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TRANSITIONING OUT OF SPORT: THE ROLE OF GOAL-ADJUSTMENT PROCESSES FOR THE WELLBEING OF PASSIONATE ATHLETES.

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LE RÔLE DES PROCESSUS D'AJUSTEMENT DES OBJECTIFS POUR LE BIEN-ÊTRE DES ATHLÈTES PASSIONNÉS EN TRANSITION DE CARRIÈRE

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DEDICATION

“Prends la décision en fonction de ce que tu aimes,
et qui t’offre le plus de possibilités
pour aller au bout de tes objectifs.
Rien n’est impossible.”
— Paul Guilmette

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RÉSUMÉ

L'objectif général de cette thèse était de comprendre les mécanismes de transition de carrière d'un athlète à travers la théorie de l'autorégulation des objectifs. En intégrant des notions issues du Modèle Dualiste de la Passion (Vallerand et al., 2003 ; Vallerand, 2015) et de la théorie de la régulation émotionnelle (Roth et al., 2019) au processus d'autorégulation des buts (Wrosch et al., 2003), cette thèse ajoute à la littérature existante en observant les relations entre les variables clés telles que la passion pour le sport et les capacités d'autorégulation des émotions des athlètes en période de transition de carrière.

Le premier chapitre présente les défis auxquels les athlètes sont confrontés pendant la transition de carrière et l'importance de comprendre les facteurs sous-jacents qui pourraient faciliter ou entraver leur processus de transition. Une recension de la littérature portant sur la passion, l'autorégulation des objectifs, et l'autorégulation des émotions sera présentée en lien avec les objectifs de la thèse. Finalement, le premier chapitre se termine avec un aperçu des trois études empiriques qui composent la présente thèse.

Le deuxième chapitre présente les objectifs, les hypothèses, les méthodologies et les résultats des études. Le premier objectif général de ce programme de recherche était de comprendre le rôle des processus de désengagement et de réengagement sur le bien-être des athlètes lorsque la réalisation de leurs objectifs sportifs est menacée. Les résultats de l'Étude 1 ont démontré que le désengagement de ses objectifs est relié négativement au bien-être des athlètes, mais que cette relation est positivement modérée par l'ouverture des athlètes au réengagement vers de nouveaux objectifs. Ces résultats suggèrent que la possibilité de se réengager dans de nouveaux objectifs pourrait réduire l'effet négatif du désengagement du sport. L'objectif de l'Étude 2 était d'identifier si cette interaction se maintient lorsque la passion envers le sport est considérée, en espérant identifier le processus optimal pour tous les athlètes en transition de carrière. Premièrement, il a été constaté que l'influence positive du réengagement sur la relation entre le désengagement et le bien-être trouvé à l'Étude 1 était confirmée chez les athlètes avec une passion harmonieuse pour leur sport. Par conséquent, il semble que pour les athlètes harmonieusement passionnés, il est important que le désengagement soit accompagné d'un réengagement pour ne pas affecter négativement leur bien-être. Deuxièmement, les résultats de l'Étude 2 ont démontré que la simple capacité de désengagement serait bénéfique pour les athlètes obsessifs, mais que cette relation était négativement influencée par l'augmentation de

la capacité au réengagement. Ces résultats suggèrent que dans un contexte de passion obsessive, le processus *optimal* de régulation des objectifs face à un but inatteignable est différent, voire opposé, à celui des passionnés harmonieux. Spécifiquement, la capacité de désengagement à elle seule serait adéquate pour augmenter le bien-être des athlètes obsessifs. Pour mieux comprendre les divergences entre les processus optimaux de transition de carrière chez les athlètes passionnés identifiés à la deuxième étude, l'Étude 3 explore le processus d'autorégulation émotionnelle lorsque les athlètes doivent faire face à un but inatteignable. Les résultats de la troisième étude ont démontré que, d'une part, la passion harmonieuse était positivement liée au désengagement et au réengagement, et ce via la régulation émotionnelle intégrée. D'autre part, l'Étude 3 démontre que la passion obsessive est positivement reliée à la dérégulation émotionnelle, ce qui explique, du moins en partie, que la capacité d'autorégulation des objectifs est plus difficile pour les passionnés obsessifs.

Enfin, le troisième chapitre de cette thèse présente un résumé des résultats. Les implications théoriques et pratiques de la thèse sont discutées, suivies des limites méthodologiques du présent programme de recherche et des suggestions de recherches futures. Pour conclure, nous soulignons la complexité des mécanismes sous-jacents à la transition saine de carrière sportive et soulignons l'importance de promouvoir un mode de vie équilibré pour les athlètes de haut niveau.

Mots clés : passion, auto-régulation, objectifs, athlètes, émotions

ABSTRACT

The general goal of this dissertation was to understand the mechanisms behind an athletes' career transition through the lens of goal-regulation theory. By integrating notions from the Dualist Passion Model (Vallerand et al., 2003; Vallerand, 2015) and the theory of emotional regulation (Roth et al., 2019) into the process of self-regulation of goals (Wrosch et al., 2003), this dissertation expanded on the existing literature by observing relationships between key variables such as passion for sports and the emotion regulation capacities of athletes when faced with goal achievement threats.

The first chapter presents the challenges that athletes face during career transition and the importance of understanding the underlying factors that could facilitate or hinder their transition process. A literature review of the theories of passion and self-regulation of goals and emotions will introduce the objectives of this dissertation along with an overview of its three empirical studies.

The second chapter presents the goals, hypotheses, methodologies, and results of the studies. The first general objective of this research program was to understand the role of disengagement and reengagement processes on the wellbeing of athletes when faced with threats to goal achievement. Results from Study 1 showed that goal disengagement has a negative relationship with wellbeing, and that this relationship is positively moderated by athletes' openness to reengagement in new alternative goals. These results suggest that possibility of reengaging in new goals when the athletic goal can no longer be achieved could lower the negative effect of letting go. The goal of Study 2 was to test whether the interaction between goal disengagement and reengagement held true when passion for one's sport is taken into consideration, in the hopes of better understanding the optimal career transition process for all athletes. First, it was found that the positive influence of reengagement on the disengagement-wellbeing relationship found in Study 1 held true for harmoniously passionate athletes. Therefore, for harmoniously passionate athletes, it is important that disengagement is accompanied by reengagement abilities to maintain high levels of wellbeing when goal-adjustment is required. Second, results of Study 2 showed that the more obsessive athletes were towards their sport, the more likely they would benefit from having high disengagement abilities when goals became unattainable, but that this relationship would be negatively impacted by having high reengagement abilities. For obsessive athletes who have the ability to reengage, letting go of their athletic goals might create a sense of guilt for not reinvesting their energy into their athletic career. Our results therefore underlined the fact that the more open obsessive athletes were about

disengaging from their athletic pursuit, the less reengagement seemed to be a positive solution for them. Therefore, the third aim of this dissertation was an attempt at explaining the divergent relationships between obsessive and harmonious passion in their optimal goal-regulation strategies by investigating the role of emotion regulation. Results from our third study confirmed that obsessive and harmonious passion for sports were differentially related to goal-adjustment processes through opposing emotion regulation responses. On the one hand, harmonious passion was found to be positively related to goal disengagement and reengagement through the integration of their emotions into consciousness. On the other hand, Study 3 demonstrates that obsessive passion is positively related to emotional dysregulation, which could explain why the ability to self-regulate unattainable goals is more difficult for obsessive athletes. Results from all three studies generally supported our hypotheses.

Finally, the third chapter of this dissertation presents a summary of the research findings. The theoretical and practical implications of the dissertation are addressed, followed by the methodological limitations of the studies and suggestions for future research directions. To conclude, we highlight the complexity of the mechanisms underlying a healthy athletic career transition and stress the importance of promoting a balanced lifestyle for high-level athletes.

Key words : passion, self-regulation, goals, athletes, emotions

INTRODUCTION

"Don't cry because it's over,
smile because it happened."
—Dr. Seuss

The termination of a sports career is a significant time in an athlete's life (Alfermann & Stambulova, 2007). Athletes are often very young when they transition out of sport and can often be at a loss with what to tackle next. Sports provide a structured environment by establishing goals for the athletes and demanding high discipline. Coming out of such a supervised and structured environment, athletes can experience difficulties dealing with life on their own once they transition out of sport (Vickers, 2014). This adjustment requires a change in self-perception, social environment and lifestyle (International Olympic Committee, n.d.).

Goal theory depicts work towards desired goals to be a major contributor to a person's quality of life. Both in the short run and on a long-term basis, the pursuit of personally meaningful goals, such as pursuing an athletic career, is important because goals are the building blocks that structure people's lives and imbue life with purpose (Ryff, 1989; Heckhausen et al., 1999; Mens et al., 2014; Scheier et al., 2006). In very concrete ways, goals motivate adaptive behaviours and provide the groundwork for higher levels of wellbeing (Mens et al., 2014). Goals do not only provide direction for action, but they also help to define who a person is (Mens et al., 2014), especially for athletes whose identity is built around their sport (Park, et al., 2013). In the North American culture, goal attainment has been shown to facilitate wellbeing in most people (Sheldon et al., 2002). Because the sports environment provides athletes with many opportunities

for goal setting, failure to achieve these goals may become a primary concern for wellbeing because so much pressure is associated with goal attainment, especially at a highly competitive level where goal achievement becomes more difficult. Therefore, goal-adjustment theory proposes that the key to continued happiness is not only in the pursuit of intrinsically motivated goals but also in the self-regulation of these goals, which involves knowing how to adapt to challenges and unattainable goals in a way that promotes wellbeing. According to goal-adjustment theory, the most adaptive response to an unattainable goal is goal-adjustment, which entails both *disengaging* from unattainable goals and *reengaging* in alternative goals (Wrosch et al., 2003a). As Lyubomirsky (2008, p. 42) explains:

> Becoming happier means learning how to disengage from overthinking about both major and minor negative experiences, learning to stop searching for all the leaks and cracks—at least for a time—and not letting them affect how you feel about yourself and your life as a whole. A different activity can actually lift your mood and make it easier for you to cope in the future. A second strategy is to—stop!—you can even yell it to yourself—and think about something else (Leslie et al., 2010, p. 9).

