Betraying passion: Harmonious passion, obsessive passion, and attitudes following counter-attitudinal advocacy

Benjamin J. I. Schellenberg^a & Daniel S. Bailis^b

^a Faculty of Kinesiology and Recreation Management, University of Manitoba, Winnipeg, MB, CANADA R3T 2N2 Email: ben.schellenberg@umanitoba.ca

^b Department of Psychology, University of Manitoba, Winnipeg, MB, CANADA R3T 2N2
Email: dan.bailis@umanitoba.ca

Correspondence concerning this article should be addressed to Benjamin Schellenberg, Faculty of Kinesiology and Recreation Management, University of Manitoba, Winnipeg, MB.
Email: ben.schellenberg@umanitoba.ca

Abstract

This research tested if attitude change following counter-attitudinal advocacy (a) applies when people endorse positions that conflict with a passionate activity, and (b) depends on levels of harmonious passion (HP) and obsessive passion (OP; Vallerand, 2015). Undergraduates ($N = 81$) who were passionate about various sport/exercise activities were either asked (high-choice condition) or required (low-choice condition) to oppose the construction of a new recreational facility on campus. Participants in the high-choice condition reported lower levels of passion for their passionate activity and less support for the recreational facility compared to those in the low-choice condition. However, decreases in passion were only evident when passion involved high levels of OP and low levels of HP, whereas decreases in support for the recreational facility were only evident when passion involved high levels of both OP and HP. These results contribute to our understanding of how passion dimensions combine to predict self-protective responses.

Keywords: cognitive dissonance; dualistic model of passion; harmonious passion; obsessive passion; quadripartite approach

1. Introduction

When people are asked to advocate for a position or stance with which they disagree, they tend to change their attitudes to be more in favor of the previously-disliked position. Choosing to engage in public acts that conflict with private attitudes arouses cognitive dissonance, an aversive state that can be relieved by altering one's attitudes to be in line with the publicly-endorsed position (Cooper, 2007; Cooper & Fazio, 1984; Steele, 1988). But do the effects of counter-attitudinal behavior apply when people advocate for positions that run counter to beloved activities in their lives toward which they are *passionate* (Vallerand et al., 2003; Vallerand, 2015)? Would people change their attitudes about a favorite activity after publicly endorsing a position that conflicted with it? The aim of this research was to address this question and, relying on the dualistic model of passion (Vallerand, 2015), test if responses to resolve dissonance were affected by levels of harmonious passion (HP) and obsessive passion (OP) toward an activity.

1.1 The Two Dimensions of Passion

The dualistic model of passion (Vallerand, 2015; Vallerand et al., 2003) identifies passion as being a strong desire to engage in an activity that one likes or even loves, finds meaningful and valuable, has included into one's self-concept, and devotes a significant amount of time and energy. Passion therefore plays a significant role in people's lives, and has the potential to contribute to one's sense of purpose in life and subjective well-being (Vallerand, 2015). But a critical consideration emphasized by the dualistic model is that passion can vary on dimensions of HP and OP. On the one hand, HP involves engaging in an activity with a sense of autonomy, control, and balance with other life domains. With HP, passionate activities are important, but not overpowering, parts of people's identities that are pursued in harmony with

other life pursuits. On the other hand, OP involves a more controlled, rigid, and preoccupied relationship with a passion (Vallerand, 2015). With OP, people feel pressured to engage in an activity, causing the activity to occupy a disproportionate space in people's identities and conflict with other life pursuits (Vallerand, 2015).

The dualistic model specifies that levels of HP and OP for an activity lie on two separate continua, meaning that people have varying levels of both HP and OP for the same activity (Vallerand, 2015). Recently, researchers have started to study the effects of different within-person combinations of HP and OP using a *quadripartite approach* (Schellenberg et al., in press), which identifies four prototypical passion subtypes: *pure HP* (high HP combined with low OP), *pure OP* (low HP combined with high OP), *mixed passion* (high HP combined with high OP), and *non-passion* (low HP combined with low OP). Of the four passion subtypes, a pure HP is posited to predict the most adaptive outcomes given that it involves all the hallmarks of HP, including an autonomous and balanced relationship with an activity, without any of the rigidity or preoccupation that is characteristic of OP. A pure OP, however, is posited to predict the most maladaptive outcomes because it involves all the hallmarks of OP without any of the potential compensatory or protective characteristics of HP (Schellenberg et al., in press).

