impact of leisure passion on overall leisure engagement and leisure wellbeing, we still do not fully understand how passion for a leisure activity influence *diversity* of leisure engagement and how diversity influences leisure wellbeing. This study focuses on diversity of leisure engagement (e.g., the number of different leisure activities the individual engages in) as a theoretical mechanism linking passion type with leisure wellbeing. Thus, the *first* goal of this study is to test the theoretical mechanism involving diversity of leisure engagement linking passion type with leisure wellbeing. We make a theoretical case that harmonious passion contributes to leisure wellbeing because such passion motivates the individual to engage in diverse leisure activities, which in turn leads to increased leisure wellbeing. Conversely, obsessive passion detracts from leisure wellbeing because this type of passion decreases the motivation to engage in diverse leisure activities, thus diminishing leisure wellbeing (see Fig. 1).

While research on leisure engagement shows that diversity of leisure engagement has a direct and positive influence on leisure wellbeing (Kuykendall et al., 2015; Lee et al., 2020), it is also important to identify the moderating factors influencing this effect. We argue that engagement in diverse leisure activities contributes more to leisure wellbeing for the young (than the more mature) because of the expressed vitality,



**Fig. 1** The Conceptual Model with Major Results

novelty seeking, and enthusiasm of young people. Thus, the *second* goal of this study to test the moderating effect of age (see Fig. 1).

In sum, the literature on leisure passion indicates that harmonious leisure passion exerts a positive influence on leisure wellbeing while obsessive passion produces a negative effect. Research also suggests that leisure engagement may mediate the relationship between leisure passion and leisure wellbeing. Yet, we still do not know much about engagement diversity as a possible mediating mechanism. Specifically, we do not know much about (1) how leisure passion influences diversity in leisure engagement, and (2) under what conditions engagement diversity influences leisure wellbeing. As such, we develop and test a model that makes the case for the mediating effect of leisure engagement diversity to explain the effects of leisure passion (harmonious versus obsessive) on leisure wellbeing. Specifically, we argue that harmonious leisure passion has a positive effect on engagement diversity while obsessive leisure passion has a negative effect. We also argue that leisure engagement diversity has a positive influence on leisure wellbeing, moderated by age (the effect is stronger for younger than older participants). See Fig. 1.

Supportive data from this study should help providers of leisure activities with practical guidelines to enhance leisure participants' wellbeing by configuring activities to induce harmonious, not obsessive passion. Furthermore, empirical support should encourage providers to offer a diverse set of activities that can effectively contribute to leisure wellbeing—the more diverse the activities the better. Moreover, supportive data may help providers invest their resources to cater to young participants by offering a diverse set of activities, more so than the more mature.

## Conceptual Background

In this section, we will first make the distinction between two types of leisure passion, namely harmonious versus obsessive. We will discuss the evidence suggesting that harmonious passion contributes to leisure wellbeing while obsessive passion

does not. We will then describe the concept of engagement in leisure activities and the research related to the effects of leisure engagement on leisure wellbeing (see Table 1).

### Leisure Passion: Harmonious Versus Obsessive Passion

Passion is defined as a strong inclination toward an activity that one finds important and likes (or even loves), and to which one devotes much time and energy (Vallerand, 2015). That is, passion refers to a strong desire to engage in an activity that one likes, values, pursues on a regular basis, and is part of one's identity. Specifically, there are two different types of passion: harmonious and obsessive passion.

Here are key differences between harmonious passion and obsessive passion. First, harmonious passion is self-determined, while obsessive passion is motivated by interpersonal pressure or controlled by intrapersonal psychic forces (e.g., Stenseng, 2008). In other words, harmonious passion leads to autonomous and free engagement in the leisure activity, while obsessive passion leads to involuntary and pressured engagement (e.g., Mageau et al., 2005). Second, harmonious passion results in low interference in other life domains (e.g., work life, financial life, social life, and family life), while obsessive passion often results in high interference resulting in role conflict (e.g., Ratelle et al., 2004). Third, individuals motivated by harmonious passion are likely to psychologically internalize the leisure activity—think that the activity is in line with their core values and self-concept (e.g., Garst et al., 2001). In contrast, individuals driven by obsessive passion are less likely to internalize the activity. Fourth, harmonious passion is positively related to wellbeing, whereas obsessive passion is not (e.g., Stenseng & Phelps, 2013). Specifically, harmonious passion results in adaptive behavioral outcomes such as life satisfaction, positive emotions, and flow; while obsessive passion results in maladaptive outcomes such as burnout, negative affect and rumination (see meta-analysis by Curran et al. (2015)).

### Positive Effects of Harmonious Passion on Leisure Wellbeing

Meta-analytic research indicates that harmonious passion predicts wellbeing, whereas obsessive passion predicts ill-being (Curran et al., 2015). The research suggests that harmonious passion exerts a positive effect on wellbeing for the following reasons.

**Table 1** Passion Type and Diversity in Leisure Engagement

	Harmonious passion	Obsessive passion
Self determination	Self-determined	Less voluntary (addition/escape)
Control over the activity	High	Low
Role conflicts	Low	High
Self esteem	High	Low
Vitality	High	Low
Positive affect	High (savoring)	Low (anxiety/rumination)
Social support	High	Low
Diversity in leisure engagement	High	Low

First, harmonious passion is positively associated with flow experiences and increased wellbeing (e.g., Carpentier et al., 2012). With harmonious passion, an activity is pursued with a mindful awareness of one's present experiences and with a greater capacity to become fully immersed in the activity. That is, harmonious passion induces flow (i.e., perceptions of control, challenge and skill balance, and absence of public self-consciousness) while the individual is engaged in the leisure activity.