Many collegiate athletes will face involuntary and unanticipated sports exits during the course of their campus careers, rendering the fundamental goal of playing their sport at the collegiate level unattainable (Blinde & Strata, 1992; Lavallee et al., 1997; Wippert & Wippert, 2010). Erpič and colleagues (2004) showed that such exits represent serious losses for collegiate athletes, creating responses that parallel those associated with the stage theory of grief developed by Kubler-Ross (1969). In circumstances such as these, and indeed across the many instances in which collegiate athletes face unattainable goals, disengagement—the active withdrawal of both effort and commitment from their sport—may protect athletes from depression and liberate resources to pursue new goals (Leddy et al., 1994; Webb et al., 1998; Werthner & Orlick, 1986; Stephan, 2003), whereas reengagement may help to renew athletes' sense of meaning and purpose in life (McKnight et al., 2009; Lavallee, 2005).

Unfortunately, letting go and moving on is not always the easiest thing to accomplish, especially when the unattainable goal is cherished and autonomously motivated (Ntoumanis et al., 2014; Smith & Ntoumanis, 2014; Guilmette, 2015; Mulvihill, 2015; Mulvihill et al., 2018). Responding to Mens et al.'s (2014) call to investigate the factors that can facilitate the goal-adjustment processes, research on athletes' goal regulation has explored the influence of the goal motives on the ease of disengagement and reengagement in alternative goals (Smith & Ntoumanis, 2014), suggesting that autonomous goal motives were negatively associated with disengagement but positively linked to alternative reengagement. In contrast, controlled motives were found to be unrelated to both.

The present dissertation looks to further develop this line of research by arguing that athletes are not only highly motivated to practise their sport, they are also passionate about their sport. Thus, in the present dissertation, goal-adjustment responses (i.e., disengagement and reengagement: e.g., Wrosch et al., 2003a) are examined in relation with passion for one's sport (harmonious versus obsessive; Vallerand, 2015).

In addition to investigating how passionate athletes' goal-adjustment response can contribute to their wellbeing, the present research program positions emotional regulation as another major contributor to one's quality of life, which needs to be examined in conjunction with goal-adjustment. Indeed, because passion comes from a strong inclination and feelings of love and personal interest for an activity (Vallerand et al., 2003), when that activity is threatened (such as is the case in career transition from sports), it is possible that the individual experiences negative emotions such as sadness and fear. How one regulates those emotions could be crucial in the decision-making and goal-regulating process of athletes. The present dissertation will explore these relationships to fill the gap in the literature and further develop notions about emotion and goal regulations (Roth, et al., 2019).

The present dissertation includes three chapters. The first chapter presents the problem that the research program is tackling and its relative importance in today's society, followed by a literature review of the theories of passion and self-regulation of goals and emotions, and will introduce the objectives of this dissertation along with an overview of its three empirical studies.

In chapter two, the goals, hypotheses, methodologies, and results of the studies are presented. Three general objectives were proposed for this research program; (1) understanding the role of disengagement and reengagement processes on the wellbeing of athletes, (2) understanding how passion may influence the unique role of goal-adjustment processes during athletes' career transition and its relationship to their wellbeing, and (3) understanding how emotion regulation may explain the relationship between passion and goal regulation. To attain these objectives, three studies were completed. Study 1 sought to investigate the role of alternative goal reengagement in the relationship between goal disengagement from competitive sport and athletes' wellbeing. It was hypothesized that reengagement would positively moderate the negative impact of disengagement on athletes' wellbeing, such that higher reengagement capacities in alternative goals would increase student athletes' wellbeing when faced with disengagement from sports. Study 2 explored the role of passion for one's sport by investigating its moderating effect on the relationship between disengagement and wellbeing and how it interacted with reengagement when faced with career transition. It was hypothesized that the type of passion for sports would further increase or decrease the moderating effect of reengagement on the relationship between disengagement and wellbeing. Finally, Study 3 investigated whether the differences in the goal-adjustment responses based on the athletes' type of passion for their sport could be explained by their emotion regulation abilities. It was hypothesized that a harmonious type of passion for sports would be positively related to a more integrated type of emotion regulation, which would explain the positive relationship

between harmonious passion and goal regulation. Contrastingly, obsessive passion for sports was hypothesized to be positively linked with emotional dysregulation, which would explain the negative relationship between obsessive passion and goal-regulation.

In the third and final chapter, the present research's findings are summarized and discussed. The theoretical and practical implications of the present dissertation are addressed, followed by the methodological limitations of the studies and suggestions for future research directions.

CHAPTER I

LITERATURE REVIEW

1.1 Athletes' Career Transition

1.1.1 Identity

Athletes' career transition has generated much interest in the past several years (Park et al., 2013), as this is a critical period in an athlete's life. Athletic identity was identified as one of the key variables that impact elite athletes in their transition to retirement. Brewer and colleagues (1993) defined athletic identity as the degree to which an individual thinks and feels like an athlete. Athletes with a strong athletic identity experience a loss of identity at the time of their sport career termination (e.g., Kerr & Dacyshyn, 2000; Lally, 2007), and need a long period of time to adjust to post-sport life (e.g., Grove et al., 1997; Warriner & Lavallee, 2008). The possession of a strong and exclusive level of athletic identity was also found to be associated with adjustment difficulties following retirement from sport (Brewer, 1993; Kornspan & Etzel, 2001; Tasiemski et al., 2004) mainly because those individuals with a strong athletic identity are less likely to plan for their future careers before retirement (Pearson & Petitpas, 1990; Gordon, 1995; Lavallee et al., 1997) Moreover, it was found that elite athletes have difficulty with career decision-making, as high levels of athletic identity are associated with indecisiveness, lack of knowledge about occupations, and internal

conflicts about career choices (Albion & Fogarty, 2005). Therefore, having a strong athletic identity can be said to negatively impact the quality of athletes' career transitions (Park et al., 2013).

1.1.2 Development Outside of Sport

Furthermore, studies have examined how vocational and life skills development outside of sport could positively predict athletes' career transitions. Results showed that former professional athletes had difficulties dealing with non-sporting situations, and experienced delayed identity shifts because of a lack of non-sporting life experiences during their sports careers (Kane, 1991; Muscat, 2010).

A total of three studies reported positive correlations between the balance of sporting and non-sporting lives prior to retirement and the quality of career transition (Harrison & Lawrence, 2003, 2004; Kerr & Dacyshyn, 2000, Park et al., 2013). Kerr and Dacyshyn (2000) revealed that retired gymnasts, who had found the right balance between sporting and non-sporting lives during their athletic careers, reported higher life satisfaction after their retirement compared with those who did not have a balanced life while being invested in their competitive sport. Harrison and Lawrence (2003, 2004) found that student athletes perceived balancing academic and athletic activities during their sport participation as a significant predictor for post-sport life adjustment. This gives us an indication that having a plan B through academia may be beneficial during athletes' career transition.

1.1.3 Academics

Educational status of athletes relates to their career transition process and is reported to have positive correlations with the quality of the athletic career transitions (Park et al., 2013). Indeed, low educational attainment is related to vocational difficulties during the career transition process (Marthinus, 2007; Stronach & Adair, 2010). In addition, Williams (1991) found that athletes' educational and college graduation status influence both short-term and long-term adjustment after retirement from sports. Educational involvement and career planning are also positively associated with post-sport life adjustment among college athletes (Lantz, 1995). Relatedly, studies have found that athletes attribute their limitation of life choices after the termination of their sport career to a lack of personal development (Chow, 2001; Stronach & Adair, 2010; Swain, 1991).

1.2 Normative Versus Non-Normative Career Transition

The literature defines normative transitions as relatively predictable. Contrastingly, non-normative transitions are often associated with stress and uncertainty of outcomes (Stambulova & Wylleman, 2014). Normative athletic career transitions include, for example, planned retirement and are associated with positive adaptation to the post-career experiences including studies, work, identity change, and renewal of social networks (Stambulova & Wylleman, 2014). The predictability of normative transitions creates opportunities for athletes to prepare and plan for ventures to which direct their time and energy. Alternatively, non-normative transitions are less predictable, such as transitions caused by factors like an injury, deselection, not qualifying, being sidelined, being traded, and being downgraded. Subjectively, they are often associated with stress and uncertainty about whether the situation will change for the better or for the worse

(Wylleman et al., 2004). Kleiber & Brock (1992) found that athletes invested in playing professional sport whose career had ended following an injury showed long-term low self-esteem and life dissatisfaction after 5 to 10 years. Moreover, according to a study by Blinde and Stratta (1992), athletes who dealt with career-ending injuries equated their feelings to coping with death and loss. Regulatory responses seemed to parallel Kubler-Ross's (Kubler-Ross & Kessler, 2005) stages of grief theory—shock, denial & anger, bargaining, depression, and acceptance. Learning to regulate these emotional responses, especially to a non-normative career transition, could be an important factor to help athletes transition out of sports while protecting their general wellbeing and sense of self.