1.2 Passion and Counter-Attitudinal Advocacy

As part of psychological experiments adopting counter-attitudinal advocacy, university students have been asked to publicly endorse many positions with which they disagree, including tuition increases (Zanna & Cooper, 1974), speaker bans (Linder, Cooper, & Jones, 1967), and funding decreases for disability services (Stone & Cooper, 2003). Consequently, because of the cognitive dissonance that is aroused when one advocates for a position with which one disagrees, the students distanced themselves from their prior attitudes by becoming more in favor of the

tuition increase, speaker ban, and funding decrease. Readjusting attitudes in this way can alleviate dissonance-aroused psychological discomfort (Elliot & Devine, 1994), and can be an important cognitive process that contributes to hedonic well-being (Lyubomirsky, 2001; Lyubomirsky & Ross, 1999). Our aim was to determine if counter-attitudinal advocacy would yield the same pattern of attitude change if students were asked to publicly endorse a position that betrayed a passionate activity in their lives. Understanding how people respond following counter-attitudinal behavior related to a passionate activity could reveal if and how people choose to distance themselves from their feelings about an important and meaningful activity for the sake of self-protection (Tesser, 2001), a process that could potentially contribute to declines in passion over time (Schellenberg & Bailis, 2015).

We predicted that those with high levels of OP (i.e., the pure OP and mixed passion subtypes) would be most likely to experience dissonance and therefore change their attitudes following counter-attitudinal advocacy. An activity becomes a dominant and overwhelming part of one's self-concept to the extent that it is pursued with OP (Lafrenière, St-Louis, Vallerand, & Donahue, 2012; Mageau, Carpentier, & Vallerand, 2011). Therefore, endorsing a position that betrays one's passionate activity should be especially threatening to those with high levels of OP (e.g., Schellenberg, Bailis, & Crocker, 2013). But different types of attitudes can be targeted to alleviate dissonance (Cooper, 2007), and strategies might differ depending on whether high levels of OP are accompanied by high or low levels of HP.

An OP involves adopting an all-or-nothing orientation toward an activity (Lafrenière et al., 2012; Mageau et al., 2011) and predicts coping strategies oriented toward avoidance and disengagement (Schellenberg & Bailis, 2016; Schellenberg, Gaudreau, & Crocker, 2013). Therefore, when OP is high and HP is low (pure OP subtype), the strategy used to alleviate

dissonance could be to disengage from the passionate activity itself, resulting in reductions in passion. A different strategy might be adopted when high OP is combined with high HP (mixed passion). Having high levels of HP involves maintaining a balanced and stable relationship with an activity (Mageau et al., 2011) and perceiving new experiences accurately without distortion (Vallerand, 2015). Therefore, with mixed passion, HP might act as a compensatory (Schellenberg et al., in press) and steadying force and keep attitude change limited to the counter-attitudinal action itself.

1.3 Current Research

We conducted an experimental study to determine if the types of attitudes that changed following counter-attitudinal advocacy would depend on levels of HP and OP. In conducting this study, we took advantage of a development that had occurred at our university campus: the proposed construction of a new Active Living Centre (ALC), a state-of-the-art recreational facility. We recruited students who were passionate about activities that could take place in the ALC and, using a counter-attitudinal advocacy procedure (Cooper, 2007), asked or required all the students to write essays arguing that the university should not build the ALC. Our specific objectives were to (a) determine if counter-attitudinal advocacy caused changes in levels of passion for one's favorite activity and support for the ALC and, (b) test if attitude change depended on passion subtypes.

