



On the Role of Passion in Second Language Learning and Flourishing

Xinjie Chen¹ · Robert J. Vallerand² · Amado M. Padilla¹

Accepted: 28 November 2020

© The Author(s), under exclusive licence to Springer Nature B.V. part of Springer Nature 2021

Abstract

This study aimed to examine a positive-oriented model of two types of motivational constructs (i.e., harmonious passion and obsessive passion) for learning a second language (L2) and their relationship to self-growth indicators. The dualistic model of passion was used to explore whether and how the two types of passion play different roles in positive outcomes both within and outside L2. This study was conducted with 260 Chinese high school students learning English as a L2. Results of path analyses supported the model and showed that harmonious passion, and to a lesser degree obsessive passion, for L2 learning predicted learners' positive experiences in L2 activity (i.e., L2 flow experiences and L2 mastery goals). In turn, flow experiences and mastery goals both predicted willingness to communicate in L2, whereas only mastery goals led to self-growth in other life areas (i.e., flourishing in life). This study is the first to explore the role of passion for L2 and associated processes in contributing to the field of L2 learning and life outcomes. Findings highlighted that being passionate about L2 learning can provide benefits in both willingness to communicate in L2 and personal well-being, especially if the passion is harmonious in nature.

Keywords Passion · Happiness · Positive psychology · Flourishing · Flow · Second language

1 Introduction

Psychological research in second language learning (L2) has primarily focused on negative outcomes, such as anxiety, stress, and depression (MacIntyre 2017; Scovel 1978). There has been little theorizing and empirical research on a positive approach to L2 learning and its related beneficial outcomes. However, it is clear, that engaging in L2 activities can yield positive outcomes (Chen and Padilla 2019; Oxford 2016; Oxford and Cuéllar 2014). The goal of the present study was to examine the positive side of L2 learning, by focusing on the role of passion in learning a L2, and associated

✉ Xinjie Chen
xjchen96@stanford.edu

¹ Graduate School of Education, Stanford University, Stanford, CA, USA

² Psychology Department, Université du Québec à Montréal, Montréal, Québec, Canada

psychological processes that may contribute to positive outcomes related to L2 learning and psychological well-being.

2 Positive Psychology and L2

The field of Positive Psychology has grown rapidly in the past 20 years. The goal of positive psychology is to balance the study of human behavior by focusing on psychological processes that lead to positive outcomes while still attending to those factors that lead to negative outcomes (Seligman 2002; Seligman and Csikszentmihalyi 2000). Although many studies have generally tested the non-linguistic outcomes and processes related to L2, such as motivation and attitudes (Dörnyei and Ushioda 2009; Gardner and Lambert 1972), only a limited number of positive psychological constructs have been studied in L2 research. A few researchers have started to apply positive psychology constructs to the field of L2 learning research with a wide range of topics including character strengths, positive emotions, creativity, empathy, enjoyment, well-being, social capitals, hope, flow, trait-like or state-like self-identity (Chen and Padilla 2019; Dewaele and Dewaele 2017; Gabryś-Barker and Gałajda 2016; Lake 2013; MacIntyre et al. 2016; MacIntyre and Mercer 2014). For example, MacIntyre and Gregersen (2012a, b) highlighted the significant effects of positive emotions in L2 learning. These authors suggested that positive emotions are more than pleasant feelings as they can also enhance the learner's awareness of language input in the classroom environment, promote social interactions, and increase learners' resilience while facing difficulties in L2 learning.

Other researchers have also explored the role of language enjoyment in L2/foreign language learning (Dewaele and MacIntyre 2014; Dewaele et al 2016, 2018). Findings reveal that experiencing enjoyment in a L2 class can contribute to a wide range of outcomes, including both linguistic and non-linguistic outcomes, such as higher levels of foreign language performance and creativity (Dewaele et al. 2016). One important model is that of Oxford (2016) who has proposed a theory of EMPATHICS (Emotion, Meaning, Perseverance, Agency, Time, Hardiness, Intelligence, Character strengths, Self-factors) for explaining the factors related to L2 learners' well-being. Among these outcomes, willingness to communicate in L2 was found to be one of the important variables for predicting success in L2 learning, and connecting closely with multiple concepts in positive psychology, such as positive emotions, self-confidence, and self-esteem (Khajavy et al. 2018; MacIntyre and Charos 1996; MacIntyre et al. 1998; Yashima 2002; Yashima et al. 2018).

A number of models have explained the role of motivational factors in L2 learning, such as the socio-educational model (Gardner 2010), self-determination theory (Deci and Ryan 2004; McEown et al. 2014), and the L2 motivational self-system (Dörnyei 2009). Other models such as those of Lake (2013) and Noels (Comanaru and Noels 2009) have looked at motivational variables in L2 language learning. In line with these models, a growing number of studies have suggested that motivational processes play a major role in L2 (Pishghadam et al. 2016). People engaging in L2 may love learning new languages and display high levels of motivational intensity (Barcelos and Coelho 2016; Comanaru and Noels 2009). One such motivational construct that would appear relevant in L2 is that of passion.

3 The Dualistic Model of Passion

According to the Dualistic Model of Passion (DMP; Vallerand 2015; Vallerand et al. 2003), passion is defined as “a strong inclination toward a specific object, activity, concept or person that one loves (or at least strongly likes) and highly values, that is part of identity, and that leads one to invest time and energy in the activity on a regular basis” (Vallerand 2015). In other words, if an activity is loved and highly valued by someone, and it has been internalized as a core part of one’s identity, then a passion has developed for this activity. Further, it is proposed that there are two types of passion, Harmonious Passion (HP) and Obsessive Passion (OP). HP refers to one’s strong liking (or loving) towards an activity and engaging in it merely out of pleasure; it allows people to be fully involved in the activity that one loves while remaining in control of it. It takes origin in an autonomous internalization of the activity in one’s identity and allows the person to remain in harmony with other aspects of one’s self and life. Conversely, OP refers to one’s participation in the beloved activity due to internal or external pressure; people with OP are more likely to experience conflict between the passionate activity and other life aspects. This is because OP originates in a controlled internalization of the activity in identity and leads to conflict with aspects of the self and one’s life. Eventually the person loses control over the beloved activity (Bonneville-Roussy et al. 2013). The DMP posits that the two types of passion are associated with different outcomes in terms of their impact degree and impact domain as described below.

3.1 Different Impact of the Two Types of Passions

First, contrary to other theoretical perspectives in positive psychology, the DMP does not hypothesize that passion invariably leads to positive outcomes. Rather, the model predicts that HP generally leads to more adaptive cognitive, affective, and behavioral outcomes than does OP. This hypothesis has been largely supported by research. For example, in a recent meta-analytical review of close to 100 studies, Curran et al. (2015) systematically explored the impact of passion in four areas: well-being (e.g., positive affect, life satisfaction), motivational factors (e.g., mastery goals), cognitive outcomes (e.g., concentration), and behavioral/performance (e.g., creativity, performance). This meta-analysis covered over 15 years of empirical research and showed that HP leads to more adaptive outcomes than OP across different types of outcomes and a host of activities ranging from sports, work, education, leisure and so on (Bonneville-Roussy and Vallerand 2020; Mageau et al. 2005; Orosz et al. 2018). For example, HP for social dancing has shown stronger positive effects on one’s dancing mastery goals than OP (Guilbault et al. 2020).