Second, harmonious passion plays an important role in savoring—a psychological process involving an effort to maintain or enhance positive emotions (e.g., Schellenberg & Gaudreau, 2020). By being mindful and completely immersed in an activity, individuals high on harmonious passion toward an activity are likely to savor the positive experiences.

Third, harmonious passion is associated with increased positive outcomes in other life domains (e.g., Stenseng, 2008). Specifically, individuals high on harmonious passion are better in balancing leisure life with other life domains; as such, they are likely to be more flexible in the way they engage with their activities. This is not the case for individuals high on obsessive passion.

### **Negative Effects of Obsessive Passion on Leisure Wellbeing**

Research has also documented the negative impact of obsessive passion on leisure wellbeing (e.g., Philippe et al., 2010). Specifically, obsessive passion is associated with higher levels of anxiety and depression but is negatively related or unrelated to wellbeing. Why?

First, with obsessive passion, the activity is not under the person's control. It is as if the activity controls the person. Such pressured engagement prevents the person from fully focusing on the task at hand making it difficult to disengage from the activity (Philippe et al., 2009).

Second, people high on obsessive passion tend to ruminate about their passionate activity while engaging in other activities, which in turn detracts from successful performance in these activities, leading to illbeing (e.g., Carpentier et al., 2012). In other words, individuals with obsessive passion are so preoccupied with their passionate activity to the extent that this preoccupation prevents them from fully engaging in other life domains. They become addicted to their favorite activity to the extent that they become detracted from pursuing wellbeing in other roles and domains (e.g., Ratelle et al., 2004; Vallerand et al., 2003).

Third, evidence suggests that obsessive passion is associated with decreased levels of savoring experiences and greater dampening of positive emotions (e.g., Schellenberg & Gaudreau, 2020). That is, individuals with obsessive passion often find it difficult to be mindful and fully absorbed in the activity—they cannot savor positive experiences that can be induced from the leisure activity. In addition, individuals with obsessive passion often dampen their positive emotions to maintain emotional stability during activity engagement (e.g., Vallerand, 2015), thus facilitating goal attainment (e.g., Tamir, 2009). Relatedly, they often attempt to dampen the prospect of experiencing positive emotions from the activity because of their superstitious belief that experiencing positive feelings would increase the chances of something bad would occur (e.g., Miyamoto & Ma, 2011).

Finally, obsessive passion for a leisure activity is associated with activity addiction and escapist tendencies, which take a toll on wellbeing (e.g., De La Vega et al., 2016; Vallerand et al., 2010). That is, a leisure activity often conflicts with other activities in other life domains, resulting in low satisfaction in the other domains. Succinctly, obsessive passion for a certain activity makes it difficult to be mindful to the social roles in other life domains.

## Leisure Engagement

Leisure engagement is defined as the amount of time and frequency individuals participate in a leisure activity (Kuykendall et al., 2015). Engagement can take two forms: structural and subjective. *Structural engagement* refers to engagement in what most other people think as leisure activities (e.g., social activities, sports, games, cultural experiences). This type of engagement can be further characterized in terms of diversity, frequency, quantity, and intensity. *Diversity* of leisure engagement refers to how many different leisure activities an individual engages in. *Frequency* refers to how often an individual participates in a leisure activity. *Quantity* refers to how many hours an individual spends on a leisure activity. *Intensity* refers to how much effort an individual spends on a given activity. In contrast, *subjective engagement* refers to engagement in leisure activities based on what the participant believes as leisure activities. Subjective engagement in leisure activities is further characterized in terms of diversity, frequency, duration, and financial investment (Kuykendall et al., 2015).

Research on leisure engagement indicates that increased leisure engagement contributes to wellbeing (e.g., Ateca-Amestoy et al., 2008). This is because increased leisure engagement provides participants with opportunities to experience positive emotions (e.g., Havitz & Mannell, 2005), a positive self-concept (e.g., Iwasaki, 2007), satisfaction in social life (e.g., Kemperman & Timmermans, 2008), reduced stress (e.g., Wang & Wong, 2014), and increased physical and psychological health (e.g., Sala et al., 2019).

## Our Theoretical Model and Hypotheses

The conceptual model developed in this study makes the case that harmonious passion (obsessive passion) has a positive (negative) predictive effect on leisure engagement diversity. The model also posits that engagement diversity has a positive predictive effect on leisure wellbeing, moderated by age. Specifically, the diversity effect weakens with age (see Fig. 1). We will discuss these relationships in some depth below.

### Theory of Leisure Engagement Diversity

Our theory of engagement diversity is based on the notion that leisure wellbeing can be enhanced through engagement in diverse leisure activities, which in turn is motivated by harmonious passion.

**The Effect of Leisure Engagement Diversity of Leisure Wellbeing** Empirical studies found that the variety of activities engaged during the vacation is positively associated with satisfaction in leisure life and psychological wellbeing (Spinney et al., 2009; Wei & Milman, 2002). This effect is explained as follows.

First, diverse leisure engagement contributes to leisure wellbeing because engaging in diverse leisure activities allows participants to experience a wider range of need satisfaction and to substitute one activity with another. Participants may experience a satisfaction limit by engaging in only one leisure activity; as such, they may not have opportunities to satisfy a wide range of needs from this one leisure activity. Leisure wellbeing is effectively enhanced when participants experience satisfaction of multiple needs—both basic needs (physiological and safety needs) and growth needs (social, esteem, self-actualization, and intellectual as well as creative needs) (Sirgy, 2021, Chap. 12; Sirgy, 2022, Chaps. 3 and 4).