2. Method

2.1 Participants

Participants were 81 undergraduates (60 females, 21 males) who participated in exchange for course credit ($M_{\text{age}} = 19.00$ years, $SD_{\text{age}} = 2.85$). Two additional students participated but were excluded from analyses because they refused to write an essay on the intended position (see

section 2.2). This sample size was recruited in order to detect a medium-sized experimental effect with 80% statistical power. Most participants identified having a White/European (49.40%) or Filipino (9.90%) ethnic background. Ethics approval was obtained from our university research ethics board before any data were collected.

2.2 Procedure

2.2.1 Screening questionnaire. Approximately one month prior to the experimental sessions, a large sample of undergraduates completed an online screening questionnaire that included the Passion Scale (Marsh et al., 2013) to assess levels of harmonious (6 items; e.g., “My activity is well integrated in my life”) and obsessive passion (6 items; e.g., “I have the impression that my activity controls me”) for a favorite activity using a scale ranging from 1 (*not agree at all*) to 7 (*very strongly agree*). The Passion Scale also assesses the passion criteria (4 items; e.g., “This activity is a passion for me”), which measures the extent to which one is passionate for the activity. Participants answered the items from the Passion Scale twice; first while thinking of their favorite activity, and then while thinking of their second favorite activity. Demographic questions assessing age, sex, and ethnic background were also included as part of this screening questionnaire. Participants who had completed this screening questionnaire were recruited for the experimental study if they (a) reported that either their favorite or second favorite activity was an activity that could be performed in the ALC (e.g. running, weight lifting, dancing, yoga), and (b) agreed to be contacted for potential follow-up studies.

2.2.2 Experimental procedure. Participants met individually with an experimenter who was blind to their scores from the screening questionnaire. After obtaining informed consent, participants were told that the purpose of the study was to obtain persuasive essays from current university students about the construction of the ALC. Ostensibly, the university was planning

to begin construction of the ALC but the final decision of whether to follow through on these plans had yet to be made. To make this decision, the experimenter explained that a university committee had been formed and that they were interested in the arguments that could be made both in favor of and in opposition to the construction of the ALC, and that this committee was particularly interested in obtaining arguments from students. Participants were told that they could write essays arguing either in favor of or in opposition to the ALC, and that the essays would be shown to this committee. To emphasize the consequences of these essays (Cooper, 2007), it was made clear that the committee would consider the arguments that they read when making their decision.

Participants then received an information sheet that provided some background information about the ALC, such as the projected cost, location, and anticipated completion date. The information sheet also listed several potential uses of the ALC, and embedded within this list was a favorite activity that had been reported by each participant on the screening questionnaire. Either the participant's favorite or second favorite activity was reported, depending on which activity could take place in the ALC; in situations where both activities could take place in the ALC (i.e., a participant's favorite activity was yoga and second favorite activity was weight lifting), the participant's favorite activity was reported. We refer to this activity as the *target activity*. We included the target activity in the information sheet to make it clear that this activity could be performed in the ALC.

After the participants were given some time to read the information sheet, all participants were told that the choice of whether to write an essay in favor of or in opposition to the ALC was theirs; however, following an induced-compliance paradigm (e.g. Stone & Cooper, 2003), different instructions were given to participants depending on experimental condition. The

experimenter told participants who were randomly assigned to the *high-choice group* the following: “We currently have a lot of essays arguing in favor of the construction of the Active Living Centre, so would you be willing to write an essay opposed to the construction?” All but two participants agreed to this request; those who refused did not proceed with the remainder of the study. The experimenter told participants in a *low-choice group* the following: “We currently have a lot of essays arguing in favor of the construction of the Active Living Centre, so today the study will require you to write an essay opposed to the construction.”¹

After participants had either been asked (high-choice) or told (low-choice) to write an essay arguing against the continued construction of the ALC, participants completed the remainder of the study using a computer which, in order, included a question that asked participants to indicate which argument they would like to make in their essay (either a “pro” or “con” argument),² a 3-minute video depicting an artist’s rendering of what the ALC would look like, and a space for participants to write their essay. Participants were given approximately 12 minutes to write their essay. Following the essay, participants received a piece of paper that reported the target activity, and were asked to answer the four passion criteria items from the Passion Scale (Vallerand et al., 2003) while thinking of this activity. Participants then reported

