

## **When Passion Leads to Problematic Outcomes: A Look at Gambling**

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Vallerand et al. (2003) have proposed that individuals can have two distinct types of passion toward an activity. Harmonious passion, an internal force leading one to choose to engage in the activity, is proposed to be associated with positive consequences. Obsessive passion, an internal pressure forcing one to engage in an activity, is posited to be associated with negative consequences. The present study sought to determine the role of the two types of passion in various cognitive and affective states associated with dependence and problems with gambling. Participants ( $n = 412$ ) were recruited at the Montréal Casino and given a questionnaire measuring passion toward gambling, as well as consequences associated with dependence and problem gambling. Results showed that obsessive passion for gambling predicted poorer vitality and concentration in daily tasks, as well as increased rumination, anxiety, negative mood, guilt, and problem gambling. These relations were not found for harmonious passion for gambling. Results are discussed in light of the motivational approach to passion (Vallerand et al., 2003).

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**KEY WORDS:** harmonious and obsessive passions; dependence; gambling.

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Before the last century, the general belief was that excessive gambling was a sin. Gradually, came a shift from seeing excessive gambling as a sin to seeing it more as a sickness or an illness (see Walker, 1992). Through the decades, the perception of excessive gambling evolved, shaped by the prevalent scientific tradition. Recently, gambling has been characterized as a pathological state (Lesieur & Rosenthal, 1991; Walker, 1992). Usually, the common perception people have of excessive gambling is that of a weakness (Orford & McCartney, 1990). However, pathological gambling can be thought of as being a dependence, or an addiction. As outlined by Rosenthal (1992; Rosenthal & Lorenz, 1992), pathological gambling can be defined as a “progressive disorder characterized by a continuous or periodic loss of control over gambling; a preoccupation with gambling and with obtaining money with which to gamble; irrational thinking; and a continuation of the behavior despite adverse consequences” (pp. 72–73).

A parallel can be made to dependence on an activity. In the sport literature, negative dependence on a sport or physical activity has been associated with a host of negative outcomes such as injuries (due to excessive training; Adams & Kirby, 1997) and deprivation symptoms when prevented from engaging in the activity (Conboy, 1994). Yet, not everyone becomes dependent or experience negative consequences. But why do some individuals become dependent upon gambling and develop a problematic orientation toward it? The present study deals with this issue. It is proposed that passion toward gambling has an impact on cognitive and affective consequences associated with dependence and problems toward gambling.

### **PASSION TOWARD AN ACTIVITY**

Recently, Vallerand and his colleagues (Vallerand et al. 2003) have proposed to analyze the concept of passion toward an activity from a motivational perspective. They define passion as a strong inclination toward an object or activity that people like, that they find important, and in which they invest time and energy. Thus, to the extent that someone likes an activity, finds it important, and invests time in it, we can say that this person is passionate about the activity.

Vallerand and colleagues (2003) distinguish between a harmoni-

ous and an obsessive passion. Obsessive passion is defined as an internal pressure forcing the individual to engage in a passionate activity. Such an individual can be portrayed as being controlled by this activity. As an example, an individual having an obsessive passion for gambling would tend to report having no choice but to gamble. Harmonious passion, on the other hand, is defined as a motivational tendency leading individuals to choose to engage in a passionate activity. In contrast to obsessive passion, harmonious passion leads one to be in control of the activity. For instance, someone having a harmonious passion for gambling would be able to put aside his/her "gambling night" if the need arises. In order to measure the two types of passion, Vallerand et al. developed and validated the Passion Scale, a bidimensional scale which assesses the extent to which individuals entertain obsessive and harmonious passions toward an activity. They provided support for the validity and the reliability of the Passion Scale.

