

Presidential Address – 2007 – Allocution présidentielle – 2007

On the Psychology of Passion: In Search of What Makes People's Lives Most Worth Living

ROBERT J. VALLERAND

Laboratoire de Recherche sur le
Comportement Social, Université du
Québec à Montréal



Abstract

The purpose of the present paper is to present a new conceptualisation on passion for activities, the Dualistic Model of Passion (Vallerand et al., 2003) and an overview of related research. Passion is defined as a strong inclination toward an activity that people like, find important, and in which they invest time and energy. This model further posits the existence of two types of passion each associated with different outcomes and experiences. Harmonious passion originates from an autonomous internalisation of the activity in identity and leads people to choose to engage in the activity that they love. It is expected to mainly lead to more adaptive outcomes. Conversely, obsessive passion originates from a controlled internalisation in identity and leads people to experience an uncontrollable urge to engage in the activity. It is hypothesised to predict less adaptive outcomes. Results of several studies conducted with a variety of participants, activities, and outcomes provide support for the model. The development of passion was also addressed. These studies clearly support the significant role of passion in people's lives.

One of the high points of my year as President of the Canadian Psychological Association (CPA) has been the opportunity to interact with a great group of fun, competent, and highly commit-

ted people toward the cause of Canadian psychology. On numerous occasions, I have seen CPA board members serving on a variety of committees and for long hours. In light of such important involvement in an activity like Canadian psychology, one is left wondering about the psychological factors that enable people to display such a high level of commitment and to remain dedicated and passionate for a specific activity or cause for years, and sometimes a lifetime. We propose that the concept of passion (Vallerand et al., 2003) represents such a psychological factor. Furthermore, as we will see, the type of passion one has for the activity may have different consequences on cognition, affect, behaviour, relationships, and even performance.

On the Psychology of Passion

A Dualistic Model of Passion

When we started our initial research in the late 1990s, very little existed on passion from a psychological standpoint. While passion had generated a lot of attention from philosophers (see Rony, 1990, for a review), it received little empirical attention in psychology. In fact, until recently, the only empirical work in psychology had focused on romantic passion (Hatfield & Walster, 1986). No research had been conducted on passion for an activity. Vallerand and his colleagues (Vallerand et al., 2003; Vallerand & Houliort, 2003; Vallerand & Miquelon, 2007) have recently developed a model of passion that addresses this issue.

In line with Self-Determination Theory (SDT; Deci & Ryan, 2000), we propose that people engage in various activities throughout life in the hope of satisfying the basic psychological needs of autonomy (a desire to feel a sense of personal initiative), competence (a desire to interact effectively with the environment), and relatedness (a desire to feel connected to significant others). While we don't have much choice over engaging or not in some activities such as school and work (we all have to study and work at some point in life), we do over other activities that we engage in especially during leisure time (e.g., sports, chess, music etc.). Eventually, after a period of trial and error, most people will eventually start to show preference for some activities, especially those that are enjoyable and allow the satisfaction of the needs for competence, autonomy, and relatedness. Of these activities, a limited few will be perceived as particularly enjoyable and important, and to have some resonance with how we see ourselves. These activities become passionate activities. In line with the above, Vallerand et al. (2003) define passion as a strong inclination toward a self-defining activity that one likes (or even loves),

This article is based on the author's Presidential Address given at the 68th Canadian Psychological Association Annual Convention, in Ottawa, Ontario, June 8, 2007.

I thank the numerous colleagues and students who have been involved in the present research program on passion at one point or another. Without their collaboration, such research could not have taken place.

This research program was supported by grants from the Fonds Québécois pour la Recherche sur la Société et la Culture (FQRSC) and the Social Sciences Humanities Research Council of Canada (SSHRC).

Correspondence concerning this article should be addressed to Robert J. Vallerand, Laboratoire de Recherche sur le Comportement Social, Département de Psychologie, Université du Québec à Montréal, P.O. Box. 8888, Station "Ctr-ville," Montréal, (Québec), Canada, H3C 3P8. E-mail: vallerand.robort_J@uqam.ca

finds important, and in which one invests time and energy. These activities come to be so self-defining that they represent central features of one's identity. For instance, those who have a passion for playing basketball, playing the guitar, or writing poetry do not merely engage in these activities. They are "basketball players," "guitar players," and "poets." This will be the case to the extent that the activity is interesting and highly valued by the person (Aron, Aron, & Smolan, 1992; Csikszentmihalyi et al., 1993).

Past research has shown that values and regulations concerning noninteresting activities can be internalised in either a controlled or an autonomous fashion (see Deci et al., 1994; Sheldon, 2002; Vallerand, Fortier, & Guay, 1997). Similarly, it is posited that activities that people like will also be internalised in the person's identity to the extent that these are highly valued and meaningful for the person. Furthermore, it is proposed that there are two types of passion, obsessive and harmonious, that can be distinguished in terms of how the passionate activity has been internalised into one's identity. Obsessive passion, results from a controlled internalisation of the activity into one's identity. Such an internalisation process leads not only the activity representation to be part of the person's identity, but also to values and regulations associated with the activity, to be at best partially internalised in the self, and at worse to be internalised in the person's identity but completely outside the integrating self (Deci & Ryan, 2000). A controlled internalisation originates from intra and/or interpersonal pressure typically because certain contingencies are attached to the activity such as feelings of social acceptance or self-esteem (e.g., Crocker & Park, 2004), or because the sense of excitement derived from activity engagement is uncontrollable. People with an obsessive passion can thus find themselves in the position of experiencing an uncontrollable urge to partake in the activity they view as important and enjoyable. They cannot help but to engage in the passionate activity. The passion must run its course as it controls the person. Consequently, they risk experiencing conflicts and other negative affective, cognitive, and behavioural consequences during and after activity engagement. For instance, a university professor with an obsessive passion for playing the guitar might not be able to resist an invitation to jam with his friends the night before presenting an important talk that still needs work. During the jam session, he might feel upset with himself for playing music instead of preparing the talk. He might therefore have difficulties focusing on the task at hand (playing the music) and may not experience as much positive affect and flow as he should while playing.

It is also proposed that individuals with an obsessive passion come to display a rigid persistence toward the activity, as often-times they can't help but to engage in the passionate activity. This is so because ego-invested rather than integrative self processes (Hodgins & Knee, 2002) are at play with obsessive passion leading the person to eventually becoming dependent on the activity. While such persistence may lead to some benefits (e.g., improved performance at the activity), it may also come at a cost for the individual, potentially leading to less than optimal functioning within the confines of the passionate activity because of the lack of flexibility that it entails. In addition, such a rigid persistence may lead the person to experience conflict with other aspects of his or her life when engaging in the passionate activity (when one should be doing something else, for instance), as well as to frustration and rumination about the activity when prevented from engaging in it. Thus, if the obsessively passionate musician/professor manages to

say no to his friends and the jam session, he still may end up suffering because he may have difficulties concentrating on his talk preparation because of ruminations about the lost opportunity to play music.

Conversely, harmonious passion results from an autonomous internalisation of the activity into the person's identity. An autonomous internalisation occurs when individuals have freely accepted the activity as important for them without any contingencies attached to it. This type of internalisation emanates from the intrinsic and integrative tendencies of the self (Deci & Ryan, 2000; Ryan & Deci, 2003) and produces a motivational force to engage in the activity willingly and engenders a sense of volition and personal endorsement about pursuing the activity. When harmonious passion is at play, individuals do not experience an uncontrollable urge to engage in the passionate activity, but rather freely choose to do so. With this type of passion, 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. In other words, with harmonious passion the authentic integrating self (Deci & Ryan, 2000) is at play allowing the person to fully partake in the passionate activity with an openness that is conducive to positive experiences (Hodgins & Knee, 2002). Consequently, with harmonious passion people should be able to fully focus on the task at hand and experience positive outcomes both during task engagement (e.g., positive affect, concentration, flow etc.) and after task engagement (general positive affect, satisfaction etc.). Thus, there should be little or no conflict between the person's passionate activity and his or her other life activities. Furthermore, when prevented from engaging in their passionate activity, people with a harmonious passion should be able to adapt well to the situation and focus their attention and energy on other tasks that need to be done. Finally, with harmonious passion, the person is in control of the activity and can decide when to and when not to engage in the activity. Thus, when confronted with the possibility of playing music (jamming) with his friends or preparing tomorrow's talk, the professor with a harmonious passion toward music can readily tell his friends that he'll take a rain check and proceed to be fully immersed in the preparation of the talk without thinking about the jam session. With harmonious passion people are able to decide not to play on a given day if needed without suffering or even to eventually terminate the relationship with the activity if they decide it has become a permanent negative factor in their life. Thus, behavioural engagement in the passionate activity can be seen as flexible.

