Harmonious and Obsessive Passion for the Internet: Their Associations With the Couple’s Relationship

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Based on a motivational perspective of passion, we investigated the associations between passion for the Internet and level of self-determined motivation toward the couple’s relationship. Our results show that an obsessive passion toward the Internet was associated with lower self-determination in the couple, greater conflict in the relationship, and low levels of dyadic adjustment. In contrast, harmonious passion toward the Internet was associated with greater self-determination in the couple, less conflict, and greater dyadic adjustment. Results suggest that use of the Internet is not necessarily associated with negative interpersonal outcomes. Rather, it appears that the way the activity has been internalized is associated with how individuals internalize their reasons for behaving in other domains.

As a technological innovation of the 20th century, the Internet has the potential to change the way individuals communicate and conduct their daily activities. Although in the past, computers were only used by scientists, engineers, and businesses, nowadays, computers can be found in approximately 40% of households in the United States. Importantly, about 33% of these personal computers are equipped with an Internet connection. Researchers, scholars, and social

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critics are now examining the potential impact of the Internet on the information infrastructure and the economic and social life of the average citizen (Anderson, Bikson, Law, & Mitchell, 1995; King & Kraemer, 1995).

Some critics argue that the Internet is detrimental to individuals' social relationships. These analysts maintain that the Internet can lead to social isolation and deprive people of meaningful interpersonal interactions with real individuals (Putnam, 1995; Stoll, 1995; Turkle, 1996). In contrast, others argue that the Internet provides people with more and better opportunities for social exchange. By allowing individuals to communicate with each other without any constraints related to time, distance, or stereotypes, the Internet contributes to remove many barriers previously associated with interpersonal communication. These scholars maintain that the Internet allows individuals to form new relationships based on common interests rather than accessibility (Katz & Aspden, 1997; Rheingold, 1993).

The extent to which the Internet can actually be a part of enhanced or impoverished social interaction is an important social psychological question that needs to be addressed empirically. In recent years, an apparent decline in the depth and frequency of individuals' social engagement seems to have occurred. Individuals have been found to vote less, discuss governmental and societal issues with their neighbors less, be part of fewer organizations, and attend social gatherings less than they did 35 years ago (Putnam, 1995). Whether the Internet will further contribute to this social problem or potentially curb the current trend is still unknown.

At present, there is little empirical evidence addressing the association of the Internet with individuals' relationships and social involvement. However, there are at least two recent studies of which we are aware that have examined the social consequences associated with Internet use (Katz & Aspden, 1997; Kraut et al., 1998). In the first of these empirical studies, Internet users were compared to non-users and found to be similar with respect to the amount of leisure, religious, and community organizations of which they were a part and in the amount of time they reported communicating with family and friends. Conversely, Kraut et al. conducted a longitudinal study and found that use of the Internet was associated with a reported decline in the amount of communication within the family and the size of individuals' local social networks. In addition, greater use of the Internet was found to be related to an increase in reported loneliness and depression.

Critics of the Kraut et al. (1998) study highlight the fact that the results did not strongly support the authors' claim (McKenna & Bargh, 2000). For example, when Kraut et al. reported that using the Internet causes an increase in loneliness, they based their conclusions on a small but statistically significant partial correlation of .15 between number of hours of Internet use and self-reported loneliness that explained less than 1% of the variance in change in loneliness over a 2-year period. In addition, the size of participants' local social networks over the time of
the study decreased from an average of 24 people to 23 people. Similarly, the authors’ conclusion that Internet use increases levels of depression was based on a partial correlation between Internet use and self-reported dysphoric mood that again accounted for less than 1% of the variance in change in depression levels over a 2-year period.

However, when we take a closer look at Kraut et al.’s (1998) results, we find that a small but statistically significant decrease in reported loneliness and depression associated with Internet use was also found. In addition, the size of participants’ distal social networks increased from 25 people to 32 people. Nonetheless, it is the negative findings of Kraut et al.’s study that received full media attention and that fueled the idea that use of the Internet might be a bad thing causing damaging effects to people’s well-being and social interactions.

Existent literature on the social effects of Internet use, therefore, has only inconsistently shown a link between use of the Internet and social involvement and interaction. It thus seems important to try to explain this apparent inconsistency in findings. These apparently inconsistent findings could be a reflection of the variety of factors that influence people’s levels of loneliness, depression, and social networks, but also they could suggest that the Internet might not be inherently beneficial or detrimental to social involvement and interpersonal interactions.

Although the Internet is an absorbing activity that can take up a substantial amount of time in one’s daily routine, individuals use the Internet for very different reasons. These include but are not limited to entertainment, communication, information search and retrieval, education, and self-improvement. The way in which individuals approach the Internet could be related closely to the reasons people have for engaging in their couple relationships and to some extent account for the relations between degree of involvement on the Internet and the quality of one’s social interactions.

In the present paper, we propose that the type of person who is approaching the Internet in a compulsive way will also be the type of person who will report lower levels of relationship adjustments. Consistent with previous research (Katz & Aspden, 1997; Kraut et al., 1998), in the present study, we look at people’s real-life relationships, not intimate relationships formed on the Internet.