Previous research on passion has been able to identify consequences of having either a harmonious or an obsessive passion toward an activity. Vallerand et al.'s analysis of passion has indeed been applied to a variety of domains and activities. Altogether, these studies have shown that having an obsessive passion usually is associated with negative consequences such as conflict with other life domains or activities as well as negative emotions (Vallerand et al., 2003), problems associated with Internet use (Séguin-Lévesque, Laliberté, Pelletier, Blanchard, & Vallerand, 2003), and anxiety (Rousseau, Vallerand, LeMartret, et al., 1999). On the other hand, having a harmonious passion has been associated with positive consequences such as vitality, positive emotions, life satisfaction, concentration, and flow (Vallerand et al., 2003).

### **PASSION FOR GAMBLING**

The concept of passion has been recently applied to the study of gambling behavior. In a recent study, Rousseau, Vallerand, Ratelle, et al. (2002) validated the Gambling Passion Scale toward gambling. The proposed scale is composed of 10 items, 5 for each type of passion (obsessive and harmonious). The scale is presented in Appendix. The bidimensional conceptualization of passion was further supported by confirmatory factor analyses showing two distinct factors (CFI = .97,

NFI = .92, NNFI = .97). In addition, both subscales were found to be reliable (obsessive  $\alpha = .89$ ; harmonious,  $\alpha = .76$ ) and valid (negative behaviors related to gambling—such as spending a lot of money—were associated with obsessive, but not harmonious, passion). Moreover, the Rousseau, Vallerand, Ratelle, et al. (2002) study, as well as that of Mageau, Vallerand, Rousseau, Ratelle, and Provencher (in press) replicated in the gambling context the findings that positive and negative consequences typically result from harmonious and obsessive passion, respectively. More specifically, Mageau et al. (in press) found that having an obsessive passion toward gambling was associated with a host of negative consequences both during (e.g., anxiety, negative affect, etc.) and after gambling (e.g., guilt, anxiety, negative affect, etc.), whereas such findings were not obtained with harmonious passion.

Do these results also prevail when one cannot engage in his or her passionate activity? That is, when prevented from gambling, do all individuals experience negative consequences or are such consequences experienced only by some individuals, specifically those with an obsessive passion for gambling? Previous results (e.g., Vallerand et al., 2003) suggest that it should be the case only for the latter individuals. Indeed, these authors found that individuals prevented from engaging in their passionate activity reported experiencing negative affect when their passion is obsessive but not when it is harmonious. It is thus logical to expect the same pattern of response from individuals engaging in gambling activities. Furthermore, findings from the literature suggest that individuals dependent upon an activity experience negative consequences when prevented from engaging in the activity. For instance, research on addiction to running reveals that individuals dependent upon running report deprivation symptoms when they cannot run (Conboy, 1994). It would thus appear that being prevented from gambling should be associated with negative consequences especially when the passion is obsessive rather than when it is harmonious.

### THE PRESENT STUDY

One of the features of problem gambling pertains to the obsession that the individual comes to develop toward gambling (Lesieur,

1984). Much like a drug addict, the pathological gambler loses control over the activity of gambling such that he/she no longer wilfully chooses to gamble but, rather, cannot control his/her need to do so (as suggested by the 10<sup>th</sup> criterion in the DSM-IV, 1994). We propose that this aspect of problem gambling is similar to a feature of obsessive passion toward an activity where the individual cannot help but engage in his/her activity. It is as if the activity controls the person rather than the opposite. It could be possible, then, that having an obsessive passion toward gambling is associated with the negative side of gambling, such as problem gambling. Rousseau, Vallerand, Ratelle, et al. (2002) proposed the concept of passion toward gambling as an explanation for the positive and negative consequences associated with gambling. The consequences they studied pertained to feelings as well as cognitive states experiences during and after gambling. In the present study, we were more interested by the relationships between passion types and problem gambling, which are more global and inclusive than pathological gambling (see Lesieur & Rosenthal, 1991). Problem gambling includes the patterns of gambling behavior which has consequences on family life, personal life, and work life.