Passion and Related Constructs

The concept of passion has some ties with other concepts such as those of flow (Csikszentmihalyi, 1978), talent-related activities (Rathunde, 1996; Rathunde & Csikszentmihalyi, 1993), well-developed interest (e.g., Renninger, 1992; Renninger & Hidi, 2002), and intrinsic and extrinsic motivation (Deci & Ryan, 2000). Flow can be seen as a consequence of passion (see Vallerand et al., 2003, Study 1). Thus, passionate people should experience more flow than those less passionate. Furthermore, flow should result mainly from one specific type of passion, namely harmonious passion (see Vallerand et al., 2003, Study 1). In addition, other concepts such as talent-related activities and well-developed interests share the elements of interest and value that characterise the

construct of passion. However, like flow, these concepts do not make the distinction between two types of interest or talent that reflect different types of engagement while the passion conceptualisation does make such a distinction (i.e., harmonious and obsessive passion). Finally, intrinsic motivation also shares some conceptual similarity with passion, as both involve interest and liking toward the activity. However, intrinsically motivated activities are typically not seen as being internalised in the person's identity (Deci & Ryan, 2000) and are best seen as emerging from the person-task interaction at the short-term level (Koestner & Losier, 2002). Furthermore, extrinsic motivation does not entail performing the activity out of enjoyment, but for something outside of the activity. A fundamental difference between extrinsic motivation and passion is thus the lack of liking for the activity (see also Vallerand et al., 2003, Study 2).

In sum, while the passion framework does share some conceptual similarities with other motivational constructs, it also differs from them in significant ways. Noteworthy, is that a complete understanding of people's engagement in an activity (such as the cause of Canadian psychology discussed previously) necessitates the distinction of two different types of heavy activity involvement. We now turn to an investigation of the empirical evidence for the Passion Model.

Research on Passion

Over the past few years, we have conducted a number of studies on passion. These studies pertain to a variety of activities, settings, participants, and outcomes. Below, we briefly review the results of some of these studies that pertain to the concept of passion, psychological adjustment, physical health, interpersonal relationships, performance, and the development of passion.

On the Concept of Passion

In the initial study (Vallerand et al., 2003, Study 1), we sought to develop the Passion Scale and to test the validity of our definition of passion. To that end, college students ($n = 539$) completed the Passion Scale with respect to an activity that they liked, that they valued, and in which they invested time and energy (i.e., the passion definition), as well as other scales allowing to test predictions derived from the Passion Model. Interestingly, 84% of our participants indicated that they had at least a moderate level of passion toward an activity in their lives. Passionate activities ranged from physical activity and sports and music to watching movies and reading. Participants reported engaging in their passionate activity for an average of 8.5 hours per week and had been engaging in that activity for almost 6 years. Thus, clearly passionate activities are meaningful to people and do not simply reflect a fleeting interest. These results also suggest that for most participants, initiation with the passionate (self-defining) activity started around adolescence. This would be in line with the position that adolescence is a crucial period of identity construction (e.g., Eccles, Barber, Stone, & Hunt, 2003; Erikson, 1968).

Research from the Vallerand et al. (2003, Study 1) study has provided empirical support for several aspects of the passion conceptualisation. First, results from exploratory and confirmatory factor analyses provided strong support for the existence of two constructs corresponding to harmonious and obsessive passion.

The Passion Scale consists of two subscales of seven items each,¹ the Obsessive (e.g., "I almost have an obsessive feeling toward this activity") and Harmonious subscales (e.g., "This activity is in harmony with other activities in my life"). Subsequent research has supported the bifactor structure validity of the scale in a number of life contexts including sports (Vallerand et al., 2006, Study 1), gambling (Castelda, Mattson, MacKillop, Anderson, & Donovan, 2007; Rousseau, Vallerand, Ratelle, Mageau, & Provencher, 2002), and work (Houffort & Vallerand, 2006; Vallerand & Houffort, 2003). Furthermore, internal consistency analyses supported the reliability of the scale.

Second, results from the Vallerand et al. (2003) Study 1 also revealed that both harmonious and obsessive passions were positively associated (partial correlations, controlling for the common variance between the two types of passion) with measures of activity valuation and measures of the activity being perceived as a passion, thereby providing support for the definition of passion. In addition, while both types of passion were seen as being part of one's identity, only obsessive passion was positively related to a measure of conflict with other life activities. Third, empirical evidence (Vallerand et al., 2003, Study 1) has also shown that harmonious and obsessive passions were associated with different affective experiences. For instance, results from partial correlations between the two types of passion and affective variables have shown that when controlling for obsessive passion, harmonious passion is positively associated with positive experiences such as flow and positive emotions during activity engagement, and positive emotions and the absence of negative affect following task engagement. On the other hand, when controlling for harmonious passion, obsessive passion is positively associated with negative emotions (especially shame), both during and following activity engagement. Particularly interesting is the finding that obsessive passion has been found to be associated with negative affect (notably shame and anxiety) and rumination when the person is prevented from engaging in the passionate activity while harmonious passion is unrelated to these negative experiences (Vallerand et al., 2003, Study 1). These latter findings suggest that obsessive passion entails some negative feelings akin to dependence toward the activity, while harmonious passion does not. Finally, additional research in the initial publication has also shown that obsessive (but not harmonious) passion leads to rigid persistence in ill-advised activities such as cycling over ice and snow in winter (Vallerand et al., 2003, Study 3) and pursuing one's engagement in gambling even though it has become pathological in nature (Vallerand et al., 2003, Study 4). We will return to this issue in a later section.

In sum, initial research provided support for the concept of harmonious and obsessive passion. We now turn to different lines

¹ The original scale (Vallerand et al., 2003) consisted of two 7-item subscales. A slightly revised scale consisting of two 6-item scales is now used. These subscales correlate very highly with their respective original subscale ($r = .80$ and above) and yield the same findings with determinants and outcomes. However, the correlation between the harmonious and obsessive passion subscales is lower than that between the original ones. In addition, we have used a 3-item version (Vallerand et al., 2007b, Study 2) and even a 1-item version (Philippe & Vallerand, 2007) of each subscale with much success.

of research that have explored some of the processes associated with the passion construct.

Passion and Psychological Adjustment

An early study (Vallerand et al., 2003, Study 2) revealed that engaging in the passionate activity (football) out of harmonious passion predicted an increase in general positive affect in one's life (as measured by the PANAS; Watson, Clark, & Tellegen, 1988) over the course of the entire football season. Conversely, participating in the activity out of obsessive passion predicted an increase of negative affect in one's life during the same time interval. If the two types of passion are conducive to increases in general affect over time, it is thus possible that passion also affects one's psychological adjustment. Research provides support for this hypothesis. For instance, in a study with elderly individuals, Rousseau and Vallerand (2003) showed that harmonious passion positively predicted positive indices of psychological adjustment (life satisfaction, meaning in life, and vitality) but negatively predicted negative indices (anxiety and depression). Conversely, obsessive passion positively predicted anxiety and depression, was negatively related to life satisfaction, and was unrelated to vitality and meaning in life. Research with young adults and teenagers using different measures has yielded similar findings. Specifically, harmonious passion was positively related to life satisfaction and vitality (Vallerand, Salvy, et al., 2007, Studies 1 and 2; Vallerand et al., in press, Study 2), while obsessive passion was either negatively related (Vallerand, Salvy, et al., 2007, Study 2) or unrelated (Vallerand, Salvy, et al., 2007b, Study 1; Vallerand et al., in press, Study 2) to these indices.

If passion affects psychological adjustment, then what are the processes mediating such effects. We feel that at least two processes might be at play in this relationship. A first deals with the repeated experience of situational (or state) positive affect during the course of engagement (as well as after engagement) of the passionate activity which should lead people to have access to a broader set of cognitive and social skills, thereby facilitating psychological adjustment (Fredrickson, 2003). Research on passion (e.g., Mageau et al., 2005; Vallerand et al., 2003, Study 1; Vallerand et al., 2006, Studies 2 and 3) has shown that harmonious passion does facilitate positive emotions both during and after activity engagement. Furthermore, Fredrickson (1998, 2001, 2003) has shown that the experience of positive emotions have the virtue of broadening people's thought-action repertoires (Fredrickson, 2001), thereby leading to the use of more adaptive behaviours, and thus better psychological adjustment (on this issue, see Frederickson & Joiner, 2002). Since passionate individuals engage on average for about 8 hours per week in their passionate activity, this means that harmonious passion can lead people to experience each week 8 hours of cumulative positive affect and adaptive-related repertoire on top of what may be experienced in other life domains. Such additional cumulative positive experiences represent roughly 10% of our waking time and may indeed spice up our week and have facilitative effects on psychological adjustment.