Second, although HP consistently leads to more adaptive outcomes than OP within the specific scope of the activity one is passionate about (Curran et al. 2015), there is another benefit of HP. Research has shown that HP has benefits *outside* of the activity one is passionate about, whereas this is not the case for OP. For instance, Carbonneau et al. (2010, Study 2) conducted a longitudinal study in which they compared the two types of passion for yoga, and found that HP for yoga was associated over time with increases in adaptive psychological and physical benefits than OP in one’s life in general. This is because people with HP engage out of a sense of identity and enjoyment, they fully focus on the activity they are passionate about, experience more positive enjoyment, including positive affect, mastery goals and flow, that lingers on and positively affects other aspects of the person’s life such as psychological well-being (e.g., Carpentier et al. 2012; Lake 2016; Philippe

et al. 2009). In contrast, people with OP experience conflict and fewer positive experiences while engaging in the activity. This culminates in lower levels of positive outcomes and even maladaptive outcomes both inside and outside of the passionate activity such as a reduction in psychological well-being and psychological burnout (Vallerand et al. 2003, 2010; Bonneville-Roussy et al. 2011; Mageau et al. 2005).

3.2 Passion and L2

Although support for DMP has come from hundreds of studies using a variety of activities showing how passion exerts a strong motivational force in multiple domains, it is surprising to see that very little has been written about the relationship between passion and L2 learning (Lake 2013, 2016; Northwood 2014). Northwood (2014) has argued that passion and L2 motivation could be linked theoretically. Based on Gardner's (2010) socio-educational model, the three key motivational elements *Desire to learn L2*, *Effort*, and *Positive attitudes towards learning L2* are related to the concepts of *Valuation*, *Regular Effort*, and *Enjoy/Love* in the DMP. Nevertheless, passion shows its uniqueness by connecting the activity with identity and through the duality of passion (harmonious and obsessive). In other words, getting involved in a passionate activity can help one to develop a sense of self by integrating it to one's identity and experiencing positive outcomes. Aligned with this idea, Lake (2016) found that L2 HP was positively correlated with L2 proficiency and well-being. However, Lake did not measure OP. Thus, to the best of our knowledge, no study so far has focused on the differential role of harmonious and obsessive passion in L2 learning, including in Eastern cultures such as China, the setting of the present study, where harmony is a traditional cultural value (Zhao et al. 2015). The DMP provides a systematic framework to explain how the motivational forces link with learning a L2, in order to provide a holistic understanding of the impact of passion in L2 learning and in other facets of a learner's life.

In line with research in positive psychology, two motivational constructs that have been studied with passion and that are relevant to L2 are flow and mastery goals. Both constructs have been suggested as important psychological processes for promoting positive outcomes in both L2 and one's life (Heutte et al. 2018).

4 Flow and Mastery Goals in L2

Flow and mastery goals have been suggested as contributors to L2 learning. First, flow theory suggests that people enter into a state of flow when they achieve a balance between challenge and skills. Flow, in turn facilitates L2 learning (e.g., Egbert 2004; Dewaele and MacIntyre 2018; MacIntyre and Mercer 2014). Much research has shown the relationship between flow and willingness to communicate in L2. For example, research has suggested that when a learner feels engaged and enjoys learning a L2, it increases the learners' motivation, which directly promotes the learner's willingness to communicate in L2 (MacIntyre and Charos 1996; Yashima 2002). Thus, being in a flow state should facilitate a willingness to communicate with others in the L2 (MacIntyre et al. 2002; Phillips 1968, 1977). In addition, in line with Nakamura and Csikszentmihalyi (2014) flow is expected to lead to a "good life", characterized as well-being, and research has indeed shown that flow can positively predict psychological well-being (Carpentier et al. 2012).

With respect to goal theory, mastery goals refer to students’ willingness to develop their competence and skills instead of demonstrating their performance (Harackiewicz and Elliot 1993). Mastery goals reflect students’ deep understanding and learning (Patrick et al. 2011). Research suggests that students who have a mastery goal orientation tend to have better achievement (Jahedizadeh et al. 2016) and experience less anxiety than students with a performance goal orientation. Generalizing this finding to a L2 context, it is possible to assert that learning a L2 with a mastery goal orientation should promote L2 learning by increasing one’s willingness to communicate and use the L2 (Koul et al. 2009; Yashima 2002). Researchers have also pointed to the beneficial role of mastery goals in one’s well-being (Kaplan and Maehr 1999; Tuominen-Soini et al. 2008). Accordingly, Kaplan and Maehr (1999), suggest that the reason why such a relationship holds is because mastery goals help maintain an optimistic attitude when a person is engaged in learning and when challenges present themselves in learning difficult material the learner sees these as opportunities to grow. Therefore, developing mastery goals in L2 learning could be related to both L2 learning and well-being (Lake 2016).

5 The Present Research

The purpose of the present study was to empirically explore whether and how passion contributes to the field of L2 learning by testing a process model integrating passion, L2 flow, L2 mastery goals, and adaptive outcomes both *in* L2 as well as *outside* of it in a person’s life in general. Specifically, in light of past research and theory, it was proposed that both HP and OP would positively predict mastery goals and flow in L2 (Vallerand et al. 2007, 2008). Furthermore, it was expected that the relationships would be stronger for HP than OP (Vallerand 2015). In turn, mastery goals and flow in L2 were both expected to positively predict willingness to communicate in L2 and flourishing (Carpentier et al. 2012; Elliot and McGregor 2001; Nakamura and Csikszentmihalyi

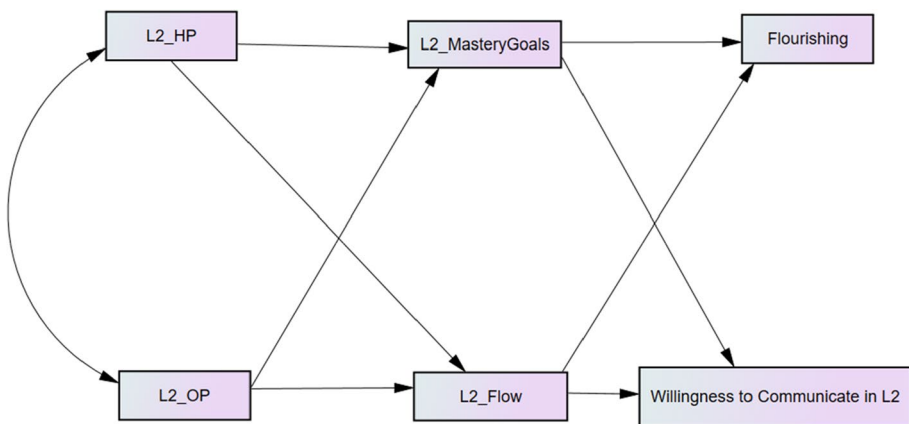


Fig. 1 A conceptual model linking L2 passions, flourishing and willingness to communicate in L2 through L2 flow and L2 mastery goals

2014). This conceptual model is displayed in Fig. 1. Finally, in light of the paucity of research on passion in an Eastern culture, the research was conducted in Taiwan.

6 Methods

6.1 Participants and Procedure

Participants were 260 high school (97 boys and 163 girls) students in Taiwan. The mean age of participants was 15.94 years ($SD=0.99$ years). They were asked to complete an online survey assessing their experience for L2 learning (Chinese is their L1, English is their L2). A private educational institute in Taiwan that provided after-school English learning courses to all public school students supported the recruitment process. This research was approved by Research Compliance Office (Human Subjects Research) of the university. Before starting the survey, informed consent was obtained from students and their parents. All participants were informed that their responses would be kept confidential and that they were free to discontinue the study at any time. The questionnaire created for this study included basic demographic information regarding gender and age, as well as several instruments that already existed in Chinese, such as the Passion scale (Zhao et al. 2015) and Flourishing (Tong and Wang 2017). Other instruments used were translated into Chinese using two series of back-translation approach (Vallerand 1989; Brislin 1970). One person first translated an instrument from English to Chinese, then the other bilingual individual translated the instrument from Chinese back to English. This process was then conducted again by two other bilingual students. During the process, two other bilingual students assisted the translators to ensure that there were no mistranslations in either version. Finally, the two English versions were compared to determine the accuracy of the Chinese translation. After several rounds of discussion and careful comparisons, the current versions of the instruments were obtained.