Second, diverse leisure engagement contributes to leisure wellbeing because diverse leisure activities protect participants from hedonic adaptation or satiation from the same leisure activity. Engaging in the same leisure activities is likely to result in hedonic adaptation from the same leisure activities (Kuykendall et al., 2015; Newman et al., 2014; Sirgy, 2022, Chap. 5). Experiences repeated over and over gradually result in less stimulation and less happiness (Carruthers & Hood, 2004). Thus, it is important for individuals to engage in a variety of leisure activities to experience maximum leisure wellbeing (Lykken, 2000).

**The Effect of Harmonious Passion on Leisure Engagement Diversity** We make the argument that individuals motivated by harmonious (not obsessive) passion tend to seek diversity in their engagement with leisure activities. Why? Individuals with harmonious passion are motivated to enhance positive affect and vitality providing an impetus to engage in diverse leisure activities (Sonnentag, 2001; Van Hooff et al., 2011). That is, individuals motivated by harmonious passion are likely to possess psycho-social resources such as high self-esteem and social support. As such, they have enough energy and vitality motivating them to engage in diverse leisure activities. We will elaborate on our theory of leisure engagement diversity in some detail below.

### **The Positive Effect of Harmonious Passion on Leisure Engagement Diversity**

We submit that harmonious passion has a positive influence on diversity in leisure engagement for the following reasons. First, harmonious passion stems from self-determined motivation while obsessive passion is driven by interpersonal pressure or controlled intrapersonal reasons (Stenseng, 2008; Vallerand et al., 2003). As participants with harmonious passion are self-determined and exert control over their choice of activities, they freely choose to engage in diverse leisure activities (Mageau et al., 2009).

Second, harmonious passion results in low interference into other life domains while obsessive passion often results in high interference into other life domains and role conflict (Seguin-Levesque et al., 2003). As participants with harmonious passion

are less likely to experience low role conflict or financial stress and have high social support for their leisure activities, they are likely to freely engage in diverse leisure activities.

Third, people with harmonious passion tend to experience adaptive outcomes such as life satisfaction, positive affect, and flow; while people with obsessive passion experience maladaptive outcomes such as burnout, negative affect and rumination (Curran et al., 2008; Vallerand, 2015). Given that harmonious passion participants tend to experience high levels of positive affect and vitality (e.g., Curran et al., 2015), they are most likely motivated to engage in diverse leisure activities.

Based on the discussion, we will test the following hypothesis:

**H1:** Harmonious passion is a positive predictor of diversity in leisure engagement.

### **The Negative Effect of Obsessive Passion on Leisure Engagement Diversity**

We also expect that obsessive passion has a negative influence on diversity. Our theoretical rationale supporting this hypothesis is as follows. First, individuals driven by obsessive passion are not self-determined (e.g., Mageau et al., 2009). That is, they do not have control over the selection of their own leisure activities. As such, they tend to stick to a specific leisure activity making them less likely to engage in diverse leisure activities.

Second, individuals driven by obsessive passion are more likely to experience role conflict, interpersonal conflict, and financial stress (e.g., Seguin-Levesque et al., 2003). As such, they are less likely to receive social support or financial resources to engage in diverse leisure activities.

Third, individuals driven by obsessive passion are likely to be fixated on a certain leisure activity; and as such, they do not have the emotional and cognitive repertoire to try new leisure activities. They are usually anxious, low on vitality, and often experience burnout (e.g., Curran et al., 2015). They rigidly stick to the same leisure activity they have been accustomed to and ruminate about their experiences from that activity (e.g., Rip et al., 2006). As such, they are less motivated to engage in new and diverse leisure activities. Based on this discussion, we will test the following hypothesis:

**H2:** Obsessive passion is a negative predictor of diversity in leisure engagement.

### **The Positive Effect of Leisure Engagement Diversity on Leisure Wellbeing**

In general, there is a positive association between variety in experiences and happiness (e.g., Lyubomirsky et al., 2005). As such, we submit that leisure engagement diversity is positively associated with leisure wellbeing. Why?

First, leisure engagement diversity is a positive driver of leisure wellbeing because diverse engagement allows leisure participants to choose leisure activities that fit well with their physical and psychological needs (e.g., Etkin & Mogilner, 2016).



That is, having opportunities to try out various leisure activities may increase leisure wellbeing because they seek the exact leisure activities that meet their needs.

Second, leisure engagement diversity is a positive driver of leisure wellbeing because diverse engagement provides participants with opportunities to satisfy a diverse set of developmental needs, both basic and growth needs. That is, need theory of subjective wellbeing (see Chap. 12 in Sirgy, 2021) asserts that people high on subjective wellbeing tend to experience satisfaction of the full spectrum of developmental needs. As such, diverse leisure activities are more likely to satisfy a large repertoire of psychological needs.

Third, leisure engagement diversity is a positive driver of leisure wellbeing because diverse leisure engagement decreases the likelihood of habituation, which results in diminishing satisfaction (e.g., Kuykendall et al., 2015; Redden, 2008). As such, individuals engaging in diverse activities are likely to substitute activities that are less satisfying with ones that are more satisfying.

Fourth, leisure engagement diversity is a positive driver of leisure wellbeing because diverse engagement alleviates boredom in leisure life, which in turn serves to increase satisfaction in that life domain (e.g., Weissinger et al., 1992). As such, diversity in leisure experiences prevents leisure boredom; and in doing so diversity serves to decrease leisure ill-being.

Fifth, leisure engagement diversity is a positive driver of leisure wellbeing because it provides many opportunities for active learning, self-development, and self-expressiveness. Specifically, engagement in diverse leisure activities is likely to facilitate experiences of environmental mastery, personal growth, self-expressiveness, and meaning in life (e.g., Waterman et al., 2008), all of which contribute to leisure wellbeing through eudaimonia or psychological wellbeing.