There were three underlying goals to this study. A first goal was to replicate and extend past findings (Mageau, et al., in press; Rousseau, Vallerand, Ratelle, et al., 2002) by determining whether the concept of passion applies to the study of gambling behavior and whether obsessive passion for gambling is associated with more negative consequences than harmonious passion for gambling. A second goal was to study the cognitive and affective consequences typically associated with dependence on gambling (e.g., problem gambling). A third goal was to examine the relationships between the two types of passion toward gambling and problem gambling. More specifically, would problem gambling be related to both obsessive and harmonious passions or only to obsessive passion? This would have important implications for the ability to predict consequences associated with gambling. Overall, it was hypothesized that obsessive passion toward gambling would be strongly and positively associated with problem gambling and with cognitive and affective consequences associated with gambling dependence. These negative outcomes were not hypothesized to be related to harmonious passion toward gambling.

## METHOD

### *Participants*

A total of 412 adults (191 women, 219 men, and 2 unspecified) participated in the study. The mean age was 47 years ( $SD = 16.54$ ) and the mean annual income ranged between 20 000 and 40 000 \$CAN ( $Md = 25\ 000$  \$CAN). The majority of the sample was francophone (86%), had a high school diploma or less (63%), and was married or in a stable relationship (49%).

### *Measures*

*Passion Toward Gambling.* The Gambling Passion Scale (GPS; Rousseau, Vallerand, Ratelle, et al., 2002) was used to assess passion toward gambling. The GPS is a bidimensional scale that allows distinguishing between obsessive and harmonious passions toward gambling. The scale is composed of 10 items, 5 for each subscale. Participants were asked to indicate, with respect to their favorite gambling game, the extent to which they agreed with each item. Items were evaluated on a 7-point Likert scale ranging from 1 ("do not agree at all") to 7 ("completely agree"). A sample item for the Obsessive Passion subscale is "I have a tough time controlling my need to play this gambling game." A sample item for the Harmonious Passion subscale is "This gambling game is in harmony with the other activities in my life." The GPS has yielded excellent psychometric qualities in the past (Mageau et al., in press; Rousseau, Vallerand, Ratelle, et al., 2002). For the present study, acceptable levels of internal consistency were obtained for both the Obsessive ( $\alpha = .91$ ) and Harmonious ( $\alpha = .79$ ) Passion subscales. Results of an exploratory factor analysis replicated the 2-factor structure of the GPS (see Appendix), where all the predicted factor loadings were significant and higher than .50. The proportion of variance explained by the obsessive and harmonious factors was respectively 45.20% (eigenvalue = 4.52) and 19.40% (eigenvalue = 1.94).

*Cognitive and Affective Consequences Associated with Dependence on Gambling.* We were interested in measuring how passion related to different cognitive and affective states associated with dependence on

gambling. The present scale includes measures of ruminations, anxiety, and guilt. These different subscales were developed for the purposes of the present study. Participants had to indicate, on a 7-point scale, the extent to which each item corresponds to their experience when prevented from playing their favorite gambling game. Sample items for the various subscales are: anxiety (“I feel tense,” 3 items;  $\alpha = .90$ ), ruminations (“I constantly think about how I like it,” 4 items;  $\alpha = .89$ ), and guilt (“I feel guilty for not playing,” 3 items;  $\alpha = .68$ ).

*Cognitive and Affective Consequences Not Associated with Dependence.*

For the present purposes, we were also interested in measuring how passion related to different cognitive and affective states that are usually not associated with gambling dependence. The present scale includes measures of vitality, positive emotions, and concentration. The vitality items were taken from the Vitality Scale (Ryan & Frederick, 1997), positive emotions were assessed using the PANAS (Watson, Clark, & Tellegen, 1988), while concentration was measured using a scale developed by Vallerand et al. (1989). Participants had to indicate, on a 7-point scale, the extent to which each item corresponds to their experience when prevented from playing their favorite gambling game. Sample items for the various subscales are: “I feel full of life” (vitality, 2 items;  $r = .58$ ,  $p = .001$ ), “I feel joyful” (positive emotions, 3 items;  $\alpha = .54$ ), and “I’m distracted” (concentration, recoded; 2 items;  $r = .74$ ,  $p = .001$ ). Results with these subscales must thus be analyzed with caution.

