Passion Does Make a Difference in People's Lives: A Look at Well-Being in Passionate and Non-Passionate Individuals

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The purpose of the present research was to examine the differences in well-being between passionate and non-passionate individuals of various age groups. The results of two studies (total n=885) provided support for the hypothesis that being harmoniously passionate for an activity contributes significantly to both hedonic and eudaimonic well-being, while being obsessively passionate for an activity or having no passion at all does not contribute to well-being. Furthermore, results from Study 2 showed that only harmoniously passionate people experienced an increase in subjective vitality over a 1-year period compared to obsessively passionate and non-passionate people who did not differ from each other. These results also held true after controlling for the effect of age and gender. It would thus appear that passion does make a difference in people's lives, as long as such passion is harmonious in nature.

Keywords: activity engagement, eudaimonic well-being, hedonic well-being, passion, vitality, well-being

INTRODUCTION

The last decade has seen a mounting interest in positive psychology and in the quest for what makes life fulfilling and worth living (e.g. Seligman & Csikszentmihalyi, 2000). What factors help people become happy and grow psychologically? We posit that one concept that can contribute to one's happiness and self-growth is that of passion toward activities (Vallerand, 2008; Vallerand et al., 2003). Indeed, people who frequently engage in an

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activity that they deeply love and value may feel good about this activity and experience positive emotions during task engagement. In addition, they may also come to feel more zest and meaning in their life than people who are not passionate about anything in their life, because passionate people have something to look forward to when they rise in the morning. In that sense, people who are passionate about an activity should experience higher levels of well-being than individuals who do not engage in such a type of activity in their life. Using the Dualistic Model of Passion (Vallerand, 2008; Vallerand et al., 2003), the purpose of the present research was thus to examine the differences in well-being between passionate and non-passionate people of various age groups.

THE CONCEPT OF PASSION: A DUALISTIC PERSPECTIVE

Vallerand and his colleagues (Vallerand, 2008; Vallerand et al., 2003; Vallerand & Houlfort, 2003; Vallerand & Miquelon, 2007) have recently proposed a Dualistic Model of Passion in which passion is defined as a strong inclination or desire toward a self-defining activity that one likes (or even loves), finds important (high valuation), and in which one invests time and energy. The Dualistic Model of Passion further proposes that there exist two types of passion. The first type of passion is harmonious passion. A harmonious passion produces a strong desire to engage in the activity which remains under the person's control. This type of passion results from an autonomous internalisation of the activity into the person's identity (Deci & Ryan, 2000; Vallerand et al., 2003). An autonomous internalisation occurs when individuals have freely accepted the activity as important for them without any contingencies attached to it (Sheldon, 2002; Vallerand, 1997). In such a case, the activity occupies a significant but not overpowering space in the person's identity and is in harmony with other aspects of the person's life. An example of such a type of passion would be that with harmonious passion the person strongly loves and values basketball. However, this person also keeps control over the activity and can freely decide when to engage or not in basketball and when to stop engagement. Basketball would then be engaged in because of the pleasure that is drawn from the activity and not from other extrinsic sources (e.g. being popular because of basketball) and leads to a task-focus involvement that is conducive to positive outcomes (e.g. positive affect, flow, concentration).

The second type of passion identified by Vallerand and colleagues (2003) is obsessive passion. This type of passion entails the same strong desire to engage in the activity, as in harmonious passion. However, this desire of engagement is not under the person's control. Rather, it is as if the activity controlled the person. Obsessive passion results from a controlled internalisation of the activity into one's identity (Vallerand et al., 2003). Such an

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internalisation originates from intra and/or interpersonal pressure because certain contingencies are attached to the activity such as feelings of social acceptance, self-esteem, or performance. Thus, although individuals like the activity, they cannot help but engage in it due to a lack of control over these internal contingencies that come to control the person. It is proposed that individuals with an obsessive passion come to develop ego-invested structures (Hodgins & Knee, 2002) and eventually display rigid and conflicted forms of task engagement that preclude the experience of volition in activity engagement. An example of such a type of passion could be a person who strongly loves and values basketball, but because this activity fulfills a strong need for approval or performance which boosts momentarily one's selfesteem, this person cannot help but engage in basketball, including at times when the activity should not be engaged in or should be stopped. This type of passion should not be confused with the concept of addiction for an activity. An addiction for a daily activity such as sports, gardening, or playing of a musical instrument usually constitutes a very rare pathology. In addition, addictions are often used to describe substance abuse, such as smoking, alcohol drinking, or drug abuse, which can hardly be conceptualised as an activity (gambling might be an exception). Finally, an important distinction between obsessive passion and addiction is that the addict person does not perceive his/her addictive activity as enjoyable anymore, while loving and valuing the activity are core criteria of obsessive passion. Addictive gamblers for instance do not like gambling anymore; they want to stop gambling and often seek therapies by themselves or self-exclude themselves from casinos.1

Research has provided empirical support for the concept of passion. Results from exploratory and confirmatory factor analyses supported the two-factor structure of the Passion Scale, an instrument developed to measure harmonious and obsessive passion (Castelda, Mattson, Mackillop, Anderson, & Donovick, 2007; Rousseau, Vallerand, Ratelle, Mageau, & Provencher, 2002; Vallerand et al., 2003, Study 1; Vallerand, Rousseau, Grouzet, Dumais, & Grenier, 2006, Study 1). The Passion Scale has shown high levels of internal consistency as well as predictive, discriminant, construct, and external evidence of validity. Results using this scale revealed that both harmonious and obsessive passion were positively associated with measures of activity valuation, perceptions of the activity as a passion, time and energy investment in the activity, and inclusion of the activity in the person's identity (Mageau et al., in press; Vallerand et al., 2003, Study 1).