Our research under this heading has used path analysis in order to look at the role of positive affect experienced during task engagement as a mediator of the harmonious passion-psychological adjustment relationship. A recent research by Rousseau and Vallerand (in press) provided support for this hypothesis with passion toward

physical activity. At Time 1, participants completed the Passion Scale with respect to physical activity, as well as measures of psychological adjustment. At Time 2, immediately following an exercise bout, they completed situational measures of positive and negative affect. Finally, at Time 3, they completed measures of psychological adjustment again. Results from a path analysis revealed that harmonious passion positively predicted positive affect which led to increases in psychological adjustment from Time 1 to Time 3. On the other hand, obsessive passion was unrelated to positive affect but positively predicted negative affect. The latter did not predict psychological adjustment. These basic findings were replicated in another study (Vallerand & Rousseau, 2007). Overall, these findings provide strong support for the role of situational positive affect experienced during task engagement as a mediator of the effect of harmonious passion on psychological adjustment.

The above research suggests that harmonious passion positively contributes to psychological adjustment through the repeated experience of situational positive affect. However, such research also showed that although obsessive passion is negatively related to psychological adjustment, neither situational positive nor situational negative affect mediate the obsessive passion-psychological adjustment relationship. So, what is the mediator of such a relationship? We posit that rigid persistence in activities with negative returns for the person represents the second process underlying the negative influence of obsessive passion on psychological adjustment. Because the passionate activity is very dear to the heart of those who engage in it (after all it is part of their identity), people are likely to persist in them for a rather long period of time. However, as described previously, there would seem to be some differences in the type of persistence associated with the two types of passion. With harmonious passion, the person is in control of the activity. As such, the person can decide when to and when not to engage in the activity and should even be able to drop out of the activity if the latter has become permanently negative for the person. Thus, behavioural engagement and persistence can be seen as flexible. Such is not the case with obsessive passion. Typically, because the activity has taken control of the person, obsessive passion would also be expected to lead to persistence. However, such persistence can be seen as being rigid because it can take place not only in the absence of positive emotional experience, but even when important costs are accrued to the person. Such rigid persistence can lead the person to persist in the passionate activity even though some permanent negative consequences are experienced, eventually leading to low levels of psychological adjustment.

Recent research of ours in the realm of gambling provides supports for this analysis. Such research has shown that obsessive passion predicts pathological gambling while harmonious passion is unrelated to it (Ratelle et al., 2004). Furthermore, in a recent study on the prevalence of gambling problems (Philippe & Vallerand, 2007), it has also been shown that obsessive passion predicts the occurrence of pathological gambling, presumably because obsessive passion entails a rigid persistence in the activity that is out of the person's control. But is it the case? Is rigid persistence toward the passionate activity really at play in psychological problems. In one particular study (Vallerand et al., 2003, Study 4), we tested this hypothesis more directly. Specifically, in that particular study, we compared the two types of passion of regular casino gamblers (who played at least once a week) with those of people with gambling

problems so severe that they end up asking the Montreal Casino to bar them from entry. Clearly, these individuals do have important problems (93% of the self-exclusion sample displayed pathological gambling vs. 37% for the regular casino players). As such, the self-exclusion gamblers should have stopped gambling a long time ago. And yet, they have not. The question is why?

The results revealed that the self-exclusion gamblers reported significantly higher levels of obsessive passion than regular casino gamblers. No difference existed on harmonious passion. Furthermore, for the self-exclusion group, their obsessive passion was significantly higher than their harmonious passion. There were no differences between the two scales for the control group. It would thus appear that obsessive passion has led self-exclusion gamblers to persist while they should not have. When one takes into consideration the fact that pathological gambling has been found to lead to a sleuth of problems that include divorce, losing one's job, and even suicide (Walker, 1992), clearly obsessive passion for an activity such as gambling can send one on a path of severe psychological problems. Longitudinal research involving other types of negative activities (e.g., using drugs, Internet sex) is needed in order to replicate the Vallerand et al. (2003, Study 4) study findings.

In sum, preliminary evidence reveals that harmonious passion may positively contribute to psychological adjustment through its impact on situational positive affect. Obsessive passion, on the other hand, does not contribute to psychological adjustment and may even detract from it through rigid persistence in ill-advised activities such as gambling.

Passion and Physical Health

Passion may also affect one's physical health in a number of ways. One of these entails leading one to engage in risky behaviour. Take cycling for instance. Cycling in the spring, summer, and fall can be a lot of fun and can promote one's health. However, the reality in the winter is drastically different (at least in the Province of Quebec). The roads are icy and full of snow, and they make cycling a very hazardous affair that may lead to falls and injuries. Clearly, it would be advisable not to cycle under such conditions. If our hypothesis on the rigid persistence of obsessive passion is correct, then obsessive passion should lead one to engage in risky behaviours such as winter cycling. On the other hand, if we are correct with respect to the flexible persistence of harmonious passion, then the latter should not lead to engage in such a behaviour. In a recent study (Vallerand et al., 2003, Study 3), we tested these hypotheses. Cyclists ($n = 59$) completed the Passion Scale in August with respect to cycling. Six months later, they were contacted again through e-mail to determine who was still cycling in the dead of winter (in February). Results showed that only 30% of participants were still cycling in winter. It was found that those persistent cyclists had reported higher levels of obsessive passion 6 months earlier than those who did not cycle in the winter. No differences were found with respect to harmonious passion. Thus, obsessive passion may potentially affect people's health by leading them to engage in certain risky activities while they should not (such as cycling in subzero temperature on icy roads).

The above study (Vallerand et al., 2003, Study 3) while interesting, did not show that obsessive passion led to injuries as such.

It only showed that obsessive passion puts people at risk of experiencing injuries when engaging in the passionate activity when they should not. A recent study with dancers (Rip, Fortin, & Vallerand, 2006) has looked at the passion-injury relationship more closely. The important question with dancers is not whether or not they get injured, but rather what happens once they do. Obsessive passion, as we have seen earlier, is associated with rigid persistence. Therefore, when injured, obsessive passion should lead people to continue dancing, thereby leading to chronic injuries. On the other hand, with harmonious passion, the person is in control of the activity. Thus, persistence can be seen as flexible. As such, when dancing out of harmonious passion, the dancer can decide to stop dancing when injured if there is a risk of developing a chronic injury. In the Rip et al. (2006), university dancing students ($n = 80$) completed the Passion Scale as well as questions pertaining to their coping behaviour when injured. Results from partial correlations revealed that both types of passion were negatively related to acute injuries. This was to be expected as the more passionate the dancers, the more likely they are to practice, keep fit, and thus prevent the occurrence of acute injuries. The real test of our hypothesis deals with chronic injury. These findings appear in Table 1. Results revealed that obsessive passion was positively related to the number of weeks missed because of chronic injuries, while harmonious passion was unrelated to chronic injuries. Furthermore, analyses with the behavioural items revealed that harmonious passion was positively related to seeking information on the injury and its treatment and being able to completely stop dancing, but was negatively related to ignoring the pain and hiding an injury. Conversely, obsessive passion was unrelated to hiding an injury but positively predicted ignoring the pain and having one's pride interfere with treatment. These latter two types of behaviour are particularly troublesome as they lead dancers to neglect their physical condition and may lead to injury aggravation.

In sum, harmonious and obsessive passion can lead to positive and negative effects on one's health, respectively, through the different types of persistence and engagement in risky behaviour that they engender. Future research is needed in order to reproduce the present findings with more objective measures of injuries such as medical records.

Table 1
Partial Correlations Involving Harmonious and Obsessive Passion, Injuries, Coping, and Prevention

	HP	OP
Duration of suffering from:		
Acute injuries	-.44**	-.25 ns
Chronic injuries	.01	.42**
Coping with injury: when injured		
I seek info on the injury and its treatment	.34***	.02
I completely stop dance activities	.26*	.06
I ignore the pain	-.33***	.20*
I hide the injury	-.34***	.05
I partially stop dance activities	-.12	-.30**
Pride prevents adequate treatment	-.19*	.40****

Note. Adapted from Rip et al. (2006).

* $p < .10$. ** $p < .05$. *** $p < .01$. **** $p \leq .001$.

23 dancers reported having at least 1 acute injury; 26 dancers reported having at least 1 chronic injury.