¹ We were confident that all participants would be in favor of having a new recreational facility on campus. The ALC was proposed to replace the existing recreational facility – the only facility on campus where participants could engage in their favorite activity – that was nicknamed the “Gritty Grotto” and was in the windowless basement of an old building on campus. One local newspaper once described it as “...a dimly lit dungeon of a gym and track that is being remembered as an eyesore by pretty much everybody...” (Kirbyson, 2015, para. 4). Another gave the following description: “For those of you who’ve never been to the Gritty Grotto, imagine you have survived the apocalypse and you and a small group of people who have not yet been infected by the rage virus bravely take to the sewers to rebuild humanity, piece by piece. The Gritty Grotto is your subterranean gym.” (Antony, 2015, para. 2).

² Participants in the high-choice group were allowed to indicate that they were going to write an essay on the con side. For those in the low-choice group, the researcher selected this option for the participant after saying the following: “Here is the first page of the questionnaire where you will indicate which essay you would like to write. However, since you’re required to write the con essay, I will just select this option for you.”

their support for the continued development of the ALC on a scale from -3 (*absolutely no*) to +3 (*absolutely yes*). Participants were then fully debriefed.

3. Results

Ratings of the target activity from the screening and post-essay questionnaires were aggregated to create average HP ($M = 5.02$, $SD = 1.18$, $\alpha = .81$), OP ($M = 2.81$, $SD = 1.38$, $\alpha = .85$), baseline passion criteria ($M = 5.60$, $SD = 1.22$, $\alpha = .82$), and post-essay passion criteria ($M = 6.01$, $SD = 0.94$, $\alpha = .83$) scores. First, we tested if changes in passion and support for the ALC differed between the two experimental conditions. The results of an ANCOVA revealed that, controlling for baseline passion criteria, participants in the high-choice group had lower passion scores (adjusted mean = 5.841, $SE = .120$) compared to the low-choice group (adjusted mean = 6.188, $SE = .122$), $F(1, 78) = 4.076$, $p = .047$, $\eta_p^2 = .05$. We also found that participants in the high-choice group reported lower levels of support for the ALC ($M = 0.10$, $SD = 2.35$) than those in the low-choice group ($M = 1.10$, $SD = 2.06$), Welch's $t(78.1) = 2.041$, $p = .045$, $d = 0.45$. These results indicate that the experimental manipulation had the effect of decreasing both passion for the target activity and support for the continued development of the ALC.

Next, we tested if the significant experimental effects were present at each passion subtype. Using the PROCESS macro in SPSS (Hayes, 2013), we tested separate regression models that predicted post-essay passion and ALC support from HP and OP (both mean-centered), the dummy-coded group effect (0 = low-choice group, 1 = high-choice group), and the HP $\times$ Condition and OP $\times$ Condition interaction effects (Process Model 2; see Hayes, 2013).³

³ We also tested Model 3 in PROCESS which includes the HP $\times$ OP and HP $\times$ OP $\times$ Condition interaction effects. However, these interaction effects were not significant; therefore, we interpreted results from Model 2 which does not include these interaction terms to test more parsimonious regression models (Aiken & West, 1991; Gaudreau, 2012).

The model that predicted post-essay passion also included baseline passion criteria (mean-centered) as a covariate. We tested the simple or “spotlight” effect (Aiken & West, 1991; Spiller, Fitzsimons, Lynch, & McClelland, 2013) of the experimental manipulation at the four passion subtypes by inspecting the experimental effect at different combinations of high (+1 *SD*) and low (-1 *SD*) levels of HP and OP (Schellenberg et al., in press). With post-essay passion, we found a significant experimental effect at the pure OP subtype only, $b = -0.922$, $SE = 0.346$, $p < .001$, 95% CI [-1.611, -0.232]. This means that predicted levels of passion in the high-choice condition were lower than in the low-choice condition, but only in models that represented the pure OP subtype (i.e., OP being 1 *SD* above the mean and HP being 1 *SD* below the mean). With ALC support, we found a significant experimental effect at the mixed passion subtype only, $b = -1.791$, $SE = 0.816$, $p = .031$, 95% CI [-3.415, -0.166]. This means that support for the ALC in the high-choice condition was lower than in the low-choice condition, but only in models that represented the mixed passion subtype (i.e., both OP and HP being 1 *SD* above the mean). Figure 1 displays these experimental effects at each passion subtype.⁴