1.3 Self-Regulation of Unattainable Goals

To avoid the adverse consequences that follow the experience of goal failure, such as career-ending injury, Wrosch and colleagues (2003) have suggested that people need to engage in adaptive self-regulation of goals. More specifically, when it is no longer possible to make progress towards a desired goal, such as when it is no longer possible for athletes to pursue their athletic career due to severe injury (or other factors such as deselection, age, or other non-normative reasoning), individuals should engage in self-regulation responses aimed at disengaging effort and commitment to the said goal and reengaging towards the pursuit of other meaningful goals. This process of adaptive goal-adjustment keeps individuals engaged in the pursuit of meaningful goals, giving a sense of purpose and direction, while contributing to high levels of wellbeing, both physically and psychologically (Miller & Wrosch, 2007; Wrosch & Scheier, 2020). While the addressed literature has shown that adaptive goal-regulation can benefit individuals' wellbeing (Wrosch et al., 2003b), a major concern remains towards understanding the factors that could facilitate the process of letting go and reengaging

in new alternative goals. According to the lifespan theory of control, goal attainment processes is the primary function of the motivational system that organizes human behaviour (Heckhausen, 2000; Heckhausen & Schulz, 1993). The theory states that primary control striving towards goal attainment is the most fundamental and universal motivational tendency of human behaviour and it relates to this basic strive to control the environment (Heckhausen & Schulz, 1993, 1995). Because successful attainment of desired goals was found to facilitate subjective wellbeing and physical health (Bandura, 1997; Carver & Scheier, 1981, 1998; Emmons, 1986, Heckhausen et al., 2010), it is understandable that most damage to wellbeing can be caused by goal attainment failure (Carver & Scheier, 1990; Higgins, 1987). Therefore, to protect motivational resources for primary control striving, individuals need to regulate their internal responses by involving secondary-control processes. Among such processes are those that help the individual to disengage from a goal and protect the self against adverse consequences of failure and loss (Heckhausen, 2000; Heckhausen & Schulz, 1993; Schulz & Heckhausen 1996). Fortunately, the adverse effects of goal attainment failure can be counteracted by proper goal-adjustment responses (Mens et al., 2014; Wrosch & Schulz, 2019). Research on goal-adjustment processes is therefore crucial, although little is known about the factors that contribute to the success of proper goal-adjustment.

The current research program proposes to address the gap in the literature by exploring variables that could further our understanding of the goal-adjustment responses (i.e., disengagement and reengagement), specifically in high-level athletes. Such research could have important implications in understanding the factors that promote adaptive self-regulation responses to unattainable goals and, therefore, could encourage new ways to greater long-term wellbeing, especially for athletes who are often confronted with goal challenging situations at a very young age.

1.4 Goal Regulation

Both achieving and not achieving goals is a common psychological experience for athletes (Sarkar & Fletcher, 2014). Studies suggest that people confront on average one unattainable goal in a central life domain each year (Mens et al., 2014). To avoid negative consequences of goal failure on psychological wellbeing, it has been suggested that people engage in adaptive self-regulation through one of two broad categories of responses: goal engagement and goal-adjustment (Carver & Scheier, 1990, 1998; Heckhausen & Schulz, 1995; Kukla, 1972; Wright & Brehm, 1989). Goal engagement refers to individuals' attempts to achieve the goals by overcoming difficulty in a way that allows for continued investment of time and effort towards attaining a threatened goal. Goal-adjustment, in contrast, refers to individuals' attempts to actively restructure goals that have become blocked, unattainable, or prohibitively costly (Haase et al., 2013; Heckhausen et al., 2010); that is, by abandoning the threatened goal, managing the adverse emotional consequences of failure, and engaging in other meaningful goals (Mens et al., 2014). As seen in Figure 1.1 (see Annex A), the adaptive value of these two categories of responses depends on the availability of individuals' resources to help them attain, or not, their threatened objectives (Mens et al., 2014). Goal disengagement is particularly adaptive at older ages, when control opportunities are limited (e.g., supported cross-sectionally by Wrosch et al., 2000). In contrast, engagement or reengagement is more beneficial at younger ages, such as with athletes in early life career transition, when opportunities are plentiful (Haase et al., 2013; Wrosch & Schulz, 2019). Therefore, it could be said that goal disengagement alone could be detrimental for the wellbeing of younger individuals. It must be noted that both goal-adjustment processes are independent processes, but that the use of goal-reengagement might benefit individuals who are faced with an unattainable goal, regardless of whether they have previously disengaged or not (Wrosch et al., 2013;). Goal reengagement may provide a sense of purpose after

a self-relevant goal is let go, thereby preventing a person from experiencing feelings of aimlessness and emptiness (Carver & Scheier, 1999; Haase et al., 2013; Ryff,1989; Wrosch & Scheier, 2020).

In the present thesis, we focus on these two emblematic aspects of the goal-adjustment process (lower section of Figure 1.1; see Appendix A)—disengagement and reengagement in goal-striving—both of which are associated with the motivational theory of lifespan development (MTD; Heckhausen et al., 2010) and, specifically, its original lifespan theory of control (Heckhausen & Schulz, 1993, 1995; Schulz & Heckhausen 1996). This theory was conceptualized to understand how individuals activate specific self-regulation processes (disengagement and reengagement) to manage the experience of unattainable goals (Mens et al., 2014).

1.4.1 Goal-Adjustment

Goals may be unattainable for a variety of reasons, including biological, genetic, social, or personal constraints or unresolvable conflicts with other goals (Wrosch et al., 2003a; Wrosch, et al., 2013). The ease with which individuals generally adjust to unattainable goals is referred to as *goal-adjustment capacity* (Wrosch et al., 2003b; Wrosch et al., 2007; Wrosch & Scheier, 2020), which encompasses disengagement and reengagement capacities. *Disengagement capacities* reflect the ease with which individuals withdraw both effort and psychological commitment from goals deemed unattainable or too costly (Wrosch et al., 2003a). Withdrawing effort involves scaling back or halting behavioural efforts to attain goals, while withdrawal of commitment requires reframing goals that are unattainable such that they are no longer necessary for satisfaction. On the other hand, *reengagement capacities* involve identifying and committing to new meaningful goals (Wrosch et al., 2003b).

Goal-adjustment capacities impact quality of life across multiple domains (for a review, see Wrosch et al., 2013a, 2013b) and are associated with a range of positive outcomes for psychological wellbeing and physical health. For example, individuals with greater disengagement and reengagement capacities report lower levels of depressive symptoms, negative affect, perceived stress, and intrusive thoughts (Wrosch et al., 2003b; Wrosch et al., 2007; Wrosch & Sabiston, 2013; Wrosch & Scheier, 2020), more normative diurnal patterns of cortisol secretion (Wrosch et al., 2007), and higher levels of purpose in life and positive affect (Wrosch et al., 2011; Wrosch & Sabiston, 2013; Wrosch & Schulz, 2019).

The first goal of the current research project will contribute to the existing literature by investigating the impact of goal disengagement on athletes' wellbeing when faced with an unattainable goal. The youth of the population under study would suggest that there is a greater opportunity for reengagement, therefore Study 1 will examine these relationships one step further by assessing the moderating role of reengagement as a protective factor for athletes' wellbeing during career transition. By doing so, the first study is looking to replicate the findings of past studies (e.g.; Wrosch et al., 2003b; Wrosch et al., 2007; Wrosch & Scheier, 2020) showing the interactions between goal disengagement and reengagement in an sample of young athletes. By having a better understanding of the distinctive roles of the goal-adjustment processes, we can better prepare athletes to face their career transition and protect their wellbeing.

1.4.2 Impacts on Goal-Adjustment

Previous studies investigating university athletes' responses to an unattainable personal goal in sports have shown that goal disengagement is harder when a goal is autonomously motivated, in other words, when a goal is pursued by volition and

integrated in the sense of self. Contrastingly, autonomous motivation was also found to positively predict reengagement when the original goal was deemed unattainable (Smith & Ntoumanis, 2014; Ntoumanis et al., 2014; Guilmette, 2015; Mulvihill, 2015; Mulvihill et al., 2018). Based on these research findings, autonomous motives towards goal pursuit could help athletes transition out of sports by gearing them towards new goals, but would not protect them against the potential negative impact of the realization of an unattainable goal. Ntoumanis and colleagues (2014) went one step further by analyzing the potential role of rumination in explaining the greater difficulty of autonomously motivated individuals in the disengagement process from unattainable goals. Results showed that autonomous motives positively predicted the cognitive ease of reengagement especially when the current goal unattainability was perceived early on. However, the longer it took them to realize goal unattainability, the harder it became to disengage cognitively and emotionally from the pursued goal (despite reengagement) partly because they ruminated more (Ntoumanis et al., 2014). Finally, while other studies have repeatedly shown that controlled goal motives were not linked with goal regulation capacities (Smith & Ntoumanis, 2014; Ntoumanis et al., 2014; Guilmette, 2015; Mulvihill, 2015), this study found that when accounting for feelings of shame and embarrassment, there was a significant negative indirect effect of controlled motives on disengagement. Due to the often-competitive nature of sports-related goals and the public display of the performance, when an externally motivated goal is rendered unattainable, it could be comprehended by the athlete as personal failure to succeed and could solicit feelings of shame and embarrassment (Ntoumanis et al., 2014). Disengagement would be then rendered more difficult as it could be perceived as weak and cowardly. Not to persevere in the face of defeat would be once again proof of their inadequacy to achieve their goals.

Difficulty with goal disengagement could also be found in passionate individuals. The dualistic model of passion distinguishes passion in terms of how the passionate activity

is internalized into one's identity (Vallerand et al., 2003), which refers to an individual's relevant self-regulation functions that such features serve (Schlenker, 1985). The current research program therefore proposes to examine how passion in an athletic context influences student athletes' self-regulation processes, specifically their goal-adjustment processes, based on the type of passion they internalized in order to have a better understanding of athletes' career transition.

