

Dancing with passion: A look at interpersonal relationships

Valerie Guilbault*, Simon-Pierre Harvey, Robert J. Vallerand

Psychology Department, Université Du Québec à Montréal, Canada

ARTICLE INFO

Keywords

Dualistic model of passion
Social dancing
Relationship quality
Goals
Dance and exercise

ABSTRACT

Drawing from the dualistic model of passion for activities (Vallerand et al., 2003), this research investigated the role of passion for social partnered dancing in relationships quality with other dancers as well as outside of the dance community, in a romantic relationship. Study 1 showed that harmonious passion (HP) was related to enjoyment while dancing with a novice partner, whereas obsessive passion (OP) was associated with negative interactions with an incompetent partner. Study 2 showed that HP was positively related to relationship quality with a preferred dance partner and the dance community through mastery-approach and social connection goals, whereas the opposite effect characterized OP. Also, OP was negatively related to relationship quality with both a dance partner and a romantic partner through conflict, whereas the reverse trend characterized HP. This research identified mechanisms through which passion may affect relationships within and outside a passionate activity such as dance.

Social partnered dances like Swing, Salsa, and Tango represent an excellent form of physical activity (Kreutz, 2008; Lakes et al., 2016) with an added opportunity to develop new relationships. In fact, researchers have suggested that this form of physical activity may be more socially inviting and engaging than other forms of physical exercise (e.g., going to the gym) given its added social benefits (Alpert, 2010; Lakes et al., 2016). Social partnered dances are indeed fundamentally interpersonal as they involve communication between two dance partners through a connection of movements (Maraz, Király, Urbán, Griffiths, & Demetrovics, 2015). As a result, relationships can develop among dancers that can vary in terms of how satisfying they are. For many, dancing is considered a passion (Vallerand et al., 2003). Given that social dance communities organize both social dance events and dance competitions, this passion may be pursued with different goals in mind (i.e., mastery, performance, or social connection goals). These goals may, in turn, be related to ways of interacting with other dancers. Besides, the engagement in such a passionate activity can have an impact on other life spheres (e.g., a romantic relationship) as the person may experience difficulty allocating time to their romantic partner because of their passion (Séguin-Lévesque, Laliberté, Pelletier, Vallerand, & Blanchard, 2003). The goal of this research was first to explore the role of passion for social partnered dancing in relationship quality with other dancers as well as in areas outside of dancing. This research was also designed to investigate the mediating role of goal orientations and perceived conflict between the activity and another life sphere on these associations. Because people differ in the way they internalize a passionate activity, we used the Dualistic Model

of Passion (DMP; Vallerand et al., 2003; Vallerand, 2015) to delineate how each type of passion can be related to relationship quality and the processes that may explain such effects.

1. The dualistic model of passion

Passion has been defined as a strong inclination towards a self-defining activity that is loved, felt as important and that people invest time and energy into (Vallerand et al., 2003). The Dualistic Model of Passion (DMP; Vallerand et al., 2003; Vallerand, 2015) identifies two types of passion, obsessive passion (OP) and harmonious passion (HP), that are distinguished by the way the passionate activity has been internalized in one's identity.

For HP, the activity has been internalized autonomously (Deci & Ryan, 2000; Vallerand et al., 2006), which occurs when the individual has freely accepted the activity as important without contingencies attached to it (Vallerand et al., 2003). This generates a sense of personal endorsement about pursuing the activity that one loves, and that is rooted in the authentic self. Accordingly, the activity is integrated harmoniously with other self-aspects (Vallerand et al., 2003). For example, a person with a HP for social dancing would report high involvement in and liking of social dance, and would not feel pressured into being seen as a good dancer to feel accepted by other dancers. As such, with HP, the social dancer would feel free to explore and feel in control of his or her involvement in social dancing.

Conversely, in OP, the activity has been internalized in a controlled fashion following intrapersonal and/or interpersonal pressures (Vallerand et al., 2006), thus precluding it from being integrated

* Corresponding author. Psychology Department, Université du Québec à Montréal, P.O. Box 8888, Station Centre-Ville, Montreal, Quebec, H3C 3P8, Canada.
E-mail address: valerie.guilbault@gmail.com (V. Guilbault)

into people's identity (Deci & Ryan, 2000). Furthermore, the activity is internalized with associated contingencies such that people's self-esteem may be attached to their performance in the passionate activity (Mageau, Carpentier, & Vallerand, 2011). Given these contingencies, they feel as if they are controlled by the passionate activity that they love, which can create conflict with other life aspects (Young, de Jong, & Medic, 2015). For example, a social dancer with OP would report high levels of participation in and liking of social dance. Still, this dancer would also feel pressured to dance well to feel accepted in the community. Past research has shown HP to be positively associated with the number and quality of friendships within the passionate activity (Utz, Jonas, & Tonkens, 2012). Conversely, OP has been shown to be positively associated with the number of friendships within a passionate activity, but negatively related to the number and quality of friendships outside a passionate activity (Utz et al., 2012). OP has also been positively associated with conflict between the passionate activity and other life aspects (Vallerand et al., 2008, 2003; Young et al., 2015), thus suggesting that having an OP has a cost for relationships outside of the activity.