Finally, leisure engagement diversity is a positive driver of leisure wellbeing because it plays an important role in expanding the participant's social network, which in turn increases social wellbeing (e.g., Lee et al., 2018). That is, engaging in diverse leisure activities tends to provide participants with opportunities for social recognition, social support, and satisfaction in social life, all contributing to leisure wellbeing. Based on this discussion, we will test the following hypothesis:

**H3:** Leisure engagement diversity is a positive predictor of leisure wellbeing.

### **The Positive Effect of Other Life Domains Satisfaction on Leisure Wellbeing**

Research shows that affect invested in a life domain spills over to other life domains (e.g., Bernardi et al., 2017). For example, satisfaction with work life influences one's satisfaction with family life, and vice versa. This is because affect invested in life domains are interdependent in that resources generated or drained in one life domain facilitate or hinder positive experiences in other life domains. Therefore, satisfaction with other life domains may positively affect satisfaction with leisure life. Based on this discussion, we will test the following hypothesis:

**H4:** Satisfaction with other life domains is a positive predictor of leisure wellbeing.

## The Moderating Effect of Age

We take the position that leisure engagement diversity has a stronger effect on leisure wellbeing for *young* participants, much more so than for the more mature. We focused age as a key moderator in the diversity and leisure wellbeing relationship. Specifically, we posit that the positive predictive effect of leisure engagement diversity on leisure wellbeing is moderated by age. This is because age influences mental and physical energy required for diverse leisure participation (e.g., Strain et al., 2002) and the meaning of happy experiences (e.g., Mogilner et al., 2011).

According to the socio-emotional selectivity theory, older people tend to focus their limited resources and energy on a few interests while younger people tend to focus on various interests (Carstensen et al., 1999). That is, older people use their limited energy selectively by focusing on their existing activities, not new ones. Engagement in diverse leisure activities declines with age because diverse engagement requires a substantial amount of mental and physical energy. Energy depletes with age (e.g., Strain et al., 2002). Furthermore, young participants tend to seek exciting and extraordinary experiences that contribute significantly to their wellbeing (e.g., Mogilner et al., 2011). In contrast, older participants tend to seek calm and ordinary experiences which also play an important role in their wellbeing. Diverse leisure engagement fits well with self-concept of the young and experiences that match with the self-concept of the participants effectively enhance wellbeing (Gilovich et al., 2015; Thomas & Miller, 2013). Thus, we argue that the positive predictive effect of leisure engagement diversity on leisure wellbeing is stronger for younger than older participants. Based on this discussion, we will test the following hypothesis:

**H5:** The positive predictive effect of leisure engagement diversity on leisure wellbeing is moderated by age. Specifically, the positive effect is stronger for younger than older participants.

## Method

The conceptual model was tested using data collected by a research firm in South Korea because people in South Korea have reported increasing importance of leisure experiences over time (Soenens et al., 2012). The survey questionnaire was first translated from English into Korean and then back translated by two bilingual research experts to ensure face validity of the measures. The questionnaire was then tested through a pilot study using a sample of twenty graduate students to ensure measurement equivalence. As the questionnaire was developed in the U.S., the authors evaluated construct equivalence at various stages of the survey development (Hult et al., 2008).

The survey was administered online to the panel members of the research firm in 2022. Respondents who have been regularly participating in more than one leisure sport activity (at least for more than three months) were allowed to participate in the survey, and then they were randomly selected proportional to different age groups

and gender ( $n=501$ ). In this study, leisure sports activities included both outdoor activities (e.g., soccer, jogging) and indoor activities (e.g., yoga, working out at a gym). Table 2 shows the demographic profile of the respondents. The profile indicates considerable variability in terms of age, gender, marital status, type of employment, and net monthly household income. Respondents reported that they have been participating in their major leisure activity for three years on average, spending 14 h and \$180 per month. These respondent characteristics are largely comparable to the adult Korean population participating in more than one leisure activities regularly (Ministry of Culture, Sports, and Tourism of Korea, 2023).

## Constructs and Measures

In this section we will describe all the constructs and measures we used in our study: diverse engagement in leisure activities, passion in sport activities, leisure wellbeing, satisfaction in other life domains, the moderator (age), and control variables (demographics such as gender and marital status; and leisure sport activity participation status such as duration and frequency of activity participation, monthly time and money spent for the activity participation).

**Measuring Diverse Engagement in Leisure Activities** Respondents were first asked to think about and write down the most preferred leisure sport activity that they regularly participate, and then were asked to specify the number of activities that they are engaged in simultaneously including the specified activity (“How many leisure sports activities are you currently participating in including the most preferred activity?”). Respondents reported that they are, on average, engaged in 1.71 sports activities (one activity=44.7%, two activities=42.3%, three activities=10.4%, four activities=2.2, and five activities=0.4%). They were then asked to answer questions about their leisure sports activity in the following order: (1) passion for a leisure sports activity, (2) leisure wellbeing, (3) other life domains satisfaction, (4) moderator (age), and (5) control variables (demographics and duration/frequency of activity participation).