Passion and Interpersonal Relationships

Our conceptualisation on passion posits that having an obsessive passion toward an activity should lead to conflict and problems in other life activities, while this should not be the case for harmonious passion. Results from the Vallerand et al. (2003, Study 1) provided preliminary evidence for this hypothesis by showing that obsessive (but not harmonious) passion for an activity was positively associated with experiencing conflict between activity engagement and other aspects of one's life. We believe that this basic hypothesis has important implications for the quality of interpersonal relationships that people may experience outside the realm of the passionate activity. Let's take people who have a passion for surfing on the Internet. They may surf the net at night, and if obsessive passion is at play, they may forget what time it is, even ignoring their spouse's call to come to bed for the night. If done on a repeated basis, such behaviour is a recipe for disaster in a couple's relationship. Such should not be the case with harmonious passion because the person can let go of the passionate activity when needed and thus should not experience conflict between the passionate activity and the couple's relationship. A recent study of ours (Séguin-Lévesque, Laliberté, Pelletier, Blanchard, & Vallerand, 2003) has specifically addressed this issue. The results showed that controlling for the number of hours that people engaged in the Internet, obsessive passion for the Internet was positively related to conflict with one's spouse, while harmonious passion was unrelated to it. A subsequent study with English soccer fans (Vallerand, Ntoumanis, et al., 2007, Study 3), revealed that having an obsessive passion for supporting one's soccer team predicted conflict between soccer and the quality of the couple relationship. Conflict, in turn, negatively predicted satisfaction with the relationship. Harmonious passion was unrelated to conflict. Furthermore, individuals who were single were asked to indicate if their passion for soccer was responsible for their being single. Results revealed a strong positive correlation between obsessive passion and this measure, but a negative correlation for harmonious passion.

The above findings reveal that depending on one's passion for a given activity, one can experience conflict (or not) between that activity and one's relationships outside of the passionate activity, thereby affecting the quality of such relationships. One question not addressed by such research is whether one's passion for a given activity can affect the quality of relationships that one develops in the purview of this activity. Research by Fredrickson (2001; Waugh & Fredrickson, 2006) has shown that the experience of situational positive affect is conducive to high quality of relationships. This is so because positive affect facilitates smiles, positive sharing of the activity, connection, and openness toward others that are conducive to positive relationships. Because harmonious passion leads one to experience positive affect during engagement in the passionate activity (e.g., Vallerand et al., 2003, Study 1; Vallerand et al., 2006, Studies 2, 3), one would then predict that it should therefore indirectly lead to high quality relationships within the passionate activity. Conversely, because it is typically unrelated to positive affect and correlated to negative affect, obsessive passion would be expected to negatively affect the quality of relationships that develop within the purview of the passionate activity. Results from a series of studies conducted in a

variety of settings, including work and sports, has provided support for these hypotheses (Philippe, Vallerand, & Houliort, 2007).

A third and last area where passion can affect relationships pertains to the impact one's passion for the loved one can have on the quality of the intimate relationship. Past research (e.g., Hatfield & Walster, 1978) has typically looked at passionate love as roughly the equivalent of obsessive passion. However, as seen so far, one can still be harmoniously passionate for an activity, and this should apply to love relationships as well. Furthermore, as found in past research on passion for activities, harmonious passion for the love relationship should predict a high quality relationship, while obsessive passion should be either negatively related or unrelated to the quality of the relationship. A first study (Ratelle, Carbonneau, Mageau, & Vallerand, 2007, Study 1) showed that harmonious passion positively predicted all dimensions of the Spanier Dyadic Adjustment Scale (1976) while obsessive passion was typically unrelated to the various subscales. In a subsequent study (Ratelle et al., 2007, Study 3), both partners completed the Passion Scale toward the love relationship, as well as the Relationship Satisfaction Scale (Fletcher, Simpson, & Thomas, 2000). Results revealed that both partners' passion made a significant contribution to the level of satisfaction toward the relationship. For instance, both women and men's harmonious passion positively predicted women's general satisfaction with the relationship. Even better, men's harmonious passion proved to be a better positive predictor of women's satisfaction with their sex life than women's own harmonious passion. Men's obsessive passion for the loved one was a significant negative predictor of women's satisfaction with their sex life. Similar findings were obtained with men's relationship satisfaction, although the prediction from women's passion was not as strong. These findings suggest that having a balanced harmonious passion toward the loved one can affect not only the quality of the relationship as we experience it, but also as experienced by our partner. Future research on this issue would appear particularly exciting, especially as pertains to the identification of the behaviours and processes through which such interpersonal effects take place.

Passion and Performance

Research on expert performance reveals that high-level performers spend several years of considerable engagement in an activity with clear goals of improving on certain task components, in order to reach excellence in their chosen field of expertise (what is called deliberate practice, see Ericsson & Charness, 1994; Starkes & Ericsson, 2003). What is the underlying motivational force that leads individuals to spend so much time in perfecting their skills in a given activity in order to achieve high proficiency? We believe that passion represents one answer to that question. Indeed, if one is to engage in the activity for long hours over several years and sometimes a lifetime, one must love the activity dearly and have the desire to pursue engagement especially when times are rough. Thus, the two types of passion (harmonious and obsessive) should lead to engagement in deliberate practice that, in turn, should lead to improved sport performance. This model was tested in a study with basketball players (Vallerand et al., in press, Study 1). Male and female basketball players completed scales assessing their passion as well as deliberate practice (based on Ericsson & Charness, 1994). Coaches independently rated the

athletes' performance during the first game of an important tournament. A path analysis provided support for the basic model. Results revealed that both types of passion led to engagement in deliberate practice that, in turn, led to objective performance. These findings were replicated in a prospective design with dramatic arts performers (Vallerand, Salvy, et al., 2007, Study 1). Also of interest is the finding that in the preceding study, harmonious passion toward dramatic arts was positively and significantly related to life satisfaction, while obsessive passion was unrelated to it. This is in line with our work on passion and psychological adjustment. It thus appears that both types of passion positively contribute to deliberate practice and thus, indirectly, to performance at least in the short term. However, it might very well be that obsessive passion leads to some sense of "suffering" (or lower levels of life satisfaction than harmonious passion) in the process of pursuing high performance levels.

The results of the two performance studies presented above established a direct relationship between passion and deliberate practice, and an indirect relationship between passion and performance (through deliberate practice). We conducted an additional study (Vallerand et al., in press, Study 2) in order to examine the psychological processes through which passion directly contributes to deliberate practice, and indirectly contributes to performance. In line with Elliot (1997), we proposed that achievement goals should represent important mediators between passion and deliberate practice. Elliot and colleagues (Elliot & Church, 1997; Elliot & Harackiewicz, 1996) have distinguished between three types of achievement goals: mastery goals (which focus on the development of personal competence and task mastery), performance-approach goals (which focus on the attainment of personal competence relative to others), and performance-avoidance goals (which focus on avoiding incompetence relative to others). Passion has been found to relate to affective and cognitive investment in an activity, thereby implying that the individual is committed to engaging in that activity in a competent manner. Harmonious passion, being a rather pure autonomous form of regulation is predicted to be positively related to mastery goals but not to performance goals of either type. On the other hand, obsessive passion, being a more pressured, internally controlling form of regulation is likely to lead the individual to feel compelled to seek any and all forms of success at the activity, and may even evoke concerns about doing poorly. As such, obsessive passion should be positively related to mastery and performance-approach goals, as well as to performance-avoidance goals.

A study with water-polo and synchronized swimmers (including some who were part of the junior national teams) was conducted over an entire season to test the above model (Vallerand et al., in press, Study 2). At Time 1 (the beginning of the season), individuals completed the Passion Scale, the Achievement Goals Scale, and scales assessing psychological adjustment. At Time 2, they completed the Deliberate Practice Scale. Finally, at Time 3 (end of the season), coaches assessed individuals' performance over the entire season. Results of a path analysis yielded support for the proposed model. The results appear in Figure 1. As can be seen, harmonious passion was found to lead to mastery goals that, in turn, led to deliberate practice that positively predicted objective performance. On the other hand, obsessive passion was positively related to all three goals. While performance-approach goals did not predict any variables in the model, performance-avoidance

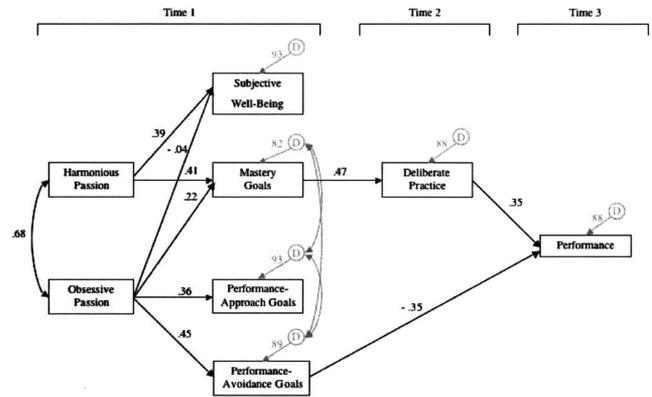


Figure 1. The passion and performance model. From Vallerand et al. (in press, Study 2). Printed with permission. *Psychology of Sport and Exercise*.

goals negatively predicted performance. Finally, as in the Vallerand, Salvy, et al. (2007, Study 1) study with the dramatic arts performers, harmonious passion was positively associated with psychological adjustment while obsessive passion was unrelated to it. This basic model was replicated in another study involving students who had a passion toward studying psychology as their future profession and with objective exam scores in a psychology course as a measure of performance (Vallerand, Salvy, et al., 2007, Study 2).