Research has also shown that each type of passion relates to different goal orientations in the passionate activity. Goal orientations represent the underlying reason for which a goal is pursued (i.e., mastery, performance) as well as the way it is pursued (i.e., through approach or avoidance behaviors) (Elliot & Church, 1997). Dancers endorsing a mastery-approach goal will display approach behaviors directed at increasing their skills acquisition and competence whereas a performance-approach goal will be reflected in approach behaviors directed at attaining a favorable judgment of one's competence by others, and performance-avoidance goal will be characterized by a desire to avoid unfavorable judgments of one's competence by others. HP has been positively associated with mastery-approach (Vallerand et al., 2007) and performance-approach goals (Verner-Filion, Vallerand, Amiot, & Mocanu, 2017), whereas OP has been mainly positively related to performance-approach (Verner-Filion et al., 2017) and performance-avoidance goals (Vallerand et al., 2007; Verner-Filion et al., 2017). These past studies have looked at goal orientations in the context of school and sports in general, but never in the context of social dancing. Other research has shown that goal orientations in interpersonal relationships in general, and in specific relationships, are related to satisfaction as well as to positive and negative attitudes towards social relationships (Gable, 2006, see also Gable & Berkman, 2008 for a review). Social dance being a *partnered* activity, dancer's goals could reflect both their orientation towards dancing, such as having mastery and performance goals (Elliot & Church, 1997) (e.g., having a goal to master technical aspects of a dance), as well as their orientation towards social connections (e.g., having a goal to create meaningful relationships with other dancers). Both these types of goals could have an impact on the quality of relationships among dancers.

2. The present research

Drawing from the DMP, the present research investigated how HP and OP toward social dance may play a role in interpersonal relationships. Specifically, we explored how each type of passion is characterized by diverging interpersonal patterns among social dancers (i.e., with an incompetent and a novice partner in Study 1, and with a preferred dance partner as well as with the dance community in Study 2) and in romantic relationships. Also, in light of past research on the role of achievement goals in relationships (Gable, 2006) and that of passion in achievement goals (e.g., Vallerand et al., 2007), we explored how such goals mediate the impact of passion on relationships in Study 2. In so doing, we also assessed how each type of passion affects relationship quality through the perceived conflict between passion for social dance and the romantic relationship. Overall, we expected HP to be positively associated with (and OP to be negatively associated with) re-

lationship quality both in social dance as well as outside of it, in the dancers' lives.

3. Study 1

The objective of Study 1 was to understand how passion for swing dancing relates to interpersonal interactions with poor and novice dance partners. Given that in swing dance, as in any other social dance, dancers' performance highly depends on their dance partner's performance, dancing with an incompetent dance partner may interfere with dancers' personal expression and thus prevent them from reaching their best performance. Because with OP, dancers feel compelled to always dance at their best, an awkward partner could be a source of irritation and frustration. Accordingly, OP dancers were expected to interact negatively with an incompetent dance partner. On the contrary, because no contingencies are associated with their performance, dancers with HP should not feel affected by being prevented from attaining their best performance. Thus, with HP, swing dancers were not expected to engage in negative interactions with an incompetent dance partner. They were instead expected to find enjoyment even when dancing with a novice partner, as their enjoyment should not be contingent on appearing at their best.

4. Method

4.1. Participants and procedure

A total of 188 French adults (99 women, 81 men, 8 non-specified) responded to the questionnaire. Some participants did not fill the questionnaire completely; therefore, data were missing for eight participants' age, and for nine participants' years of swing dancing. Mean age was 34.65 years ($SD = 9.95$ years). Participants swing danced on average 3.98 h per week and had been swing dancing for an average of 5.3 years at the time of the study. This sample size is sufficient to detect small to medium effect sizes in partial correlations with a power of .80 (e.g., Bélanger, Lafreniere, Vallerand, & Kruglanski, 2013). Emails were sent through mailing lists of swing dance communities in different cities throughout France inviting swing dancers to complete an online survey about this activity (administered in French). Participants first completed the passion scale and then were asked about their interactions with other dancers and their participation in swing competitions.

4.2. Measures

4.2.1. Passion for swing dancing

The Passion Scale (Vallerand et al., 2003) was adapted to swing dance by replacing the word "activity" by "swing dance". The Passion Scale assesses two types of passion, namely HP and OP. Each 6-item subscale is responded on a 7-point Likert scale (1 = *Not agree at all*, 7 = *Very strongly agree*). Sample items include "Swing dancing is in harmony with other activities in my life" for the HP subscale ($\alpha = 0.78$) and "I have difficulties controlling my urge to swing dance" for the OP subscale ($\alpha = 0.87$). The Passion Scale has displayed high levels of validity and reliability (see Vallerand, 2015) as well as factor invariance with respect to language, gender, and types of activities (see Marsh et al., 2013).

4.2.2. Interactions with dance partners

Using the stem "When I swing dance ...", we assessed the degree to which participants negatively interact with an incompetent dance partner with two items (*Negative interactions with an incompetent dance partner* index, $\alpha = 0.64$; items were "I criticize my partner when s/he badly executes a movement" and "I am annoyed when my partner is not as good as I am") and the extent to which they enjoy dancing with a novice dancer with 1 item ("I have pleasure dancing even when

my partner is a novice dancer"). For each of these items, participants indicated their level of agreement on a 7-point Likert scale (1 = *Do not agree at all*, 7 = *Very strongly agree*).