*Problem Gambling.* The revised South Oaks Gambling Screen (SOGS; Lesieur & Blume, 1993) was used to assess problem gambling. This unidimensional scale is composed of 21 items. Participants indicate the extent to which each item corresponds to their customary behaviors toward gambling. Three items were scored on a 3-point scale, while the remaining used a “yes” or “no” format. A sample item is “Have you ever lost time from work (or school) due to betting money or gambling?” The SOGS has been validated with various populations and settings and has been found to evidence acceptable psychometric qualities (see Lesieur & Blume, 1987, 1993). In the present study, the SOGS was found to be reliable ( $\alpha = .89$ ).

### *Procedure*

Participants were recruited at the Montréal Casino. After completing a consent form, they were asked to complete a questionnaire that included measures of passion toward gambling, problem gambling, as well as affective and cognitive consequences associated with gambling dependence. Several versions of the questionnaire were administered. This allowed us to survey more individuals, while asking less time from them. More specifically, all participants received the Gambling Passion Scale and the SOGS and half of the remaining scales. Questionnaire administration took place in a private area where anonymity of participants was secured.

## RESULTS

### *Preliminary Analyses*

In order to make sure that assumptions of normality, independence, and homoscedasticity were met, data were screened for violations. Analyses revealed that all assumptions were satisfied except for the presence of six multivariate outliers. Those cases were deleted. Next, one-way ANOVAs revealed no significant gender differences on the various measures used.

### *Main Analyses*

The mean for the obsessive passion subscale was 2.53 on a 7-point scale ( $SD = 1.58$ ) whereas the mean for the harmonious passion subscale was 3.21 ( $SD = 1.36$ ). These two subscales were found to be significantly correlated ( $r = .39, p < .05$ ). This finding is consistent with findings from previous studies on passion (see Vallerand et al., 2003).

Because the two types of passion for gambling were related, we performed partial correlations between each type of passion for gambling and their outcomes, using the other passion as covariate. Results are presented in Table 1. With respect to consequences associated with dependence on gambling, obsessive passion for gambling was positively related to increased ruminations ( $\beta = .70, p < .05$ ), anxiety ( $\beta = .62, p < .05$ ), and guilt ( $\beta = .31, p < .05$ ). On the other hand, no significant relations were found for harmonious passion. These results

**Table 1**  
**Partial Correlations for Obsessive and Harmonious Passion with**  
**Negative Consequences Associated with Gambling Dependence,**  
**Positive Consequences not Associated with Gambling,**  
**and Problem Gambling**

|                                  | <i>Obsessive<br/>Passion</i> | <i>Harmonious<br/>Passion</i> | <i>n</i> |
|----------------------------------|------------------------------|-------------------------------|----------|
| <i>Negative Consequences</i>     |                              |                               |          |
| <i>Associated with Gambling</i>  |                              |                               |          |
| <i>Dependence</i>                |                              |                               |          |
| Ruminations                      | .70*                         | .07 n.s.                      | 188      |
| Anxiety                          | .62*                         | -.01 n.s.                     | 188      |
| Feelings of guilt                | .31*                         | .13 n.s.                      | 196      |
| <i>Positive Consequences Not</i> |                              |                               |          |
| <i>Associated with Gambling</i>  |                              |                               |          |
| <i>Dependence</i>                |                              |                               |          |
| Vitality                         | -.51*                        | -.05 n.s.                     | 188      |
| Concentration                    | -.33*                        | -.17*                         | 196      |
| Positive emotions                | -.40*                        | -.08 n.s.                     | 196      |
| <i>Problem Gambling</i>          |                              |                               |          |
| Problem gambling (SOGS)          | .58*                         | -.01 n.s.                     | 303      |