**Table 2** Sample Characteristics (N=501)

Age (Avg. 44.6 yrs. old)		Employment		Net monthly household income	
25–29 yrs	20.16%	Employed	70.4%	Less than \$1,000	1.2%
30–39 yrs	19.96%	Student	3.2%	\$1,000–\$1,999	5.4%
40–49 yrs	19.96%	Housewife	13.8%	\$2,000–\$2,999	12.8%
50–59 yrs	19.96%	Not employed	6.0%	\$3,000–\$3,999	16.8%
60–69 yrs	19.96%	Else	6.6%	\$4,000–\$4,999	13.6%
<b>Gender</b>		<b>Educational status</b>		\$5,000–\$5,999	14.2%
Female	49.9%	High school graduates	14.2%	\$6,000–\$6,999	9.0%
Male	50.1%	College graduates	11.6%	\$7,000–\$7,999	7.6%
<b>Marital status</b>		University graduates	61.7%	More than \$8,000	19.6%
Married	60.9%	Graduate school graduates	12.6%		
Single or else	39.1%				

**Measuring Passion for a Leisure Sports Activity** Passion for a leisure activity involves two dimensions: harmonious passion and obsessive passion. Vallerand et al.'s (2003) passion scale was used to capture these two constructs. Both harmonious passion for a leisure activity (6 items, e.g., “This activity is in harmony with the other activities in my life”; and “For me it is a passion that I still manage to control”), and obsessive passion for a leisure activity (7 items, e.g., “I have difficulty imagining my life without this activity”; “I have a tough time controlling my need to do this activity”) was captured on 5-point Likert type scales (“completely disagree”=1 to “completely agree”=5). Cronbach Alpha was high (harmonious passion: 0.871, obsessive passion: 0.923) demonstrating reliability.

**Measuring Leisure Wellbeing** We used a single survey item to capture overall satisfaction with leisure life (e.g., “I am satisfied with my leisure life overall”) (Cummins, 1995). Responses were captured using a 5-point satisfaction scale (“not at all satisfied”=1 to “very satisfied”=5). It should be noted that the use of single-item measures of happiness or life satisfaction has often been criticized because single-item measures tend to be psychometrically inferior to multi-item scales due to high error variance (e.g., Cummins, 2013). Yet, other studies also found high construct and criterion-related validities of single-item measures, and the single-item measure performed very similarly compared to multi-item measures (e.g., Cheung & Lucas, 2014). That is, the use of a single-item measure can be equally reliable and valid, especially if the focus is to capture global satisfaction.

**Satisfaction in Other Life Domains** Family life satisfaction (“I am generally happy with my family situation”), work life satisfaction (“I am generally happy with my job”) and health life satisfaction (“I am generally happy with my health”) were measured using the measurement items validated in past leisure science research (Yu et al., 2021).

**Moderator** Age was measured by asking respondents to report their age through an open-ended question: “What is your age?”

**Control Variables** Past research has shown that leisure participants' demographics as well as the situational characteristics of the leisure activity are associated with leisure life satisfaction (Kemperman & Timmermans, 2008; Kuykendall et al., 2015). Studies found that wellbeing is influenced by rather a stable trait (e.g., personality) (Cummins, 2005), life circumstances (e.g., age, education, income, employment, marriage, and religion) (Lyubomirsky et al., 2005), and happiness enhancing behaviors (e.g., leisure engagement) (Lyubomirsky et al., 2005). While we did not include personal traits, we controlled the following demographic variables and leisure engagement variables. Respondents' demographics (e.g., gender, marital status) and leisure sport activity participation status (duration and frequency of activity participation, monthly time and money spent for the activity participation) were also measured. Specifically, duration and frequency of the activity participation were measured using following questions: “How long have you been participating in the leisure sport activity?” and “How often do you participate in the leisure sport activity?” respectively. Monthly

time and money spent for the activity were measured using the following questions: “How much time/money do you spend for the activity in a month on average?”

## Results

The results section reports findings related to testing of the measurement model and test of common method bias, followed by hypotheses testing.

### Testing the Measurement Model

To examine the psychometric properties of the measures used in this study, we conducted a confirmatory factor analysis (CFA) (see Table 3). Results indicate that there is a good fit to the data [ $\chi^2$  ( $p$ -value)=358 (0.00),  $df$ =123; CFI=0.950, NNFI=0.938, GFI=0.927, RMSEA=0.061]. Furthermore, all factor loadings were significant, the composite reliabilities of all constructs were greater than the usual 0.70 cutoff, and the variance extracted estimate was greater than the 0.50 benchmark. In sum, these results demonstrate adequate evidence of convergent validity and reliability of the measures (cf. Fornell & Larcker, 1981).

Regarding discriminant validity, the square root of the average variance extracted (AVE) of each construct should be larger than the correlation of the specific construct with any of the other constructs in the model (Chin, 1998). Table 4 shows that the

**Table 3** Confirmatory Factor Analysis

Variables	Items	Coefficient	t-value	Alpha	Average Variance Extracted	Composite Reliability
Diversity	Divers1	1.000				
Leisure wellbeing	Lwb1	1.000				
Other life domains satisfaction	Ols1	0.649	14.185	0.751	0.713	0.755
	Ols2	0.786	17.394			
	Ols3	0.697	15.318			
Harmonious passion	Hp1	0.707	17.193	0.871	0.725	0.869
	Hp2	0.687	16.522			
	Hp3	0.781	19.861			
	Hp4	0.762	19.155			
	Hp5	0.718	17.631			
	Hp6	0.689	16.698			
Obsessive passion	Op1	0.880	24.559	0.923	0.775	0.912
	Op2	0.862	23.775			
	Op3	0.899	25.463			
	Op4	0.720	18.190			
	Op5	0.676	16.702			
	Op6	0.647	15.765			
	Op7	0.700	17.500			

$\chi^2$  ( $p$ -value)=358.00 (0.00),  $df$ =123; CFI=0.950, NNFI=0.938, GFI=0.927, RMSEA=0.061

squared root of the AVEs for harmonious passion and obsessive passion are greater than correlations with other constructs, demonstrating discriminant validity.

### Test of Common Method Bias

Because all the data were perceptual and were collected from the same source (i.e., self-report), one would suspect that there is a possibility of common method bias. Following Cote and Buckley (1988), we tested for the potential of common method bias. The method compares the trait model with the common method model. The goal is to demonstrate that common method bias is not a threat when the trait model makes a significant contribution to the total variance relative to the method model. Conversely, the analysis should demonstrate that the method model does not make a significant contribution to the total variance.