5. Results and discussion

Replicating past results (e.g., Vallerand et al., 2007), HP and OP were moderately correlated together ($r = 0.38, p < .001, 95\% \text{ CI } [0.24; 0.50]$). However, the two types of passion were differentially related to how people interact with other dancers. Controlling for the other type of passion, OP was positively related to negative interactions with an incompetent dance partner ($r = .21, p < .005, 95\% \text{ CI } [0.06; 0.36]$), whereas HP was not ($r = -0.11, p = .143, 95\% \text{ CI } [-0.26; 0.04]$). This result suggests that OP for swing dance may result in having interpersonal interactions that are conditional upon how well a partner dances. Conversely, HP, but not OP, was associated with having pleasure when dancing with a novice partner (respectively, $r = .14, p = .05, 95\% \text{ CI } [-0.02; 0.31]$, and $r = -0.02, p = .745, 95\% \text{ CI } [-0.19; 0.13]$). Thus, for HP, pleasure does not seem conditional upon a partner's dance mastery level, although this relationship was only marginally significant. These results are in line with past research suggesting that HP promotes satisfying relationships with others participating in the passionate activity whereas such is not the case with OP (e.g., Philippe, Vallerand, Houlfort, Lavigne, & Donahue, 2010).

6. Study 2

The findings of Study 1 highlighted the potential role of passion for swing dancing in the quality of interpersonal relationships among dancers. The first objective of Study 2 was to replicate and extend Study 1 using a more diversified sample of social dancers. Social dances share common features, such as involving physical proximity and communication with a partner (Maraz, Király, Urbán, Griffiths, & Demetrovics, 2015). In Study 2, we recruited dancers from different social dance backgrounds, while still ensuring that they all performed *partnered* social dances. The second objective was to further explore the role of passion in relationships with the dance partners, by investigating other types of relationships, such as a preferred dance partner, the dance community at large, and one's romantic relationship outside of dance. Finally, the third objective of Study 2 was to identify processes through which each type of passion is related to dancers' relationship quality indices. To do so, we tested the mediating role of goal orientations and conflict between passion for social dancing and having a romantic relationship.

The hypothesized model posited that HP would be positively associated with performance-approach goals (Verner-Filion et al., 2017), but mostly with mastery-approach (Vallerand et al., 2007) and social connection goals that, in turn, would be positively related to relationship quality with a preferred partner and with the dance community (Philippe et al., 2010; Utz et al., 2012). Conversely, OP was hypothesized to mainly relate positively to performance-approach and performance-avoidance (Vallerand et al., 2007) and negatively to social connection goals which, in turn, were hypothesized to positively relate to relationship quality with a preferred dance partner and the dance community (Philippe et al., 2010; Utz et al., 2012). In addition, given that OP can conflict with other life aspects (Vallerand et al., 2008, Study 3), such as one's love life, and given that social dance involves a certain amount of closeness with other partners (Maraz et al., 2015), it was predicted that OP would negatively affect the romantic relationship and the relationship with a preferred dance partner through its positive relationship with conflict. Such should not be the case with HP.

7. Method

7.1. Participants and procedure

A total of 170 participants (91 females, 79 males) were recruited from Mturk, an online crowdsourcing data acquisition platform. Their mean age was 35.92 years ($SD = 11.73$ years). On average, participants danced 4.56 h per week and had been social dancing for 5.4 years at the time of the study. This sample size is sufficient to detect small to medium effect sizes in a hierarchical regression with a power of .80 (e.g., Verner-Filion et al., 2017).

Participants were recruited from Mturk, an online crowdsourcing data acquisition platform, and were invited to participate in a 15 min online study on social partnered dancing and were compensated \$0.50 CAN for their participation. The advertisement stated that only people who engaged in social dancing such as Swing, Tango, Salsa, Blues or other social dances could participate in the study. Most participants ($N = 157$) identified a Swing, Latin, or Ballroom dance style as their primary social dance and the remainder of the sample named a country or folk partnered dance style. Participants first completed scales related to their dancing experiences and then completed scales assessing the quality of their current or past romantic relationship.

7.2. Measures

7.2.1. Passion for social dancing

As in Study 1, the Passion Scale (Vallerand et al., 2003) was used. The items were adapted to social dancing by replacing the word "activity" with "social dancing". Cronbach's alpha was .91 for OP and .90 for HP.

7.2.2. Goals in social dancing

Three subscales of the Achievement Goal Questionnaire for Sports (Conroy, Elliot, & Hofer, 2003) were used, namely the mastery-approach, performance-approach, and performance-avoidance subscales (3 items each). Sample items are "It is important for me to dance as well as I possibly can" for mastery-approach ($\alpha = 0.81$), "It is important for me to do well compared to other dancers" for performance-approach ($\alpha = 0.88$), "My goal is to avoid dancing worse than everyone else" for performance-avoidance ($\alpha = 0.87$). We also generated 3 additional items designed to capture a social connection goal ($\alpha = 0.84$). Items for this subscale were "My goal when dancing is to create a special connection with my partner", "It is important for me to connect with my dance partners regardless of their skill level", and "It is important for me to build a connection with my dance partners". All items were responded on a 7-point Likert-scale (1 = *Not at all true for me*, 7 = *Very true for me*).

7.2.3. Relationship with a preferred dance partner

The Quality of Interpersonal Relationships Scale (Sénécal, Vallerand, & Vallières, 1992) was used to assess participants' relationship with their preferred dance partner (4 items). Participants were first asked to name their preferred dance partner and then to indicate to what extent the relationship was enriching, satisfying, fulfilling, and inspired trust on a 7-point Likert scale (1 = *Not agree at all*, 7 = *Very strongly agree*). Cronbach's alpha was .96.

7.2.4. Relationship with the dance community

The Quality of Interpersonal Relationships Scale (Sénécal et al., 1992) was used to assess participants' relationship with their dance community. Cronbach's alpha was .95.