6.2 Instruments

6.2.1 Passion for L2 Learning

The Passion Scale (Vallerand et al. 2003; Marsh et al. 2013; Zhao et al. 2015) was used to assess passion for L2 learning. The Passion Scale is composed of two six-item subscales assessing HP (e.g., “Second language learning is in harmony with the other activities in my life”; $\alpha=0.91$) and OP (e.g., “I have the impression that learning a second language controls me”; $\alpha=0.92$). All subscale items are provided in the “Appendix”.

Responses to all items were scored on a six-point Likert scale, ranging from (1) “Definitely not true for me” to (6) “Definitely true for me”. Higher scores on these two types of Passions, indicate higher HP or OP respectively. Past research has repeatedly supported the validity and reliability of the Passion Scale (Vallerand and Rahimi in press; Vallerand et al. 2003; Marsh et al. 2013). The 2-factor structure of the scale has been supported in over 20 studies in a variety of activities including sports, music, work, and academics (Bonneville-Roussy and Vallerand 2020; St-Louis et al. 2016). The scale has been found to be invariant for gender, language (French and English), and types of activities (Marsh et al. 2013).

Because the scale was used for the first time in a L2 context, the factorial validity of the Passion Scale for L2 learning was tested through a confirmatory factor analysis (CFA) by using SPSS AMOS version 26. Results of the first CFA analysis (i.e., the model without covariances) showed that, although individual item loadings on each construct were high, between 0.74 and 0.90 for each passion factor, the model fit indices [CFI=0.90, TLI=0.87, and RMSEA = 0.135 (90% CI 0.12–0.15)] were inadequate. Examination of the modification indices suggested the inclusion of covariances among some item residuals. This is standard procedure in CFA (Kline 2015). The results appear in Fig. 2. All loadings were statistically significant and substantial (see Fig. 2) thereby supporting the factorial validity of the scale as applied to L2 learning. The results of the CFA yielded an acceptable model fit indices of CFI=0.97, TLI=0.95, and RMSEA=0.08 (90% CI 0.07–0.10). As in most studies, the HP and OP subscales were correlated ($r=0.56$). These findings provide support for the factorial validity of the Passion Scale for L2 Learning. Finally, the Cronbach alphas of the HP ($\alpha=0.91$) and OP ($\alpha=0.92$) subscales were appropriate.

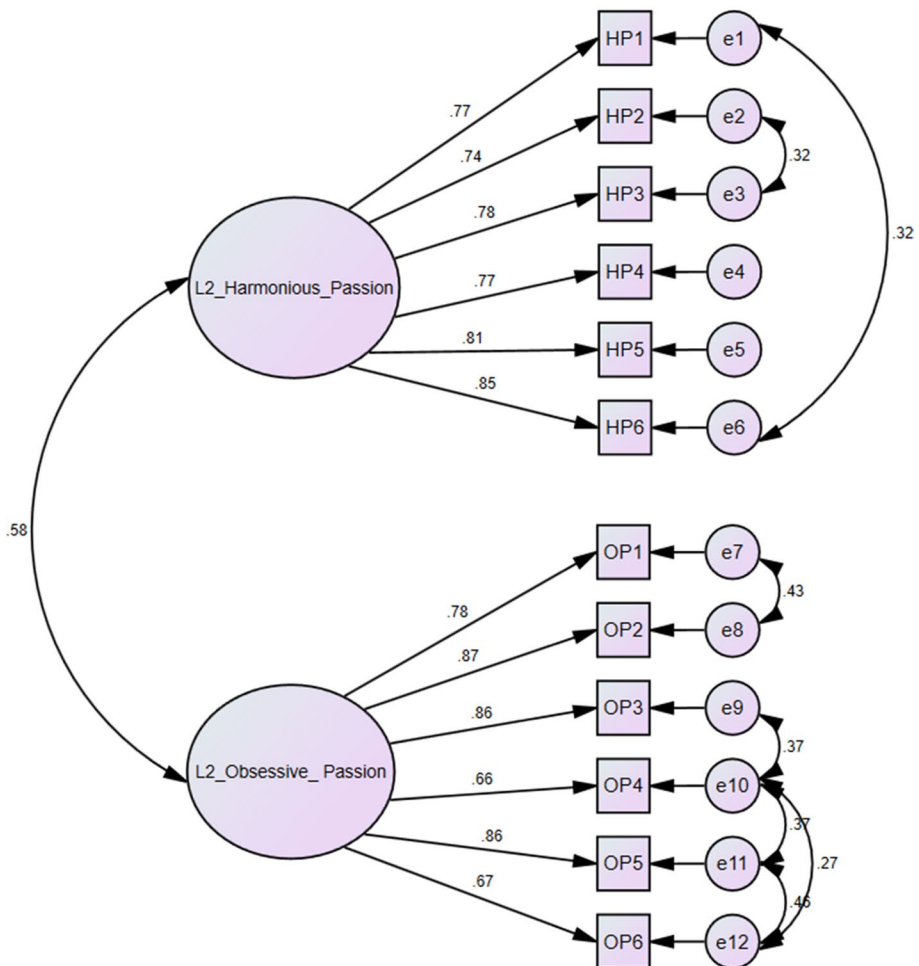


Fig. 2 CFA results of HP and OP for L2 learning. All the paths are statistically significant ($p < .05$)

6.2.2 L2 Mastery Goals

The L2 Mastery Goal Scale (Lake 2016) was used for assessing Mastery Goals in L2 learning with 7 items (e.g., “In the second language learning class, my goal is to learn as much as possible”). Items in this scale were adapted to L2 from the Mastery-approach goal literature and achievement goal questionnaire (Elliot and McGregor 2001; Elliot and Murayama 2008), and its validity and reliability have been supported largely by numerous empirical studies. Responses to all items were scored on a six-point Likert scale, ranging from (1) “Definitely not true of me” to (6) “Definitely true of me”. Higher scores represent higher levels of mastery goals in learning L2. In this study, the Cronbach’s α was 0.91.

6.2.3 L2 Flow

The short Flow Scale (FSS-2) (Jackson et al. 2008) was used to assess flow while engaging in L2 learning. The L2 flow scale consists of 9 items assessing the general experience of flow in L2 learning (e.g., “In learning a second language, I am completely focused on the task at hand”). The short flow scale has shown good validity and reliability in different datasets (e.g., Jackson and Eklund 2002). Responses to all items were scored on a five-point Likert scale, ranging from (1) “Never” to (5) “Always”. Higher scores represent higher levels of flow in L2. In this study, the Cronbach’s α was 0.89.

6.2.4 Willingness to Communicate in L2

The Willingness to Communicate Scale (McCroskey 1992) was used to assess Willingness to communicate while engaging in L2 learning. This scale includes 12 items measuring one’s level of willingness to communicate in L2. Higher scores refer to greater willingness to communicate in L2 (e.g., “Present a talk to a group of strangers in the second language”). Responses to all items were scored on the response format, ranging from (0) “Never” to (100) “Always”. Previous research has shown that this scale has satisfactory validity and reliability (Khajavy et al. 2018; McCroskey 1992). In this study, the Cronbach’s α was 0.97.