Three models were estimated. M1 was a the method-only model in which all items were loaded on one factor ( $\chi^2_{(135)}=2,131.277$ , CFI=0.579; GFI=0.544; and RMSEA=0.232); M2 was a trait-only model in which each item was loaded on its respective scale ( $\chi^2_{(123)}=358.00$ ; CFI=0.950; GFI=0.927; and RMSEA=0.061); M3 was a trait-and-method model in which in which a common factor linking to all the measurement items was added into M2 ( $\chi^2_{(100)}=227.697$ , CFI=0.973; GFI=0.953; and RMSEA=0.049).

For model comparisons, we first conducted Chi-square different tests. The results of these tests indicate that the trait-only model (M2) showed a significantly better fit than the method-only model (M1) ( $\Delta \chi^2_{(12)} = 1,773.28$ ,  $p < .05$ ). The results also indicate that the trait-and-method model (M3) have a significantly better fit than the method-only model (M1) ( $\Delta \chi^2_{(35)} = 1,773.28$ ,  $p < .05$ ). These results show the trait rather than the common method factor explains most of the variance. We then conducted a comparison test between the trait-only model (M2) and trait-and-method model (M3). While the trait-and-method model showed a slightly better fit than the trait-only model ( $\Delta \chi^2_{(23)} = 130.303$ ,  $p < .05$ ), both models demonstrated equally good fit to the data with CFI and GFI being greater than 0.90 and RMSEA close to 0.05. To conclude, these results collectively indicate that trait factor rather than common method factor explains most of the variance, providing evidence that common method bias was not a significant threat to the internal validity of the study.

**Table 4** Correlations among the Underlying Constructs (Phi)

	Diversity	Leisure wellbeing	Other life domain sat	Harmonious passion	Obsessive passion
Diversity					
Leisure wellbeing	<i>0.171</i>				
Other life domains sat	<i>0.101</i>	<i>0.453</i>	<b>0.844</b>		
Harmonious passion	<i>0.230</i>	<i>0.555</i>	<i>0.393</i>	<b>0.851</b>	
Obsessive passion	<i>-0.013</i>	<i>0.168</i>	<i>0.129</i>	<i>0.478</i>	<b>0.880</b>

#### Notes

- Italicized are significant at 99% CI.
- Diagonal elements are the square roots of the AVE of each construct

## Hypothesis Testing

In this section, we will report on the hypotheses testing results using Structural Equation Modeling (SEM) analyses. The results indicate a good fit with the data [ $\chi^2$  ( $p$ -value)=440.522 (0.00),  $df$ =126; CFI=0.934, NNFI=0.920, GFI=0.908, RMSEA=0.072] (see Table 5).

H1 states that harmonious passion is a positive predictor of diversity in leisure engagement. The results indicate that harmonious passion has a positive predictive effect on leisure engagement diversity (standardized path estimate=0.305;  $p$ <.05), supporting H1.

H2 states that obsessive passion is a negative predictor of diversity in leisure engagement. The results indicate that obsessive passion does indeed have a negative predictive effect on leisure engagement diversity (standardized path estimate = -0.159;  $p$ <.05), supporting H2.

H3 states that leisure engagement diversity is a positive predictor of leisure wellbeing. The results indicate that leisure engagement diversity has a positive predictive effect on leisure wellbeing (standardized path estimate=0.117;  $p$ <.05), supporting H3.

H4 states that satisfaction with other life domains is a positive predictor of leisure wellbeing. The results indicate that the construct of other life domains satisfaction has a positive predictive effect on leisure wellbeing (standardized path estimate=0.053;  $p$ <.05), supporting H4.

H5 states that the positive predictive effect of leisure engagement diversity on leisure wellbeing is moderated by the age of the participants. Specifically, the positive effect is stronger for younger than older participants. To test this hypothesis, statisticians recommend the use of moderated regression when both independent variables and moderators are continuous because multi-group testing using SEM is more probable to have Type I or Type II errors in the process of creating artificial groups (e.g., Ro, 2012). Therefore, we used the moderated regression method to test our moderation effects using Process Macro (Model 1) (Hayes, 2022). We tested the moderation effect of age while controlling for demographic variables (i.e., gender and marital status treated as dummy variables), leisure engagement variables (i.e., participation duration, frequency, monthly time spent, monthly money spent), and other life domain satisfaction (satisfaction with family life, work life, and health life). The results based on 5,000 bootstrap samples with a 95% confidence interval indicated that there is a significant moderation effect of age, supporting H5. That is,

**Table 5** Structural Equation Modeling Testing Results

Relationships	Standardized path estimates	(t-value)
Harmonious passion → Engagement diversity	0.305**	(5.514)
Obsessive passion → Engagement diversity	-0.159**	(-2.987)
Engagement diversity → Leisure wellbeing	0.117**	(2.937)
Other life domains satisfaction → Leisure wellbeing	0.053**	(10.689)

$\chi^2$  ( $p$ -value)=440.522 (0.00),  $df$ =126; CFI=0.934, NNFI=0.920, GFI=0.908, RMSEA=0.072