7.2.5. Relationship with a romantic partner

Participants were asked to indicate whether they were currently in a romantic relationship or single. They were then asked to name their current or past romantic partner accordingly and to report the quality of the romantic relationship using the Quality of Interpersonal Relationships Scale (Sénécal et al., 1992). Cronbach's alpha was .96.

7.2.6. Conflict between social dancing and one's romantic relationship

A modified version of the Football-Partner Relationship Conflict Scale (Vallerand et al., 2008) was used to assess participants' impression of conflict between their current or past romantic relationship and their involvement in social dancing. Participants indicated their level of agreement with 4 items on a 7-point Likert scale (1 = *Not agree at all*, 7 = *Very strongly agree*). Items were "My romantic partner often complains about my passion for dance", "I think my passion for social dancing has seriously affected the quality of my relationship", "My romantic partner and I have gotten into serious arguments because of my passion for dance", and "I would rather stop seeing my romantic partner than stop dancing" ($\alpha = .92$).

8. Results and discussion

8.1. Preliminary analyses

Table 1 shows the means, standard deviations, and correlations among all study variables. As in Study 1, OP and HP were moderately related. Overall, an inspection of the correlation matrix generally revealed relationships in line with the hypotheses.

8.2. Path analysis

Next, a path analysis was conducted in Mplus 7 using Robust Maximum Likelihood to test a model in which each passion type would relate to indices of relationship quality through goal orientations and perceived conflict. Each passion type, goal orientations, and perceived conflict were used as exogenous variables. Three dimensions of relationship quality: with a preferred dance partner, with the dance community, and with a romantic partner were included as endogenous dependent variables. Covariances were estimated between each passion type, goal orientations and conflict, as well as between indices of relationship quality. A preliminary path analysis modeling all paths suggested that OP was not directly related to relationship quality with a preferred dance partner, with the dance community, nor with a romantic partner, and that HP was not directly related to relationship quality with a preferred dance partner or with a romantic partner. Therefore, we tested a path analysis, excluding these five paths. The estimated model did not differ significantly from the preliminary model, $\Delta\chi^2$ ($df = 5$) = 7.01, $p = .220$, and showed excellent fit to the data, CFI = 1, TLI = 0.97, SRMR = 0.017, RMSEA = 0.049 [0; 0.125], and AIC = 5326.09. CFI and TLI values over 0.90 suggest good fit to the data, whereas a RMSEA index below 0.08 with a lower bound of less than 0.05 and an upper bound of more than 0.10 implies adequate fit (Byrne, 2013). Fig. 1 presents the standardized path coefficients of this path analysis.¹ Bias-corrected bootstrap 95% confidence interval estimates using Maximum Likelihood were used to test for the significance of mediations and their indirect effects in the path analysis (Preacher & Hayes, 2008). Bootstrap 95% confidence intervals

¹ Results remained virtually unchanged when gender, relationship status, experience in social dancing (in months), and whether one's romantic partner was also one's preferred dance partner (dichotomously coded) were entered as covariables.

not including the value zero suggest that the indirect effect is significant at $p < .05$.

Replicating past findings (Vallerand et al., 2007), OP was positively associated with performance-approach ($\beta = .28$, $p < .001$) and performance-avoidance goals ($\beta = 0.21$, $p = .012$), marginally negatively associated with social connection goals ($\beta = -0.12$, $p = .071$), and negatively related to mastery-approach goals ($\beta = -0.21$, $p < .001$). In addition, HP was positively related to mastery-approach ($\beta = 0.66$, $p < .001$), social connection ($\beta = 0.57$, $p < .001$), and performance-approach goals ($\beta = 0.24$, $p = .007$). These results suggest that OP essentially reflects an orientation to social dancing that includes a mixed approach and avoidance motivation to perform well in social dancing. Conversely, HP primarily reflects an approach motivation to master and perform well along with a motivation to create meaningful connections with other dancers. Confirming our hypotheses and in line with previous results (Young et al., 2015), OP was strongly positively related to perceiving conflict between a romantic relationship and social dancing ($\beta = .70$, $p < .001$), whereas HP was negatively related to it ($\beta = -0.14$, $p = .007$).

HP was positively related to relationship quality with the dance community ($\beta = .24$, $p = .013$). OP, on the other hand, was not directly related to any indices of relationship quality. Mastery-approach goals were positively related to relationship quality with a preferred dance partner ($\beta = .41$, $p < .001$) and (marginally) with the dance community ($\beta = 0.19$, $p = .058$). Social connection goals were also positively related to relationship quality with a preferred dance partner ($\beta = 0.28$, $p < .001$) and with the dance community ($\beta = 0.29$, $p < .001$). Performance-approach and performance-avoidance goals were not related to any indices of relationship quality ($\beta s < 0.10$, $p s > .193$). Perceived conflict between social dancing and a romantic partner was negatively (marginally) related to relationship quality with a preferred dance partner ($\beta = -0.11$, $p = .087$) and with a romantic partner ($\beta = -0.39$, $p < .001$).

8.2.1. Indirect effects on indices of relationship quality

Results showed that mastery-approach (95% CI [-0.11; -0.04], $p < .05$) and social connection (95% CI [-0.05; -0.03], $p < .05$) goals fully mediated the association between OP and relationship quality with a preferred dance partner. Also, the association between HP and relationship quality with a preferred dance partner was fully mediated by mastery-approach (95% CI [0.25; 0.39], $p < .05$) and social connection (95% CI [0.14; 0.21], $p < .05$) goals. Taken together, results suggest that HP promotes a satisfying relationship with one's preferred dance partner, in the most part because HP promotes mastery-approach and social connection goals in social dancing. Conversely, OP prevents a satisfying relationship with a preferred dance partner essentially because it is less conducive to a mastery and social connection orientation to dance.