Passion for Interesting Activities

Recently, Vallerand et al. (in press) proposed and developed a motivational approach to the concept of passion in which they define *passion* as a strong inclination toward an interesting and important activity in which individuals invest time and energy. The concept of passion is certainly not new. Psychologists and philosophers alike have been interested in the concept of passion for quite some time (Adler, 1937/1995; Darwin, 1872/1998; Derek, 1998; Freud, 1881/1992;
Hillman, 1960/1992; Levin, 1982; Olkowski, 1982), mainly investigating it as a component of healthy romantic relationships (deMunck & Korotayev, 1999; Fletcher, Simpson, Thomas, & Giles, 1999; Hatfield & Walster, 1978; Marston, Hecht, Manke, McDaniel, & Reeder, 1998; Peven & Shulman, 1999; Sternberg, 1986, 1988, 1997; Sternberg & Hojat, 1997; Whitley, 1993). Only recently has the concept of passion gained some popularity in the educational and managerial domains as a significant determinant of students’, teachers’, and managers’ interest, enjoyment, satisfaction toward their work, and work quality (Maddock & Fulton, 1998; Schank & Joseph, 1998; Talley, 1996; Talley, Kubiszyn, Brassard, & Short, 1996).

Even though passionate love has been studied extensively in psychology, Vallerand et al. (in press) made the first empirical efforts to extend the concept of passion to activities and interests. Further, they proposed the existence of two types of passions: obsessive passion and harmonious passion. According to Vallerand et al., it is the manner in which an activity has been internalized in the self that determines the type of passion that will be experienced toward the activity. Precisely, highly involving activities can be internalized in a self-determined or a non-self-determined manner. According to self-determination theory (SDT; Deci & Ryan, 1985, 1987, 1991; Ryan & Deci, 2000), the level of self-determination underlying a behavior depends on the extent to which the behavior has been chosen freely and is in line with the individual’s values and self-concept.

When activities are internalized in a self-determined fashion, the resultant passion is harmonious. Harmonious passion toward an activity refers to a motivational tendency to choicefully and freely engage in the activity. This type of passion regulates highly involving, time-consuming activities that are coherent with individuals’ other life domains, values, and self-concept. In line with SDT, self-determined forms of motivation (e.g., intrinsic motivation, identified regulation) are the ones that define behaviors or activities that have been chosen freely and that are in line with individuals’ core values and self-concept. Consistent with this formulation, a harmonious passion has been found to be associated with self-determined forms of motivation (e.g., intrinsic motivation, identified regulation) and to lead to positive consequences such as positive affect, higher levels of subjective well-being, and lower levels of anxiety (Blanchard & Vallerand, 1998; Vallerand et al., in press).

In contrast, an obsessive passion originates from interesting activities that have been internalized in a non-self-determined manner. This type of passion regulates highly involving activities that are incongruent or in conflict with individuals’ self-concept. Because these activities have not been integrated choicefully within oneself, this form of internalization creates an internal pressure that constrains the individual to engage in the interesting activity. Consistent with SDT, non-self-determined forms of motivation (e.g., introjected regulation,
extrinsic motivation) represent behaviors that are performed out of internal conflict and that are contrary to individuals’ values and true self. In line with this formulation, introjected motivation was found to be associated with an obsessive passion for highly involving and demanding sport activities (Vallerand et al., in press). Furthermore, obsessive passion was linked with a variety of negative outcomes such as negative affect and lower levels of life satisfaction and well-being (Blanchard & Vallerand, 1998; Vallerand et al., in press).

So far, empirical research supporting the validity of harmonious and obsessive passion has focused on the associations between the types of passion and intrapersonal variables. In the present study, we investigate how passions might relate to interpersonal interactions.

Passion for the Internet and Motivation for Intimate Relationships

Passion for the Internet and motivation for interpersonal relationship are comparable to the extent that the reasons for engaging in both activities can be internalized in similar ways. Individuals who would choose to use the Internet because they enjoy learning new information or because they want to expand their horizons would, most likely, develop a harmonious passion toward the Internet. A harmonious passion for the Internet would reflect a person’s ability to successfully integrate this activity with other relevant activities in one’s life. Thus, people with a harmonious passion toward the Internet could also be those more likely to have internalized the reasons for having a relationship with their partners in a self-determined way. As a result, a harmonious passion toward the Internet would be associated with healthy intimate relationships.

In contrast, individuals who would feel compelled to use the Internet would most likely develop an obsessive passion toward the Internet. Individuals with an obsessive passion toward the Internet would be motivated to use the Internet because of internal pressures and incentives. The development of an obsessive passion for the Internet would make the activity hard to regulate and difficult to incorporate with other life activities. People with this form of regulation toward their use of the Internet could also be more likely to regulate their interpersonal behaviors in a non-self-determined manner. In this case, use of the Internet could be associated with less healthy intimate relationships that would be characterized by lower levels of perceived self-determination. Although both of these groups of individuals would regularly use the Internet and would find it important, we hypothesize that use of the Internet will be associated with lower levels of relationship satisfaction only for individuals with an obsessive passion for the Internet.

As an interpersonal correlate, we chose to investigate the couple relationship because of its central importance for most individuals. Involvement in an intimate relationship contributes to fulfilling a basic human need: relatedness, or the
need to feel related to a significant other (Baumeister & Leary, 1995; Deci & Ryan, 1985, 1991; Richer & Vallerand, 1998). If a basic need is not met, individuals' psychological well-being and functioning subsequently should be impaired. According to SDT (Deci & Ryan, 1985, 1991; Ryan & Deci, 2000), in addition to the need for relatedness, individuals also strive to become more autonomous and competent.