¹ See Vallerand (2008) for a comprehensive treatment of the differentiation between the concept of passion and other related constructs.

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Both types of passion were also found to be positively associated with activity perseverance (Vallerand et al., 2008, Study 1; Vallerand et al., 2007, Study 1).

The two types of passion are also differently associated with a variety of outcomes. Indeed, harmonious passion has been found to be positively correlated with positive experiences such as flow and positive emotions (Mageau, Vallerand, Rousseau, Ratelle, & Provencher, 2005; Vallerand et al., 2003, Study 1; Vallerand et al., 2006, Studies 2 and 3), reduced negative emotions (Mageau et al., 2005; Vallerand et al., 2003, Study 1), higher levels of concentration during task engagement (Mageau et al., 2005; Vallerand et al., 2003, Study 1), and indices of psychological adjustment (Rousseau & Vallerand, 2003, 2008; Vallerand et al., 2008, Study 2; Vallerand et al., 2007, Studies 1 and 2). Conversely, obsessive passion has been found to be positively associated with negative emotions during task engagement (Vallerand et al., 2003, Study 1) and rumination when the person is prevented from engaging in his/her passionate activity (Ratelle, Vallerand, Mageau, Rousseau, & Provencher, 2004; Vallerand et al., 2003, Study 1). In addition, obsessive passion was found to be positively correlated with ill-advised persistent behavior in conditions where activity engagement should be stopped (Rip, Fortin, & Vallerand, 2006; Vallerand et al., 2003, Studies 3 and 4). Finally, obsessive passion has been shown to either negatively predict indices of psychological adjustment or to be unrelated to them (Rousseau & Vallerand, 2003, 2008; Vallerand et al., 2008, Study 2; Vallerand et al., 2007, Study 2).

THE PRESENT RESEARCH: PASSION AND WELL-BEING

Research conducted to date on passion revealed that, while harmonious passion is generally conducive to positive outcomes (e.g. positive emotions, flow, concentration), obsessive passion is usually associated with negative outcomes (e.g. negative emotions, rumination, ill-advised behavior) and negatively associated or unrelated to positive outcomes. However, past research on passion involved only passionate people. Therefore, we do not know if people who hold a passion for a given activity experience a psychological gain relative to those who do not have a passion for any activity in their life. The first purpose of the present research was thus to examine if passionate people differ from non-passionate ones on measures of well-being. Because people who engage in a passionate activity may come to feel more zest and meaning in their life than people who do not hold a passion, passionate people may display higher levels of well-being than non-passionate people. A second purpose of the present research was to examine if having a passion makes a difference for everyone and across all life stages. Thus, differences in well-being as a function of passion were investigated in light of

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gender and age. Because passion has been shown to exist at all ages (e.g. Mageau & Vallerand, 2007; Mageau et al., in press; Philippe & Vallerand, 2007; Rousseau & Vallerand, 2008; Vallerand et al., 2008) and has demonstrated no or little differences with respect to gender (e.g. Mageau & Vallerand, 2007; Vallerand et al., 2003), this difference between passionate and non-passionate people is likely to take place throughout adult life and equally for men and women.

However, the past research presented above (e.g. Rousseau & Vallerand, 2003, 2008; Vallerand et al., 2008, Study 2; Vallerand et al., 2007, Studies 1 and 2) revealed that it is not all passionate activity engagement that guarantees well-being. Thus, the second purpose of the present research was to examine how harmoniously passionate people differ from obsessively passionate ones in well-being. In line with past research, it was expected that harmoniously passionate people should display higher levels of well-being than both obsessively passionate and non-passionate people. In addition, because with obsessive passion people do not benefit from the positive consequences related to their engagement in a passionate activity, obsessively passionate people should not differ from non-passionate individuals with respect to well-being. Finally, it was expected that these differences should remain the same at all stages of adult life for men and women.

STUDY 1

Study 1 examined the differences between harmoniously passionate, obsessively passionate, and non-passionate people on two facets of well-being across stages of adult life. The first facet of well-being can be defined in terms of the person's general happiness with his/her life (hedonic well-being: Diener, Sapyta, & Suh, 1998), while the second one is concerned with self-realisation or personal growth (eudaimonic well-being: Bauer, McAdams, & Sakaeda, 2005; Ryan & Deci, 2001; Ryan & Frederick, 1997; Ryff & Keyes, 1995). These different facets of well-being are posited to be related (e.g. self-realisation overlaps with pleasure and happiness), but also to constitute separate factors contributing to people's general well-being (e.g. Keyes, Shmotkin, & Ryff, 2002).

In Study 1, participants of various adult ages, that is early adulthood (18–22 years), adulthood (23–30 years), middle-age (31–50 years), and later adulthood (>51 years), were recruited. They completed the Passion Scale along with measures of two facets of well-being—hedonic and eudaimonic well-being. It was expected that passionate individuals would report higher levels of well-being compared to non-passionate people. However, in line with past research on passion (e.g. Vallerand, 2008; Vallerand & Houlfort, 2003; Vallerand & Miquelon, 2007; Vallerand et al., 2003), this difference between passionate and non-passionate people was expected *only* for

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harmoniously passionate people. It was predicted that obsessively passionate people should not differ from non-passionate people on the well-being measures. Therefore, harmoniously passionate people were expected to display higher levels of both hedonic and eudaimonic well-being than both obsessively passionate and non-passionate people who should not differ between them. Finally, past research has shown that passion exists from childhood to later adulthood (e.g. Mageau & Vallerand, 2007; Mageau et al., in press; Philippe & Vallerand, 2007; Rousseau & Vallerand, 2008; Vallerand et al., 2008) and that it was only slightly affected by gender differences (e.g. Mageau & Vallerand, 2007; Vallerand et al., 2008, Studies 1 and 2; Vallerand et al., 2007, Studies 1 and 2). Therefore, it was hypothesised that the differences among the three groups presented above should be the same for men and women of all adult ages.