The relationship between HP and relationship quality with the dance community was also partially mediated by having mastery-approach (95% CI [0.09; 0.20], $p < .05$) and social connection (95% CI [0.12; 0.19], $p < .05$) goals, thus mirroring results with regards to relationship quality with a preferred dance partner. However, only the mediation between OP and relationship quality with the dance community by mastery-approach was significant [-.08; -0.02], $p < .05$, as the mediation by social connection goals was not [-0.04; 0.02], ns .

Relationships between OP and romantic relationship quality (95% CI [-0.38; -0.14], $p < .05$) and between OP and dance partner relationship quality (95% CI [-0.14; -0.02], $p < .05$) were fully mediated by conflict between a romantic relationship and social dancing. Yet, the indirect paths from HP to romantic relationship quality (95% CI [-; 0.11], ns) and dance partner relationship quality (95% CI [0; 0.05], ns) through conflict were not significant. These results suggest that OP dancers are likely to perceive a conflict between their passion and

Table 1
Means, standard deviations, and correlations among each passion type, goal-orientations, conflict, and relationship quality: Study 2.

	M	SD	1	2	3	4	5	6	7	8	9
1. HP	5.00	1.19	–								
2. OP	3.09	1.51	.33** [.19; .45]	–							
3. Mastery-Approach Goal	5.22	1.26	.60** [.44; .72]	.02 [-.14; .16]	–						
4. Performance-Approach Goal	4.14	1.60	.34** [.17; .50]	.38** [.23; .51]	.44** [.29; .59]	–					
5. Performance-Avoidance Goal	4.21	1.65	.16* [-.01; .34]	.23** [.07; .39]	.28** [.10; .44]	.60** [.45; .73]	–				
6. Social Conn. Goal	5.19	1.28	.53** [.36; .66]	.06 [-.09; .21]	.67** [.55; .77]	.29** [.12; .46]	.21** [.05; .38]	–			
7. Conflict	5.93	1.24	.07 [-.09; .21]	.64** [.54; .73]	-.11 [-.28; .04]	.22** [.07; .34]	.24** [.10; .37]	-.02 [-.18; .14]	–		
8. Preferred Dancer RQ	5.48	1.27	.49** [.35; .61]	-.04 [-.18; .10]	.64** [.52; .74]	.31** [.17; .43]	.23** [.09; .37]	.57** [.45; .68]	-.16* [-.34; .01]	–	
9. Dance Community RQ	5.76	1.47	.57** [.42; .70]	.15† [-.01; .29]	.57** [.42; .70]	.36** [.22; .49]	.21** [.04; .38]	.56** [.41; .68]	-.02 [-.19; .13]	.68** [.56; .78]	–
10. Romantic Partner RQ	2.42	1.75	.20* [.03; .37]	-.18 [-.33; -.03]	.27** [.07; .46]	.06 [-.10; .24]	.06 [-.12; .23]	.21** [.04; .39]	-.36** [-.52; .19]	.49** [.30; .67]	.31** [.13; .50]

Note. N = 170; HP = Harmonious Passion, OP = Obsessive Passion, Social Conn. = Social Connection, RQ = Relationship Quality; Numbers in brackets represent bootstrap 95% confidence intervals; †p < .10, *p < .05, **p < .01.

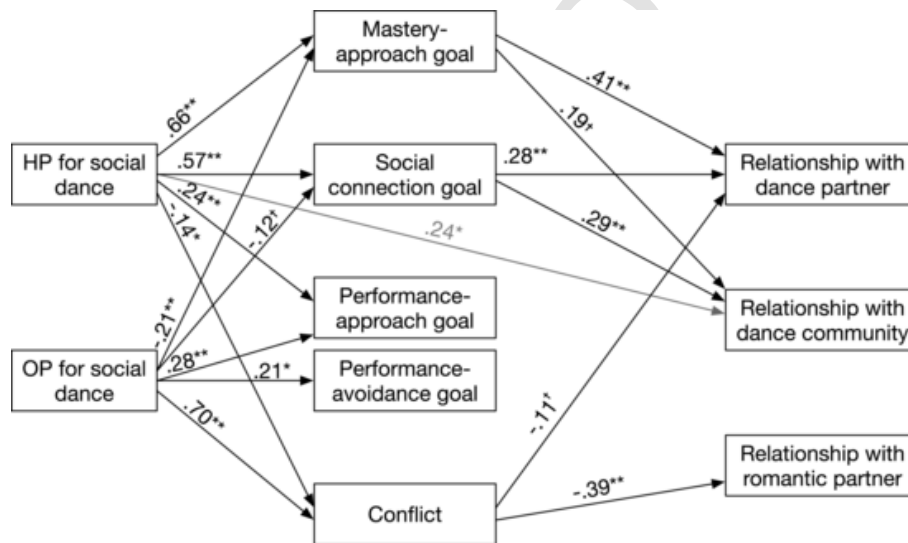


Fig. 1. Path analysis of Study 2. N = 170. OP = Obsessive Passion for Social Dancing, HP = Harmonious Passion for Social Dancing, Goals = Performance-Avoidance, Performance-Approach, Mastery-Approach, and Social Connection Goals, Conflict = Conflict Between Social Dancing and a Romantic Relationship. Note. Only significant paths are reported. Direct path from harmonious passion to relationship quality with dance community is presented in grey. Standardized coefficients are shown in the figure. †p < .10, *p < .05, **p < .01.

their romantic relationship, which in turn relates to their relationship quality with their preferred dance partner as well as to their romantic partner.