1.5 Passion

In this era, being passionate seems to be, more often than not, a prerequisite for happiness in goal-striving. Having a passion for an activity helps us persist and improve at it (Vallerand, 2015), in a way, it is what helps us achieve our goals and, most importantly, appreciate the process, so that it is not just a means to an end. Passion is motivational in nature (Vallerand, 2015) and is defined as a strong inclination to pursue an activity that we love, that we find important, meaningful, in which we invest time and energy (Vallerand et al., 2003), and that defines us (Vallerand, 2015). It is a striving, a goal toward an object that is pleasurable and that is attributed high value (Vallerand, 2015). The dualistic model of passion (Vallerand et al., 2003) posits that there are two distinct types of passion that develop based on the type of internalization process of the activity that takes place (Deci & Ryan, 2000; Sheldon et al., 2002; Ryan & Deci, 2017), harmonious and obsessive passion. Harmonious passion results from an autonomous internalization of the activity, whereas obsessive passion results from a controlled internalization of the activity into one's identity (Vallerand et al., 2007).

Being passionate whether it is harmoniously or obsessively, requires an internalization of the activity into one's identity (Vallerand, 2015); therefore, passion could accentuate the adverse consequences experienced by athletes during career transition. Relatedly,

obsessively passionate individuals tend to put all their eggs in the same basket and thus possibly reducing one's life experience outside of the passionate activity (Vallerand et al., 2003). In contrast, having a harmonious passion would seem to lead to more diversified experiences and a more balanced life (Vallerand, 2015).

1.5.1 Harmonious Passion

Harmonious passion results from an autonomous internalization of the activity into the person's identity (Vallerand, 2015). Because of this autonomous internalization process, harmonious passion provides full access to adaptive self-processes (Vallerand, 2015), thus, one can deal with success and failure on an even keel. With harmonious passion, the activity is loved and is meaningful, therefore individuals should be more likely to display high levels of persistence in the activity (Vallerand, 2015). Furthermore, when prevented from engaging in their passionate activity, individuals with a harmonious passion should be able to focus their attention and energy on other life tasks that need to be engaged in. Moreover, individuals with harmonious passion have an open and non-defensive style of activity engagement, which should lead them to learn from failure rather than feel threatened by it (Vallerand, 2015). With harmonious passion, the person remains in control of the activity. If conditions change and the situation dictates that it is more adaptive to stop engaging in the activity for a while—e.g., when an athlete gets injured—, one can readily do so with little emotional suffering (Rip et al., 2006). Thus, engagement in the passionate activity can be seen as flexible when harmonious passion is at play (Vallerand, 2015). Overall, harmonious passion leads to positive experiences, including positive emotions during activity engagement, optimal self-growth, and should protect one from experiencing psychological ill-being when faced with activity engagement threats (Vallerand, 2015). Although being passionate means that the activity is loved and is meaningful, the

passions are not always harmoniously integrated. The dualistic model of passion considers this by describing obsessive passion as the other side of the coin.

1.5.2 Obsessive Passion

Obsessive passion results from a controlled internalization of the activity into the person's identity. Because obsessive passion stems from a controlled internalization, obsessively passionate individuals should be prevented from full access to adaptive self-processes (Vallerand, 2015). Although they are still oriented toward an activity that they love and that is consonant with their identity, obsessively passionate individuals may experience less adaptive outcomes, and even suffer from some maladaptive consequences (Vallerand, 2015), especially following threatening events such as failure and losses. Multiple studies, including studies by Mageau and Vallerand (Mageau & Vallerand, 2007; Mageau et al., 2009; Mageau et al., 2011), have shown that people with an obsessive passion rely more on their passionate activity to derive self-esteem than people with a harmonious passion (Lafrenière et al, 2011; Stenseng & Dalskau, 2010). Mageau and her colleagues (2011) also found that having an obsessive passion is linked to self-esteem being contingent on the individual's performance at the passionate activity. In other words, obsessively passionate individuals are more impacted by the wins and losses than their harmonious counterparts. In fact, the self-esteem of people with a harmonious passion for their activity did not fluctuate based on their performance (Mageau et al., 2011). Moreover, obsessive passion can often lead people to engage in the activity when it is ill-advised to do so, as individuals experience an uncontrollable urge to engage in the activity (Vallerand, 2015). Thus, individuals with obsessive passion seem to be controlled by the passionate activity (Vallerand, 2015). A major consequence of such a controlled engagement is that individuals may feel threatened by, rather than learn from, failure. These results suggest

that obsessively passionate athletes could be more reactive to retirement from sport, especially if they are not retiring from their own volition. The long-term impact of self-threats for obsessively passionate individuals may take its toll on their mental health (e.g., burnout), because they tend to mobilize more energy into the activity rather than let it go. Therefore, if the situation dictates that the activity should no longer be pursued, obsessively passionate individuals may not be able to do so. Even if they could, obsessive individuals would have difficulty letting go without experiencing some emotional suffering (Vallerand, 2015). Thus, engagement in the passionate activity can be seen as rigid when obsessive passion is at play, which could potentially have negative effects on wellbeing (Vallerand, 2015). Considering that athletes can be passionate towards their engagement in sports, passion for one's competitive sport may have important implications for the career transition of athletes.

1.6 Passionate Athletes

According to Vallerand and Miquelon (2007), many young adults (25 and under) associate emotions engendered by sports to a passionate feeling. Interestingly, this phenomenon is reported by both professional and non-professional athletes. Having a passion for one's sports influence one's behavioural and cognitive patterns as well as one's wellbeing (Vallerand & Miquelon, 2007).

Unfortunately, as we have seen previously, not all types of passion have positive repercussions on wellbeing. Research in sport has supported the contention that harmonious and obsessive passions have distinct motivational consequences (Vallerand, 2015; Vallerand et al., 2003, Vallerand et al. , 2006 ; Vallerand et al., 2008). For example, Rip and colleagues (2006) showed that dancers who were harmoniously passionate had less suffering from acute injuries, were more problem-focused and had

less health-undermining behaviours when injured, and generally engaged in self-initiated injury prevention. Contrastingly, dancers who had an obsessive passion for dance had prolonged suffering from chronic injuries, were more rigid in their dance involvement when injured, and tended to report that pride could prevent them from obtaining adequate treatment. Obsessive passion could therefore constitute a risk factor for sustaining chronic injuries in sports and inadequate recovery (Gustafsson et al., 2011), whereas harmonious passion would be the more optimal foundation for long-term, well-balanced involvement in sports (Rip et al., 2006). Other studies also showed that obsessive passion is associated with a number of psychological costs: rigid persistence (Vallerand et al., 2003), rumination in the absence of the activity (Ratelle et al., 2004), negative affect (Vallerand et al., 2003) and avoidance goals (Vallerand et al., 2008). Moreover, Gustafsson and colleagues (2011) found that athletes with an obsessive passion scored higher on a burnout inventory, on perceived stress and negative affect, and lower on positive affect. This could indicate that obsessively passionate athletes may have a harder time regulating their emotions when it comes to their sport. In contrast, harmonious passion is positively related to life satisfaction, positive affect and vitality and inversely related to negative affect and cognition (Vallerand et al., 2008). Based on these findings, one might expect harmonious passion to be related to adaptive, and obsessive passion to be related to a maladaptive, goal and emotion regulation.

Though it has been established that harmonious passion entails a sense of autonomy and control over activity engagement and usually leads to non-defensive behaviour, recent research has pointed out that this sense of control may elicit more defensive responses when the decision to pursue an activity is under attack (Schellenberg & Bailis, 2019). Across four studies using both correlational and experimental methods, Schellenberg and Bailis (2019) found that harmonious passion predicted stronger avoidance responses to messages that suggested one should stop pursuing their passion,

as well as stronger negative evaluations of these messages compared to obsessive passion. The authors proposed that being harmoniously passionate for an activity could make people vulnerable to act defensively when the moral value of their choice of passion is threatened (Schellenberg & Bailis, 2019). This study points to the importance of understanding what makes each side of the duality of passion vulnerable to gain a more complete picture of how both passion dimensions operate when people are faced with adversity. These recent findings may have implications for the career transition of harmoniously passionate athletes.

1.7 Passion and Goal-Adjustment

When a main passionate activity is harmoniously internalized in identity, the self-growth that is attained within this activity should give access to the optimal use of self-processes that can also generalize to other life domains (Vallerand, 2015). Indeed, knowing how to best operate within a given activity in which one excels can lead to positive ripple effects through the use of effective self-processes outside the passionate activity in other aspects of one's life. Another reason why harmonious passion may lead to the highest levels of self-growth is that one's passion for a given activity may lead one to engage in outside activities that may further self-growth in other life spheres (Vallerand, 2015). To this end, people, should be able to adapt well to the situation and focus their attention and energy on more than one activity that needs to be engaged in, given that they are harmoniously passionate. A great example of this is Laurent Duvernay-Tardif, a Canadian offensive lineman for the Kansas City Chiefs of the American National Football League (NFL). In 2017, he wrote an essay for The Players Tribune (Duvernay-Tardif, 2017) about his career path, both as a medical doctor and a professional football player. In his narrative, you can easily catch a glimpse of how

goal-regulation can be taught through passionate activities, the importance of these skills, and how they can later be transferred to other domains:

> Playing in the NFL has taught me how to deal with failure in a way I've never experienced before. You can practise really hard and be at the very top of your art, but sometimes that's still not enough to win a game. Playing football at this level has instilled in me a certain sense of resilience that has definitely helped me in my pursuit in medicine. Just like you can't win every game, you won't always have a successful outcome with every patient. What is in your control is how you deal with loss and disappointment. Learning how to keep a clear mind so that I can take lessons from every experience, regardless of the outcome, has definitely made me a better physician, as well as a better football player.