METHOD

Participants

Four samples of participants were recruited in this study. Sample 1 was composed of 153 (78 males, 75 females) college students² (M = 18.80 years, SD = 1.15 years), Sample 2 consisted of 260 (67 males, 193 females) undergraduate students (M = 23.67 years, SD = 5.76 years), Sample 3 was composed of 256 (91 males, 165 females) community-dwelling adults (M = 38.69years, SD = 11.45 years) and Sample 4 included 113 (48 males, 65 females) senior individuals (M = 64.78 years, SD = 10.37 years). Overall, the total number of participants recruited for the present study was 782. They were aged between 18 and 90 years (M = 33.43 years, SD = 17.08 years). Participants engaged in their passionate activity on average for 9.16 hours per week (SD = 9.54 hours).

Measures

The Passion Scale (Vallerand et al., 2003) was administered to all participants in order to assess if they had a passion for a given activity in their life and the type and level of this passion. The Passion Scale is composed of two subscales of six items, each assessing a distinct type of passion harmonious and obsessive passion. Participants were first asked to write down an activity in which they engage and that they like, value, and in which

² In Quebec, Canada, college comes right after high school and is a two-year commitment prior to university studies (that last three years). College students are usually between 17 and 22 years old.

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they invest time and energy. They were then asked to respond to each of the 12 items of the Passion Scale while referring to this activity. Each item was responded to on a 7-point Likert scale ranging from 1 (do not agree at all) to 7 (completely agree). A sample item for obsessive passion is "I have difficulties controlling my urge to engage in my activity", while a sample item for harmonious passion is "My activity is in harmony with other things that are part of me". The scale has systematically displayed adequate factorial structure and internal consistency in several studies and with different types of activities (e.g. Rousseau et al., 2002; Vallerand et al., 2003, Study 1; Vallerand et al., 2006, Study 1). Cronbach's alphas in this study were .77 and .70 for the harmonious and obsessive subscales, respectively. Participants were also asked to complete four items assessing Vallerand and colleagues' criteria of passion (Vallerand et al., 2003). These four items were rated on a 7-point Likert scale ranging from 1 (do not agree at all) to 7 (completely agree), with each measuring one of these four aspects: the extent to which participants invest time in their activity, find it important, like it, and consider their activity as a passion. Cronbach's alpha for these four criteria was .74.

Hedonic Well-Being. The Hedonic approach views well-being in terms of the person's general happiness with his/her life (Ryan & Deci, 2001). The Satisfaction With Life Scale (SWLS: Diener, Emmons, Larsen, & Griffin, 1985) was used to assess participants' hedonic well-being in life, as this scale comes from the hedonic tradition (e.g. Bauer et al., 2005; Diener et al., 1998; Ryff & Singer, 1998). This scale is composed of five items that are responded to on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). A sample item is "I am satisfied with my life". Cronbach's alpha in this study was .85.

Eudaimonic Well-Being. The Eudaimonic approach views well-being in terms of self-realisation and growth (Ryan & Deci, 2001). The Psychological Well-Being short scale (PWB: Ryff, 1989; Ryff & Keyes, 1995) was used to assess eudaimonic well-being, as this scale comes from the eudaimonic tradition (e.g. Bauer et al., 2005; Ryff, 1989; Ryff & Singer, 1998). This short scale is composed of six subscales of three items, with each subscale assessing a specific aspect of eudaimonic well-being. Keyes et al. (2002) demonstrated that it was the existential aspects of the PWB scale that most cleanly separated eudaimonic from hedonic well-being. Therefore, in the present study, we used only the three subscales of the PWB that are related to existential aspects—that is, self-acceptance, purpose in life, and personal growth subscales—in order to cleanly disentangle it from the hedonic approach. These three subscales thus accounted for a total of nine items. Participants were asked to rate their agreement with each item on the basis of how they felt about themselves and their lives using the same 7-point Likert scale presented

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above. Acceptable evidence of validity and reliability for this short PWB has been reported (e.g. Miquelon & Vallerand, 2006; Ryff & Keyes, 1995), as well as evidence for a second-order model with a single super-factor (Ryff & Keyes, 1995). This latter evidence allows one to combine all items of the three different subscales into a global score. Cronbach's alpha in this study for this global eudaimonic well-being score was .66.

Procedure

College and undergraduate students were recruited in classrooms. They completed the questionnaire package during class hours and handed it to the research assistant in charge of the testing. Community-dwelling adults were recruited on a metropolitan train. A male research assistant approached them and briefly explained the purpose of the study. Participants who accepted to take part in the study completed the questionnaire on the train and, once finished, handed it to the research assistant. Senior adults were contacted through a private agency in charge of organising activities for older adults. The questionnaire, along with a cover letter explaining the purpose of the study, and a prepaid return envelope was sent to 400 participants by the agency. A total of 113 older adults returned their questionnaire completed for a response rate of 28 per cent. All participants were told that their participation was anonymous and that their responses would remain confidential. All participants signed a consent form and completed demographic information with respect to their gender and age. All participants from the present research (including Study 2) were allowed to take part in a lottery of three prizes of \$150 (one lottery of three prizes for each sample) in exchange for their participation.