8.2.2. Alternative models

Given the cross-sectional nature of this study, an alternative model was also tested in which the mediation paths were reversed. Specifically, each passion type related to indices of relationship quality that, in turn, related to goal orientations and perceived conflict. Upon testing this model, several direct paths were not significant and were consequently dropped from the model: HP was not directly related to performance-approach goal, performance avoidance goal or conflict, and OP was not significantly related to performance-avoidance or social connection goals. The alternative model yielded acceptable fit indices, CFI = .99, TLI = 0.89, RMSEA = 0.090 [0.020; 0.157], but also a poor index of good fit, SRMR = 0.038, and AIC = 5333.51. Overall, the AIC values revealed the hypothesized model to be best fitted to the data than the alternative model, ΔAIC = 7.42. The hypothesized

model was also more in line with the theory of the DMP and with the empirical literature. A second alternative model was tested in which each goal orientation was related to each passion type, which, in turn related to relationship quality. Again, the difference between AIC values favored the hypothesized model, ΔAIC = 18.78.

9. General discussion

The present research is the first to investigate how each type of passion for social dancing, namely HP and OP, relate to the quality of interpersonal relationships, both within dance and outside of it, as well as to the mediating processes responsible for such effects. Overall, the findings of two studies reveal that HP fosters positive relationships both in dance and outside of it in large part because of the adaptive mastery and social connection goals that it fosters. Such is not the case for OP that tends to lead to opposite effects. These results lead to a number of important implications for a better understanding of this particular form of physical exercise.

9.1. Passion and interpersonal relationships inside and outside of dance

A first implication is that passion matters with respect to relationships. Social partnered dancing is a form of social physical activity and offers the opportunity to develop friendships. Still, this is only the case if one engages in social dancing out of HP. Indeed, HP was positively associated with having pleasure with a novice partner in Study 1 and with relationship quality with a preferred dance partner and with the dance community through mastery-approach and social connection goals in Study 2. Conversely, OP was associated with having a negative relationship with a lousy partner in Study 1 and even with a preferred dance partner and the dance community in Study 2 through a negative adoption of social connection and mastery-approach goals. The present findings are in line with those of Philippe et al. (2010) that showed that passion matters with respect to developing and maintaining friendships.

Another contribution of the present studies is that the role of passion was investigated in a variety of types of relationships, including some that go beyond the realm of social dancing. Thus, relationships with a novice dancer, one's preferred dance partner, the dance community, and with one's romantic partner (outside of dance) were studied. The present findings show that passion plays an important role in these different types of relationships. However, we hasten to underscore that we have not looked at all types of relationships that exist in social dance. Future research is necessary to look at relationships with others such as competitors, judges, non-regular dance partners, or relationships that may be perceived differently as a function of the situation (competition vs. practice). This research is also novel in that it studied the effect of passion not only on individual relationship quality but also on relationship quality with a (dance) community. Future studies could further analyze what it means for dancers to have a good relationship with a dance community (i.e., aspects that makes this kind of relationship enriching and satisfying) and the consequences that come from connecting to a dance community, such as potentially fostering a greater sense of belongingness (Baumeister & Leary, 1995).

9.2. Pathways through which each type of passion affects relationships

The present research also identified two pathways through which each type of passion was related to relationship quality: the types of goals associated with social dancing and the perceived conflict between dancing and romantic relationships. A first pathway is through the type of goals in social dancing. As noted above, HP was positively associated with relationship quality through the endorsement of mastery-approach and social connection goals, whereas the opposite pattern was found for OP. Therefore, HP for social dancing appears to manifest a focus on mastering one's dance. Literature on mastery-approach goals defines this orientation as reflecting an intention to acquire skills in order to improve on the task (Elliot & Church, 1997), which puts the focus on the self and in this case, how one can learn to dance more gracefully. Arguably, dancers with a mastery-approach orientation to social dancing may be less likely to find fault in their partner's movement, instead focusing on how *they* themselves can improve their dance. HP also reflects an intention to create meaningful social connections through social dancing. Taken together, this suggests that HP for social dancing is characterized by a focus on how people and their partner feel in a particular dance, which appears to promote positive interpersonal relationships. With OP, on the other hand, the focus appears to be primarily on one's outward performance instead of one's personal experience in social dance. In fact, OP was negatively related to relationship quality through less endorsement of mastery-approach and social connection goals. Thus, regardless of the dance partner –whether it is the dancer they have the most affinities with, the one that makes them shine

the most, or the awkward beginner –having an OP for social dance appears to impede dancers' ability to develop a positive relationship with their dance partner. It may be so in part because of the focus on how the dance looks from the outside instead of how it feels for both partners from the inside. Future research should test this hypothesis.

A second pathway through which each passion type may affect relationship quality is the perceived conflict between social dancing and maintaining a romantic relationship. Specifically, results revealed that OP was indirectly and negatively related to relationship quality with a preferred dance partner and a romantic partner through the perceived conflict between social dancing and a romantic relationship. Thus, being obsessively passionate about social dancing creates conflicts between these two interpersonal life domains, which results in less satisfaction in both types of relationships. The reversed trend of results was found for HP, although these mediations were not significant. These results are in line with past research showing that each passion type relates differentially to perceiving a conflict between the passionate activity and other life-aspects, such as between passion for the internet and a romantic relationship (Séguin-Levesque, Laliberté, Pelletier, Blanchard, & Vallerand, 2003; Vallerand et al., 2008, Study 3), passion for sport and non-sporting activities and responsibilities (Young et al., 2015), and passion for supporting a favorite football team and having a romantic relationship (Vallerand et al., 2008). Thus, depending on the type of passion, dancers will be more likely to endorse some goals and experience conflict (or not) between social dancing and a romantic relationship, which will affect the quality of their relationship with other dancers and with their romantic partner.