Intrinsic motivation represents the most self-determined form of motivation and refers to behaviors that are performed for the sole pleasure and satisfaction derived during practice of the activity (Deci & Ryan, 1985; Harackiewicz, 1979; Ryan & Deci, 2000). Conversely, extrinsic motivation underlies behaviors that are performed for instrumental reasons. Deci and Ryan (1985) and Vallerand, Blais, Brière, and Pelletier (1989) distinguished four types of extrinsic motivation that can be placed on a continuum according to their underlying level of self-determination. Extrinsic motivation by external regulation is the least self-determined form of extrinsic motivation. In that case, the behavior is controlled by external stimuli (e.g., rewards, punishments). Extrinsic motivation by introjected regulation refers to behaviors that are performed because of internal pressures (e.g., guilt, anxiety). Although internalized pressures now control the behavior, the behavior is not labeled as self-determined since it originates from self-imposed constraints. When individuals choose to perform a behavior because it is consistent with one's own values, it is then said to be regulated by identified motivation. Extrinsic motivation by identified regulation represents the first form of self-determined extrinsic motivation. Extrinsic motivation by integrated regulation refers to behaviors that are performed because they are consistent with one's self-concept. Even though the behavior is still performed for instrumental reasons, it does not conflict with an individual's other life domains since it has become part of the individual's self-structure. Amotivation is another form of motivation that has been identified. Amotivation underlies behaviors that are performed with no clear sense of purpose. Individuals who are amotivated eventually abandon the activity.

Over the past 15 years, the results of research conducted in various domains have shown that behaviors performed for self-determined reasons (intrinsic, integrated, and identified regulation) are associated with positive consequences, such as task satisfaction, interest, general well-being, and task persistence. In contrast, behaviors that are performed for non-self-determined reasons (introjected and external regulation, and amotivation) have been found to be associated with negative consequences, such as anxiety, depression, task alienation, and dropout (for reviews, see Deci & Ryan, 1985, 1987, 1991; Ryan, 1993; Vallerand, 1997).

Thus, the different types of motives that regulate individuals' behaviors have been found to be distinctly associated with diverse consequences depending on the level of self-determination underlying the various motives. This pattern of results has been reproduced in life domains as diverse as education (Ryan &
Connell, 1989; Vallerand et al., 1989), leisure (Losier, Bourque, & Vallerand, 1993; Pelletier, Vallerand, Green-Demers, Brière, & Blais, 1995), and interpersonal relationships (Blais, Sabourin, Boucher, & Vallerand, 1990).

Consistent with the postulates of SDT, Blais et al. (1990) found that individuals who reported higher levels of self-determined motivation toward their couple relationships were, in general, more satisfied with their intimate relationships. They reported higher levels of dyadic adjustment, as well as greater happiness and satisfaction toward their relationships. Other studies also found that individuals who were intrinsically motivated toward their intimate relationships were feeling more in love and reported greater levels of confidence in their partners (Rempel, Holmes, & Zanna, 1985; Seligman, Fazio, & Zanna, 1980).

In the present study, we propose and test two alternative models that examine associations between two types of motivational tendencies toward the Internet (harmonious passion and obsessive passion) and self-determined motivation toward the couple relationship and relationship quality. In the first model, we propose that the degree of involvement with the Internet will be associated positively with both harmonious passion and obsessive passion toward the Internet. However, we hypothesize that the two forms of passion will be associated differentially with self-determined motivation toward the couple relationship. Specifically, we expect that an obsessive passion toward the Internet will be associated negatively with level of self-determined motivation toward the couple relationship.

In contrast, we expect that individuals with a harmonious passion toward the Internet will not report being less self-determined toward their relationships because of a self-determined, nonconflictual internalization of the Internet and the couple relationship within the self. In addition, we do not expect level of involvement toward the Internet to be associated significantly with the level of self-determined motivation toward the couple relationship. In line with Blais et al. (1990), we expect higher levels of self-determined motivation for the intimate relationship to be associated positively with self-reported dyadic adjustment and associated negatively with self-reported degree of conflict in the couple.

In the alternative model tested, we propose that the types of passion for the Internet will be most closely associated with perceptions of conflict in the couple and dyadic adjustment. In turn, greater couple conflict and lower adjustment will be associated with level of self-determination in the couple. People with an obsessive passion toward the Internet will expose themselves to experience more conflict, not only because of the time that it takes away from the relationship, but also because of people's poor ability to internalize their reasons for using the Internet and for being in an intimate relationship. Again, we do not expect degree of involvement with the Internet to be associated with motivation for the relationship. Such findings would support the hypothesis that people's similar motivational regulatory style toward the Internet and their relationship, and not
the level of involvement toward the activity, mainly account for the relationship between the two life domains.

Method

Participants

The participants were 97 women and 86 men, aged between 18 and 61 years ($M = 29.2$ years). Participants had been involved in a heterosexual relationship for at least 3 months ($M = 77$ months), and had been using the Internet for at least 1 month ($M = 18.84$ months). The majority of participants (79%) had been living together for at least 2 months ($M = 56.5$ months). The number of hours per week that participants reported using the Internet ranged from 1 to 70 ($M = 6.5$), and they indicated mainly using the Internet at home. In addition, the majority of participants (63%) were not using the Internet prior to the start of their intimate relationships, while for the remaining participants, at least one member of the couple was an Internet user prior to the start of the relationship. Most participants indicated that their relationships were very important to them ($M = 4.36$), and they considered the use of the Internet moderately important ($M = 2.66$).

Procedure

Participants were told that the purpose of the study was to examine individuals' reasons for using the Internet and for being involved in an intimate relationship. They were also told that their participation was voluntary and that their data would remain confidential.