The above findings had been obtained with teenagers and young adults who were at best at the national level (some of the water polo players in the Vallerand et al. [in press, Study 2] study were on the Junior Canadian team). It is thus of particular interest that these findings have been replicated with adult high elite performers. Specifically, in a study with national and international classical musicians, Bonneville-Roussy and Vallerand (2007) were able to replicate the model of Vallerand et al. (in press, Study 2—see Figure 1). Thus, these findings would appear rather robust, even with very high-level performers. Furthermore, once again, harmonious passion positively predicted life satisfaction. Clearly, harmonious passion does appear to be an important predictor of both performance and psychological adjustment.

In sum, it appears that harmonious passion contributes to objective indices of performance. Such effect seems to take place through mastery goals that lead to deliberate practice, that, in turn, leads to performance. The role of obsessive passion in performance is rather complex as it positively predicts mastery goals (which leads to performance through deliberate practice) but also performance-avoidance goals which may negatively influence performance. These findings suggest that having the goal of beating others at all costs may not only have some negative effects on intrinsic motivation (e.g., Vallerand, Gauvin, & Halliwell, 1986) but may also undermine performance. Because of the obvious implications of these findings, additional research is warranted to test its generalisation in other fields of endeavor over longer periods of time.

On the Development of Passion

Thus far, we have documented the impact that passion can have on a variety of processes and outcomes with harmonious passion typically leading to more adaptive outcomes than obsessive pas-

sion. If passion makes a difference in people's lives, then it would appear worthwhile to determine how it develops. Three processes are hypothesised to influence the development of passion toward an activity: activity selection, activity valuation, and the type of internalisation of the activity representation in one's identity. Activity selection refers to the person's preference for the activity over other activities. To the extent that the person feels that such selection reflects true choice and interests and is consonant with one's identity, it should promote the development of passion toward that activity. Activity valuation (or the subjective importance given to the activity by the person) is expected to play an important role in the internalisation of the activity in identity and self. Research has indeed shown that when the object of interest is highly valued and meaningful, one is inclined to internalise the valued object, to make it part of him or herself (Aron, Aron, & Smollan, 1992; Deci et al., 1994). The more important (or valued) the activity, the more the activity will be internalised in the person's identity, and, consequently, the more passionate the person will be toward this activity. Thus, activity valuation can be seen as the intensity (or quantity) dimension (the fuel) underlying activity internalisation and the development of passion.

It is further proposed that once an interesting activity becomes highly valued, the type of passion that will ensue is determined by the type of internalisation that takes place. This last process can be seen as affecting the "quality" dimension or the type of passion that will take place. A controlled internalisation of the activity representation is expected to lead to the development of an obsessive passion and an autonomous internalisation to a harmonious passion. It is further proposed that one important determinant of the internalisation process is the extent to which the social environment promotes the person's autonomy (Deci & Ryan, 1987) toward activity selection and activity valuation. Much research has shown that autonomy support (or promoting choice and self-initiation of another person's behaviour) from parents and teachers facilitates children's autonomous internalisation of values and regulations of noninteresting activities such as school (see Grolnick & Ryan, 1989). Similarly, it is proposed that autonomy support will facilitate the autonomous internalisation of the interesting activity in one's identity and self, thereby leading to harmonious passion. Conversely, once a given activity has been selected by the individual a controlling behaviour from important social agents should facilitate a controlled internalisation of the activity in one's identity, thereby leading to an obsessive passion.

A recent study by Mageau et al. (2007, Study 3) has tested the above hypotheses. In this study, first-year high school students who had never played a musical instrument before and who were taking their first music class completed a series of questionnaires early in the term assessing activity selection and valuation (perceived parental activity valuation and both perceived parental and children activity specialisation), autonomy support from parents and music teachers, as well as identity processes. By following participants who were registered in their first music class over the course of a full semester, we sought to predict who would develop a passion for music at the end of the term, and, among those who did, predict those who would develop a harmonious or an obsessive passion. Results of a discriminant analysis revealed that students who ended up being passionate for music (36% of the sample) at the end of the term had reported higher levels of activity valuation and specialisation, identity processes, and parental and

teacher autonomy support earlier in the term than those students who didn't turn out to be passionate. Furthermore, it was found that high autonomy support from close adults (parents and music teachers) and activity valuation from the students' part were conducive to the development of harmonious passion. However, high levels of parental perceived valuation for music and lack of autonomy support were found to predict the development of obsessive passion. In sum, the results of the Mageau et al. (2007, Study 3) provided support for the role of activity selection and valuation, identity processes, and autonomy support from significant adults in the development of a passion for music in general, and harmonious and obsessive passion in particular.

A second determinant of the internalisation process deals with one's personality (see Vallerand & Houliort, 2003; Vallerand & Miquelon, 2007; Vallerand et al., 2006). Past research (see Vallerand, 1997, 2001) has shown that an autonomous personality orientation (having a tendency to do things out of pleasure and/or choice) leads to the internalisation of noninteresting activities in the self. On the other hand, having a controlled personality orientation (to do things out of external and/or inner pressure) leads to the pressured internalisation of noninteresting activities in the person (Guay, Mageau, & Vallerand, 2003; see also Vallerand, 1997, 2007). It thus appears that an autonomous personality leads to an autonomous internalisation style while a controlled personality facilitates a controlled internalisation style. In light of the above, to the extent that one highly values an enjoyable activity, people with an autonomous personality should be more likely to internalise the activity in their identity in an autonomous fashion (i.e., willingly, without any external or internal pressure) thereby leading to harmonious passion. Similarly, a controlled personality should be more conducive to the internalisation of an enjoyable and valued activity in a controlled manner, thus leading to obsessive passion.

Recent research by Vallerand et al. (2006, Studies 1 and 3) conducted with athletes supported the above hypotheses. For instance, Vallerand et al. (2006, Study 1) showed that results from a path analysis revealed that valuation of the sport activity coupled with an autonomous internalisation style (as assessed by the Global Motivation Scale; Guay, Mageau, & Vallerand, 2003) predicted harmonious passion. On the other hand, a controlled internalisation style coupled with valuation of the activity led to an obsessive passion. These findings appear in Figure 2. Furthermore, these findings were replicated in a second study (Vallerand et al., 2006, Study 3) using a short longitudinal design. Thus, personality factors do play an important role in the prediction of the type of passion that will develop.

Overall, results presented in this section provide support for our position on the development of passion. Additional research is needed in order to replicate these findings over a longer period of time and to determine more clearly the psychological processes leading to the development of passion toward a new activity.

Future Research

So far, in this article, we have reviewed several studies that provide strong support for the proposed approach on passion with respect to a number of important variables and with a variety of activities and populations. While the research conducted to date is indeed encouraging, additional research is necessary in order to probe further the role of passion in people's lives. Below, we

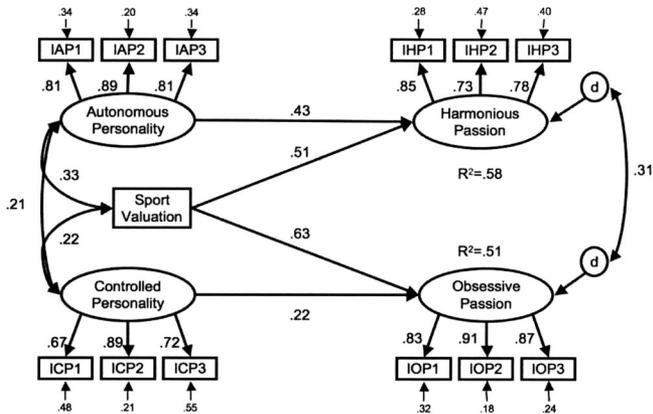


Figure 2. The role of valuation and personality processes in the prediction of passion. From Vallerand et al. (2006, Study 1). Printed with permission, *Journal of Sport & Exercise Psychology*.

present certain directions for future research that would appear particularly exciting.