The self-growth that Duvernay-Tardif has acquired through sports gives him access to the optimal use of secondary-control processes (such as reappraisal and reengagement) that can help him mediate the adverse consequences of a bad outcome whether in sports or in other life domains (Vallerand, 2015; Heckhausen, 2000; Heckhausen & Schulz, 1993, 1995). Therefore, it could be hypothesized that having a harmonious passion would facilitate greater reengagement capacities as it increases secondary-control processes in the face of goal failure or loss and increases the chances of individuals having other interests to turn to as they are living are more balanced life (Vallerand, 2015). Contrastingly, having an obsessive passion for sports could hinder athletes' reengagement abilities such that they might be overwhelmed and disorganized when face with difficulties that challenge their abilities to attain their primary goal-striving.

Results of ongoing research on the participation of high school students in sports show that sport's involvement in school could increase students' intrinsic motivation for school (RJ Vallerand, personal communication, June 28, 2017; Shulruf, 2010). The structured environment provided by teachers and other students, combined with new possibilities of goal-achievement in a new domain of interest, could be a good avenue

for athletes to reengage in. These findings on educational attainment, career planning, and self-development resonate with research on harmonious passion, where greater involvement in multiple life spheres can better prepare individuals to self-regulate and face challenges (Vallerand, 2015; Schellenberg & Bailis, 2015). On the other hand, individuals with an obsessive passion for their sport might have a harder time balancing goals in multiple life spheres as all their time and energy tend to be focused on their passionate activity. Obsessive passion could hinder reengagement capacities as it decreases the chances of individuals of having other interests to turn to, therefore diminishing access to secondary-control processes (Vallerand, 2015).

Following the theorized model, the second goal of the current research program is to examine how athletes' types of passion for sports could influence their goal-regulation capacities when faced with an unattainable goal. Research has yet to investigate these relationships, therefore, Study 2 will contribute to the existing literature on the dualistic model of passion by expanding knowledge to how passion could influence the relationships between goal-regulation capacities of athletes and their wellbeing during career transition.

1.8 Passion and Emotions

Schellenberg, Verner-Filion, and Vallerand (2020), passion is an experience toward something and is therefore conceptualized as motivational in nature by the Dualistic Model of Passion. Emotion, on the other hand, can be understood as the result of a passionate pursuit, since passion can lead to different affective experiences (Vallerand, 2015). Having made that distinction, recent research has explored the differences in emotional outcomes based on the type of passion one has. Because harmoniously passionate individuals tend to be fully engaged in the activity, they can more easily

experience and integrate all the positive emotions that come with participating in the activity (Schellenberg et al., 2020; Philippe et al., 2010; Verner-Filion & Vallerand, 2018). With obsessive passion, there is a sense of lack of control that comes with the engagement in the activity (Schellenberg et al., 2020; Vallerand, 2015). Therefore, pursuing the activity should lead to less positive feelings and even create some negative feelings such as anxiety, guilt, and shame (Verner-Filion et al., 2014; Vallerand, et al., 2006; Vallerand, 2015; Lafrenière et al., 2008; Lafrenière et al., 2012). Similarly, Schellenberg and colleagues (2020) postulated that, with obsessive passion, the activity occupies an overwhelming place in one's identity which should lead to dramatic increases of positive emotions following success, but obstacles and failures could lead to dramatic increases in negative emotions. Leaving obsessive passionate individuals to deal with an "emotional rollercoaster" (Schellenberg et al., 2020). Supporting these hypotheses, results from a study on the dualistic model of passion from Verner-Filion and colleagues (2018) revealed that obsessive passion may be linked with greater emotional reactivity to the experiences of success and failure in sport. Specifically, it was found that "obsessive passion was associated with higher levels of positive affect following success, as well as higher levels of negative affect following failure" (Verner-Filion et al., 2018, p. 280). Moreover, Schellenberg and Gaudreau (2020) found that harmonious passion positively predicted savouring when faced with positive outcomes, whereas obsessive passion predicted less savouring and greater dampening of emotions, possibly because obsessively passionate individuals experience their emotions as overwhelming and as a loss of control.

1.9 Emotion Regulation

Under the umbrella of self-regulation, understanding the goal-regulation processes is but only one aspect of the equation. As mentioned previously, retirement from an

athletic career can have a significantly negative impact on the wellbeing of athletes, and often times, emotions are the first at play when the information is being processed. Sam Shields, a cornerback for the Green Bay Packers of the American National Football League (NFL), wrote in The Players Tribune (2018) about his career decision-making process while he was dealing with traumatic brain injury (Shields, 2018):

> When the Packers released me, that shit hurt. Even though in my mind I was basically done with football, and I knew that their decision was just business, I was still sad as a motherfucker. […] There had been moments when I thought I was 100% done with football. But I never turned in my retirement papers because I didn't want to make that kind of a decision while I was in such a crazy state of mind. I didn't want it to be an emotional decision.

Circling back to the lifespan theory of control, it is positioned that secondary control is defined by behaviour addressing one's mental states and emotions (Schulz & Heckhausen, 1996). Emotions signal the relevance and meaning of events relative to a person's needs and goals. Emotions could have the potential to enhance individuals' capacities for choice and authenticity, just like in the context of career transition for athletes. In order to protect motivational resources for goal achievement when it is readily available, individuals need to regulate their internal responses to experiences of failure and loss (Heckhausen & Schulz, 1993, 1995). Among such secondary-control processes are those that help the individual to disengage from a goal, reengage in a different goal, and/or regulate their emotions. Roth et al., (2019) have recently contributed to the growing literature of self-determination theory (SDT) by presenting three general types of emotional regulation processes explaining how activities people are engaged in can influence what emotions they have, when they have them, and how these emotions are expressed (Calkins & Hill, 2007; Gross, 1998). Unfortunately, not all emotion regulation styles are equally valuable and differ systematically in the quality and depth processing of emotions, and in their consequences. Integrative

emotion regulation has been described as the exemplar of emotion regulation styles and propose that people must first be receptive to their emotions and take interest in their experiences and their meaning (Roth et al., 2018; Ryan et al., 2006). Yet, since emotions are understood in SDT as an important source of information (LeDoux, 1995), that information can sometimes be experienced as sources of pressure, threat, or external control, in which case they may be reacted to with suppressive emotion regulation (Hodgins & Knee, 2002; Roth, et al., 2019), the second type of emotion regulation. Even more problematic is the third type of emotion regulation, namely emotion dysregulation. When strong emotions are experienced as overwhelming, individuals can get dysregulated (Ryan, 2005), especially if the event contributing to the impact of these emotions has disrupted and threatened the integrity and identity of the individual (Roth, et al., 2019). Therefore, emotions can sometimes be obstacles to effective self-regulation and psychological wellbeing.

1.9.1 Integrative Emotion Regulation

Integrative emotion regulation (IER) is a non-judgmental, receptive attention to one's emotional experience (Brown & Ryan, 2003). It entails individuals to volitionally explore their emotional experience, its relations, and its significance for other aspects of one's self, such as goals, values, preferences, and decision-making (Roth et al., 2018; Schultz & Ryan, 2015). Emotions are, in other words, actively explored and brought into awareness, without being flattened, minimized, or ignored, as to better grasp their meaning and importance (Roth, et al., 2019). IER allows for greater autonomous regulation and the positive consequences associated with it (Schultz & Ryan, 2015) because it helps individuals make informed choices. Individuals are in a better position to volitionally express or withhold their emotions with respect to subsequent actions (Ryan et al., 2005; Kim, et al., 2002). IER has been found to promote greater reflection

(Roth, 2018), authenticity, openness to experience, and overall greater wellbeing (Brenning et al., 2015).

1.9.2 Suppressive Emotion Regulation

When emotions are experienced as pressuring or threatening, people often respond by attempting to control how they feel by ignoring, avoiding, and hiding their negative emotions. Suppressive emotion regulation (SER), can therefore occur early in an emotional sequence because emotions are perceived as evaluative or even dangerous. As a result, the emotion is not fully brought to awareness and, unlike IER, there is little inner exploration of the emotion and the information that accompanies it (Roth, et al., 2019). Decision-making could therefore be impacted. Furthermore, because the emotional experience is not openly attended to, it may well resurface, causing rumination (Thomsen et al., 2011), anxiety, and eventually depression, as emotion suppression has been linked with higher levels of depression (Berenbaum et al., 2012).

1.9.3 Emotion Dysregulation

Emotional dysregulation occurs when emotions are experienced as overwhelming and disorganizing. Whereas both SER and IER involve being active towards our emotions, whether to suppress them or bring them to awareness, emotional dysregulation is a state in which people feel unable to manage their emotions (Roth, et al., 2019). When dysregulated, the individual experiences little choice in behaviour, interested reflection, and decision-making concerning actions or coping. In such cases, emotions interfere with effective functioning because of their overpowering nature. They are often expressed in unmodulated and impulsive ways, or, alternatively, may be withheld

(Roth, et al., 2019). Emotion dysregulation has been associated with greater subjective distress, subjective ill-being (Roth et al., 2009), self-harming behaviour (Emery et al., 2016), and relational tensions (Roth & Assor, 2012).