All participants completed a questionnaire that comprised measures designed to assess individuals' passion toward the Internet, motivation toward their couple relationships, and various related consequences. The questionnaire took approximately 30 min to complete. Data were collected following two protocols. Most questionnaires (80%) were distributed at the university library and immediately were completed by participants. The remaining questionnaires were distributed in the participants' workplace. These participants were not university students. They completed the questionnaires at home and mailed them to the experimenter at a later time. The researchers contacted three organizations in the Ottawa region that agreed to take part in the study. No significant differences were found in function of workplace, so the data were collapsed for further analyses.

Measures

Passion scale. The passion scale was developed originally by Vallerand et al. (in press) to assess two types of passion (obsessive and harmonious) toward interesting and involving activities. In their initial study, a number of items that
reflected the definition of the two types of passion were submitted to 525 college students. First, these participants were asked to identify an activity that they found interesting and important and in which they invested time and energy. Second, participants were asked to complete the passion scale in reference to the interesting and involving activity they had just identified. Results of an exploratory factor analysis (EFA) yielded two factors corresponding to the two hypothesized subscales. Following these analyses, the items best representing the obsessive and harmonious subscales were retained (7 items per subscale). In subsequent studies, these results supporting a two-factor structure of the scale were replicated using confirmatory factor analysis (CFA). In addition, a correlation of only .43 was obtained between the two subscales, which also supported the two-factor structure of the scale.

For the purpose of the present study, a shorter version of the passion scale was used. Only the items that could best be adapted to people’s reasons for using the Internet were retained. This adapted version of the passion scale is comprised of eight items divided into two subscales (4 items each) designed to measure individuals’ harmonious and obsessive passion toward the Internet. Participants had to answer each item in reference to their reasons for using the Internet on a 7-point scale ranging from 1 (does not agree at all) to 7 (agrees completely). The internal reliability of each subscale was found to be adequate (α = .75 and .88, respectively). The items of the passion scale are presented in the Appendix.

Motivation Toward the Couple Relationship scale (Blais et al., 1990). This scale is composed of 20 items measuring individuals’ levels of motivation toward their intimate relationships. The scale comprises six subscales designed to measure the motivational constructs identified by Deci and Ryan (1985) and Vallerand et al. (1989). These constructs are from the most self-determined to the least self-determined: intrinsic motivation (IM: 5 items; e.g., “Because I love the many fun and crazy times that we share together”), extrinsic motivation by integrated regulation (INTEG: 3 items; e.g., “Because I value the way our relationship allows me to improve myself as a person”), extrinsic motivation by identified regulation (IDEN: 3 items; e.g., “Because this is the person I have chosen to share in my important life projects”), extrinsic motivation by introjected regulation (INTRO: 3 items; e.g., “Because I would feel guilty if I separated from my partner”), extrinsic motivation by external regulation (ER: 3 items; e.g., “Because I do not want to live alone or by myself”), and amotivation (AMO: 3 items; e.g., “There is nothing motivating me to stay in a relationship with my partner”).

Participants indicated their level of agreement with the statements by answering each item on a 7-point scale ranging from 1 (does not agree at all) to 7 (agrees completely). Results of EFA and CFA supported the hypothesized structure of the scale. In addition, internal reliability of each subscale was found to be acceptable (α = .60 to .90). Finally, correlation between the subscales supported the self-determination continuum proposed by Deci and Ryan (1985).
For the purpose of the present study, three self-determination indexes (SDI) were created using one item of each subscale ($\alpha = .93$). These indexes were computed following the procedure, which is described by Vallerand (1997): A weight of 3 was assigned to intrinsic motivation (IM), the most self-determined form of motivation; a weight of 2 was assigned to integration (INTEG), the next form of motivation on the self-determination continuum; and a weight of 1 was assigned to identification (IDEN). Negative weights were assigned to the non-self-determined form of motivations: A weight of -1 was assigned to introjection (INTRO); a weight of -2 to external regulation (ER); and a weight of -3 to amotivation (AMO), the least self-determined form of motivation.

$$SDI_i = (3 \times IM_i) + (2 \times INTEG_i) + (IDEN_i) - (INTRO_i) - (2 \times ER_i) - (3 \times AMO_i)$$

*Dyadic Adjustment scale (Spanier, 1976).* The Dyadic Adjustment scale is composed of 10 items designed to measure individuals’ levels of agreement with respect to various aspects of the relationship related to the expression of affection and dyadic consensus (e.g., “demonstration of affection,” “amount of time spent together”). Participants answered each item on a 5-point scale ranging from 1 (almost always disagree) to 5 (almost always agree). For the purpose of testing the structural model, three indexes were created by randomly combining items. Of these indexes, two are composed of three items, whereas the last index is composed of four items. The global internal consistency of this scale was found to be adequate ($\alpha = .84$).

*Perceptions of Conflict in the Relationship scale.* A scale designed specifically for the purpose of the present study is composed of five items designed to assess the perceived level of conflict experienced in the relationship. The items of the scale either reflect the experience of conflict directly related to the use of the Internet ($\alpha = .64$) or to the experience of conflict or problems associated with being in the relationship in general ($\alpha = .79$). Participants had to indicate their level of agreement with each statement on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). For the purpose of testing the structural model, two indexes were created that reflected the two dimensions of the scale. The items are presented in the Appendix. The global internal consistency of the scale was also found to be acceptable ($\alpha = .75$).