6.2.5 Flourishing

The Short Flourishing Scale was used in this study to assess well-being in one’s life in general outside of L2 (Diener et al. 2010). This scale consists of 8 items that measure human flourishing (e.g., “I am optimistic about my future”). Responses to all items were scored on a six-point Likert scale, ranging from (1) “Definitely not true of me” to (6) “Definitely true of me”. Higher scores indicate higher perceived flourishing in life in general. Past research has repeatedly supported the validity and reliability of the Flourishing Scale (Lake 2016; Tong and Wang 2017). In this study, the Cronbach’s α was 0.85.

6.3 Data Analysis

Descriptive analyses were first conducted with the study variables (i.e., L2 HP, L2 OP, L2 mastery goals, L2 flow, willingness to communicate in L2, and flourishing in life). Then, Pearson correlational analysis was performed to explore the relationships among these study variables and the demographic variables (i.e., gender and age). Further, a path

analysis, a regression analysis, and a mediation analysis were conducted to examine the relationship among all study variables, by using IBM SPSS Statistics and AMOS 26 (IBM Corporation, Armonk, New York). A cut-off value of $p < 0.05$ was set to determine significance. Maximum Likelihood Estimation method was used to examine the Model fit based on the following criteria: Chi-square, the Tucker–Lewis index (TLI) and the comparative fit index (CFI) values and the root mean square error of approximation (RMSEA) value. The values range from 0–1, larger values of CFI and TLI indicate a better model fit, while a smaller RMSEA value indicates a better model fit. Acceptable fit indices typically include a non significant Chi-square, TLI and CFI values above 0.90, and a RMSEA value at or below 0.08 (Bryne 2016; Hooper et al. 2008).

7 Results

7.1 Preliminary Analyses

Before proceeding with the main analyses, all variables were screened for possible statistical assumption violations, as well as for outliers and missing values (Meyers et al. 2013). Due to the small percentage of missing values, the list-wise deletion approach as used in the analysis. All variables were found to be acceptable and no outliers were found. Means, standard deviations, and correlations all are presented in Table 1. The results of descriptive statistics suggested that there were no violations of normality as all variables were normally distributed (see Table 1). Correlational results also revealed that correlations were in line with hypotheses.

7.2 Path Analysis

The initial conceptual model of Fig. 1 was tested: both HP and OP for L2 were hypothesized to positively predict L2 flow and L2 mastery goals (although OP less so than HP)

Table 1 Correlations between all variables

	1	2	3	4	5	6	7	8
1. L2 HP	1.00							
2. L2 OP	.52**	1.00						
3. L2 mastery goals	.72**	.43**	1.00					
4. L2 flow	.73**	.52**	.70**	1.00				
5. Willingness in L2	.48**	.30**	.41**	.50**	1.00			
6. Flourishing	.43**	.26**	.47**	.39**	.18*	1.00		
7. Age	-.05	-.10	-.08	-.10	-.09	-.12*	1.00	
8. Gender (1 = male; 2 = female)	.08	.02	-.01	-.01	.04	.00	-.11	1.00
<i>M</i>	28.12	15.95	35.35	30.60	46.57	38.62	15.94	–
<i>SD</i>	5.52	6.69	5.24	6.61	25.19	5.65	.99	–

* $p < .05$, ** $p < .01$; L2: second language; HP: harmonious passion; OP: obsessive passion. There were no violations of normality of the research variables with skewness ranging from $-.60$ to $.46$, kurtosis ranging from $-.80$ to $.30$

that, in turn, were expected to both lead to flourishing and willingness to communicate in L2. In the process of determining the final model, the following steps were taken. First, the model in Fig. 1 was tested. Then, because the fit indices were not optimal ($\chi^2=48.72$, $df=6$, $p=0.000$, and other fit indices were not satisfactory: TLI=0.830, CFI=0.93, RMSEA=0.166 (90% CI 0.12–0.21), in line with recommendations from (Kline 2015), we used modification indices and tested a second model wherein the Flow to Flourishing path was removed (although other fit indices were near satisfactory: TLI=0.96, CFI=0.98, RMSEA=0.056 (90% CI 0.017–0.091), the Chi-Square remained significant, $\chi^2=25.52$, $df=14$, $p=0.03$), and then we finally added the direct path from HP to Flourishing. The final model had excellent fit to the data (see Fig. 3). Specifically, the Chi-square value was non-significant, $\chi^2=19.05$, $df=13$, $p=0.12$, and other fit indices were satisfactory: TLI=0.980, CFI=0.991, RMSEA=0.042 (90% CI 0.00–0.081). Standardized solutions of the final model are presented in Fig. 3.

The results in Fig. 3 revealed that both HP ($\beta=0.68$, 95% CI 0.55–0.70; $p<0.00$) and OP ($\beta=0.08$, 95% CI -0.01 to 0.16; $p>0.05$) positively predicted L2 mastery goals, although the path from OP was not significant. In turn, mastery goals positively predicted flourishing as well as willingness to communicate in L2, although this last path was only tangentially significant ($p<0.08$). The results also showed that both HP ($\beta=0.63$, 95% CI 0.55–0.70; $p<0.001$) and OP ($\beta=0.19$, 95% CI 0.09–0.29; $p<0.001$) positively predicted L2 flow that, in turn, positively predicted willingness to communicate in L2. Finally, the path from HP to flourishing was significant.

Results of regression analyses further revealed that the model variables yielded important effect sizes. According to Cohen (1992), $R^2=0.01$, 0.09, 0.25 refer to small, medium and large effect sizes respectively. Specifically, results revealed that the impact of HP on L2 mastery goals has much stronger predictive power ($R^2=0.34$, $p<0.001$) than OP ($R^2=0.00$; $p<0.001$). Similarly results revealed that the impact of HP on L2 flow had a

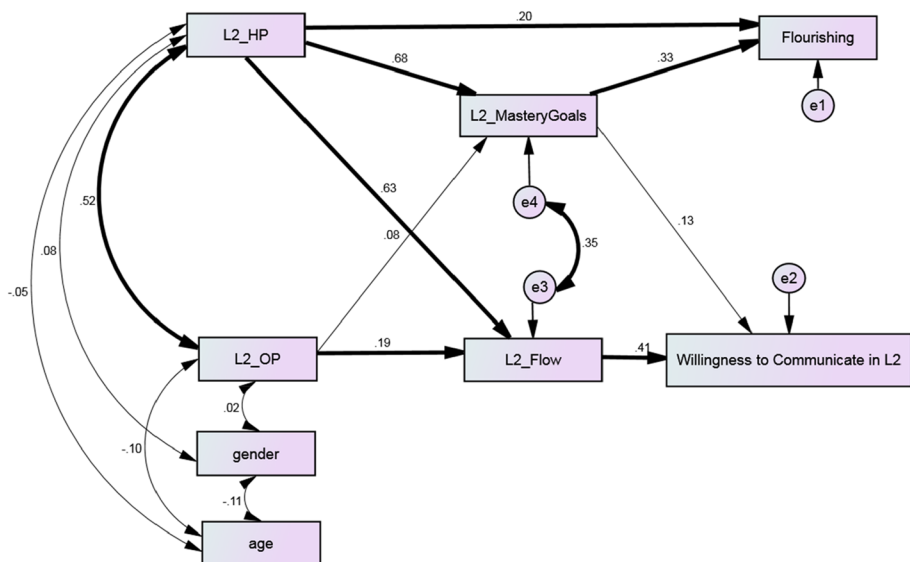


Fig. 3 Results of a path-analysis with the estimates of the standardized solution. The paths in bold are statistically significant ($p<.05$)

stronger predictive power ($R^2=0.29$; $p<0.001$) than OP ($R^2=0.02$; $p<0.001$). Overall, based on the stronger effect sizes and no overlapping CI, the results suggested that HP had significantly stronger associations with both L2 mastery goals and L2 flow than OP. In addition, the effect size for flourishing (from the predictors of HP and L2 mastery goals) was moderately high and significant ($R^2=0.24$, $p<0.001$) and similar to the effect size of willingness to communicate in L2 (from the predictors of HP, OP, L2 mastery goals and L2 flow) ($R^2=0.26$, $p<0.001$) (Cohen 1992).