RESULTS AND DISCUSSION

Preliminary Analyses

The two types of passion were first screened for gender and age differences with a MANOVA. Gender and age groups (18–22, 23–30, 31–50, 51+) were entered as the fixed factors, along with the interaction term age × gender, while the two continuous measures of passion (harmonious and obsessive passion) were entered as dependent variables. Results revealed a significant age × gender interaction, Wilks' λ = .971, F(773, 1546) = 3.84, p = .001, η^2 = .02. Post-hoc tests using the Bonferroni's correction on the alpha value (.05 / 4 = p < .013) revealed that the youngest males reported significantly higher levels of obsessive passion than females of the same age group, F(1, 460) = 21.15, p < .001, η^2 = .04, while females between 23 and 30 years reported higher levels of harmonious passion than males of the same age

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group, F(1, 460) = 7.24, p < .01, $\eta^2 = .02$. Thus overall, there were few differences on the passion variables and the large majority of the significant differences were of a relatively small effect size. Of particular interest is that neither harmonious nor obsessive passion differed according to age groups, thus suggesting that passion is relatively stable across the life span.

Passion and Well-Being

In line with previous research (e.g. Mageau et al., in press; Vallerand & Houlfort, 2003), a two-step procedure was used in order to create three different groups of participants: non-passionate, harmoniously passionate, and obsessively passionate people. First, participants were divided as being passionate or non-passionate according to their average score on the four items assessing the criteria of passion. Participants with a score of 5 and up on the average of these four items were classified as passionate, while the remaining participants were classified as non-passionate. Second, passionate participants were divided according to their score on the harmonious and obsessive subscales of passion. To perform this latter procedure, both subscales were first standardised. Next, participants were classified in the passion group corresponding to their highest standardised score on the two subscales (see Mageau et al., in press; Vallerand & Houlfort, 2003). The final classification was as follows: harmoniously passionate (n = 323), obsessively passionate (n = 264), and non-passionate (n = 195) groups. Figure 1 shows the mean

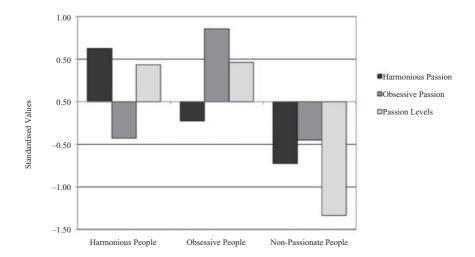


FIGURE 1. Mean scores of harmonious and obsessive passion and the passion criteria as a function of passionate group membership.

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scores of harmonious and obsessive passion and the passion criteria as a function of these groups.

A MANOVA was then conducted with Gender $(2) \times \text{Age } (4) \times \text{Passion}$ groups (3) as the fixed factors and the two well-being measures as the dependent variables. Results revealed no significant interactions, but three main effects; gender, Wilks' $\lambda = .991$, F(758, 758) = 3.28, p < .05, $\eta^2 = .01$, age, Wilks' $\lambda = .971$, F(758, 1516) = 5.29, p < .001, $\eta^2 = .02$, and passion, Wilks' $\lambda = .971$, F(758, 1516) = 17.56, p < .001, $\eta^2 = .05$. Follow-up contrasts revealed that females reported significantly higher levels of both hedonic and eudaimonic well-being than males, Fs(1, 759) > 4.40, p < .05, $\eta^2 = .01$. In addition, participants aged between 23 and 30 years reported significantly higher levels of eudaimonic well-being than any other age groups, Fs(3,(759) > 6.50, p < .01, $\eta^2 = .02$. Finally, participants over 50 years of age reported the lowest level of eudaimonic well-being of any of the age groups, Fs(3, 759) > 7.20, p < .01, $\eta = .02$. Finally, and more importantly, results revealed significant differences among the passionate groups for the two dependent variables, eudaimonic well-being, F(2, 759) = 32.94, p < .001, $\eta^2 = .08$, and hedonic well-being, F(2, 759) = 14.67, p < .001, $\eta^2 = .04$. Planned contrasts (see Table 1) corrected for non-orthogonality (p = .05 / 6 = .008) showed that harmoniously passionate participants scored higher on both well-being scales than obsessively passionate and non-passionate participants (all ts > 3.17, p < .001). These last two groups did not differ on the two well-being indices (all ts < 1.00, ns).

TABLE 1

Means and Standard Deviations in Hedonic and Eudaimonic Well-Being as a
Function of Passion Groups: Study 1

	Harmonious	Obsessive	Non-passionate	d [†]
Eudaimonic well-being	5.85 (0.59) _a	5.45 (0.67) _b	5.48 (0.67) _b	.63 and .59
Hedonic well-being	5.37 (0.97) _a	4.98 (1.13) _b	4.89 (0.99) _b	

Note: Standard deviations are in parentheses. The means that do not share a common subscript differ at p < .001. The means that share a common subscript do not differ at p < .008.

All well-being facets were measured with a 7-point Likert scale.

[†] Effects sizes are calculated only for significant differences.

³ The number of hours of weekly involvement was positively correlated to both harmonious and obsessive passion (rs = .15 and .17, respectively, ps < .05), and positively associated with hedonic well-being (r = .09, p < .05), but not eudaimonic well-being (r = .04, ns). However, the number of hours of weekly involvement was not significant when entered as a covariate in a MANCOVA. Therefore, no further analyses were conducted with respect to this variable.

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Thus, overall, passion accounted for important differences with respect to hedonic and eudaimonic well-being. First, harmoniously passionate participants scored significantly higher on hedonic and eudaimonic well-being than both obsessive and non-passionate participants. These latter two groups did not differ on these well-being measures. Second, passion accounted for important differences in both hedonic and eudaimonic well-being, even after controlling for age and gender effects. In addition, there were no interactions between age or gender and passion. Thus, the effect of passion appears to hold for men and women of all ages. It would therefore appear that being passionate does make a difference in people's lives with respect to both hedonic and eudaimonic well-being. However, passion needs to be harmonious for it to be beneficial.