**Note:**

- \*\*Significant at the 0.05 level

**Table 6** Moderation Effect of Age (Process Model 1)

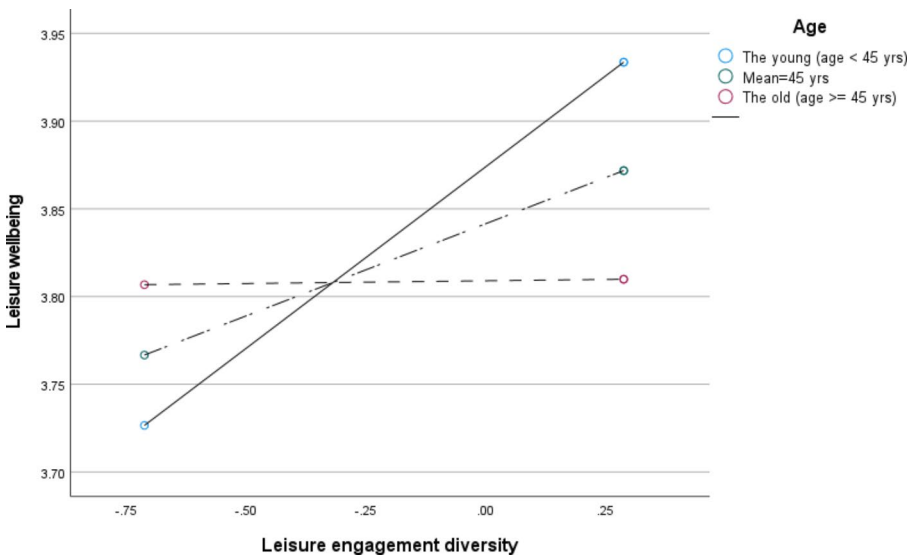
DV=Leisure wellbeing	Standardized path estimates	(t-value)
Engagement diversity	0.258**	(2.989)
Age	0.071	(1.389)
Engagement diversity x Age	-0.051**	(-1.987)

R-squared=0.242, F(14,486)=11.129

**Notes:**

- Control variables: gender (\*\*), marital status, leisure engagement variables (participation duration (\*\*), frequency, monthly time spent, monthly money spent, outdoor or indoor activity (\*\*), alone or with someone), and other life domain satisfaction (family life(\*\*), work life(\*\*), and health life)

- \*\*Significant at the 0.05 level



**Fig. 2** Moderation Effect of Age (H5)

**Notes:** young participants=solid line; older participants=dotted line

the results indicate that leisure engagement diversity registered a stronger effect on leisure wellbeing for *younger* participants, much more so than for the more mature (see Table 6; Fig. 2).

**Discussion**

In this study, we examined the role of dual effects of passion on leisure engagement diversity, which in turn influences leisure wellbeing. We also examined the moderating role of age on the relationship between leisure engagement diversity and leisure wellbeing.



The results of this study showed that harmonious passion for leisure sport activity positively predicts leisure engagement diversity, while obsessive passion for leisure sport activity has a negative predictive effect. As previously explained, we believe that this effect is due to several possibilities: (1) those motivated by harmonious passion are self-determined (e.g., Stenseng, 2008); as they feel free to choose how and when to engage, they are likely to engage in a diverse set of leisure activities; (2) individuals motivated by harmonious passion are less likely to experience role conflict or financial stress (e.g., Seguin-Levesque et al., 2003), which may motivate them to freely engage in a diverse set of activities; and (3) harmonious passion individuals experience high levels of positive affect from engaging in various leisure activities because of their high vitality and shared experiences with significant others (e.g., Curran et al., 2015).

With respect to the negative predictive effect of obsessive passion on diversity, we believe this effect may be explained as follows: (1) because individuals driven by obsessive passion are not self-determined (e.g., Philippe et al., 2009), they tend to stick to a specific leisure activity making them less likely to engage in diverse leisure activities; (2) given that individuals driven by obsessive passion are more likely to experience role conflict, interpersonal conflict, and financial stress (e.g., Seguin-Levesque et al., 2003), they are less likely receive social support or financial resources to engage in diverse leisure activities; and (3) given that individuals driven by obsessive passion are likely to be fixated on a certain leisure activity; and as such they do not have the emotional and cognitive capacity to try new leisure activities (e.g., Curran et al., 2015).

The study results also confirmed the diversity effect on leisure wellbeing. As we explained previously, this effect can be attributed to the following reasons. First, diverse engagement affords opportunities to try out various leisure activities that meet their needs well (e.g., Etkin & Mogilner, 2016), which in turn may contribute to leisure wellbeing. Second, diverse engagement provides opportunities to satisfy a diverse set of developmental needs, both basic and growth needs, and activities that can satisfy the full spectrum of developmental needs are more likely to contribute to leisure wellbeing more so than activities that meet only a small set of needs (e.g., see Chap. 12 in Sirgy, 2021). Third, diverse engagement may decrease habituation and satiation, which results in diminishing satisfaction (Redden, 2008). People may substitute activities that are less satisfying with ones that are more satisfying. Fourth, diverse engagement diversity serves to alleviate boredom, which in turn helps to decrease leisure ill-being (e.g., Weissinger et al., 1992). Fifth, diverse engagement provides opportunities for active learning, self-development, and self-expressiveness, all of which contribute to leisure wellbeing (e.g., Waterman et al., 2008). Finally, diverse engagement plays an important role in enlarging the participant's social network, which in turn increases social well-being (e.g., Lee et al., 2018), thus contributing to leisure wellbeing.

The results also indicate that the positive effect of leisure engagement diversity on leisure wellbeing attenuates with increasing age. Specifically, the diverse engagement effect on leisure wellbeing is stronger for younger than older participants. This finding suggests that it is important for young participants to engage in diverse leisure activities to enhance their leisure wellbeing. This is because young people tend to

seek new and exciting experiences while older people seek familiar and sedentary leisure activities (e.g., Mogilner et al., 2011).

The findings of this study indicate that it is not wise to motivate individuals by inducing obsessive passion to engage in diverse leisure activities. Instead, providers of leisure activities should focus on harmonious passion and make every attempt possible to arouse such passion in participants. This can be done through promotional messages that capture the profile of participants motivated by harmonious passion, not obsessive passion. We also recommend that providers expand their offerings to reflect a diverse set of leisure activities. Furthermore, providers should not only promote a diverse set of leisure activities but also target their promotion to younger participants, more so than older participants.