7.3 Analyses of the Mediating Factors

Further mediation tests of the indirect effects were conducted by using the bootstrapping approach. If the CI of the indirect effect did not include zero, this means that the indirect effect was significant at $p=0.05$ (Shrout and Bolger 2002). Bias-corrected bootstrapped 95% confidence interval estimates indicated whether the L2 mastery goals and L2 flow were significant mediators in our current study. The results indicated that the path from passion through L2 mastery goal to flourishing was statistically significant from HP with an indirect effect of 0.22 ($SE=0.06$, 95% CI 0.13 to 0.37, $p<0.001$), but not significant from OP with an indirect effect of 0.03 ($SE=0.02$, 95% CI -0.001 to 0.06, $p>0.05$). In other words, L2 mastery goals was a significant mediator of the relationships between HP and flourishing only.

Table 2 Standardized indirect effects of HP and OP on flourishing and willingness to communicate through L2 mastery goal

	Point estimates	SE	Bootstrapping 95% CI	
			Lower	Upper
<i>Two paths of indirect effects on flourishing</i>				
L2 harmonious passions	.22***	.05	.13	.37
↓				
L2 mastery goals				
↓				
Flourishing				
L2 obsessive passion	.03	.02	-.00	.06
↓				
L2 mastery goals				
↓				
Flourishing				
<i>Two paths of indirect effects on Willingness in L2</i>				
L2 harmonious passions	.34**	.04	.26	.42
↓				
L2 flow				
↓				
Willingness in L2				
L2 Obsessive Passion	.09**	.02	.04	.14
↓				
L2 Flow				
↓				
Willingness in L2				

** $p<.01$, *** $p<.01$. SE standardized error, CI confidence interval

Moreover, L2 flow was a significant mediator of the relationships between the two passions and willingness to communicate in L2. Importantly, the paths were all statistically significant from passions through L2 flow to willingness to communicate in L2, the indirect effect from HP was 0.34 ($SE=0.04$, 95% CI 0.26 to 0.42, $p<0.001$) and the indirect effect from OP was 0.09 ($SE=0.02$, 95% CI 0.04 to 0.14, $p<0.001$) (see Table 2). Based on the effect size and no overlapping CI between these two paths, the results suggested that HP had a stronger influence on willingness to communicate in L2 through L2 flow than OP.

8 Discussion

The main goal of this study was to empirically explore whether and how passion contribute to the field of L2 learning by testing a process model linking passion, L2 flow, L2 mastery goals, and adaptive outcomes both *in* L2 as well as in the learner's life in general (i.e., *flourishing*). Specifically, in line with the DMP, results suggested that HP would more strongly predict positive L2 experiences of flow and mastery learning goals than OP. In turn, L2 flow and L2 mastery goals were expected to lead to willingness to communicate in L2 and to psychological flourishing in one's life in general. The results largely supported the DMP and lead to a number of conclusions.

8.1 Passion Matters with Respect to L2 Learning

A first conclusion is that passion matters in learning a L2. The present research is the first to apply the harmonious and obsessive passion constructs to learning a L2. The findings showed that passion matters as it predicted a number of outcomes in line with the DMP. Specifically, the results demonstrated that the two types of passion positively predicted mastery goals and flow in L2 learning although, as expected, HP had a more significant relationship with both mastery goals and flow in L2 than OP. The findings are consistent with the DMP that posits that HP leads to a higher focus (than OP) on self-improvement and experiences of L2 flow as well as a willingness to engage in L2. Future research is necessary to extend the present research to a number of other outcomes such as objective L2 improvement, long-term L2 proficiency, expansion of identity in line with the new L2, desire to visit countries where L2 is spoken and other L2 variables.

8.2 The Mediational Role of Positive Experiences in L2 Activity

A second conclusion is that positive L2 experiences of flow and mastery goals are important in their own right, of course, but also because they mediate the link between passion and other outcomes in L2. Indeed, the present findings showed that the link between passion (and especially HP) and more long-term outcomes like willingness to communicate in L2 was mediated by flow experiences. These findings are in agreement with previous findings that show that experiencing less anxiety (Baker and MacIntyre 2000) and fewer negative emotions while engaging in L2 activities (Khajavy et al. 2018) is conducive to more willingness to communicate in L2. The present findings also showed that experiencing flow in L2 leads to more willingness to communicate in L2. Future research is necessary to see if positive emotions (e.g., Fredrickson 2001) also mediate the relationships between passion and other L2 outcomes such as willingness to communicate in L2 and actual language improvement.

Of additional importance are the findings of this study that showed that mastery goals in L2 also led to life outcomes *outside* of L2 such as flourishing in one's life. These results are in line with the passion literature on the role of passion in flow and well-being (Vallerand 2010, 2012, 2015) and previous L2 research (Lake 2013) that has shown positive experiences in L2, including mastery goals, are associated with one's global well-being (including flourishing and happiness). However, the Lake (2016) study did not assess OP or address the issue of the "related factors" of L2 mastery goals. What the findings of the present study show is that passion for L2 (and especially HP) is a key factor that predicts mastery goals and flow in L2, and in turn, global well-being.

8.3 Unique Contribution of HP to Self-Growth in Other Life Areas

A final conclusion of this study is that passion (and especially HP) for L2 contributes to self-growth in other aspects of one's life. The results of this study have shown that HP contributes directly to flourishing and indirectly through its effect on mastery goals. This last finding suggests that other mediators, such as positive emotions, may be involved (Vallerand 2012). In other words, students with HP for engaging in L2 learning would be expected to experience more positive emotions and in turn, this would lead them to flourish in life. This result has been substantiated empirically in a variety of activities (Vallerand 2012, 2015; Rousseau et al. 2008), but not previously in L2. Future research is necessary to further test this finding. The present findings are also in line with the broaden and build theory (Fredrickson and Joiner 2002), that suggests that positive affect leads people to higher levels of subjective well-being through building personal resources over time. The encouraging message from this finding is that contrary to previous studies focusing on the negative side triggered by L2 learning (e.g., anxiety, stress, and depression), the present findings shed light on the beneficial side of L2 learning. Passionate L2 learning can benefit people while engaging in L2 activities as well as in their other domains of life. In other words, HP can motivate a person to learn a L2 while also experiencing a balanced, happy and flourishing life.