Finally, this is the first research to test and document the impact of a social connection goal in a passionate activity on interpersonal relationships. This association is in line with past research investigating goal orientations in interpersonal relationships (Gable, 2006). Specifically, social approach goals have been positively related to satisfaction with one's relationships. The present research further specifies that in the context of social dancing, mastery-approach and social *connection* goals but not performance-approach goals, foster enriching interpersonal relationships among dancers. Furthermore, results with respect to the association between each passion type and goals in social dance are concordant with past research (Vallerand et al., 2007; Verner-Filion et al., 2017) where HP was mostly associated with mastery goals and OP mainly to performance-approach and performance-avoidance goals. This finding was obtained in Study 2. However, whereas OP was slightly positively related to mastery goals in past research (Vallerand et al., 2007), it was negatively related to these goals in Study 2. It may be that OP dancers are too preoccupied with their social performance, thus making them less involved in the process of further mastering their dance. This hypothesis is further supported by the fact that dancers in Study 2 had been involved in this activity for a mean length of 5.4 years at the time of the study. It thus may be that dancers with a predominant OP considered having attained a good-enough mastery-level of social dancing to achieve their goal of looking good compared to other dancers and that they relied on their acquired dance knowledge to do so. Future research is necessary to ascertain this hypothesis.

9.3. Limitations

Some limitations regarding the present research should be underscored. First, causality cannot be inferred from the present research because of the correlational nature of the data. Future research should employ experimental manipulations of HP and OP (see Bélanger et al., 2013; Lafrenière, Vallerand, & Sedikides, 2013) in order to do so. A second limitation pertains to the self-reported nature of the data. Future studies could use informants and observational measures to document dancers' behaviors towards other dancers. Also, Study 1 employed scales with few items to assess participants' interactions

with other dancers, which may limit their construct validity. Future studies could develop a scale with more items to capture more fully the different behaviors that dancers may have with their partners. Studies 1 and 2 used samples that were moderate in size, which might have undermined the ability to detect smaller effects. Therefore, results should be replicated using larger samples, and dancers involved in even more diversified types of dancing. Indeed, we have looked at one form of dancing, namely social dancing with a partner. Such type of dancing does not include all types of dancing (e.g., fitness dance). Future research should test the generalization of the present findings to these other forms of dancing. The current results may also speak to the literature on how passionate individuals' respond to interpersonal types of stressors or adversity, as dancing with a novice dance partner may represent a challenge to some social dancers. However, this study did not assess whether such dancers actually constitute a stressful situation for other dancers. Therefore, future studies could examine whether dancers experience novice dancers as some form of adversity or stressor and whether this might impact the quality of their relationships. Finally, the sample of dancers recruited in both studies consisted of moderately experienced dancers who may have achieved somewhat of an intermediate performance level in their social dance. Therefore, the present results may not generalize directly to dancers at all levels (i.e., beginners and experts). Future research is thus necessary to determine if dancers at other performance levels focus on the same types of goals and develop the same types of relationships as those observed in the present research.

In sum, social dancing represents a very popular form of exercise. The present research provides new insights into how a passion for social dancing is related to relationship quality within the passionate activity as well as outside of it. Furthermore, the present research has identified goal processes and conflict as important mediators of this passion-relationship quality association. Given how each type of passion is differentially associated with such goals, promoting the development of a HP for social dancing may prove fruitful in fostering friendly relationships both in dance and outside of it.

Credit authorship contribution statement

Valerie Guilbault: Conceptualization, Methodology, Validation, Formal analysis, Investigation, Data curation, Visualization, Writing - original draft, Writing - review & editing. **Simon-Pierre Harvey:** Conceptualization, Methodology, Formal analysis. **Robert J. Vallerand:** Conceptualization, Methodology, Validation, Resources, Data curation, Writing - original draft, Writing - review & editing, Supervision, Project administration, Funding acquisition.

Declaration of competing interest

The authors declare no conflicts of interest.

Acknowledgement

This research was supported by a doctoral scholarship from the Fonds de Recherche sur la Société et la Culture (FRQSC) awarded to Valerie Guilbault (scholarship number: 191621), and a Canadian Research Chair on Motivational Processes and Optimal Functioning awarded to Robert J. Vallerand (number: 950-230793).

References

Alpert, P T (2010). Alternative exercise may be attractive to more individuals. *Home Health Care Management & Practice*, 22, 301–304. doi:10.1177/1084822309357006.