\* $p \leq .05$ .

suggest that obsessive passion for gambling correlates with negative consequences associated with dependence on gambling while harmonious passion for gambling does not. With regard to positive consequences not associated with gambling dependence, having an obsessive passion was negatively associated with positive emotions ( $pr = -.40$ ,  $p < .05$ ), vitality ( $pr = -.51$ ,  $p < .05$ ), and concentration ( $pr = -.33$ ,  $p < .05$ ). Only a modest negative correlation was found between harmonious passion for gambling and concentration ( $pr = -.17$ ,  $p < .05$ ). It thus appears that obsessive passion for gambling was negatively correlated with positive consequences not associated with dependence on gambling while harmonious passion was slightly associated with decreases in concentration. In sum, these results suggest that the negative consequences associated with gambling dependence can be linked

to having an obsessive passion for gambling. However, it does not seem to be the case for harmonious passion.

We were also interested in studying the relationship between passion for gambling and problem gambling. The mean for the SOGS was 3.86 ( $SD = 4.08$ ). We found that 94 participants (23%) scored above the 5-point cut-off for problem gambling. We also performed partial correlations between the passion types and participants' scores on the SOGS. Results indicated that obsessive passion toward gambling was positively correlated with problem gambling ( $pr = .58, p < .05$ ). On the other hand, harmonious passion for gambling was unrelated to problem gambling ( $pr = -.01, p < .05$ ). Thus, problem gambling appears to be related to having an obsessive passion toward gambling, whereas it does not seem to be the case with having a harmonious passion for gambling. We were also interested to examine differences between individuals scoring below and above the 5-point cutoff on measures of passion. We thus performed oneway ANOVAs on the obsessive and harmonious passion scales. Results revealed that individuals scoring above 5 on the SOGS reported higher levels of both harmonious ( $M = 3.64$ ) and obsessive ( $M = 3.98$ ) passions than individuals scoring below 5 ( $M = 3.04$  and  $1.99$ ;  $F_{\text{harmonious}}(1,302) = 12.45, p = .001$ ;  $F_{\text{obsessive}}(1,302) = 137.10, p = .001$ ). Examination of effect size estimates revealed that, while the effect for harmonious passion was small ( $ES = .04$ ), the magnitude of the difference in level of obsessive passion between individuals scoring low and high on the SOGS was moderate ( $ES = .31$ ).

## DISCUSSION

The present study aimed at studying how passion toward gambling relates to problem gambling and to cognitive and affective consequences associated with gambling dependence. The theoretical perspective underlying this study was the motivational perspective on passion (Vallerand et al., 2003), which proposes that two types of passion, namely obsessive and harmonious, are differently related to various outcomes. Specifically, it was hypothesized that obsessive passion toward gambling would be positively associated with problem gambling and with negative consequences associated with gambling dependence. Also, obsessive passion for gambling was hypothesized to be

negatively associated with positive consequences unrelated to gambling dependence. Examination of the results reveals that the hypotheses were supported by the data. Thus, in addition to being associated with higher levels of problem gambling, obsessive passion predicted higher levels of ruminations, anxiety, and guilt, as well as lower levels of concentration, vitality, and positive emotions.

In contrast, harmonious passion toward gambling was not found to be significantly related to problem gambling, negative outcomes associated with dependence on gambling, or positive consequences unrelated to dependence (except for concentration). This finding contrasts with past findings, which show a positive association with positive consequences (affect and life satisfaction; Vallerand et al., 2003). Why is it the case that harmonious passion toward gambling did not lead to positive outcomes for the individual? Several possibilities exist. First, this finding may be attributable to the nature of the activity. Previous research on passion investigated activities like sports or other types of leisure activities. There might be characteristics of the gambling activity that can explain why harmonious passion did not lead to positive outcomes. Second, the fact that gambling can lead to negative objective consequences like losing one's money can prevent individuals from experiencing positive subjective consequences, even when passion tends to be more harmonious than obsessive. Individuals have to be quite vigilant if they do not want to experience serious monetary losses, and this cognitive demand might impede on their ability to experience positive emotions. Lastly, there's a possibility that individuals reporting a harmonious passion are in denial of the negative consequences associated with gambling, which prevents them from reporting them. Future research on passion and gambling should investigate these possibilities further.