9 Limitations and Future Directions

Some limitations of this research should be underscored. First, this study was conducted in Taiwan with high school students and this may raise the concern of generalizability. However, because the passion construct has been found to be relevant in a variety of cultures and countries (e.g., Russia, Spain, Hungary, North America, Japan, Europe, etc.), we feel confident in the robustness of the present findings and their support of the DMP. Future research should seek to replicate these results in other cultural and L2 contexts. Second, the correlational nature of the design used in this study prevents us from inferring causality from the findings. Future research using an experimental induction of passion (see Belanger et al. 2013; Lafreniere et al. 2013) for L2 should be used as well as longitudinal designs looking at changes in L2 outcomes over time, in order to have a deeper understanding of the causal role of passion in L2 experiences and life outcomes. In addition, the covariances among item residuals added to the initial model could be related to additional sources of variability not yet covered in this model. Therefore, it is strongly recommended that future research may include other approaches (e.g., interview) for triangulation in

order to have a better understanding of the phenomenon. Finally, it should be underscored that only a few L2 variables were assessed in this study. Future research is necessary to extend these findings with respect to other L2 outcomes (e.g., L2 enjoyment, persistence) and the actual objective assessments of L2 performance and language usage, as well as life outcomes (e.g., life satisfaction, meaning in life, etc.).

Finally, because HP led to a stronger impact than OP on L2 learners' self-growth in both L2 and life in general, recommendations may be formulated regarding how to foster HP in L2. Thus, from a personal perspective, students are encouraged to discover their own strengths (Peterson and Seligman 2004) with the support of teachers and parents. In line with past research on passion and personal strengths (see Dubreuil et al. 2014, 2016; Forest et al. 2011), it is believed that identifying one's personal strengths in L2 learning may help individuals develop HP in L2, thereby facilitating their learning L2 and overall well-being. For example, aligned with the Values in Action character strengths concept in positive psychology (Peterson and Seligman 2004), teachers could include activities in a L2 class allowing individuals to identify their own personal strengths (e.g., discovery, sense of humor, connecting with others etc.) and encourage them to use these while performing L2 exercises. Finding ways to focus on personal character strength discovery during L2 learning, could enhance the development of L2 harmonious passion and associated positive adaptive outcomes for learners. From a teaching perspective, teachers are encouraged to take a positive psychology perspective in L2 learning, by emphasizing not only on L2 achievement, but also the psychological well-being of their students. Educators could start by introducing passion-based strategies in their classes, such as applying novelty and challenges in L2 learning activities, choosing familiar and interesting topics in L2 learning (Cao 2014), or providing autonomy support and choices (Mageau et al. 2009). Moreover, teachers could strive to create relaxing, supportive, and happy classroom environments in order to reduce external pressure and anxiety associated with leaning and performing in a L2. One example would be to postpone error correction to a later time in the learning of an L2 and provide effort praise and friendly behavior to learners to encourage their willingness to communicate in L2 in the classroom and outside of class (Khajavy et al. 2018).

In sum, the findings of this study underscore the fundamental importance of passion in the L2 realm and how it may contribute to both L2 learning and general life outcomes. It is not sufficient to be passionate for L2 activities to optimally experience outcomes in L2 and life; the learner also needs to be harmoniously passionate to maximize such outcomes. Future research is necessary to extend our understanding of the role of passion in L2 and to more firmly anchor L2 in the field of positive psychology.

Compliance of Ethical Standards

Conflict of interest There is no potential conflict of interest among the authors.

Informed Consent This research was approved by Research Compliance Office (Human Subjects Research) of the university. Before starting the survey, informed consent was obtained by student and their parents.

Appendix: Summary of Passion Subscales

Below is a list of statements dealing with your second language (L2) learning. There is no right or wrong answer.

(1) “Definitely not true of me” to (6) “Definitely true of me”.

L2 Harmonious passion subscale

1. L2 learning is in harmony with the other activities in my life.
2. The new things that I discover with L2 learning allow me to appreciate it even more.
3. L2 learning reflects the qualities I like about myself.
4. L2 learning allows me to live a variety of experiences.
5. L2 learning is well integrated in my life.
6. L2 learning is in harmony with other things that are part of me.

L2 Obsessive passion subscale

1. I have difficulties controlling my urge to learn L2.
2. I have almost an obsessive feeling for learning L2.
3. Learning L2 is the only thing that really turns me on.
4. If I could, I would only learn L2.
5. Learning L2 is so exciting that I sometimes lose control over it.
6. I have the impression that learning L2 controls me.

References

- Baker, S. C., & MacIntyre, P. D. (2000). The role of gender and immersion in communication and second language orientations. *Language Learning, 50*(2), 311–341.
- Barcelos, A. M. F., & Coelho, H. S. H. (2016). Language learning and teaching: What’s love got to do with it. In MacIntyre, Gregersen, & Mercer (Eds.), *Positive psychology in SLA* (pp. 130–144). Derby: Multilingual Matters.
- Bélanger, J., Lafrenière, M.-A., Vallerand, R. J., & Kruglanski, A. W. (2013). When passion makes the heart grow colder: The role of passion in alternative goal suppression. *Journal of Personality and Social Psychology, 104*, 126–147.
- Bonneville-Roussy, A., Lavigne, G. L., & Vallerand, R. J. (2011). When passion leads to excellence: The case of musicians. *Psychology of Music, 39*(1), 123–138.
- Bonneville-Roussy, A., Vallerand, R. J., & Bouffard, T. (2013). The roles of autonomy support and harmonious and obsessive passions in educational persistence. *Learning and Individual Differences, 24*, 22–31.
- Bonneville-Roussy, A., & Vallerand, R. J. (2020). Passion at the heart of musicians’ well-being. *Psychology of Music, 48*(2), 266–282.
- Brislin, R. W. (1970). Back-translation for cross-cultural research. *Journal of Cross-cultural Psychology, 1*(3), 185–216.
- Byrne, B. M. (Ed.). (2016). *Structural equation modeling with AMOS: Basic concepts, applications, and programming*. New York, NY: Routledge.
- Carbonneau, N., Vallerand, R. J., & Massicotte, S. (2010). Is the practice of yoga associated with positive outcomes? The role of passion. *The Journal of Positive Psychology, 5*(6), 452–465.
- Carpentier, J., Mageau, G. A., & Vallerand, R. J. (2012). Ruminations and flow: Why do people with a more harmonious passion experience higher well-being? *Journal of Happiness Studies, 13*(3), 501–518.
- Cao, Y. (2014). A sociocognitive perspective on second language classroom willingness to communicate. *Tesol Quarterly, 48*(4), 789–814.
- Chen, X., & Padilla, A. M. (2019). Role of bilingualism and biculturalism as assets in positive psychology: Conceptual dynamic gear model. *Frontiers in Psychology, 10*, 2122.
- Curran, T., Hill, A. P., Appleton, P. R., Vallerand, R. J., & Standage, M. (2015). The psychology of passion: A meta-analytical review of a decade of research on intrapersonal outcomes. *Motivation and Emotion, 39*(5), 631–655.