Emotion regulation could explain why obsessive and harmonious passion lead to their respective outcomes on disengagement and reengagement. Passion entails a part of emotion regulation (Vallerand et al., 2003; Vallerand, 2015; Rip et al., 2006) and thus could potentially contribute to the goal-regulation process when athletes deal with success, failure, and, in this particular study, career transition. Part of the current research program examines how athletes' emotion regulation types are linked to their goal-regulation processes. Research has yet to investigate these relationships, therefore, Study 3 will contribute to the existing literature by expanding the knowledge on integrative emotion regulation, it's linked to the dualistic model of passion, and how these relationships might play a role in protecting athletes' wellbeing in a context of career transition. By understanding the positive role of emotions in the integrative regulation of behaviour, we can better understand what is optimal to protect athletes' wellbeing during their career transition.

1.10 Research Program

The aim of the present research program was to examine the role of harmonious and obsessive passion on individuals' goal-adjustment processes and capacities. Specifically, three objectives were pursued: (1) understanding the goal-regulation process and how reengagement after transitioning out of sports could promote wellbeing for athletes, (2) examining the unique role of passion in the goal-adjustment processes in athletes' career transition process, and (3), investigating the role of

emotion regulation in the goal-adjustment processes and passion relationships, during athletes' career transition. Three studies concluded to achieve these objectives.

Study 1 investigated the moderating effect of goal reengagement on the relationship between disengagement from sports-related goals and athletes' wellbeing. Study 2 explored whether passion for sports influence the goal-adjustment responses of athletes in a context of athletic career transition. Finally, Study 3 explored the mediating role of integrative emotion regulation in the relationship between passion and the ease of disengagement and reengagement when faced with career transition.

CHAPTER II

EMPIRICAL STUDIES

The first chapter presented the theoretical background and the goals of this dissertation. The present chapter describes the three empirical studies that were conducted to achieve these objectives. Specifically, the hypotheses, the methods, results, and short discussions are presented for each of these studies.

2.1 Study 1

Using a cross-sectional study design, the first study aimed at determining the unique role of goal reengagement in protecting athletes from the negative influence on satisfaction with life of goal disengagement from sports in a career transition process. Based on the existing literature, the following hypotheses were tested:

- H1a: Goal disengagement will be negatively related to life satisfaction;
- H1b: Goal reengagement will be positively related to life satisfaction;
- H1c: Goal reengagement will moderate the relationship between goal disengagement and life satisfaction, such that goal reengagement will diminish the negative relationship of goal disengagement with life satisfaction.

2.1.1 Method

2.1.1.1 Participants

Participants (N = 106; 67% male) were recruited from the athletics department at a large urban university in Canada. The undergraduate athletes were varsity or club competitive athletes from the basketball, soccer, football, hockey, and rugby teams. Detailed participant demographics are listed in Table 2.1. In order to reduce variance in the sample in terms of goal-regulation opportunities, participants were restricted to being enrolled (86.7% full-time) in their first university degree and between the ages of 18 and 25 years (M = 21.11, SD = 1.70). Most participants were born in Canada (81.6%), self-identified as white (85.8%), and were varsity athletes (93.3%).

Table 2.1Participant demographics

	Range	*M*	*SD*	*%*
Sports				
Age at which they began participating in their sport	4 - 22	10.50	4.45	
Varsity athletes				93.3
Team sport				95.3
General				
Age	18-25	21.11	1.70	
Male				67.0
Family income under 100K				33.0
Enrolled full time in school				86.7
Employed part-time				53.8
Single				49.5

2.1.1.2 Procedure

Student athletes were recruited from the athletics department at a Canadian university. Coaches of the men's and women's university teams were first contacted by the researcher in order to meet with the teams and explain the research project. The coaches then received the survey link to forward to the athletes who showed an interest in participating. The survey program allowed participants to save their progress and complete the survey in multiple sittings. Prior to starting the survey, participants gave informed consent. Participants received a $10 gift card as compensation for participating in the study and entered a draw for a $100 gift card at the campus bookstore. The project was approved by the university's ethics committee.

2.1.1.3 Measures

2.1.1.3.1 Hypothetical Goal Disengagement and Goal Reengagement

An adapted version of the Goal-Adjustment Scale (GAS; Wrosch et al., 2003b) measured goal disengagement and goal reengagement abilities. Before finishing the GAS, participants were asked to "Please describe an athletic goal or project you are currently pursing or will pursue in the future (not a past goal)." Follow-up questions assessed hypothetical goal disengagement and goal reengagement using the GAS. Question stem was as follows; "During their lives, people cannot always obtain what they want and are sometimes forced to stop pursuing the goals they have set. We are interested in understanding how you usually react when this happens to you. Please indicate the extent to which you agree or disagree with the following statements: If I have to stop practising my sport…". The goal disengagement subscale (four items) assessed participants' ability or openness to let go of their

athletic goal (e.g., “It would be easy for me to reduce my effort toward the goal”). The goal reengagement subscale (six items) assessed the extent to which participants would reengage in other meaningful attainable alternative goals (e.g., “I would seek other meaningful goals.”). Respondents indicated their agreement with each item using a 5-point Likert scale (1 = *almost never true* to 5 = *almost always true*). Reliability scores for items of goal disengagement were deemed acceptable (α = .60) and excellent for goal reengagement (α = .92).

2.1.1.3.2 Life Satisfaction

The Satisfaction with Life Scale (SWLS; Diener et al., 1985) was used to measure participants’ subjective wellbeing. The SWLS is a 5-item, self-report instrument that assesses global life satisfaction. Respondents rated to what extent they agreed with items (e.g., *I am satisfied with my life*; *If I could live my life over, I would change almost nothing*) on a 7-point Likert scale anchored at 1 (*strongly disagree*) and 7 (*strongly agree*). Reliability of the SWLS was satisfactory (α= .87).

2.1.2 Results

2.1.2.1 Data Integrity

All analyses were conducted using SPSS version 22. Missing data analysis revealed that the missing data on the dependent variables was not significantly different than the non-missing data. There was 2.4% of missing at random data on the dependent variable. To fulfill the requirement of complete data set when using the ANOVA, the missing data imputation function of SPSS was used. Data screening revealed no out

of range values or outliers (univariate or multivariate). Normality was tested using the general rule that skewness should not be greater than the absolute value of 3 and kurtosis should not be greater than the absolute value of 10 (Field, 2013). Data on goal reengagement was negatively skewed (-3.84). To facilitate interpretation of the results and after visually inspecting the data, it was decided not to apply any transformations to the data. The fact that scores on goal reengagement are generally high, may be a characteristic of the student-athlete population (Guilmette et al., 2019). All variables met the assumption of linearity and homoscedasticity ($p > .001$). Finally, the assumption of multicollinearity ($r < .70$; see Table 2.2) and singularity were met.

Table 2.2 Pearson bivariate correlations between goal-regulation and wellbeing variables

	1	2	3
Disengagement	-	-32**	-.32**
Reengagement		-	.34**
Life Satisfaction			-

2.1.2.2 Descriptive Statistics and Bivariate Correlations

Means and standard deviations for the study variables are presented in Table 2.3. One-way between subject analysis of variance (ANOVA) and chi-square tests of independence were conducted to assess group differences in demographic characteristics. Analyses of between groups variance revealed no mean differences in satisfaction with life based on socio-demographic variables.

Table 2.3 Means and standard deviations for goal-regulation, passion, and affect variables

	M	*SD*
Disengagement	8.87	3.13
Reengagement	21.51	5.09
Life Satisfaction	24.65	6.19

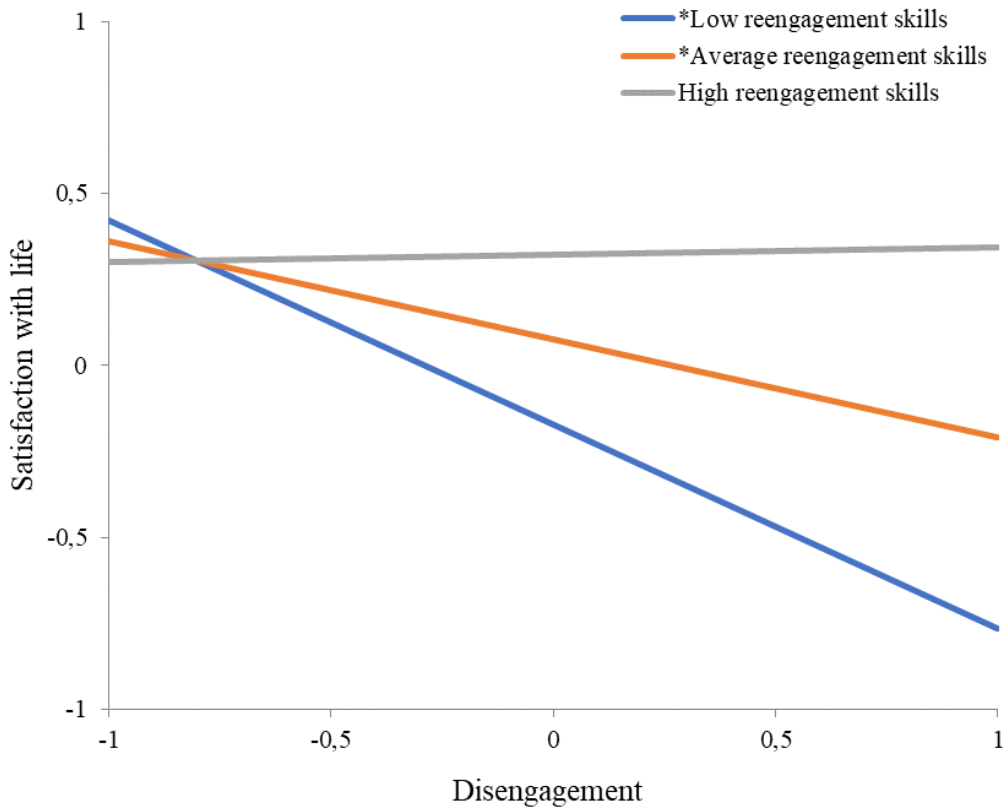
Exploratory Pearson bivariate correlations were carried out to assess the relations between goal-regulation variables and satisfaction with life (see Table 2.2). All correlations and their corresponding significance values are reported in Table 2.2.