4. Discussion

People can distance themselves from their prior attitudes following counter-attitudinal advocacy as a means of self-defense (Sherman & Cohen, 2006). In this research, we found that people reacted in a similar way when advocating for a position that was discordant with a favorite activity. Importantly, we found that the strategies used to alleviate dissonance were dependent on passion quality: Decreases in passion quantity were evident with pure OP, whereas attitude change toward the counter-attitudinal argument was evident with mixed passion. These

⁴ These results did not change in any meaningful way when we included sex as a control variable, or when we repeated our analysis while excluding one potential multivariate outlier with an extreme Mahalanobis distance score.

results have implications for the dualistic model of passion and our understanding of dissonance-motivated responses.

The results of this study contribute to our understanding of the processes at play when passionate people face threats or adversity. After behaving in a way that conflicted with a passion – a small act of betrayal in which participants advocated against the construction of a recreational facility where they and others could engage in their favorite activities – the pure OP subtype was associated with decreases in passion quantity. This reveals that the general tendency for OP to predict disengagement in the face of adversity (e.g., Schellenberg & Bailis, 2016) can also be directed toward a passionate activity when doing so alleviates cognitive dissonance. By extension, the threshold for what it takes to reject a favorite activity, ironically, may be lower with a pure OP than with other passion subtypes. The implication is ironic given our understanding that passionate activities become dominant and overwhelming parts of people's identities and are relied upon as a source of self-worth to the extent that they are pursued with OP (Vallerand, 2015).

It is unclear from the present research, however, how long these decreases in passion may last. The passion felt by those with a pure OP may be highly responsive to situational outcomes or cues, meaning that reductions in passion observed after counter-attitudinal behavior may be a temporary and normal part of the highs and lows experienced by those with a pure OP (e.g., Lafrenière et al., 2012; Mageau et al., 2011). Indeed, those with a pure OP might also be prone to engaging in self-protective responding that can bring people *closer* to the activities they love. Dissonance research has revealed that dissonance can be aroused when people devote high levels of effort or endure aversive experiences while pursuing tasks or goals. To remedy the dissonance caused when one achieves a goal that was ultimately not worth the effort, the value

placed on the goal can be enhanced (e.g., Aronson & Mills, 1959). Similarly, people with a pure OP may be prone to the effects of effort justification and increase their passion for their favorite activity when facing hardships or difficulties in the pursuit of their passion-related goals.

Therefore, dissonance can be alleviated by either decreasing or increasing passion quantity, depending on the context in which dissonance is aroused. Additional research is needed to determine how passion dimensions affect both increases and decreases in passion quantity following dissonance-inducing procedures, and track how long these changes last.

In addition to decreasing passion, another way that people could alleviate dissonance in the current research was to direct attitude change toward the counter-attitudinal argument itself by decreasing support for the construction of the ALC. We found that the mixed passion subtype was associated with decreases in ALC support, suggesting that, when OP is high, whether high levels of HP are also present matters for the strategy that is adopted to resolve dissonance. Having high HP might allow people to maintain a mindful and balanced perspective when facing self-threat (St-Louis, Verner-Filion, Bergeron, & Vallerand, 2018) and help people direct self-protective responses at the attitudes responsible for dissonance, thereby preserving the relationship with the activity. More generally, these results highlight the advantages of focusing on within-combinations of both passion dimensions using a quadripartite approach (Schellenberg et al., in press). Although both passion dimensions predict different outcomes (e.g., Curran, Hill, Appleton, Vallerand, & Standage, 2015), this research demonstrates that it is important to acknowledge that the effects of one dimension of passion can depend on whether or not it is accompanied by high or low levels of the other.