- Comanaru, R., & Noels, K. A. (2009). Self-determination, motivation, and the learning of Chinese as a heritage language. *Canadian Modern Language Review*, 66(1), 131–158.
- Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112(1), 155–159.
- Deci, E. L., & Ryan, R. M. (2004). *Handbook of self-determination research*. Rochester, NY: University Rochester Press.
- Dewaele, J.-M., & Dewaele, L. (2017). The dynamic interactions in foreign language classroom anxiety and foreign language enjoyment of pupils aged 12 to 18. A pseudo-longitudinal investigation. *Journal of the European Second Language Association*, 1(1), 12–22.
- Dewaele, J.-M., & MacIntyre, P. D. (2014). The two faces of Janus? Anxiety and enjoyment in the foreign language classroom. *Studies in Second Language Learning and Teaching*, 4(2), 237–274.
- Dewaele, J.-M., MacIntyre, P. D., Boudreau, C., & Dewaele, L. (2016). Do girls have all the fun? Anxiety and enjoyment in the foreign language classroom. *Theory and Practice of Second Language Acquisition*, 2(1), 41–63.
- Dewaele, J.-M., Witney, J., Saito, K., & Dewaele, L. (2018). Foreign language enjoyment and anxiety: The effect of teacher and learner variables. *Language Teaching Research*, 22(6), 676–697.
- Dewaele, J. M., & MacIntyre, P. D. (2018). Flow in the Spanish foreign language classroom. Unpublished manuscript.
- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C., Choi, D.-W., Oishi, S., & Biswas-Diener, R. (2010). New well-being measures: Short scales to assess flourishing and positive and negative feelings. *Social Indicators Research*, 97(2), 143–156.
- Dörnyei, Z. (2009). The L2 motivational self system. *Motivation, Language Identity and the L2 Self*, 36(3), 9–11.
- Dörnyei, Z., & Ushioda, E. (Eds.). (2009). *Motivation, language identity and the L2 self*. Bristol, UK: Multilingual Matters.
- Dubreuil, P., Forest, J., & Courcy, F. (2014). From strengths use to work performance: The role of harmonious passion, subjective vitality, and concentration. *The Journal of Positive Psychology*, 9(4), 335–349.
- Dubreuil, P., Forest, J., Gillet, N., Fernet, C., Thibault-Landry, A., Crevier-Braud, L., & Girouard, S. (2016). Facilitating well-being and performance through the development of strengths at work: Results from an intervention program. *International Journal of Applied Positive Psychology*, 1(1–3), 1–19.
- Elliot, A. J., & McGregor, H. A. (2001). A 2 × 2 achievement goal framework. *Journal of personality and social psychology*, 80(3), 501.
- Elliot, A. J., & Murayama, K. (2008). On the measurement of achievement goals: Critique, illustration, and application. *Journal of Educational Psychology*, 100(3), 613.
- Egbert, J. (2004). A study of flow theory in the foreign language classroom. *Canadian Modern Language Review*, 60(5), 549–586.
- Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, 56(3), 218–226.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13(2), 172–175.
- Forest, J., Mageau, G. A., Sarrazin, C., & Morin, E. M. (2011). “Work is my passion”: The different affective, behavioural, and cognitive consequences of harmonious and obsessive passion toward work. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, 28(1), 27–40.
- Gardner, R. C. (2010). *Motivation and second language acquisition: The Socio-educational Model*. New York: Peter Lang.
- Gabryś-Barker, D., & Gałajda, D. (Eds.). (2016). *Positive psychology perspectives on foreign language learning and teaching*. New York, NY: Springer.
- Gardner, R. C., & Lambert, W. E. (1972). *Attitudes and motivation in second-language learning*. Newbury House: Rowley, MA.
- Guilbault, V., Harvey, S. P., & Vallerand, R. J. (2020). Dancing with passion: A look at interpersonal relationships. *Psychology of Sport and Exercise*. <https://doi.org/10.1016/j.psychsport.2020.101667>.
- Harackiewicz, J. M., & Elliot, A. J. (1993). Achievement goals and intrinsic motivation. *Journal of Personality and Social Psychology*, 65(5), 904–915.
- Heutte, J., Fenouillet, F., Martin-Krumm, C., & Vallerand, R. J. (2018). Mediating effects of Flow on harmonious passion: contribution to the exploration of bright side and dark side of Flow in educational context. In *9th European conference on positive psychology (ECCPP), 2018, Budapest, Hungary*.
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *Articles*, 2.
- Jackson, S. A., & Eklund, R. C. (2002). Assessing flow in physical activity: The Flow State Scale-2 (FSS-2) and Dispositional Flow Scale-2 (DFS-2). *Journal of Sport & Exercise Psychology*, 24, 133–150.

- Jackson, S. A., Martin, A. J., & Eklund, R. C. (2008). Long and short measures of flow: The construct validity of the FSS-2, DFS-2, and new brief counterparts. *Journal of Sport and Exercise Psychology, 30*(5), 561–587.
- Jahedizadeh, S., Ghanizadeh, A., & Ghonsooly, B. (2016). The role of EFL learners' demotivation, perceptions of classroom activities, and mastery goal in predicting their language achievement and burnout. *Asian-Pacific Journal of Second and Foreign Language Education, 1*(1), 1–17.
- Kaplan, A., & Maehr, M. L. (1999). Achievement goals and student well-being. *Contemporary Educational Psychology, 24*(4), 330–358.
- Khajavy, G. H., MacIntyre, P. D., & Barabadi, E. (2018). Role of the emotions and classroom environment in willingness to communicate: Applying doubly latent multilevel analysis in second language acquisition research. *Studies in Second Language Acquisition, 40*(3), 605–624.
- Kline, R. (2015). *Principles and practice of structural equation modeling* (4th ed.). New York: Guilford.
- Koul, R., Roy, L., Kaewkuekool, S., & Ploisawaschai, S. (2009). Multiple goal orientations and foreign language anxiety. *System, 37*(4), 676–688.
- Lafrenière, M.-A.K., Vallerand, R. J., & Sedikides, C. (2013). On the Relation between Self-Enhancement and Life Satisfaction: The Moderating Role of Passion. *Self and Identity, 12*, 516–530.
- Lake, J. (2013). Positive L2 self: Linking positive psychology with L2 motivation. In M. T. Apple & D. da Silva (Eds.), *Language learning motivation in Japan* (pp. 225–244). Derby, UK: Multilingual Matters.
- Lake, J. (2016). Accentuate the positive: Conceptual and empirical development of the positive L2 self and its relationship to L2 proficiency. In MacIntyre, Gregersen, & Mercer (Eds.), *Positive psychology in SLA* (pp. 237–257). Derby, UK: Multilingual Matters.
- Marsh, H. W., Vallerand, R. J., Lafrenière, M. A. K., Parker, P., Morin, A. J., Carbonneau, N., & Salah Abduljabbar, A. (2013). Passion: Does one scale fit all? Construct validity of two-factor passion scale and psychometric invariance over different activities and languages. *Psychological Assessment, 25*(3), 796–809.
- Mageau, G. A., Vallerand, R. J., Rousseau, F. L., Ratelle, C. F., & Provencher, P. J. (2005). Passion and gambling: Investigating the Divergent affective and cognitive consequences of gambling I. *Journal of Applied Social Psychology, 35*(1), 100–118.
- Mageau, G. A., Vallerand, R. J., Charest, J., Salvy, S. J., Lacaille, N., Bouffard, T., & Koestner, R. (2009). On the development of harmonious and obsessive passion: The role of autonomy support, activity specialization, and identification with the activity. *Journal of Personality, 77*(3), 601–646.
- MacIntyre, P. D. (2017). An overview of language anxiety research and trends in its development. In C. Gkonou, M. Daubney, & J.-M. Dewaele (Eds.), *New insights into language anxiety: Theory, research and educational implications* (pp. 11–30). Bristol: Multilingual Matters.
- MacIntyre, P. D., Baker, S. C., Clément, R., & Donovan, L. A. (2002). Sex and age effects on willingness to communicate, anxiety, perceived competence, and L2 motivation among junior high school French immersion students. *Language Learning, 52*(3), 537–564.
- MacIntyre, P. D., & Charos, C. (1996). Personality, attitudes, and affect as predictors of second language communication. *Journal of Language and Social Psychology, 15*(1), 3–26.
- MacIntyre, P. D., Clément, R., Dörnyei, Z., & Noels, K. A. (1998). Conceptualizing willingness to communicate in a L2: A situational model of L2 confidence and affiliation. *The Modern Language Journal, 82*(4), 545–562.
- MacIntyre, P., & Gregersen, T. (2012a). Emotions that facilitate language learning: The positive-broadening power of the imagination. *Studies in Second Language Learning and Teaching, 2*, 193–213.
- MacIntyre, P., & Gregersen, T. (2012b). Affect: The role of language anxiety and other emotions in language learning. In S. Mercer, S. Ryan, & M. Williams (Eds.), *Psychology for language learning* (pp. 103–118). London: Palgrave Macmillan.
- MacIntyre, P. D., Gregersen, T., & Mercer, S. (Eds.). (2016). *Positive psychology in SLA*. Derby: Multilingual Matters.
- MacIntyre, P. D., & Mercer, S. (2014). Introducing positive psychology to SLA. *Studies in Second Language Learning and Teaching, 4*(2), 153–172.
- McCroskey, J. C. (1992). Reliability and validity of the willingness to communicate scale. *Communication Quarterly, 40*(1), 16–25.
- McEown, M. S., Noels, K. A., & Chaffee, K. E. (2014). At the Interface of the socio-educational model, self-determination theory and the L2 motivational self system models. In Csizer & Magid (Eds.), *The impact of self-concept on language learning* (pp. 19–50). Bristol: Multilingual Matters.
- Meyers, L. S., Gamst, G. C., & Guarino, A. (Eds.). (2013). *Performing data analysis using IBM SPSS*. Hoboken, New Jersey: Wiley.
- Nakamura, J., & Csikszentmihalyi, M. (2014). *The concept of flow: Flow and the foundations of positive psychology* (pp. 239–263). New York: Springer.