2.1.2.3 Main Analysis

A two-stage hierarchical multiple linear regression was conducted to test the hypothesis that hypothetical goal reengagement towards another goal moderates the relationship between hypothetical goal disengagement from a current sport-related goal and life satisfaction. In the first step, hypothetical disengagement from a current sport-related goal and hypothetical goal reengagement towards another goal was entered. Next, variables were standardized and an interaction term between goal disengagement, and goal reengagement was created. The interaction term between goal disengagement and goal reengagement was added to the regression model (Step 2).

Results revealed a significant main effect (R^2 = .17, F(2, 103) = 10.25, p <.001), such that goal disengagement was negatively related to life satisfaction (β = -.24, p < .01), whereas goal reengagement was positively related to life satisfaction (β = .26 p < .01). Results also revealed a significant goal disengagement by goal reengagement

interaction (β = .22, p < .05; Δ R^2 = .045, F (1,102) = 5.86, p < .05). Examination of the interaction plot (based on -1 to +1 standard deviations from the mean, see Figure 2.1) showed that as goal reengagement increased, the negative impact of disengagement from one's sport-related goals on athletes' life satisfaction was lessened. More specifically, the simple slope analysis revealed that disengaging from one's sport-related goal negatively predicts athletes' life satisfaction for those with low (t(106) = -3.53, p < .001) and average (t(106) = -2.52, p < .05) goal reengagement abilities, but not for those with high goal reengagement abilities (t(106) = .016, p = .99).



Note. * p < .05

Figure 2.1 Moderation effect of goal reengagement on the relationship between goal disengagement and life satisfaction

2.1.3 Discussion

Results from the first study show that goal disengagement has a negative relationship with wellbeing, confirming that disengagement from an athletic career (e.g., Blinde & Stratta, 1992) can have a negative effect on the athlete's wellbeing, especially during stages of life when control opportunities for engagement are generally more readily available (Wrosch et al., 2000; Haase et al., 2013). Although disengagement from sports-related goals can sometimes take a toll on wellbeing, the present study takes it one step further by demonstrating that the possibility of goal reengagement in other alternatives goals can lower the negative effect of disengagement. As noted previously, goal reengagement may provide a sense of purpose after a self-relevant goal is let go, thereby preventing a person from experiencing feelings of aimlessness and emptiness (Carver & Scheier, 1999; Haase et al., 2013; Ryff, 1989). Therefore, when athletes are faced with retirement from their athletic career, reengaging in new goals could be a good way for athletes to get back on their feet.

Although studies in the past have shown that having a plan B and other non-athletic goals could facilitate the career transition process, no study had explored it in terms of the underlying goal-regulation mechanisms. Wrosch and colleagues (2003, 2007, 2011 & 2013), have posited that both goal disengagement and goal reengagement are beneficial for wellbeing when faced with an unattainable goal (Mens et al., 2014). Because athletes are trained to persevere in the face of defeat, disengagement could potentially be interpreted with the negative connotation of failure (Ntoumanis et al., 2014) and not seen as an advantageous goal-adjustment process that allows to free energy and resources for new goals (Haase et al., 2013; Heckhausen et al., 2010; Mens et al., 2014).

A study by Ntoumanis and colleagues (2014) showed that the longer it takes athletes to realize goal unattainability, the harder it becomes to disengage cognitively and emotionally from the pursued goal, despite the positive influence of reengagement. High-level athletes are not only motivated to practise their sport but they are also highly passionate about them. Unfortunately, passion is not always healthy as an enjoyable activity can sometimes become an obsession that disconnects a person from reality (Murray et al., 2020). Thus, Study 2 will examine the role of passion for one's sport (harmonious versus obsessive; Vallerand, 2015) in the goal-adjustment response of athletes.

2.2 Study 2

The second study aims at determining the role of passion (harmonious and obsessive) in goal-adjustment processes (goal disengagement and goal reengagement) and positive affect during an athletes' career transition. Specifically, the study will examine the interaction between goal reengagement and passion for sports and its moderating influence on the relationship between disengagement from sports and positive affect when faced with an unattainable athletic goal. In doing so, results from the present study will allow to better understand and differentiate the goal-adjustment responses of obsessive and harmoniously passionate athletes. It is hypothesized that athletes' goal-adjustment process will differ and be influenced by the type of passion they foster most for their sport.

Hence, we expect a three-way interaction between goal disengagement, goal reengagement and passion (harmonious and obsessive) (see Figures 2.2 and 2.3). See Annex B for specific hypotheses.

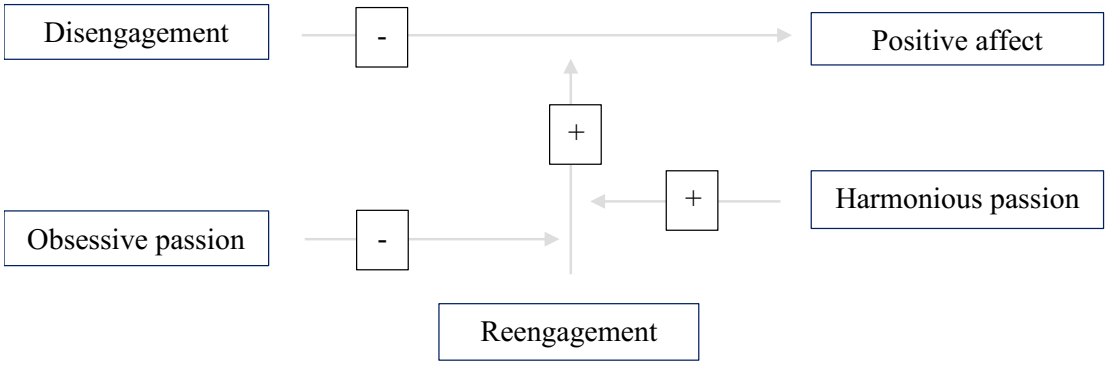


Figure 2.2 Hypothetical model of Study 2

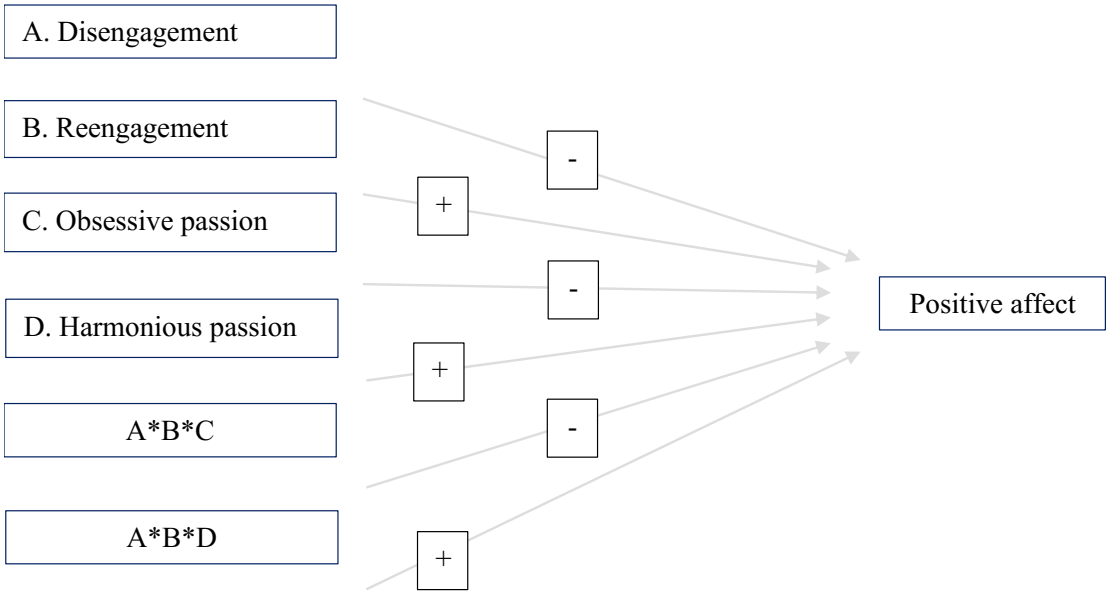


Figure 2.3 Statistical model of Study 2

2.2.1 Method

2.2.1.1 Participants

Participants (N = 174; 69.5% male) were recruited with the collaboration of the athletics department of several universities and CEGEPS in the province of Quebec. Other high-level athletes were recruited through federal and provincial athletic organizations. Most participants were student athletes (93.1%), and of those, half were university athletes (48.9%) from the basketball, soccer, football, hockey, and rugby teams. Participants were between the ages of 17 and 39 years (M = 21.10, SD = 3.39) and most participants were Canadian (81.3%). Detailed participant demographics are listed in Table 2.4.

Table 2.4 Participant demographics

	Range	*M*	*SD*	*%*
Sports				
Age at which they began participating in their sport	2 - 27	10.25	4.68	
Varsity athletes				48.9
Team sport				87.9
General				
Age	17-39	21.19	3.39	
Male				69.5
Income under 100K				55.8
Currently enrolled in school				93.1
Employed part-time				51.1
Single				64.4

2.2.1.2 Procedure

Student athletes were recruited from both the men's and women's sports teams. Coaches were first contacted in order to meet with the teams and explain the research project. The researcher met with the teams who showed an interest in participating in the study. Athletes were then presented with a printed format of the survey at one of their team's practice meeting. Athletes filled the questionnaires on the spot and completed surveys were collected after practice. Prior to starting the survey, participants gave informed consent. Participants had a chance to win one of two prepaid visa gift cards of $50 by participating in this survey. The study was approved by the university ethic's committee.