A hallmark of dissonance research has been the use of experimental studies that involve elaborate, immersive scenarios (Cooper, 2007). We attempted to honor this tradition by

incorporating an ongoing issue on campus – the construction of the ALC – into a standard counter-attitudinal advocacy experimental design adapted for people’s favorite activities. We also included a one-month time lag between assessments of our independent and dependent variables, reducing the likelihood of biases linked with cross-sectional designs (e.g., Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). But several limitations of this study need to be considered. We presented items assessing post-essay attitudes in a fixed order with passion quantity reported first and ALC support reported second. This leaves open the possibility that the experimental effect found with pure OP was due to the order of presentation; a pure OP may be associated with taking the first opportunity to alleviate dissonance, which in this study was by changing attitudes toward a passion. This alternative explanation can be tested in future research by manipulating the ordering of post-essay items. Also, the experimental effect was evident only with passion subtypes that involved high OP (i.e., pure OP and mixed passion) which, based on previous research (Vallerand, 2015), we reasoned was explained by higher levels of dissonance. Research is needed to directly test this assumption by assessing levels of arousal or cognitive discomfort immediately following the essay. Overall, this research tells us that passionate people are not immune to the effects of cognitive dissonance. However, the strategy one chooses to alleviate dissonance depends on the extent to which one is harmoniously and obsessively passionate.

Acknowledgements

This work was supported by the Social Sciences and Humanities Research Council of Canada under Grant number 756-2016-0132.

References

- Aiken, L. S., & West, S. G. (1991). *Multiple regression: Testing and interpreting interactions*. Newbury Park, CA: Sage Publications.
- Antony, J. (2015, July 20). Welcome to the Gritty Grotto. *Spectator Tribune*. Retrieved from <https://spectatortribune.com/welcome-to-the-gritty-grotto/>
- Aronson, E., & Mills, J. (1959). The effect of severity of initiation on liking for a group. *The Journal of Abnormal and Social Psychology*, 59, 177-181.
- Cooper, J. (2007). *Cognitive dissonance: 50 years of a classic theory*. London: Sage publications.
- Cooper, J., & Fazio, R. H. (1984). A new look at dissonance theory. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (pp. 229-264). Orlando, FL: Academic Press.
- Curran, T., Hill, A. P., Appleton, P. R., Vallerand, R. J., & Standage, M. (2015). The psychology of passion: A meta-analytical review of a decade of research on intrapersonal outcomes. *Motivation and Emotion*, 39, 631-655. doi: 10.1007/s11031-015-9503-0
- Elliot, A. J., & Devine, P. G. (1994). On the motivational nature of cognitive dissonance: Dissonance as psychological discomfort. *Journal of Personality and Social Psychology*, 67, 382-394.
- Gaudreau, P. (2012). A methodological note on the interactive and main effects of dualistic personality dimensions: An example using the 2 × 2 model of perfectionism. *Personality and Individual Differences*, 52, 26-31. doi: 10.1016/j.paid.2011.08.022
- Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. New York, NY: The Guilford Press.

Kirbyson, G. (2015, August 8). A fine replacement for the Gritty Grotto. *Winnipeg Free Press*.

Retrieved from <https://www.winnipegfreepress.com/local/a-fine-replacement-for-the-gritty-grotto-299009461.html>

Lafrenière, M. K., St-Louis, A. C., Vallerand, R. J., & Donahue, E. G. (2012). On the relation between performance and life satisfaction: The moderating role of passion. *Self and Identity*, 11, 516-530. doi: 10.1080/15298868.2011.616000

Linder, D. E., Cooper, J., & Jones, E. E. (1967). Decision freedom as a determinant of the role of incentive magnitude in attitude change. *Journal of Personality and Social Psychology*, 6, 245-254.

Lyubomirsky, S. (2001). Why are some people happier than others? The role of cognitive and motivational processes in well-being. *American Psychologist*, 56, 239-249. doi: 10.1037/0003-066X.56.3.239

Lyubomirsky, S., & Ross, L. (1999). Changes in attractiveness of elected, rejected, and precluded alternatives: A comparison of happy and unhappy individuals. *Journal of Personality and Social Psychology*, 76, 988-1007.