Overall, age and gender did not play an important role in people's hedonic well-being, thus corroborating past research to this effect (e.g. Diener, Suh, Lucas, & Smith, 1999). However, there were some significant differences among the age groups with eudaimonic well-being, such that people in adulthood reported the highest scores of eudaimonic well-being and people in late adulthood reported lowest scores. These results corroborate recent findings to the effect that older adults' eudaimonic well-being may decrease over time (Ryff & Keyes, 1995; Ryff, Keyes, & Hughes, 2003; Ryff, Singer, & Love, 2004). However, this effect only accounted for a small portion of the variance of well-being. In addition, it should be noted that this finding differs from those of other studies that have obtained null results with respect to age using different measures of well-being (see Diener et al., 1999). Therefore, the present age effect must be interpreted with caution. Females also reported higher scores of eudaimonic well-being than males. These results corroborate past findings with respect to gender and eudaimonic well-being (e.g. Ryff & Keyes, 1995).

STUDY 2

Study 1 showed that harmoniously passionate people reported significantly higher well-being than obsessively passionate and non-passionate people. However, because Study 1 was cross-sectional, it did not allow us to interpret the direction of the relationship between passion and well-being. Study 2 aimed at addressing this limitation with the use of a prospective design. More specifically, community-dwelling participants from all ages (18 to 72 years) were recruited. They completed the Passion Scale along with a scale of subjective vitality—a measure of eudaimonic well-being (Ryan & Frederick, 1997; Ryan & Deci, 2001). One year later, they were asked to complete a second assessment of their subjective vitality. Subjective vitality was chosen as a measure of eudaimonic well-being, as this scale assesses the positive feelings of aliveness and energy emanating from the self (see Ryan & Frederick, 1997).

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In addition, because it is a measure of intrinsic energy, it is also subject to change over time. Indeed, past research found an 8-week test—retest coefficient of .64 for subjective vitality (Ryan & Frederick, 1997), while, for instance, the test—retest coefficient for the PWB scale ranges from .81 to .88 (Ryff, 1989). Thus, subjective vitality might be a measure of eudaimonic well-being that is more likely to change (increase or decrease) over time. Therefore, in line with Study 1, it was hypothesised that harmoniously passionate people should benefit from a much larger increase in subjective vitality over the 1-year period than obsessively passionate and non-passionate people. In line with Study 1, it was also expected that both obsessively passionate and non-passionate people should not increase in subjective vitality over the 1-year period and should not differ from each other. In addition, these differences should be the same for men and women of all ages.

METHOD

Participants and Procedure

Participants were contacted in a variety of public places (shopping malls, theaters, casino, etc.) and were asked if they would be interested in completing a short questionnaire about activity engagement. It was explained that they would immediately complete a short questionnaire and that 1 year later, they would be contacted again through mail to complete another short questionnaire. A total of 343 participants agreed to complete the questionnaire at Time 1. However, 240 participants either refused to be contacted a second time, could not be reached, or refused to take part in the second phase of the study 1 year later. The final sample was composed of 103 (39 males, 64 females) community-dwelling adults, for a completion rate of 30 per cent. They were aged between 18 and 72 years (M = 38.42 years, SD = 14.18 years). Participants who responded to only the first phase of the study did not differ from those who completed both phases of the study on all study variables (all Fs < 1.00, ns).

Measures

Passion. The Passion Scale (Vallerand et al., 2003; Vallerand et al., 2006) used in Study 1 was used again in Study 2, along with the four passion criteria items. Cronbach's alpha coefficients were .80 and .84 for the harmonious and obsessive subscales, respectively, and .80 for the four passion criteria.

Subjective Vitality. The Subjective Vitality Scale (Ryan & Frederick, 1997) is a seven-item scale used to assess a phenomenological sense of

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aliveness and energy. Participants were asked to rate on a 7-point Likert scale ($1 = not \ at \ all \ true, 7 = very \ true$) the extent to which each item applied to them and their life at the present time. A sample item is "I feel alive and vital". Participants completed this scale at Time 1 and 1 year later at Time 2. Cronbach's alphas in this study were .87 and .89 at Times 1 and 2, respectively.

RESULTS AND DISCUSSION

Preliminary Analyses

All study variables were first screened for gender and age differences. A 2 (Gender) × 4 (Age groups: 18–22, 23–30, 31–50, 51+ years) MANOVA was conducted with harmonious and obsessive passion and vitality as dependent variables. There was no interaction between age and gender, but a significant main effect emerged for gender, Wilks' $\lambda = .868$, F(4, 91) = 3.45, p < .05, $\eta^2 = .13$. Simple effects revealed that the only significant effect of gender was on obsessive passion, F(1, 102) = 6.54, p < .05, $\eta^2 = .07$, with men scoring significantly higher on obsessive passion (M = 4.21, SD = 1.47) than women (M = 3.55, SD = 1.43). There were no other significant differences for gender and no significant differences among age groups.

Passion and Subjective Vitality

The procedure used in Study 1 to create three different groups of nonpassionate, harmoniously passionate, and obsessively passionate participants was again used in Study 2. The final classification was as follows: harmoniously passionate (n = 38), obsessively passionate (n = 36), and non-passionate (n = 29) groups. An ANCOVA was thus conducted on the passion groups with subjective vitality measured at Time 1 as the covariate and subjective vitality measured at Time 2 as the dependent variable. Results revealed a significant effect for the covariate, F(1, 99) = 37.78, p < .01, $\eta = .53$, and a significant main effect for passion groups, F(2, 99) = 4.74, p < .01, $\eta = .30$. Examination of the simple effects (a mean of zero implies no change between Times 1 and 2) revealed that harmoniously passionate people showed a significant increase in vitality (M = 0.33) relative to obsessively passionate (M = -0.07, t = 1.99, p < .05) and non-passionate people (M = -0.34, t = 3.01, t = 0.05)p < .01), who were both shown to significantly decrease over time. Finally, obsessively passionate participants did not differ from non-passionate participants (t = 1.20, ns). Controlling for gender and age did not alter the present results and there were no significant interactions between gender, age, and passion groups. Thus, overall, Study 2 revealed that harmoniously passionate people showed the highest increase in subjective vitality over time

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compared to obsessively passionate and non-passionate people, who did not differ significantly from each other over time. In addition, these differences were the same for men and women of all ages.