*Involvement toward the Internet.* For purpose of testing the structural model, two indexes were used to assess characteristics defining the construct of passion for an interesting activity. Participants were asked about the importance they attributed to the Internet and the number of hours per week they spent using the Internet. Specifically the importance index was, “How important is the Internet to you?” Participants answered the item on a 5-point scale ranging from 1 (not at all important) through 3 (moderately important) to 5 (extremely important). The
hours-of-use index asked, “Indicate how many hours per week on average you spend on the Internet.”

**Analysis**

The adequacy of the models tested were assessed using various indices of fit available through LISREL VIII (Jöreskog & Sörbom, 1996). These indices were the chi-square statistic, the Root Mean Square Error of Approximation (RMSEA), the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AGFI), the Comparative Fit Index (CFI), the Incremental Fit Index (IFI), and the Parsimony Normed Fit Index (PNFI).

**Results**

**Preliminary Analyses**

Data were examined preliminarily for the adequacy of the fit between their distribution and the assumptions of multivariate analysis. The results reveal that the data were normally distributed with values for skewness and kurtosis within an acceptable range of -1 and +1. Finally, there was no evidence of multicollinearity or singularity. All correlations between the indexes were below .73 (Tabachnik & Fidell, 2001).

**Pattern of Correlations Between Variables**

The correlations between the variables related to the use of the Internet and the variables related to the couple relationship were examined first and are presented in Table 1. As can be seen, the pattern of relations between the two types of passion, Internet involvement, Internet importance, and the relationship variables were generally as expected. For example, the hours per week of Internet use and the perceived importance of the Internet were positively and similarly related to both types of passion. However, harmonious passion and obsessive passion tended to be associated differently with the relationship variables. Obsessive passion toward the Internet was found to be associated with less self-determination toward couple relationship, experience of more conflict in the relationship, as well as reports of lower levels of dyadic adjustment.

In addition, mediational analyses were performed with these continuous variables using the criteria set forth by Baron and Kenny (1986). Results of these analyses demonstrate that the number of hours per week of Internet use did not mediate the relationship between obsessive passion and self-determined motivation for the couple.

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3We did not expect any systematic differences between the two dimensions of the Perceptions of Conflict in the Relationship scale. Overall, the results for the two dimensions of the scale were very consistent across all variables that were examined.
Table 1

**Correlations Between Study Variables**

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<tr>
<td>1. Age</td>
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<td>-.15*</td>
<td>.16*</td>
<td>.12</td>
<td>.15*</td>
<td>.04</td>
<td>.12</td>
<td>-.24**</td>
<td>.25**</td>
<td>-.10</td>
<td>.77**</td>
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<tr>
<td>2. Gender</td>
<td>—</td>
<td>-.29**</td>
<td>-.26**</td>
<td>-.16*</td>
<td>-.18*</td>
<td>-.30**</td>
<td>.17*</td>
<td>-.22**</td>
<td>.20**</td>
<td>-.07</td>
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<td>3. Internet importance</td>
<td>—</td>
<td>.26**</td>
<td>.16*</td>
<td>.41**</td>
<td>.32**</td>
<td>-.06</td>
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<td>4. Hours of Internet use/week</td>
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<td>.30**</td>
<td>.33**</td>
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<td>5. Length of use</td>
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<td>6. Harmonious passion</td>
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<td>.57**</td>
<td>-.09</td>
<td>.14</td>
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<td>7. Obsessive passion</td>
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<td>-.35**</td>
<td>.35**</td>
<td>-.30**</td>
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<td>8. Self-determination couple</td>
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<td>-.73**</td>
<td>.65**</td>
<td>-.12</td>
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<td>9. Conflict (total scale)</td>
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<td>-.66**</td>
<td>.08</td>
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<td>10. Dyadic adjustment</td>
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<td>.05</td>
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<td>11. Length of relationship</td>
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*Significant at p < .05. **Significant at p < .01.
Table 2

*Mean Differences in Function of Gender*

<table>
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<tr>
<th></th>
<th>Men (N = 86)</th>
<th>Women (N = 97)</th>
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<tbody>
<tr>
<td>Age</td>
<td>30.7&lt;sup&gt;a&lt;/sup&gt;</td>
<td>27.9&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Internet importance</td>
<td>3.01&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.34&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Hours of Internet use/week</td>
<td>8.56&lt;sup&gt;a&lt;/sup&gt;</td>
<td>4.63&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Length of use</td>
<td>21.16&lt;sup&gt;a&lt;/sup&gt;</td>
<td>16.75&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Harmonious passion</td>
<td>3.06&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.61&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Obsessive passion</td>
<td>1.66&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.19&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Self-determination couple</td>
<td>2.89&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3.47&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Conflict (total scale)</td>
<td>2.54&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.05&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Conflict (Internet)</td>
<td>2.79&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.92&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Conflict (general)</td>
<td>2.37&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2.14&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Dyadic adjustment</td>
<td>3.69&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3.93&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Length of relationship</td>
<td>82.74&lt;sup&gt;a&lt;/sup&gt;</td>
<td>71.95&lt;sup&gt;b&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

*Note.* Means with different subscripts are significantly different at $p < .05$.

Other associations between key variables in the models were also found to be in line with our predictions. For example, the more people reported that the Internet was important for them, the more hours they reported spending on the Internet weekly, and the more they tended to have been using the Internet for a longer period of time. In addition, the number of hours weekly spent using the Internet was negatively correlated with level of self-determination toward the couple relationship as well as dyadic adjustment and positively associated with experience of conflict in the relationship.