- Baumeister, R F, & Leary, M R (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. In Zukauskiene, R (Ed.), *Interpersonal development* (pp. 57–89). London: Routledge. doi:10.4324/9781351153683-3.
- Bélanger, J J, Lafreniere, M-A K, Vallerand, R J, & Kruglanski, A W (2013). Driven by fear: The effect of success and failure information on passionate individuals' performance. *Journal of Personality and Social Psychology*, 104, 180–195. doi:10.1037/a0029585.
- Byrne, B M (2013). *Structural equation modeling with Mplus: Basic concepts, applications, and programming*. New York, NY: Routledge.
- Conroy, D E, Elliot, A J, & Hofer, S M (2003). A 2 × 2 achievement goals questionnaire for sport: Evidence for factorial invariance, temporal stability, and external validity. *Journal of Sport & Exercise Psychology*, 25, 456–476. doi:10.1123/jsep.25.4.456.
- Deci, E, & Ryan, R (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11, 227–268. doi:10.1207/S15327965PLI1104_01.
- 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. doi:10.1037/0022-3514.72.1.218.
- Gable, S L (2006). Approach and avoidance social motives and goals. *Journal of Personality*, 74, 175–222. doi:10.1111/j.1467-6494.2005.00373.x.
- Gable, S L, & Berkman, E T (2008). Making connections and avoiding loneliness: Approach and avoidance social motives and goals. In Elliott, A (Ed.), *Handbook of approach and avoidance motivation* (pp. 203–216). New York, NY: Psychology Press.
- Kreutz, G (2008). Does partnered dance promote health? The case of tango argentino. *Journal of the Royal Society for the Promotion of Health*, 128, 79–84. doi:10.1177/1466424007087805.
- Lafreniere, M-A K, Vallerand, R J, & Sedikides, C (2013). On the relation between self-enhancement and life satisfaction: The moderating role of passion. *Self and Identity*, 12, 516–530. doi:10.1080/15298868.2012.713558.
- Lakes, K D, Marvin, S, Rowley, J, San Nicolas, M, Arastoo, S, Viray, L, & Jurnak, F (2016). Dancer perceptions of the cognitive, social, emotional, and physical benefits of modern styles of partnered dancing. *Complementary Therapies in Medicine*, 26, 117–122. doi:10.1016/j.ctim.2016.03.007.
- Mageau, G, Carpentier, J, & Vallerand, R J (2011). The role of self-esteem contingencies in the distinction between obsessive and harmonious passion. *European Journal of Social Psychology*, 41, 720–729. doi:10.1002/ejsp.798.
- Maraz, A, Király, O, Urbán, R, Griffiths, M D, & Demetrovics, Z (2015). Why do you dance? Development of the dance motivation inventory (DMI). *PLoS One*, 10, e0122866. doi:10.1371/journal.pone.0122866.
- Marsh, H W, Vallerand, R J, Lafrenière, M A K, Parker, P, Morin, A J, Carbonneau, N, ... Salah Abduljabbar, A (2013). Passion: Does one scale fit all? Construct validity of two-factor passion scale and psychometric invariance over different activities and languages. *Psychological Assessment*, 25, 796–809. doi:10.1037/a0032573.
- Philippe, F L, Vallerand, R J, Houffort, N, Lavigne, G L, & Donahue, E G (2010). Passion for an activity and quality of interpersonal relationships: The mediating role of emotions. *Journal of Personality and Social Psychology*, 98, 917–932. doi:10.1037/a0018017.
- Preacher, K J, & Hayes, A F (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, 40, 879–891. doi:10.3758/BRM.40.3.879.
- Séguin-Levesque, C, Laliberté, M L N, Pelletier, L G, Blanchard, C, & Vallerand, R J (2003). Harmonious and obsessive passion for the internet: Their associations with the couple's relationship. *Journal of Applied Social Psychology*, 33, 197–221. doi:10.1111/j.1559-1816.2003.tb02079.x.
- Sénécal, C B, Vallerand, R J, & Vallières, ÉF (1992). Construction et validation de l'Échelle de la Qualité des Relations Interpersonnelles (EQRI). *European Review of Applied Psychology/Revue Européenne de Psychologie Appliquée*, 42, 315–324.
- Utz, S, Jonas, K J, & Tonkens, E (2012). Effects of passion for massively multiplayer online role-playing games on interpersonal relationships. *Journal of Media Psychology*. doi:10.1027/1864-1105/a000066.
- Vallerand, R J (2015). *The psychology of passion: A dualistic model*. New York, NY: Oxford University Press. doi:10.1093/acprof:oso/9780199777600.001.0001.
- Vallerand, R J, Blanchard, C, Mageau, G A, Koestner, R, Ratelle, C, Léonard, M, & Marsolais, J (2003). Les passions de l'âme: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85, 756–767. doi:10.1037/0022-3514.85.4.756.
- Vallerand, R J, Ntoumanis, N, Philippe, F L, Lavigne, G L, Carbonneau, N, Bonneville, A, & Maliha, G (2008). On passion and sports fans: A look at football. *Journal of Sports Sciences*, 26, 1279–1293. doi:10.1080/02640410802123185.
- Vallerand, R J, Rousseau, F L, Grouzet, F M, Dumais, A, Grenier, S, & Blanchard, C M (2006). Passion in sport: A look at determinants and affective experiences. *Journal of Sport & Exercise Psychology*, 28, 454–478. doi:10.1123/jsep.28.4.454.
- Vallerand, R J, Salvy, S J, Mageau, G A, Elliot, A J, Denis, P L, Grouzet, F M, & Blanchard, C (2007). On the role of passion in performance. *Journal of Personality*, 75, 505–534. doi:10.1111/j.1467-6494.2007.00447.x.
- Verner-Filion, J, Vallerand, R J, Amiot, C E, & Mocuani, I (2017). The two roads from passion to sport performance and psychological well-being: The mediating role of need satisfaction, deliberate practice, and achievement goals. *Psychology of Sport and Exercise*, 30, 19–29. doi:10.1016/j.psychsport.2017.01.009.
- Young, B W, de Jong, G C, & Medic, N (2015). Examining relationships between passion types, conflict and negative outcomes in masters athletes. *International Journal of Sport and Exercise Psychology*, 13, 132–149. doi:10.1080/1612197X.2014.932822.