Mageau, G. A., 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

Marsh, H. W., Vallerand, R. J., Lafrenière, M. K., Parker, P., Morin, A. J. S., Carbonneau, N., ... Paquet, Y. (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

- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879-903.
- Schellenberg, B. J. I., & Bailis, D. S. (2015). Predicting longitudinal trajectories of academic passion in first-year university students. *Learning and Individual Differences*, 40, 149-155. doi: 10.1016/j.lindif.2015.04.008
- Schellenberg, B. J. I., & Bailis, D. S. (2016). The two roads of passionate goal pursuit: links with appraisal, coping, and academic achievement. *Anxiety, Stress, & Coping*, 29, 287-304. doi: 10.1080/10615806.2015.1036047
- Schellenberg, B. J. I., Bailis, D. S., & Crocker, P. R. E. (2013). Passionate hockey fans: Appraisals of, coping with, and attention paid to the 2012-2013 National Hockey League lockout. *Psychology of Sport and Exercise*, 842-846. doi: 10.1016/j.psychsport.2013.06.004
- Schellenberg, B. J. I., Gaudreau, P., & Crocker, P. R. E. (2013). Passion and coping: relationships with changes in burnout and goal attainment in collegiate volleyball players. *Journal of Sport & Exercise Psychology*, 35, 270-280.
- Schellenberg, B. J. I., Verner-Filion, J., Gaudreau, P., Bailis, D. S., Lafrenière, M. -A. K., & Vallerand, R. J. (in press). Testing the dualistic model of passion using a novel quadripartite approach: A look at physical and psychological well-being. *Journal of Personality*. doi: 10.1111/jopy.12378
- Sherman, D. K., & Cohen, G. L. (2006). The psychology of self-defense: Self-affirmation theory. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (pp. 183-242). New York, NY: Academic Press.

- Spiller, S. A., Fitzsimons, G. J., Lynch, J. G., & McClelland, G. H. (2013). Spotlights, floodlights, and the magic number zero: Simple effects tests in moderated regression. *Journal of Marketing Research*, 50, 277-288.
- St-Louis, A. C., Verner-Filion, J., Bergeron, C. M., & Vallerand, R. J. (2018). Passion and mindfulness: Accessing adaptive self-processes. *The Journal of Positive Psychology*, 13, 155-164. doi: 10.1080/17439760.2016.1245771
- Steele, C. M. (1988). The psychology of self-affirmation: Sustaining the integrity of the self. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 21, pp. 261-302). San Diego, CA: Academic Press.
- Stone J., & Cooper, J. (2003). The effect of self-attribute relevance on how self-esteem moderates attitude change in dissonance processes. *Journal of Experimental Social Psychology*, 39, 508-515. doi:10.1016/S0022-1031(03)00018-0
- Tesser, A. (2001). On the plasticity of self-defense. *Current Directions in Psychological Science*, 10, 66-69. doi: 10.1111/1467-8721.00117
- Vallerand, R. J. (2015). *The psychology of passion: A dualistic model*. New York, NY: Oxford University Press.
- Vallerand, R. J., Blanchard, C. M., Mageau, G. A., Koestner, R., Ratelle, C., Léonard, M., & Gagné, M. (2003). Les passions de l'ame: On obsessive and harmonious passion. *Journal of Personality and Social Psychology*, 85, 756-767.
- Zanna, M. P., & Cooper, J. (1974). Dissonance and the pill: An attribution approach to studying the arousal properties of dissonance. *Journal of Personality and Social Psychology*, 29, 703-709.

Figure Caption

Figure 1. Experimental effect at each passion subtype for ratings of passion quantity and support for the Active Living Centre (ALC). Beta values and error bars representing 95% confidence intervals are reported. Negative values represent lower post-essay scores in the high-choice group compared to the low-choice group. Results for passion quantity control for baseline passion quantity. ● = Pure Obsessive Passion; ▲ = Pure Harmonious Passion; ■ = Mixed Passion; ♦ = Non-passion.