*Mean Differences in Function of Gender*

As seen in Table 2, significant differences were found in function of gender. Men had been using the Internet for a longer period, tended to be using the Internet more frequently, and reported more passion toward the Internet as well as less self-determination toward their relationships and lower levels of interpersonal satisfaction.

Consistent with the definition of the construct of passion proposed by Vallerand et al. (in press), our results suggest that the importance attributed to the Internet as well as time spent using the Internet might represent necessary conditions to the development of passion for an activity. In the following two models...
Figure 1. Hypothesized model of the associations between obsessive passion and harmonious passion for the Internet and the couple relationship. All parameters are significant at $p < .05$. The paths that were found to be nonsignificant in the adjusted models tested are identified with dashed lines. PASHA = harmonious passion for the Internet; PASOB = obsessive passion for the Internet; SDI = Self-Determination Index; DA = dyadic adjustment; CONF = perceived conflict in the couple.

tested, level of involvement with the Internet was used as an antecedent variable representing the combination of perceived importance and time spent on the Internet.

Testing the Models

The models were tested using LISREL VIII (Jöreskog & Sörbom, 1996). Estimation for the models was performed using maximum likelihood fitting function. The links between involvement with the Internet, the two types of passion for the Internet, and motivation for the relationship and its outcomes were examined in the proposed models.

Model 1. The statistical hypotheses corresponding to the structural portion of this model are represented as paths in Figure 1. In addition, the error of estimation associated with each latent construct was expected to be positive and significant. Finally, all cross-loadings and item error covariances were fixed to 0.
The adequacy of this hypothesized model was unsatisfactory as revealed by most of the fit indexes considered, \( \chi^2(127, N = 183) = 255.46, p = .000, \) RMSEA = .07, GFI = .86, AGFI = .82, CFI = .92, IFI = .92, PNFI = .71. Inspection of the modification indexes reveals that the fit of the model could be improved by estimating two error covariances without compromising the logic of the model. Specifically, covariances between errors associated with two indexes measuring obsessive passion toward the Internet, and between errors associated with two indexes measuring dyadic adjustment and self-determined motivation toward the couple relationship were significant. These error covariances were not unexpected, considering the relatively high relation between these indexes and the constructs, and were consequently estimated in an adjusted model.

The fit indexes of the adjusted model reveal that the correspondence between the model and the sample covariance was satisfactory, \( \chi^2(125, N = 183) = 199.08, p = .000, \) RMSEA = .05, GFI = .90, AGFI = .86, CFI = .95, IFI = .96, PNFI = .73. All estimated parameters were significant and of acceptable magnitude. However, a final adjusted model was tested in which dyadic adjustment was regressed on harmonious passion, perceived conflict on obsessive passion, and self-determined motivation on level of Internet involvement. These paths were estimated in order to get a comprehensive picture of the relation between the variables. The addition of these paths did not significantly change the fit of the model, \( \Delta \chi^2 = 6.18, p = .10. \) The fit indexes of the resultant final model were as follows: \( \chi^2(122, N = 183) = 192.90, p = .000, \) RMSEA = .05, GFI = .90, AGFI = .86, CFI = .96, IFI = .96, PNFI = .71.\(^4\)

As seen in Figure 1, the results show that level of involvement with the Internet was similarly associated with a harmonious passion (\( \gamma = .80 \)) and an obsessive passion (\( \gamma = .69 \)) toward the Internet. However, the way in which individuals approached the Internet was differently associated with their reported level of self-determined motivation toward the couple relationship. Consistent with previous research on the associations between obsessive passion and harmonious passion with various constructs in different domains (Vallerand & Blanchard, 1999; Vallerand et al., in press), a higher level of harmonious passion toward the Internet was found to be positively associated with a higher level of self-determined motivation for the couple (\( \beta = .67 \)). In contrast, the more individuals endorsed an obsessive passion for the Internet, the less self-determined they reported being toward their couple relationship (\( \beta = -.75 \)). Involvement with the Internet however, was not found to be significantly associated with level of self-determination toward the interpersonal relationship.

\(^4\)Examination of the modification indexes for this adjusted model revealed that the regression coefficients of dyadic adjustment and perceived conflict on Internet involvement were very small and not statistically significant.
In turn, individuals’ levels of self-determined motivation toward their couple relationship were found to be associated with greater dyadic adjustment ($\beta = .55$) and lower levels of perceived conflict in the relationship ($\beta = -.77$). In addition, individuals who reported higher levels of conflict in their relationships also tended to report significantly lower levels of dyadic adjustment ($\beta = -.33$). These latter results are consistent with previous findings on the effects of self-determined motivation on relationship satisfaction and dyadic adjustment (for reviews, see Blais et al., 1990; Vallerand, 1997). In addition, the link between obsessive passion and perceived conflict was found to be significant ($\beta = .15$), but the link between harmonious passion and dyadic adjustment was not.

Model 2. Although plausible, this model is not the only one that could account for the relation between passion for the Internet and motivation for the couple relationship. In the alternative model tested, we proposed that the types of passion for the Internet would be most closely associated with perceptions of conflict in the couple and dyadic adjustment. In turn, greater couple conflict and lower adjustment would be associated with lower level of self-determination in the couple. People with an obsessive passion toward the Internet would expose themselves to experience more conflict, not only because of the time it takes away from the relationship, but also because of their poor ability to internalize their reasons for using the Internet and for being in an intimate relationship. The statistical hypotheses corresponding to this model are presented as paths in Figure 2. Again, the error of estimation associated with each latent construct was expected to be positive and significant, and all cross-loadings and item error covariances were fixed to 0.