- Northwood, B. (2014). *Passion, persistence & learning Japanese*. Paper presented at the Proceedings of the 18th Conference of the Japanese Studies. Association of Australia, Peerreviewed Full Papers, The Australian National University.
- Oxford, R. L. (2016). Toward a psychology of well-being for language learners: The “EMPATHICS” vision. In MacIntyre, Gregersen, & Mercer (Eds.), *Positive psychology in SLA* (pp. 10–87). Derby: Multilingual Matters.
- Oxford, R. L., & Cuéllar, L. (2014). Positive psychology in cross-cultural narratives: Mexican students discover themselves while learning Chinese. *Studies in Second Language Learning and Teaching*, 4(2), 173–203.
- Orosz, G., Zsila, Á., & Vallerand, R. J., & Böthe, B. (2018). On the determinants and outcomes of passion for playing Pokémon Go. *Frontiers in Psychology*, 9, 316. <https://doi.org/10.3389/fpsyg.2018.00316>.
- Patrick, H., Kaplan, A., & Ryan, A. M. (2011). Positive classroom motivational environments: Convergence between mastery goal structure and classroom social climate. *Journal of Educational Psychology*, 103(2), 367–382.
- Peterson, C., & Seligman, M. E. (2004). *Character strengths and virtues: A handbook and classification*. Oxford: Oxford University Press.
- Phillips, G. M. (1968). Reticence: Pathology of the normal speaker. *Communications Monographs*, 35(1), 39–49.
- Phillips, G. M. (1977). Rhetoritherapy versus the medical model: Dealing with reticence. *Communication Education*, 26(1), 34–43.
- Philippe, F. L., Vallerand, R. J., & Lavigne, G. L. (2009). Passion does make a difference in people's lives: A look at well-being in passionate and non-passionate individuals. *Applied Psychology: Health and Well-Being*, 1(1), 3–22.
- Pishghadam, R., Zabetipour, M., & Aminzadeh, A. (2016). Examining emotions in English language learning classes: A case of EFL emotions. *Issues in Educational Research*, 26(3), 508–527.
- Rousseau, F. L., & Vallerand, R. J. (2008). An examination of the relationship between passion and subjective well-being in older adults. *The International Journal of Aging and Human Development*, 66(3), 195–211.
- Shrout, P. E., & Bolger, N. (2002). Mediation in experimental and nonexperimental studies: New procedures and recommendations. *Psychological Methods*, 7(4), 422.
- St-Louis, A. C., Carbonneau, N., & Vallerand, R. J. (2016). Passion for a cause: How it affects health and subjective well-being. *Journal of Personality*, 84(3), 263–276.
- Scovel, T. (1978). The effect of affect on foreign language learning: A review of the anxiety research. *Language Learning*, 28(1), 129–142.
- Seligman, M. E. (2002). Positive psychology, positive prevention, and positive therapy. In C. R. Snyder & S. J. Lopez (Eds.), *Handbook of positive psychology* (pp. 3–9). Oxford: Oxford University Press.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55(1), 5–14.
- Tong, K. K., & Wang, Y. Y. (2017). Validation of the flourishing scale and scale of positive and negative experience in a Chinese community sample. *PLoS ONE*, 12(8), e0181616. <https://doi.org/10.1371/journal.pone.0181616>.
- Tuominen-Soini, H., Salmela-Aro, K., & Niemivirta, M. (2008). Achievement goal orientations and subjective well-being: A person-centred analysis. *Learning and Instruction*, 18(3), 251–266.
- Vallerand, R. J. (1989). Vers une méthodologie de validation transculturelle de questionnaires psychologiques: Implications pour la recherche en langue française. *Canadian Psychology*, 30, 662–678. [Toward a cross-cultural methodological validation procedure for psychological scales: Implications for research in the French language].
- Vallerand, R. J. (2010). On passion for life activities: The Dualistic Model of Passion. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 42, pp. 97–193). New York: Academic Press.
- Vallerand, R. J. (2012). The role of passion in sustainable psychological well-being. *Psychological Well-Being: Theory, Research, and Practice*, 2, 1–21.
- Vallerand, R. J. (2015). *The psychology of passion: A Dualistic Model*. New York: Oxford University Press.
- Vallerand, R. J., Blanchard, C. M., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., Gagné, M., & Marsolais, J. (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85, 756–767.
- Vallerand, R. J., Salvy, S. J., Mageau, G. A., Elliot, A. J., Denis, P., Grouzet, F. M. E., & Blanchard, C. B. (2007). On the role of passion in performance. *Journal of Personality*, 75, 505–534.
- Vallerand, R. J., Mageau, G. A., Elliot, A., Dumais, A., Demers, M.-A., & Rousseau, F. L. (2008). Passion and performance attainment in sport. *Psychology of Sport & Exercise*, 9, 373–392.

- Vallerand, R. J., Paquet, Y., Philippe, F. L., & Charest, J. (2010). On the role of passion in burnout: A process model. *Journal of Personality*, *78*, 289–312.
- Vallerand R. J., & Rahimi, S. (in press). On the psychometric properties of the passion scale. In A. Efklides, I. Alonso-Arbiol, T. Ortner, W. Ruch & F. J. R. van de Vijver (Eds.), *Psychological assessment in positive psychology*. New York: Hogrefe.
- Yashima, T. (2002). Willingness to communicate in a second language: The Japanese EFL context. *The Modern Language Journal*, *86*(1), 54–66.
- Yashima, T., MacIntyre, P. D., & Ikeda, M. (2018). Situated willingness to communicate in an L2: Interplay of individual characteristics and context. *Language Teaching Research*, *22*(1), 115–137.
- Zhao, Y., St-Louis, A., & Vallerand, R. J. (2015). On the validation of the passion scale in Chinese. *Psychology of Well-Being*, *5*(1), 3. <https://doi.org/10.1186/s13612-015-0031-1>.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.