The present findings have implications for research on passion. The present results validate the claim that the concept of passion can be applied to the study of gambling behavior. Indeed, they replicate and extend the results of previous studies (Mageau et al., in press; Rousseau, Vallerand, Ratelle, et al., 2002) that applied the concept of passion to the study of gambling. The concept of passion can thus be used to predict outcomes associated with gambling. In line with the emerging literature on passion, having an obsessive passion was associated with negative consequences but having a harmonious passion was unrelated to both negative and positive consequences (except for a

small relation to concentration). Here, an obsessive passion for gambling was positively associated with negative affective and cognitive consequences associated with gambling and high indices of problem gambling. Harmonious passion, on the other hand, was not associated with these negative outcomes. In sum, passion is a concept that can be used to explain the psychological processes taking place in a host of domains and activities, including gambling, during and after activity engagement. This finding increases our confidence in the validity of the conceptualization of the motivational perspective on passion (Vallerand et al., 2003).

As it is the case for all research endeavors, the present study contained some limitations. First, the study was correlational in nature, which prevents us from making any causality statement. Additional research is needed in order to establish more convincingly the direction of causality between passion and some of its consequences (problem gambling and consequences associated with gambling dependence). A second limit of the study is that only one measurement time was used. Future research should use a prospective or longitudinal design where gamblers would be followed over time to determine if passion can predict changes in consequences associated with gambling dependence. Finally, only casino players were used. Future research should replicate the present findings with other types of gamblers.

Other areas for future research include investigating the determinants of passion toward gambling. One could then measure variables like perceptions of control in beginners to determine if this variable can predict obsessive passion for gambling. Another research direction would be to determine the stability of the different types of passion toward gambling to determine if individuals always have the same predominant passionate orientation toward gambling or if changes are possible. Such a finding would have implications in predicting the consequences of gambling.

## CONCLUSION

Drawing from the motivational perspective on passion (Vallerand et al., 2003), the present study aimed at examining the relation between passion toward gambling and consequences such as problem gambling and dependence on gambling. Results from adult partici-

pants recruited at a casino revealed that having an obsessive passion toward gambling was positively associated with problem gambling and with negative consequences associated with gambling dependence, as well as negatively associated with positive consequences unrelated to dependence on gambling. Harmonious passion, on the other hand, was basically unrelated to these variables. These results are in line with previous research on passion toward other types of activities such as work, sports, and leisure, and indicate that the concept of passion can be a useful framework to study gambling behavior.

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### Appendix Results from the Exploratory Factor Analysis of the Gambling Passion Scale

|   | <i>F1</i> | <i>F2</i> |
|---|-----------|-----------|
| 1. I cannot live without this gambling game.<br>(OP1)                                 | .81       |           |
| 2. I am emotionally dependent on this gambling game. (OP2)                            | .89       |           |
| 3. I have a tough time controlling my need to play this gambling game. (OP3)          | .85       |           |
| 4. I have almost an obsessive feeling for this gambling game. (OP4)                   | .88       |           |
| 5. The urge is so strong, I cannot help myself from playing this gambling game. (OP5) | .87       |           |
| 6. This gambling game allows me to live memorable experiences. (HP1)                  |           | .66       |

**Appendix (Continued)**

|  | <i>F1</i> | <i>F2</i> |
|--|-----------|-----------|
| 7. This gambling game is in harmony with the other activities in my life. (HP2)                      |           | .66       |
| 8. The new things that I discover with this gambling game allow me to appreciate it even more. (HP3) |           | .75       |
| 9. This gambling game reflects the qualities I like about myself. (HP4)                              |           | .77       |
| 10. This gambling game allows me to live a variety of experiences. (HP5)                             |           | .84       |
| Eigenvalue   | 4.52      | 1.94      |
| Variance (%)   | 45.20     | 19.40     |

*Note.*  $n = 406$ . Only factor loadings of .50 and above are shown.