The adequacy of this model was unsatisfactory, as revealed by most of the fit indexes considered, $\chi^2(125, N = 183) = 244.93$, $p = .000$, RMSEA = .07, GFI = .87, AGFI = .82, CFI = .93, IFI = .93, PNFI = .71. Two error covariances were estimated in order to improve the fit of the model. The fit of the resultant model was satisfactory as revealed by all of the fit indexes, $\chi^2(123, N = 183) = 191.04$, $p = .000$, RMSEA = .05, GFI = .90, AGFI = .86, CFI = .96, IFI = .96, PNFI = .72. Based on theoretical considerations, a final adjusted model was tested in which self-determined motivation for the relationship was regressed on harmonious passion and obsessive passion (not shown in the figure), as well as on Internet involvement. The estimation of these paths did not significantly change the fit of the model, $\Delta \chi^2 = 1.22, p > .10$. The fit indexes of the resultant final model were as follows: $\chi^2(120, N = 183) = 189.82$, $p = .000$, RMSEA = .05, GFI = .90, AGFI = .86, CFI = .96, IFI = .96, PNFI = .70.5

As seen in Figure 2, the level of involvement with the Internet was again associated with self-reports of harmonious passion and obsessive passion toward the

5Examination of the modification indexes for this adjusted model revealed that the regression coefficients of dyadic adjustment and perceived conflict on Internet involvement were very small and not statistically significant.
Figure 2. Alternative model of the associations between obsessive passion and harmonious passion for the Internet and the couple relationship. All parameters are significant at $p < .05$. The paths that were found to be nonsignificant in the adjusted models tested are identified with dashed lines. The paths from harmonious passion to self-determined motivation for the couple and from obsessive passion to self-determination for the couple were also not significant, but are not shown in the figure. PASHA = harmonious passion for the Internet; PASOB = obsessive passion for the Internet; SDI = Self-Determination Index; DA = dyadic adjustment; CONF = perceived conflict in the couple.

Internet ($\gamma = .79$ and .69, respectively). There were also strong relations between the types of passion and the level of well-being in the couple relationship. Consistent with our predictions, harmonious passion was found to be associated with greater levels of dyadic adjustment ($\beta = .34$) and lower levels of perceived conflict in the relationship ($\beta = -.27$). In contrast, reports of obsessive passion toward the Internet were positively associated with self-reports of conflict in the relationship ($\beta = .63$) and negatively associated with level of dyadic adjustment ($\beta = -.47$). In turn, self-reports of dyadic adjustment ($\beta = .47$) and perceived conflict ($\beta = -.39$) were significantly associated with self-determined motivation for the couple relationship. In this model, the relations between the types of passion and the motivation for the couple relationship were found to be mediated by relationship well-being. Replicating the results of the first model (Figure 1), the
level of involvement with the Internet was not associated with self-determination for the relationship.

Discussion

The link between Internet use, interpersonal relationship, and social involvement is an important question to address, especially given the increasing prevalence of the Internet in people’s daily lives and the inconsistent findings in the literature on the potential influence of the Internet. In the present study, we investigated the use of the Internet from a motivational perspective on passion (Vallerand & Blanchard, 1999; Vallerand et al., in press) and tested two alternative models emphasizing the different motivational, psychological, and behavioral correlates of harmonious passion and obsessive passion toward the Internet.

In line with previous research on harmonious passion and obsessive passion (Vallerand & Blanchard, 1999; Vallerand et al., in press), the results of the present study suggest that it is not the use of the Internet per se or users’ involvement with the Internet that is detrimental to one’s intimate relationship. Rather, the way in which the involving and absorbing activity is approached and internalized into the self (and thus the types of motives that individuals have for using the Internet) was found to be highly related with the types of motives that people have for being in a couple relationship and the quality of their interpersonal relationships. It seems that people who are obsessively implicated with the Internet also seem to be the ones who are getting involved in bad interpersonal relationships toward which they do not feel highly self-determined. These associations between passion for the Internet and motivation for the couple relationship might be emerging because of similarities in the internalization process in the two life domains.

Examination of the mean differences in function of the importance attributed to the Internet and hours per week spent using the Internet supports the definition of the concept of passion. Individuals who mentioned that the Internet was highly important to them and who reported spending a great deal of time using the Internet were also found to report greater levels of harmonious passion and obsessive passion toward the Internet. Involvement with the Internet thus seemed to be a determinant of both types of passion. Mean comparisons also reveal that the number of hours spent using the Internet was associated with differences in self-determination toward the couple, self-reported conflict, and dyadic adjustment. However, the number of hours per week spent using the Internet was not found to mediate the association between obsessive passion and self-determined motivation for the couple relationship.

Consequently, the two models tested in the present study examined level of involvement with the Internet as an antecedent of passion. Both models were found to be equally adequate to account for the associations between types of
passion for the Internet and types of motives for the interpersonal relationships and relationship quality. Both models show that although the level of involvement with the Internet was similarly associated with harmonious passion and obsessive passion toward the Internet, the two types of passion were found to be distinctly associated with individuals’ levels of self-determined motivation for their intimate relationships and relationship quality. Individuals who tended to approach the Internet in a harmonious fashion also tended to report being more self-determined toward their intimate relationships (Model 1) and to report greater relationship quality (Model 2).