### Study Limitations

This study has many limitations. First, this study focused on the relationship between the duality of passion in leisure activities and the diversity of engagement in various leisure activities. One can argue that there are many other factors that may influence participants' engagement in diverse leisure activities. Examples of other predictors may include satisfaction with the current leisure activities (e.g., Kuykendall et al., 2015), leisure interests (e.g., Schulz et al., 2018), personality (e.g., Kandler & Piepenburg, 2020), demographic characteristics (e.g., Stalker, 2011), among others. Future research should develop and test a more comprehensive model of factors affecting engagement diversity in leisure.

Second, this study supported the hypothesized role of age as a moderator affecting the positive effect of leisure engagement diversity on leisure wellbeing. It is important to shed more light on a complete set of moderators affecting the relationship between leisure engagement diversity and leisure wellbeing. One can argue that frequency of leisure engagement will have moderating effect on the diversity and leisure wellbeing relationship because frequency of leisure engagement and diversity of leisure engagement influence each other. One can test whether frequency and diversity of leisure engagement have an interactive effect on leisure wellbeing. One can also argue that diverse leisure engagement facilitates opportunities for learning and self-development. One can test whether diverse leisure engagement effectively enhances leisure wellbeing for those with a need for self-development (cf. Kuykendall et al., 2015).

Third, this study examined the effect of leisure engagement diversity on hedonic leisure wellbeing (e.g., leisure life satisfaction). We still do not know much about the effects of engagement diversity on psychological wellbeing (e.g., Trainor et al., 2010). Future research should examine the role of leisure engagement diversity in psychological wellbeing. One may argue that the diversity effect may be stronger in relation to psychological wellbeing compared to hedonic wellbeing. This may be due to the possibility that diversity in leisure activity engagement may facilitate personal growth and self-development because of the greater opportunities for self-development afforded through diversity.

Fourth, this study measured satisfaction with leisure life with a single item measure. While single item measures can be equally reliable and valid (e.g., Cheung &

Lucas, 2014) in capturing overall leisure life satisfaction, future research should test our model using multi-item measures.

Fifth, this study examined the effect of leisure engagement diversity on leisure wellbeing. Leisure engagement includes dimensions of engagement frequency, time quantity as well as diversity (Kuykendall et al., 2015). Future research should examine how the various engagement dimensions interact with each other in relation to leisure wellbeing.

Sixth, this study did not examine the type of leisure activities (serious leisure activities vs. casual leisure activities). Serious leisure refers to the systematic pursuit of an amateur, hobbyist, or volunteer activity sufficiently substantial and interesting for participants' career development (Stebbins, 2007). Individuals engaged in serious leisure make a concerted effort, overcome hardship, experience self-expressiveness in the activity, have a career-like engagement in the activity and shared group values (Stebbins, 2015). Engagement in serious leisure activity has a positive influence on eudaimonic wellbeing as well as hedonic wellbeing. Future research could investigate the interactive effect of passion type (harmonious vs. obsessive passion) and leisure type (serious leisure vs. casual leisure) on engagement diversity and the resulting leisure wellbeing.

Seventh, this study was conducted in a single country context: Korea, a country with achievement orientation and hard work ethic. We still do not know how cultural values related to work and leisure (e.g., humane orientation vs. achievement orientation) may influence the relationship between leisure diversity and wellbeing. One can argue that leisure diversity is likely to have a stronger effect on leisure wellbeing in a society with humane orientation that emphasizes caring and individual wellbeing. Future cross-cultural research should be conducted to examine the role of cultural values on the diversity-leisure wellbeing relationship.

Finally, past research shows that satisfaction with current leisure activities may influence diversity engagement (e.g., Kuykendall et al., 2015; Lee et al., 2020) and vice versa. Future research could collect data using a measure of satisfaction with current leisure activities to examine the potential reciprocal relationship between satisfaction with current leisure activities and diversity in leisure engagement.

Despite limitations, we hope that this study will stimulate further research related to the distinction between harmonious passion and obsessive passion and their effects on engagement of diverse leisure activities and leisure wellbeing in addition to research on moderators of the diversity effect on leisure wellbeing (personal, program-specific, and environmental moderators). The results of this program of research should extend theory development in this area and provide more concrete guidelines to providers of leisure activities to help enhance their participants' leisure wellbeing.

## Appendix. Measurement Items

Leisure sport activity diversity.

How many leisure sport activities are you currently engaged in including the above mentioned activity? \_\_\_\_ (specify number of activities).

Harmonious passion for the leisure activity [“completely disagree” (1) to “completely agree” (5)]

- This activity allows me to live a variety of experiences.
- The new things that I discover with this activity allow me to appreciate it even more.
- This activity allows me to live memorable experiences.
- This activity reflects the qualities I like about myself.
- This activity is in harmony with the other activities in my life.
- For me it is a passion, that I still manage to control.
- I am completely taken with this activity.

Obsessive passion for the leisure activity [“completely disagree” (1) to “completely agree” (5)]

- I cannot live without this activity.
- The urge is so strong, I can’t help myself from doing this activity.
- I have difficulty imagining my life without this activity.
- I am emotionally dependent on this activity.
- I have a tough time controlling my need to do this activity.
- I have almost an obsessive feeling for this activity.
- My mood depends on me being able to do this activity.

Satisfaction with leisure life [“not at all satisfied” (1) to “very satisfied” (5)].

How satisfied are you, all in all, with your leisure life?

Satisfaction with other life domains [“completely disagree” (1) to “completely agree” (5)]

- I am generally happy with my family situation.
- I am generally happy with my job.
- I am generally happy with my health.

## Declarations

**Competing Interests** The authors have no competing interests to declare that are relevant to the content of this article.

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