**REFERENCES**

- Adams, J., & Kirby, R.J. (1997). Exercise dependence, injury, and anxiety in aerobic participants. In Lindor, R. & Bar-Eli, M. (Eds), *Innovations in sport psychology: Linking theory and practice: Proceedings* (pp. 56-58). Netany: The Zimmerman College of Physical Education and Sport Sciences, The Wingate Institute of Physical Education and Sport.
- American Psychiatric Association. (1994). *Diagnostic and statistical manual of mental disorders* (4<sup>th</sup> ed.). Washington, DC: Author.
- Conboy, J.K. (1994). The effects of exercise withdrawal on mood states in runners. *Journal of Sport Behavior*, 17, 188-302.
- Lesieur, H.R. (1984). *The chase: Career of the compulsive gambler*. Cambridge, MA: Schenkman Books.
- Lesieur, H.R., & Blume, S.B. (1987). The South Oaks Gambling Screen (The SOGS): A new instrument for the identification of pathological gamblers. *American Journal of Psychiatry*, 144, 1184-1188.
- Lesieur, H.R., & Blume, S.B. (1993). Revising the South Oaks Gambling Screen in different settings. *Journal of Gambling Studies*, 9, 213-223.
- Mageau, G.A., Vallerand, R.J., Rousseau, F.L., Ratelle, C.F., & Provencher, P.J. (in press). Passion and gambling: Investigating the divergent affective and cognitive consequences of gambling. *Journal of Applied Social Psychology*.
- Orford, J., & McCartney, J. (1990). Is excessive gambling seen as a form of dependence? Evidence from the community and the clinic. *Journal of Gambling Studies*, 6, 139-152.
- Rosenthal, R.J. (1992). Pathological gambling. *Psychiatric Annals*, 22, 72-78.
- Rosenthal, R.J., & Lorenz, V.C. (1992). The pathological gambler as criminal offender: Comments on evaluation and treatment. *Psychiatric Clinics of North America*, 15, 647-660.
- Rousseau, F. L., Vallerand, R. J., Le Martret, K., & Clark, M. (1999, November). *Passion and subjective well-being among nursing home residents*. Poster session presented at the 28<sup>th</sup> Annual Scientific and Educational Meeting of the Canadian Association on Gerontology, Ottawa, Canada.
- 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., & Frederick, C. (1997). On energy, personality, and health: Subjective vitality as a dynamic reflection of well-being. *Journal of Personality*, 65, 529–565.
- Séguin-Lévesque, C., Laliberté, M.-L., N., Pelletier, L.G., Blanchard, C.M., & Vallerand, R.J. (2003). Harmonious and obsessive passion for the Internet: Their associations with couple's relationships. *Journal of Applied Social Psychology*, 33, 197–221.
- Vallerand, R.J., Blais, M.R., Brière, N.M., & Pelletier, L.G. (1989). Construction et validation de l'Echelle de motivation en éducation (EME) [On the construction and validation of the French form of the Academic Motivation Scale]. *Canadian Journal of Behavioural Science*, 21, 323–349.
- Vallerand, R.J., Blanchard, C., Mageau, G.A., Koestner, R., Ratelle, C.F., Leonard, M., Gagné, M., & Marsolais, J. (2003). Les passions de l'âme: On obsessive and harmonious passions. *Journal of Personality and Social Psychology*, 85, 756–767.
- Walker, M.B. (1992). *The psychology of gambling: International series in experimental social psychology*. Oxford, UK: Pergamon Press.