GENERAL DISCUSSION

The purpose of the present research was to examine the differences in well-being between passionate and non-passionate individuals of various age groups. The results of two studies provided support for the idea that being harmoniously passionate for an activity contributes significantly to both hedonic and eudaimonic well-being, while being obsessively passionate or not being passionate for any activity does not contribute to well-being at all. In addition, these differences were the same for men and women of all ages. Finally, Study 2 showed that only harmoniously passionate people experienced an increase in subjective vitality over a 1-year period relative to obsessively passionate and non-passionate people. These results also held true after controlling for age and gender. The present findings lead to a number of implications.

Passion Does Make a Difference to People's Well-Being

A first implication from the present findings is that passion for an activity does make a difference in people's lives. Indeed, merely engaging in a given activity without passion (i.e. being non-passionate) led to the lowest scores on both hedonic and eudaimonic well-being in Study 1 and to the highest decreases in vitality in Study 2 (although no significant differences were found between non-passionate and obsessively passionate people in these studies). Thus, a first conclusion to be drawn is that non-passionate activity engagement does not contribute to people's well-being. These findings are particularly relevant for the concept of passion because they draw a distinction between passionate activities and other less important activities that people engage in, but are not passionate about. Therefore, contrary to what past research has proposed (e.g. Baker, Cahalin, Gerst, & Burr, 2005; Craft & Landers, 1998; Jackson, Antonucci, & Gibson, 1993; Reich, Zautra, & Hill, 1987), it would appear that it is not only a single aspect of activity engagement (e.g. time invested in the activity) that makes it beneficial for well-being, but whether the activity is engaged in passionately or not.

A second implication of the present findings is that they highlight that the type of passion one has for the activity also matters with respect to well-being. Indeed, harmoniously passionate people scored significantly higher than obsessively passionate and non-passionate people on hedonic and eudaimonic well-being (Study 1). In addition, only harmoniously passionate

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people showed a significant increase in vitality over a 1-year period, while obsessively passionate participants showed a slight decrease and nonpassionate participants an even larger decrease (Study 2). These results replicate past findings that showed that only harmonious passion positively predicts well-being over time, while obsessive passion is either negatively associated or unrelated to it (Rousseau & Vallerand, 2003, 2008; Vallerand et al., 2008, Study 2; Vallerand et al., 2007, Studies 1 and 2). Thus, a second conclusion is that just being passionate about an activity does not guarantee well-being. The passionate activity needs to be fueled by a harmonious passion for activity engagement to be beneficial for one's well-being, as it would appear that an obsessively passionate or non-passionate engagement does not contribute to well-being, and may even have a cost, as shown by the decreases in vitality found in Study 2 for obsessively passionate and nonpassionate people. Future research is needed to further investigate the distinctions between obsessively passionate vs. non-passionate people. Among other things, we need to know whether some types of activities and conditions may make an obsessively passionate engagement more adaptive as pertains to well-being than a non-passionate engagement (e.g. within the context of a challenging and competitive job).

Passion Contributes to Well-Being across the Life Span

A third implication from the present findings is that passion was shown to be relatively stable and to contribute equally to well-being across all adult life stages. Using samples of participants aged from 18 to 90 years, Studies 1 and 2 revealed no age main effect on either harmonious or obsessive passion. In addition, in both Studies 1 and 2, there were no interactions between passion and age. These results suggest that the effect of passion takes place for men and women of all ages. Thus, because passion remains stable and beneficial for well-being across all age groups, it appears particularly relevant with respect to old age. Although past research suggested that age does not play an important role in people's well-being (Campbell, Converse, & Rodgers, 1976; Diener, Lucas, & Scollon, 2006), recent studies showed that well-being, and particularly eudaimonic well-being, may decrease in older adults (e.g. Gerstorf, Ram, Röcke, Lindenberger, & Smith, 2008; Ryff & Keyes, 1995). The results of Study 1 corroborated those results as older adults were found to report the lowest levels of eudaimonic well-being of all age groups. However, the fact that harmonious passion appears to remain equally beneficial for well-being of all age groups—including late adulthood—suggests that harmonious passion might help to preserve or even increase older adults' wellbeing. Future research is needed in order to further support this conclusion, as it might lead to important applied benefits.

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Implications for the Field of Well-Being

Overall, the present research has a number of implications for the field of well-being. First, as mentioned above, while mere activity engagement does not necessarily guarantee an increase in well-being, having a harmonious passion toward a self-chosen activity may represent the most effective way to reach such a goal. Sheldon and Lyubomirsky (2007) have posited that there is much room for improvement in one's happiness. They suggest that while the largest part of our level of happiness is preset by our genetic endowment (around 50%), some 40 per cent is still modifiable (the last 10% is due to uncontrollable circumstances) and the best way to do this is through what they call "intentional activity engagement". They recommend engaging in interesting, fun activities that fit one's personality and dispositions, that can vary in content, and that are not merely engaged in as a routine but when people feel like doing it. We agree with such a recommendation, especially as Sheldon and Lyubomirsky's definition of intentional activity is rather close to that of harmonious passion.