On the Stages of Passion

A first area of research that would appear important deals with the potential existence of stages of passion toward a given activity. Is there a universal sequence such that initially the passion toward a given activity is, for instance, obsessive, and then later on becomes more harmonious? In other words, do the two types of passion follow some stages? We do not have any conclusive empirical evidence on this issue so far. Preliminary evidence seems to indicate that such is not the case. In the Vallerand et al. (2003, Study 1), we did not find any relationship between length of involvement and the two types of passion. However, these findings are limited in scope as the design used was not longitudinal in nature. What is needed is to follow individuals from their beginnings in a given activity up to their decision to become heavily involved in that activity. In other words, a follow up to the Mageau et al. (2007) study discussed previously would appear in order. Such a study would allow us to determine if a sequence exists and if it changes over time.

On Passion, Competence, and Future Selves

A second fruitful area for future research deals with the potential role that perceptions of competence and progression toward the activity may have on the development of the ensuing passion. Among other things, we need to assess whether perceptions of competence and those of progression lead to the same impact on passion. Indeed, people may see themselves as currently competent but not as progressing enough to reach the highest levels of performance. Such perceptions might curtail the development of one's passion because people might feel that feelings of competence and excitement will be no longer forthcoming at some point. However, individuals who perceive themselves as competent and who expect a bright future in the passionate activity might be more likely to increase or at least maintain their passion for the activity. Furthermore, perceiving oneself as progressing and eventually reaching a certain level of proficiency cannot only allow one to

satisfy the basic need for competence (Deci & Ryan, 2000) but also lead one to see the activity as representing a meaningful "future self" (Markus & Nurius, 1986), and eventually as contributing to one's identity. Since identity construction plays an important role in the development of a passion toward a given activity (Mageau et al., 2007), self-perceptions of progression may indirectly facilitate the evolution of one's passion through its impact on the identity construction process. Future research is needed on this issue.

On Long-Term Involvement and Psychological Adjustment

Another important research issue pertains to long-term involvement in a given activity and the psychological adjustment that may ensue. Research reveals that it may take as much as 10 years of sustained and intense training in a given field to reach the highest levels of one's discipline such as music or sports (Ericsson & Charness, 1994). What type of passion may best allow one to sustain such long-term involvement and reach such high levels of performance? What is the long-term impact on one's psychological adjustment to persist for such a long time in environments that may be particularly competitive? Our research so far suggests that there are two roads to excellence, the harmonious and the obsessive ones. While both may lead to high-level of performance, the obsessive road may lead individuals to suffer psychologically along the way, relative to harmoniously passionate performers. Research in this area tends to support this hypothesis (Bonneville-Roussy & Vallerand, 2007; Vallerand et al., in press, Study 2; Vallerand, Salvy, et al., 2007). Thus, these findings would appear rather robust, even with high-level performers. However, such research was not longitudinal. Clearly future research is needed in order to replicate the above findings over a sustained period of time.

One issue raised by the above findings pertains to the possibility that obsessive passion leads participants to experience lower levels of psychological adjustment and thus to eventually drop out before reaching the highest levels of performance of the activity. However, recent research by Amiot, Vallerand, and Blanchard (2006) with teen elite hockey players suggests that this may not necessarily be the case. Results from their study revealed that obsessively passionate individuals were found to psychologically suffer only in nonobsessive environments (less competitive leagues) wherein task engagement was more limited. Obsessively passionate individuals who were in obsessive environments (the more competitive leagues) where they could devote themselves fully to the passionate activity (hockey) fared much better psychologically than harmoniously passionate hockey players in a similar environment. Thus, it is unclear at the moment whether obsessively passionate people would indeed be at risk psychologically when going up the ladder of excellence and if they would be more likely to drop out of the activity. Based on past research on rigid persistence (e.g., Vallerand et al., 2003, Studies 3 and 4), it is also possible that they may stick with the activity no matter what allowing them to be among the fortunate few who make it to the top. Clearly, future longitudinal research is needed to address the issue of long-term persistence and high-level performance and psychological adjustment.

On Passion for a Cause

For a number of people, the passionate activity they engage in is related to a cause or an aspiration. For instance, the Red Cross and Doctors Without Borders are organisations that have humanitarian interests at heart. People who espouse such goals and values often have a passion for the cause promoted by such organisations. What are the consequences both for individuals and organisations of having passionate people involved in such activities? Who is more likely to take chances with one's lives as well as that of others under extreme conditions in order to reach objectives related to the cause? Who is more likely to come back with post-traumatic stress experiences following such missions? Based on the findings presented in this article, one would be inclined to predict that obsessive passion would be more likely to lead to such negative outcomes. Furthermore, because the cause is so important for the individual, passion for the cause may lead at times to extreme behaviours in order to reach the cause. This would be expected to be the case particularly for obsessive passion at least in part because the passionate activity then provides individuals a high sense of self-esteem when they reach their goal (Mageau & Vallerand, 2007). For instance, in a recent study with highly politically involved individuals, Rip, Vallerand, Grenier, Lafrenière, and Charbonneau (2007) found that harmonious passion was positively related to acceptable behaviours to reach the cause (e.g., participating in discussion groups to persuade people of the importance of the political cause) but not to extreme ones (e.g., being part of subversive groups to reach the political cause). The exact opposite findings were obtained with obsessive passion where strong positive relationships were found between obsessive passion and extreme forms of political behaviour. Because obsessively passionate individuals' sense of self-esteem appears to be contingent on reaching the cause (Mageau & Vallerand, 2007), failure to reach such cause may not be an option for them. In the end, the end justifies the means, and obsessively passionate individuals may engage in extreme behaviours in order to reach their goal. Future research on these issues may have important implications for a host of areas, including politics and activism.

Conclusion

The purpose of the present article was to present the Dualistic Model of Passion and review some of the related research. Passion is defined as a strong inclination toward self-defining activity that one loves, finds important, and devotes significant amount of time and energy. Furthermore, two types of passion are proposed depending on how the activity representation has been internalised in one's identity. While harmonious passion entails control of the activity and an harmonious coexistence of the passionate activity with other activities in identity, obsessive passion entails the relative lack of control over the passionate activity, rigid persistence, and conflict with other activities in one's life. Strong support for the model was obtained. Specifically, a passion scale was developed, assessing harmonious and obsessive passion. In addition, harmonious passion was found to promote more adaptive outcomes than obsessive passion on a number of cognitive, affective, behavioural, interpersonal, and performance outcomes, on a variety of activities and with various populations ranging from children to the elderly. Finally, the processes through which pas-

sion develops were also discussed and directions for future research were also proposed.

In concluding, two caveats are in order. First, much of the research presented herein is correlational in nature. Thus, one should not at this point make conclusive statements about causality. However, the evidence is highly consistent, always pointing in the same direction (harmonious passion being positively correlated with adaptive outcomes and obsessive passion with less adaptive ones). Furthermore, research by Carbonneau, Vallerand, Fernet, and Guay (in press) using a cross-lagged panel design showed that while passion leads to changes in outcomes (e.g., work satisfaction) over time, outcomes do not lead to changes in passion. This last finding would tend to support the view that passion can produce outcomes. A second caveat is that we would not want to portray obsessive passion as being completely negative. While it may not lead to outcomes as adaptive as those derived from harmonious passion, obsessive passion is still more adaptive than being nonmotivated or amotivated (Deci & Ryan, 2000). Indeed, among other things, it promotes long-term commitment and persistence in the passionate activity. Furthermore, future research may show that it facilitates other kinds of positive outcomes. Thus, future research is needed to place the passion construct in a broader motivational framework, allowing researchers to more firmly determine the positivity or negativity of the outcomes engendered by the two types of passion relative to other motivational constructs.

In sum, positive psychology (Seligman & Csikszentmihalyi, 2000) has recently asked the question "How people's lives can be most worth living?" It is believed that one answer to that question is by having in one's life a harmonious passion toward a meaningful activity or a cause. A prime example would be the harmonious passion toward the cause of Canadian Psychology displayed by colleagues on the CPA board of directors. I believe that such a passion helps explain their intense involvement toward the cause and why they have done so well advancing it. No wonder that with such harmoniously passionate people my involvement in CPA was so positive and memorable.