In contrast, individuals who tended to approach the Internet in an obsessive fashion were also the ones who tended to report less self-determined motivation for their relationships (Model 1) and lower levels of relationship adjustment (Model 2). These results support the distinction between the two forms of passion—harmonious passion and obsessive passion, proposed by Vallerand et al. (in press)—in this case for the use of the Internet. Conceptually, these results also replicate and further support the validity of the passion scale in yet another life domain. Furthermore, in both models, level of involvement with the Internet was not found to be significantly associated with level of self-determined motivation toward the intimate relationship, over and above the contribution of the two types of passions or relationship quality.

Taken together, these findings corroborate the motivational perspective of passion and the way in which these two forms of passions would differentially evolve and be internalized (Vallerand & Blanchard, 1999; Vallerand et al., in press). Consistent with the motivational perspective of passion, as well as previous research on the topic (Blanchard & Vallerand, 1998; Vallerand & Blanchard, 1999; Vallerand et al., in press), our results support the hypothesis that harmonious passion would originate when highly involving activities are internalized in a self-determined way and would subsequently be associated with positive outcomes (Vallerand & Blanchard, 1999; Vallerand et al., in press), whereas obsessive passion would originate when highly involving activities are internalized in a non-self-determined manner.

More generally, these results also are consistent with the postulates of SDT (Deci & Ryan, 1985, 1991; Ryan & Deci, 2000) by demonstrating the importance of the functional significance of an event and the internalization of behaviors in determining the impact of the event on individuals’ level of motivation. Our results are also in line with Vallerand’s (1997) hierarchical model of motivation, which demonstrates that people’s general motivational orientation influences their motivation at the domain-specific level. Although this hypothesis was not tested directly in the present study, our results suggest that the types of passion for the Internet and the motivational styles toward interpersonal relationships both reflect a general individual difference in the way in which people internalize their reasons for behaving. Motivational tendencies toward the Internet and
interpersonal relationships could be related because of a general tendency to be more or less self-determined.

We also found significant gender differences. Men reported more passion toward the Internet; were more involved with the Internet; and also tended to report lower levels of self-determined motivation toward the relationship and dyadic adjustment, as well as greater levels of perceived conflict. Although gender differences were apparent, these differences were not the focus of the present paper. However, future research could model these gender differences and their influences on the link between passion for the Internet and interpersonal relationships.

Although interesting, these results are still exploratory in nature. Longitudinal studies are now needed in order to establish the causal sequence between the variables examined, especially in new Internet users. Finally, the nature of our sample might restrict the generalizability of our results. It is possible that the findings might apply mainly to college students who could possibly differ from the general population in their routine use of the Internet. It is important in future studies to try to replicate the model with a broader sample comprising, for example, heavy users of the Internet or a mainly non-college sample.

Despite their exploratory nature, the present findings have important implications. The most publicized empirical research on the use of the Internet has suggested a negative impact of the Internet on individuals' interpersonal relationships (Kraut et al., 1998). However, Kraut et al. noted that their findings of diminished social involvement following greater use of the Internet could be specific to certain populations and not others. For example, they suggested that for isolated individuals (e.g., elderly people, individuals with disabilities), the Internet might serve to increase their social networks and involvement by removing social barriers. In line with McKenna and Bargh (2000), our results clearly demonstrate that the link between the Internet and individuals' intimate relationships is not invariably negative and that the absence of negative consequences from using the Internet is not limited to disadvantaged groups of individuals. The Internet will not necessarily be associated with more isolation and depression, diminished social involvement, and poorer interpersonal relationships.

The results of the present study emphasize that the way in which people generally approach and internalize various activities in diverse life domains (e.g., Internet use, interpersonal relationships) seems to be one central element in understanding the link between Internet use and interpersonal outcomes. Consequently, it would appear that if research is conducted on the impact of the Internet on various aspects of people's lives without any attention to possible general individual differences that could moderate the associations between Internet use and interpersonal outcomes, then the results obtained would necessarily be inconsistent. In future research, it would also be interesting to investigate the internalization process for the different types of activities for which the Internet can be used.
A related topic to be examined is the relative consistency of the types of passion across activities. That is, how likely would it be that someone high in obsessive passion for an activity also would possess an obsessive passion for a different activity? Given the present data, we would expect the type of internalization for different involving activities to be highly related, again because of the general tendency of people to be more or less self-determined (Deci & Ryan, 1985; Ryan & Deci, 2000).

Given the ever-increasing prevalence of the Internet as a type of leisure, a communication medium, or a way to conduct everyday business including shopping, more research should be undertaken on this topic. In this era of technological advances, it appears important more than ever from a social psychological perspective to better understand how technologies such as the Internet can best be integrated into people's lives.

References


Appendix

*Items Used for the Passion Scale and the Perceptions of Conflict in the Relationship Scale*

**Passion Scale**

**Harmonious Passion**
1. Because the new things that I discover with this activity allow me to appreciate it even more.
2. Because for me it is a passion that I still manage to control.
3. Because this activity allows me to live memorable experiences.
4. Because this activity is in harmony with other activities in my life.

**Obsessive Passion**
1. Because I have difficulty imagining my life without this activity.
2. Because I almost have an obsessive feeling for this activity.
3. Because I am emotionally dependent on this activity.
4. Because my mood depends on me being able to do this activity.

**Perceptions of Conflict in the Relationship Scale**

**Related to the use of the Internet:**
1. The use of the Internet affects the time I spend with my partner.
2. The use of the Internet does not engender conflict in my relationship with my partner (reverse scored).

**Related to the relationship in general:**
1. I find it difficult to be engaged in a relationship with my partner.
2. When I am spending time with my partner, I do not wish to be anywhere else (reverse scored).
3. Spending time with my partner makes me feel good (reverse scored).