Second, it appears that we have uncovered a new mid-level construct that contributes to well-being. Although authors in the field of well-being have repeatedly argued for more investigations on the role of top-down internal factors in well-being, such research has essentially focused on personality traits (see Diener et al., 1999). The concept of passion in the Dualistic Model of Passion is conceptualised as a moderate-level construct that is positioned between the trait and state levels. It thus reflects a relatively stable person activity relationship or a measure of how a person typically behaves with respect to a specific activity. Thus, the present research highlights the fact that the person's interactions with a specific activity represent a relatively stable internal factor that is sufficiently important to influence one's well-being over time. Future research is needed in order to better understand how such a factor influences well-being. In line with the Broaden-and-Build Theory (Fredrickson, 2001), recent research (e.g. Rousseau & Vallerand, 2008) has shown that increases in subjective well-being take place through the positive affect experienced during task engagement that is created by harmonious passion. Additional research is needed to determine if other concepts such as flow (Csikszentmihalyi, 1990) that is also predicted by harmonious (but not obsessive) passion (see Vallerand et al., 2003) can also contribute to well-being.

A final contribution of the present research is that it paves the way to future interventions that may have salutary effects on well-being. In light of the present findings, future research is needed in order to determine how best to foster the development of a new harmoniously passionate activity and assess its effects on people's well-being. It is believed that such research is important as it would inform practitioners on how to help people bring about meaningful increases in well-being in their own lives.

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Limitations

Some limitations of the present set of studies need to be underscored. First, a correlational design was used in both studies. Therefore causality cannot be inferred from the present findings. Future research using experimental designs is needed in order to more firmly establish the causal role of passion in well-being. For instance, future research on the role of subliminal priming of harmonious and obsessive activities under controlled laboratory conditions should allow us to examine the effects of passion on measures of emotional or situational well-being. A second limitation to the present research is that it relied exclusively on self-report data. Future research should seek to replicate the present findings with objective assessments of well-being, or with evaluations from informants such as spouses or friends. A third limitation is that the response rate of both studies was rather low (respectively 28 and 30%). Although these figures correspond to what is usually obtained with mailed questionnaires (e.g. Díaz de Rada, 2005), it is unknown if participants who refused to take part in Study 1 or in the second phase of Study 2 differed on some other variables unrelated to the present research from participants who agreed to complete Study 1 or both measurement phases of Study 2. Finally, the participants of both studies were French-Canadian participants. Future research might do well to examine if cultural differences exist in the relationship between passion and well-being and as a function of age and gender.

In sum, to go back to our opening question, it would appear that having a passion for an activity may indeed make someone happy and help him/her grow psychologically. However, such a positive effect takes place only if activity engagement is fueled by harmonious passion. In fact, an obsessive passion for an activity does not contribute at all to well-being. Future research on the processes that may foster harmonious passion in people's lives would therefore appear important from both theoretical and applied perspectives.

REFERENCES

- Baker, L., Cahalin, L., Gerst, K., & Burr, J. (2005). Productive activities and subjective well-being among older adults: The influence of number of activities and time commitment, *Social Indicators Research*, 28, 431–458.
- Bauer, J.J., McAdams, D.P., & Sakaeda, A. (2005). Interpreting the good life: How mature, happy people frame their autobiographical memories. *Journal of Personality and Social Psychology*, 88, 203–217.
- Campbell, A., Converse P.E., & Rodgers, W.L. (1976). *The quality of American life: Perceptions, evaluations, and satisfactions*. New York: Russell Sage Foundation.
- Castelda, B.A., Mattson, R.E., Mackillop, J., Anderson, E.J., & Donovick, P.J. (2007). Psychometric validation of the Gambling Passion Scale (GPS) in an English-speaking university sample. *International Gambling Studies*, 7, 173–182.
- © 2009 The Authors, Journal compilation © 2009 International Association of Applied Psychology.

- Craft, L.L., & Landers, D.M. (1998). The effect of exercise on clinical depression and depression resulting from mental illness: A meta-analysis. *Journal of Sport and Exercise Psychology*, 20, 339–357.
- Csikszentmihalyi, M. (1990). Flow: The psychology of optimal experience. New York: Harper Perennial.
- Deci, E.L., & Ryan, R.M. (2000). The "what" and the "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268.
- Díaz de Rada, V. (2005). The effect of follow-up mailings on the response rate and response quality in mail surveys. *Quality and Quantity*, 39, 1–18.
- Diener, E., Emmons, R.A., Larsen, R.J., & Griffin, S. (1985). The Satisfaction with Life Scale. *Journal of Personality Assessment*, 49, 71–75.
- Diener, E., Lucas, R.E., & Scollon, C.N. (2006). Beyond the hedonic treadmill: Revisions to the adaptation theory of well-being. *American Psychologist*, *61*, 305–314.
- Diener, E., Sapyta, J.J., & Suh, E. (1998). Subjective well-being is essential to well-being. *Psychological Inquiry*, 9, 33–37.
- Diener, E., Suh, E.M., Lucas, R.E., & Smith, H.E. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin*, 125, 276–302.
- Fredrickson, B.L. (2001). The role of positive emotions in positive psychology: The Broaden-and-Build Theory of positive emotions. *American Psychologist*, *56*, 218–226
- Gerstorf, D., Ram, N., Röcke, C., Lindenberger, U., & Smith, J. (2008). Decline in life satisfaction in old age: Longitudinal evidence for links to distance-to-death. *Psychology and Aging*, 23,154–168.
- Hodgins, H.S., & Knee, R. (2002). The integrating self and conscious experience. In E.L. Deci & R.M. Ryan (Eds.), *Handbook of self-determination research* (pp. 87–100). Rochester, NY: University of Rochester Press.
- Jackson, J.S., Antonucci, T.C., & Gibson, R. (1993). Cultural and economic contexts of aging productively over the life course: An economic network framework. In S. Bass, F. Caro, & Y. Chen (Eds.), *Achieving a productive aging society* (pp. 247–268). Westport, CT: Auburn House.
- Keyes, C.L.M., Shmotkin, D., & Ryff, C.D. (2002). Optimizing well-being: The empirical encounter of two traditions. *Journal of Personality and Social Psychol*ogy, 82, 1007–1022.
- Mageau, G.A., & Vallerand, R.J. (2007). The moderating effect of passion on the relation between activity engagement and positive affect. *Motivation and Emotion*, 31, 373–392.
- Mageau, G.A., Vallerand, R.J., Charest, J., Salvy, S.-J., Lacaille, N., Bouffard, T. et al. (in press). On the development of harmonious and obsessive passion: The role of autonomy support, activity specialization, and identification with the activity. *Journal of Personality*.
- 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. *Journal of Applied Social Psychology*, *35*, 100–118.
- $\ensuremath{\mathbb{C}}$ 2009 The Authors. Journal compilation $\ensuremath{\mathbb{C}}$ 2009 International Association of Applied Psychology.