Résumé

Au cours des dernières années, Vallerand et ses collègues ont développé le modèle dualiste de la passion (Vallerand et al., 2003; Vallerand & Houliort, 2003; Vallerand & Miquelon 2007). La passion représente une vive inclination envers une activité qu'une personne aime, juge importante et dans laquelle elle investit du temps et de l'énergie. Étant donné la valeur ainsi que la signification accordées par l'individu à son activité passionnante, cette dernière en vient à représenter un aspect central de son identité. Le modèle postule deux types de passion : harmonieuse et obsessive, selon le type d'intériorisation dont fera l'objet l'activité dans l'identité de la personne. Le premier type de passion est une force motivationnelle caractérisée par le choix d'une personne de s'investir dans l'activité. Avoir une passion harmonieuse pour une activité devrait ainsi permettre à l'individu d'être en harmonie avec les autres activités et aspects de sa vie en plus de vivre plusieurs conséquences comportementales, cognitives et affectives positives dans le cadre de l'activité passionnante. La passion obsessive quant à elle implique que l'activité prend le contrôle de la personne. Ainsi, l'individu ne peut s'empêcher de prendre part à son activité passionnante. Cette persistance rigide entraîne la

personne à vivre moins d'émotions positives dans le cadre de l'activité, ainsi que de la frustration et la rumination à propos de l'activité suite à la pratique de l'activité ou si encore la personne est empêchée de participer à celle-ci. Ce type de passion devrait donc mener à plusieurs conflits ainsi qu'à des conséquences intra et interpersonnelles négatives puisque l'individu ressent une pression à faire l'activité qu'il aime.

Les recherches réalisées jusqu'ici procurent un soutien empirique important pour le modèle de la passion, et ce plusieurs niveaux. Ainsi : (1) la structure bi-factorielle composée de facteurs représentant la passion harmonieuse et la passion obsessionnelle a été reproduite à maintes reprises avec des analyses factorielles exploratoires et confirmatoires (p. ex., Rousseau et al., 2002; Vallerand et al., 2003, Étude 1; Vallerand et al., 2006, Étude 1). (2) la passion harmonieuse mène à des émotions plus positives que la passion obsessionnelle pendant et suite à la pratique de l'activité, ainsi que si la personne ne peut pratiquer son activité passionnante (Mageau et al., 2005; Ratelle et al., 2004; Vallerand et al., 2003, Étude 1; Vallerand et al., 2006, Études 2 et 3). (3) La passion harmonieuse prédit un meilleur ajustement psychologique que la passion obsessionnelle (Rousseau & Vallerand, 2003, sous presse; Vallerand et al., 2007, Études 1 et 2; Vallerand et al., sous presse, Étude 2). De plus, cet effet semble médié par les émotions positives vécues dans le cadre de l'activité (Rousseau & Vallerand, 2003, sous presse). (4) La passion obsessionnelle semble plus mener à des problèmes de santé que la passion harmonieuse, probablement parce qu'elle amène la personne à émettre des comportements risqués (Vallerand et al., 2003, Étude 3) et à persévérer de façon rigide dans la pratique de l'activité alors qu'elle devrait cesser momentanément (lorsque blessé, par exemple, Rip, Fortin, & Vallerand, 2006). (5) La passion harmonieuse mène aussi à de meilleures relations interpersonnelles dans le cadre de l'activité (Philippe et al., 2007). Il semblerait que le fait de vivre des émotions positives dans le cadre de l'activité faciliterait une meilleure connexion avec autrui dans l'activité. Par contre, la passion obsessionnelle semble mener à des conflits interpersonnels à l'extérieur de l'activité, notamment avec le conjoint (Séguin-Lévesque et al., 2003; Vallerand et al., 2007, Étude 3). (6) Les deux types de passion mènent à des niveaux de performance élevée dans leur activité parce qu'elles engendrent une implication soutenue dans des activités de pratique délibérée (Ericsson & Charness, 1994) dans lesquelles la personne cherche activement à améliorer ses faiblesses et à atteindre l'excellence (Vallerand et al., 2007, sous presse). Fait intéressant, cette recherche d'excellence lorsque mue par une passion harmonieuse procure aussi un bien-être psychologique accru. Enfin, (7) certains processus psychologiques menant au développement de la passion ont été identifiés (Mageau et al., 2007). Ainsi, dans la mesure où la personne juge l'activité comme importante, qu'elle entrevoit la possibilité que celle-ci fasse partie de son identité un jour et qu'elle opère dans un environnement soutenant son autonomie, elle développera une passion envers l'activité. Par surcroît, une passion harmonieuse sera développée si en plus des variables mentionnées précédemment, l'environnement procure un soutien à l'autonomie, alors que si l'environnement (notamment les parents) est pressurant, une passion obsessionnelle se développera (Mageau et al., 2007, Étude 3).

En somme, nous croyons que l'étude de la passion puisse apporter beaucoup à notre compréhension du comportement humain. Entre autres, elle permet de répondre à une question fonda-

mentale de la psychologie positive (Seligman & Csikszentmihalyi, 2000) à savoir "Comment la vie peut-elle être rendue plus significative?". Nous croyons que le fait d'avoir une passion harmonieuse envers une activité qui nous est significative puisse représenter une réponse importante à cette question.

References

- Amiot, C., Vallerand, R. J., & Blanchard, C. (2006). Passion and psychological adjustment: A test of the person-environment fit hypothesis. *Personality and Social Psychology Bulletin*, *32*, 220–229.
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of other in the self scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, *63*, 596–612.
- Bonneville-Roussy, A., & Vallerand, R. J. (2007, May). *Passion and performance: A look at expert performers*. Paper presented at the 3rd International Congress on Self-Determination Theory (SDT), Toronto, Ontario, Canada.
- Carbonneau, N., Vallerand, R. J., Fernet, C., & Guay, F. (in press). The role of passion for teaching in intra and interpersonal outcomes. *Journal of Educational Psychology*.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretical based approach. *Journal of Personality and Social Psychology*, *56*, 267–283.
- Castelda, B. A., Mattson, R. E., MacKillop, J., Anderson, E. J., & Donovanick, P. J. (2007). Psychometric validation of the Gambling Passion Scale in an English-Speaking university sample. *International Gambling Studies*, *7*, 173–182.
- Crocker, J., & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin*, *130*, 392–414.
- Csikszentmihalyi, M. (1978). Intrinsic rewards and emergent motivation. In M. R. Lepper & D. Greene (Eds.), *The hidden costs of reward* (pp. 205–216). Hillsdale, NJ: Erlbaum.
- Deci, E. L., Eghrari, H., Patrick, B. C., & Leone, D. R. (1994). Facilitating internalization: The self-determination perspective. *Journal of Personality*, *62*, 119–142.
- Deci, E. L., & Ryan, R. M. (1987). The support of autonomy and the control of behavior. *Journal of Personality and Social Psychology*, *53*, 1024–1037.
- Deci, E. L., & Ryan, R. M. (2000). The "what" and "why" of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, *11*, 227–268.
- Deci, E. L., & Ryan, R. M. (2002). Self-determination research: Reflections and future directions. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 431–441). Rochester, NY: University of Rochester Press.
- Deci, E. L., & Ryan, R. M. (Eds.) (2002). *Handbook on self-determination research: Theoretical and applied issues*. Rochester, NY: University of Rochester Press.
- Elliot, A. J. (1997). Integrating the "classic" and "contemporary" approaches to achievement motivation: A hierarchical model of approach and avoidance achievement motivation. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in motivation and achievement—Vol. 10* (pp. 143–179). Greenwich, CT: JAI Press.
- Elliot, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, *72*, 218–232.
- Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and avoidance achievement goals and intrinsic motivation: A mediational analysis. *Journal of Personality and Social Psychology*, *70*, 968–980.
- Ericsson, K. A., & Charness, N. (1994). Expert performance: Its structure and acquisition. *American Psychologist*, *49*, 71–76.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York: Norton.
- Fletcher, G. J. O., Simpson, J. A., & Thomas, G. (2000). The measurement

- of perceived relationship quality components: A confirmatory factor analytic approach. *Personality and Social Psychology Bulletin*, 26, 340–354.
- Fredrickson, B. L. (1998). What good are positive emotions? *Review of General Psychology*, 2, 300–319.
- 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.
- Fredrickson, B. L., & Joiner, T. (2002). Positive emotions trigger upward spirals toward emotional well-being. *Psychological Science*, 13, 172–175.
- Grolnick, W. S., & Ryan, R. M. (1989). Parent styles associated with children's self-regulation and competence in school. *Journal of Educational Psychology*, 81, 143–154.
- Guay, F., Mageau, G. A., & Vallerand, R. J. (2003). On the hierarchical structure of self-determined motivation: A test of top-down, bottom-up, reciprocal, and horizontal effects. *Personality and Social Psychology Bulletin*, 29, 992–1004.
- Hatfield, E., & Walster, G. W. (1978). *A new look at love*. Reading, MA: Addison Wesley.
- Hodgins, H. S., & Knee, R. (2002). The integrating self and conscious experience. In Deci, E. L., & Ryan, R. M. (Eds.), *Handbook on self-determination research: Theoretical and applied issues* (pp. 87–100). Rochester, NY: University of Rochester Press.
- Houffort, N., & Vallerand, R. J. (2006). La passion envers le travail: les deux côtés de la médaille. *Revue Multidisciplinaire sur l'Emploi, le Syndicalisme et le travail*, 2, 4–17.
- Jacobs, D. F. (1986). A general theory of addictions: A new theoretical model. *Journal of Gambling Behavior*, 2, 15–31.
- Koestner, R., & Losier, G. F. (2002). Distinguishing three ways of being highly motivated: A closer look at introjection, identification, and intrinsic motivation. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 101–121). Rochester, NY: University of Rochester Press.
- Mageau, G. A., & Vallerand, R. J. (2007). *Passion and self-esteem contingency: A test of their relationship*. Unpublished data, Université de Montréal.
- Mageau, G. A., Vallerand, R. J., Charest, J., Salvy, S.-J., Lacaille, N., Bouffard, T., et al. (2007). *On the development of harmonious and obsessive passion: The role of autonomy support, activity valuation, and identity processes*. Paper submitted for publication.
- 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.
- Markus, H., & Nurius, P. (1986). Possible selves. *American Psychologist*, 41, 954–969.
- Philippe, F., & 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.
- Philippe, F., Vallerand, R. J., & Houffort, N. (2007). *On passion and quality of interpersonal relationships: The mediating role of positive affect*. Paper submitted for publication.
- Ratelle, C. F., Carbonneau, N., Mageau, G., & Vallerand, R. J. (2007). *A new look at passion and romantic relationships*. Paper submitted for publication.
- Ratelle, C. F., Vallerand, R. J., Mageau, G. A., Rousseau, F. L., & Provencher, P. (2004). When passion leads to problematic outcomes: A look at gambling. *Journal of Gambling Studies*, 20, 105–119.
- Rathunde, K. (1996). Family context and talented adolescents' optimal experience in school-related activities. *Journal of Research in Adolescence*, 6, 605–628.
- Rathunde, K., & Csikszentmihalyi, M. (1993). Undivided interest and the growth of talent: A longitudinal study of adolescents. *Journal of Youth and Adolescence*, 22, 385–392.
- Renninger, K. A. (1992). Interest, learning, and development. In K. A. Renninger, S. Hidi, & A. Krapp (Eds.), *The role of interest in learning and development* (pp. 3–25). Hillsdale, NJ: Erlbaum.
- Renninger, K. A., & Hidi, S. (2002). Student interest and achievement: Developmental issues raised by a case study. In A. Wigfield & J. S. Eccles (Eds.), *Development of achievement motivation: A volume in the educational psychology series* (pp. 173–195). San Diego, CA: Academic Press.
- Rip, B., Fortin, S., & Vallerand, R. J. (2006). The relationship between passion and injury in dance students. *Journal of Dance Medicine & Science*, 10, 14–20.
- Rip, B., Vallerand, R. J., Grenier, S., Lafrenière, M. K., & Charbonneau, M.-E. (2007, May). *Passion for sovereignty: Harmonious and obsessive passion in the political arena*. Paper presented at the 3rd International Congress on Self-Determination Theory (SDT), Toronto, Ontario, Canada.
- Rony, J.-A. (1990). *Les passions (The passions)*. Paris: Presses universitaires de France.
- Rousseau, F. L., & Vallerand, R. J. (2003). Le rôle de la passion dans le bien-être subjectif des aînés [The role of passion in the subjective well-being of the elderly]. *Revue Québécoise de Psychologie*, 24, 197–211.
- Rousseau, F. L., & Vallerand, R. J. (in press). An examination of the relationship between passion and subjective well-being in older adults. *International Journal of Aging and Human Development*.
- Rousseau, F. L., Vallerand, R. J., Ratelle, C. F., Mageau, G. A., & Provencher, P. J. (2002). Passion and gambling: On the validation of the Gambling Passion Scale (GPS). *Journal of Gambling Studies*, 18, 45–66.
- Ryan, R. M., & Deci, E. L. (2003). On assimilating identities of the self: A Self-Determination Theory perspective on internalization and integrity within cultures. In M. R. Leary & J. P. Tangney (Eds.), *Handbook of self and identity* (pp. 253–272). New York: Guilford Press.
- Séguin-Lévesque, C., Laliberté, M.-L., Pelletier, L. G., Blanchard, C., & Vallerand, R. J. (2003). Harmonious and obsessive passion for the internet: Their associations with the couple's relationships. *Journal of Applied Social Psychology*, 33, 197–221.
- 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: The University of Rochester Press.
- Spanier, G. B. (1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family*, 38, 15–38.
- Starkes, J. L., & Ericsson, K. A. (Eds.). (2003). *Expert performance in sports: Advances in research on sport expertise*. Champaign, IL: Human Kinetics.
- Vallerand, R. J. (1997). Toward a hierarchical model of intrinsic and extrinsic motivation. *Advances in Experimental and Social Psychology*, 29, 271–360.
- Vallerand, R. J. (2001). A hierarchical model of intrinsic and extrinsic motivation in sport and exercise. In G. Roberts (Ed.), *Advances in motivation in sport and exercise* (pp. 263–319). Champaign, IL: Human Kinetics.
- Vallerand, R. J. (2007). A Hierarchical Model of Intrinsic and Extrinsic Motivation for sport and physical activity. In M. S. D. Hagger & N. L. D. Chatzisarantis (Eds.), *Self-determination theory in exercise and sport* (pp. 255–279). Champaign, IL: Human Kinetics.
- Vallerand, R. J., Blanchard, C. M., Mageau, G. A., Koestner, R., Ratelle, C. F., 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., Fortier, M. S., Guay, F. (1997). Self-determination and persistence in a real-life setting: Toward a motivational model of high school dropout. *Journal of Personality and Social Psychology*, 72, 1161–1176.
- Vallerand, R. J., Gauvin, L. I., & Halliwell, W. R. (1986). Negative effects of competition on children's intrinsic motivation. *Journal of Social Psychology*, 126, 649–657.
- Vallerand, R. J., & Houliort, N. (2003). Passion at work: Toward a new conceptualization. In S. W. Gilliland, D. D. Steiner, & D. P. Skarlicki (Eds.), *Emerging perspectives on values in organizations* (pp. 175–204). Greenwich, CT: Information Age Publishing.
- Vallerand, R. J., Mageau, G. A., Elliot, A., Dumais, A., Demers, M.-A., & Rousseau, F. L. (in press). Passion and performance attainment in sport. *Psychology of Sport & Exercise*.
- Vallerand, R. J., & Miquelon, P. (2007). Passion for sport in athletes. In D. Lavallée, & S. Jowett (Eds.), *Social psychology in sport* (pp. 249–262). Champaign, IL: Human Kinetics.
- Vallerand, R. J., Ntoumanis, N., Philippe, F., Lavigne, G., Carbonneau, N., Bonneville, A., et al. (2007). *On being a sport fan: The role of passion and a look at the 2006 World Soccer Cup*. Paper submitted for publication.
- Vallerand, R. J., & Ratelle, C. F. (2002). Intrinsic and extrinsic motivation: A hierarchical model. In E. L. Deci & R. M. Ryan (Eds.), *Handbook of self-determination research* (pp. 37–63). Rochester, NY: University of Rochester Press.
- Vallerand, R. J., & Rousseau, F. L. (2007). *On passion, affect, and psychological adjustment*. Manuscript submitted for publication.
- 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 & Exercise Psychology*, 28, 454–478.
- Vallerand, R. J., Salvy, S. J., Mageau, G. A., Elliot, A. J., Denis, P., Grouzet, F. M. E., et al. (2007). On the role of passion in performance. *Journal of Personality*, 75, 505–534.
- Walker, M. B. (1992). *The psychology of gambling*. New York: Pergamon Press.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology*, 54, 1063–1070.
- Waugh, C. E., & Fredrickson, B. L. (2006). Nice to know you: Positive emotions, self-other overlap, and complex understanding in the formation of new relationships. *Journal of Positive Psychology*, 1, 93–106.

Received October 19, 2007

Revision received October 26, 2007

Accepted October 26, 2007 ■