- Miquelon, P., & Vallerand, R.J. (2006). Goal motives, well-being, and physical health: Happiness and self realization as psychological resources under challenge. *Motivation and Emotion*, *30*, 259–272.
- Philippe, F.L., & Vallerand, R.J. (2007). Prevalence rates of gambling problems in Montreal, Canada: A look at old adults and the role of passion. *Journal of Gambling Studies*, 23, 275–283.
- Ratelle, C.F., Vallerand, R.J., Mageau, G.A., Rousseau, F.L., & Provencher, P.J. (2004). When passion leads to problematic outcomes: A look at gambling. *Journal of Gambling Studies*, 20, 105–119.
- Reich, J.W., Zautra, A.J., & Hill, J. (1987). Activity, event transactions, and quality of life in older adults. *Psychology and Aging*, 2, 116–124.
- Rip, B., Fortin, S., & Vallerand, R.J. (2006). The relationship between passion and injury in dance students. *Journal of Dance Medicine and Science*, 10, 14–20.
- Rousseau, F.L., & Vallerand, R.J. (2003). Le role de la passion dans le bien-être subjectif des ainés [The role of passion in the well-being of the elderly]. *Revue Québécoise de Psychologie*, 24, 197–211.
- Rousseau, F.L., & Vallerand, R.J. (2008). An examination of the relationship between passion and subjective well-being in older adults. *International Journal of Aging and Human Development*, 66, 195–212.
- Rousseau, F.L., Vallerand, R.J., Ratelle, C.F., Mageau, G.A., & Provencher, P.J. (2002). Passion and gambling: Validation of the Gambling Passion Scale (GPS). *Journal of Gambling Studies*, 18, 45–66.
- Ryan, R.M., & Deci, E.L. (2001). On happiness and human potentials: A review of research on hedonic and eudaimonic well-being. In S. Fiske (Ed.), *Annual review of psychology* (Vol. 52, pp. 141–166). Palo Alto, CA: Annual Reviews, Inc.
- Ryan, R.M., & Frederick, C.M. (1997). On energy, personality and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, 65, 529–565.
- Ryff, C.D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069– 1081
- Ryff, C.D., & Keyes, C.L. (1995). The structure of psychological well-being revisited. *Journal of Personality and Social Psychology*, 69, 719–727.
- Ryff, C.D., Keyes, C.L.M., & Hughes, D.L. (2003). Status inequalities, perceived discrimination, and eudaimonic well-being: Do the challenges of minority life hone purpose and growth? *Journal of Health and Social Behavior*, 44, 275–291.
- Ryff, C.D., & Singer, B. (1998). The contours of positive human health. *Psychological Inquiry*, 9, 1–28.
- Ryff, C.D., Singer, B.H., & Love, G.D. (2004). Positive health: Connecting well-being with biology. *Philosophical Transactions of the Royal Society of London B*, 359, 1383–1394.
- Seligman, M.E.P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 5–14.
- Sheldon, K.M. (2002). The self-concordance model of healthy goal-striving: When personal goals correctly represent the person. In E.L. Deci & R.M. Ryan (Eds.), *Handbook of self-determination research* (pp. 65–86). Rochester, NY: University of Rochester Press.

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- Sheldon, K.M., & Lyubomirsky, S. (2007). Is it possible to become happier? (And, if so, how?). *Social and Personality Psychology Compass*, 1, 129–145.
- Vallerand, R.J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. In M.P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 271–360). New York: Academic Press.
- Vallerand, R.J. (2008). On the psychology of passion: In search of what makes people's lives most worth living. *Canadian Psychology*, 49, 1–13.
- Vallerand, R.J., Blanchard, C.M., Mageau, G.A., Koestner, R., Ratelle, C., Léonard, M. et al. (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85, 756–767.
- Vallerand, R.J, & Houlfort, N. (2003). Passion at work: Toward a new conceptualization. In D. Skarlicki, S. Gilliland, & D. Steiner (Eds.), Social issues in management (Vol. 3, pp. 175–204). Greenwich, CT: Information Age Publishing.
- 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 and Exercise*, 9, 373–392.
- Vallerand, R.J., & Miquelon, P. (2007). Passion for sport in athletes. In S. Jowett & D. Lavallée (Eds.), *Social psychology in sport* (pp. 200–225). Champaign, IL: Human Kinetics.
- Vallerand, R.J., Rousseau, F.L., Grouzet, F.M.E., Dumais, A., & Grenier, S. (2006).Passion in sport: A look at determinants and affective experiences. *Journal of Sport and Exercise Psychology*, 28, 454–478.
- Vallerand, R.J., Salvy, S.J., Mageau, G.A., Elliot, A.J., Denis, P.L., Grouzet, F.M.E. et al. (2007). On the role of passion in performance. *Journal of Personality*, 75, 505–533.