2.2.1.3 Measures

2.2.1.3.1 Harmonious and obsessive passion

The Passion Scale (Marsh et al., 2013) was used to measure harmonious (e.g., "The new things that I discover with this sport allow me to appreciate it even more") and obsessive passion (e.g., "I have the impression that my sport controls me"), each assessed by six items on a 7-point response scale: 1 (*strongly disagree*) to 7 (*strongly agree*). Participants were asked, "While thinking of your main competitive sport and using the scale below, please indicate your level of agreement with each item." Results showed good reliability scores for both harmonious passion (HP: $\alpha = .79$) and obsessive passion (OP: $\alpha = .80$).

2.2.1.3.2 Predicted Goal Disengagement and Goal Reengagement Responses

Following the methodology previously used by Smith and Ntoumanis (2014), participants were asked to answer the Goal-Adjustment Scale (GAS; Wrosch et al., 2003b) in a prospective fashion to assess how they plan to handle their sport-related career transition. The GAS was adapted to assess the predicted ease of goal disengagement and goal reengagement, and participants responded to the following question: "*When we have to stop doing an activity that we have invested a lot in, like a competitive sport for which we have set specific and high goals, we can react in different ways. On a scale from 1 (very unlikely) to 5 (very likely), please indicate how the following statements are likely to represent a reaction you may have when you will need to stop practising your competitive sport. When I will have to stop pursuing my main competitive sport...*" The adapted goal disengagement subscale (five items) measured the extent to which participants predict they would reduce effort and commitment towards their sport participation (e.g., "*It would be easy for me to reduce my effort toward my sport*"). The goal reengagement subscale (five items) assessed the extent to which participants predict they would reengage in alternative goals (e.g., "*I would seek other meaningful goals*"). The current research results reported good reliability coefficients for scores on goal disengagement and goal reengagement (Cronbach alphas of .75 and .92 respectively).

2.2.1.3.3 Positive Affect

The Positive and Negative Affect Schedule (PANAS ; Watson et al., 1988) was used to measure participants' subjective wellbeing. The PANAS assesses participants' general positive and negative affect. Participants answered the following question: "*This scale consists of a number of words that describe different feelings and*

emotions. Indicate to what extent you generally feel this way, that is, how you feel on average. Use the following scale to record your answers." Respondents rated to what degree they felt 10 positive (e.g., interested) and 10 negative (e.g., ashamed) affective states on a 5-point Likert scale anchored at 1 (*very slightly/not at all*) and 5 (*extremely*). Reliability for each subscale was satisfactory (PA: α = .86; NA: α = .83). Since our hypotheses are concerned with wellbeing (not illbeing), only the positive affect subscale was used in subsequent analyses.

2.2.2 Results

2.2.2.1 Data Integrity

Data integrity and descriptive statistics were explored using SPSS version 22. Missing data analysis revealed that there was 1.7% of missing data on the dependent variable (positive affect). To fulfill the requirement of complete data set when using MPLUS, the Little MCAR's "Completed Individual Variables" function in SPSS was used to estimate the missing data. Missing data analysis revealed that the missing data on the dependent variable was not significantly different than the non-missing data (χ^2 = 31.63, p = .96). Data screening revealed no out of range values. The univariate outliers were dealt with by replacing the outlier value with the next highest value within 3 standard deviation points from the mean (Kline, 2009, 2013). Normality was tested using the general rule that skewness should not be greater than the absolute value of 3 and kurtosis should not be greater than the absolute value of 10 (Field, 2013). Only one dependent variable violated the assumption of normality. Data on goal reengagement was negatively skewed (-3.83). To facilitate interpretation of the results and after visually inspecting the data, it was decided not to apply any transformations to the data. As seen in Study 1, the fact that scores on goal reengagement are generally high, may be a characteristic of the student-athlete

population (Guilmette et al., 2019). This will be discussed further in the discussion section of this paper. All variables met the assumption of linearity and homoscedasticity ($p > .001$). Furthermore, the assumption of multicollinearity ($r < |.50|$; see Table 2.2) and singularity were met (*Durbin-Watson* = 1.96). The P-P plot for the model suggested that the assumption of normality of the residuals was also respected. Finally, the Cook's Distance values were all well under 1, suggesting individual cases were not unduly influencing the model.

2.2.2.2 Descriptive Statistics and Bivariate Correlations

Means and standard deviations for the study variables are presented in Table 2.5. One-way between subjects' analysis of variance (ANOVA) and chi-square tests of independence were conducted to assess differences based on demographic characteristics. Analyses of between groups variance revealed no mean differences in the study variables (goal regulation, type of passion, and wellbeing) based on socio-demographic variables.

Table 2.5 Means and standard deviations for goal-regulation, passion, and affect variables

	M	*SD*
Goal-Regulation		
Disengagement	10.15	3.52
Reengagement	25.06	4.27
Passion		
Harmonious	32.66	5.33
Obsessive	23.05	7.69
Affect		
Positive	38.93	5.69

Exploratory Pearson bivariate correlations were carried out to assess the relations between the passion, goal regulation, and affect variables (see Table 2.6). Most correlations were consistent with the hypotheses, although some relations were inconsistent with the hypotheses. Specifically, goal disengagement was not significantly correlated with positive affect, and goal reengagement was not correlated with harmonious passion. All correlations and their corresponding significance values are reported in Table 2.6. All subsequent analyses were conducted using standardized scores. We concentrate on the three-way interactions, which are central to our study.

Table 2.6 Correlations between goal-regulation, passion, and affect variables

	1	2	3	4	5
Goal-Regulation					
1- Disengagement	-	.11	-.41**	-.47**	-.06
2- Reengagement		-	.03	-.21**	.26**
Passion					
3- Harmonious			-	.44**	.21**
4- Obsessive				-	-.05
Affect					
5- Positive					-

Note. ** $p < .01$ (two-tailed)

2.2.2.3 Main Analysis

A moderation analysis using *MPlus* version 8.3 (Muthén & Muthén, 2007) was conducted to understand whether the positive influence of goal reengagement during a career transition process (seen in Study 1) held true for athletes with both types of passion for sports. The hypothesized model comprised one exogenous variable (goal disengagement), three moderator variables (goal reengagement, harmonious passion, and obsessive passion for sports), and one endogenous variable (general positive affect). The model included direct paths from harmonious and obsessive passion, goal disengagement, and goal reengagement to positive affect and interactions between the moderator variables and the exogenous variable. The model was tested using bootstrapping to determine whether there was a double moderation effect between passion and goal reengagement. Bias-corrected bootstrap 95% confidence intervals were computed from 5,000 bootstrap samples.

Results showed that the three-way interactions of goal disengagement, goal reengagement, and passion (harmonious and obsessive) were significant (β = .24, p = .005; β = - .26, p = .001, respectively). These results suggest that the moderating effect of goal reengagement on the goal disengagement—positive affect relationship was altered based on the type of passion athletes had for their sports.

Per the three-way interaction results, as *obsessive* passion increased, the positive moderating effect of goal reengagement diminished. On the other hand, as *harmonious* passion increased, the positive moderating effect of goal reengagement increased. These results indicate that goal reengagement, combined with high harmonious passion for sports, lessens the negative influence of goal disengagement on positive affect. Contrastingly, when combined with high obsessive passion for sports, goal reengagement *accentuates* the negative influence of goal disengagement on wellbeing. Hence, these findings suggest that passion for one's sport influences the goal disengagement process and its influence on athletes' wellbeing through its interaction with goal reengagement (see Table 2.7 for detailed results).

Table 2.7 Moderation analysis of passion and goal reengagement on the relationship between goal disengagement and positive affect

	B	*SE*	*P*
Disengagement (A)	-.13	.08	.12
Reengagement (B)	.26	.08	.001**
Obsessive Passion (C)	-.18	.08	.03*
Harmonious Passion (D)	.20	.08	.02*
Interaction A^xB	-.04	.07	.56
Interaction A^xC	.27	.09	.003**
Interaction A^xD	-.16	.09	.09
Interaction B^xC	-.08	.09	.36
Interaction B^xD	-.004	.08	.96
Interaction A^xB^xC	-.26	.08	.001**
Interaction A^xB^xD	.24	.09	.005**

Note. * $p < .05$; ** $p < .01$

In order to visually represent the three-way interaction between passion, hypothetical goal reengagement and hypothetical goal disengagement, we used centred data and plotted results based on -1 to +1 standard deviations of the mean (see Figures 2.4 and 2.5). Examination of the interaction plot suggests that obsessive passion and goal reengagement interact to moderate the relationship between goal disengagement and positive affect, such that under high obsessive passion goal disengagement is negatively related to positive affect under conditions of high goal reengagement, but positively related to positive affect under conditions of low goal reengagement. Further, these two slopes differed significantly from each other ($t=3.24$, $p = .001$).

Contrastingly, for highly harmonious athletes goal disengagement is positively related to positive affect under conditions of high goal reengagement, but negatively related to positive affect under conditions of low goal reengagement. Further, these two slopes differed significantly from each other (t=2.10, p = .036). In other words, when confronted with an unattainable goal, athletes high in harmonious passion will benefit from disengaging from their goal and reengaging in a new goal whereas athletes high in obsessive passion don't benefit from this goal-adjustment process; reengaging in another goal while disengaging from their sport-related goal seems to foster more ill-being. Disengagement alone would seem to benefit obsessive athletes when faced with an unattainable goal, as suggested by the significant obsessive passion X disengagement interaction (β = .27, p = .003).

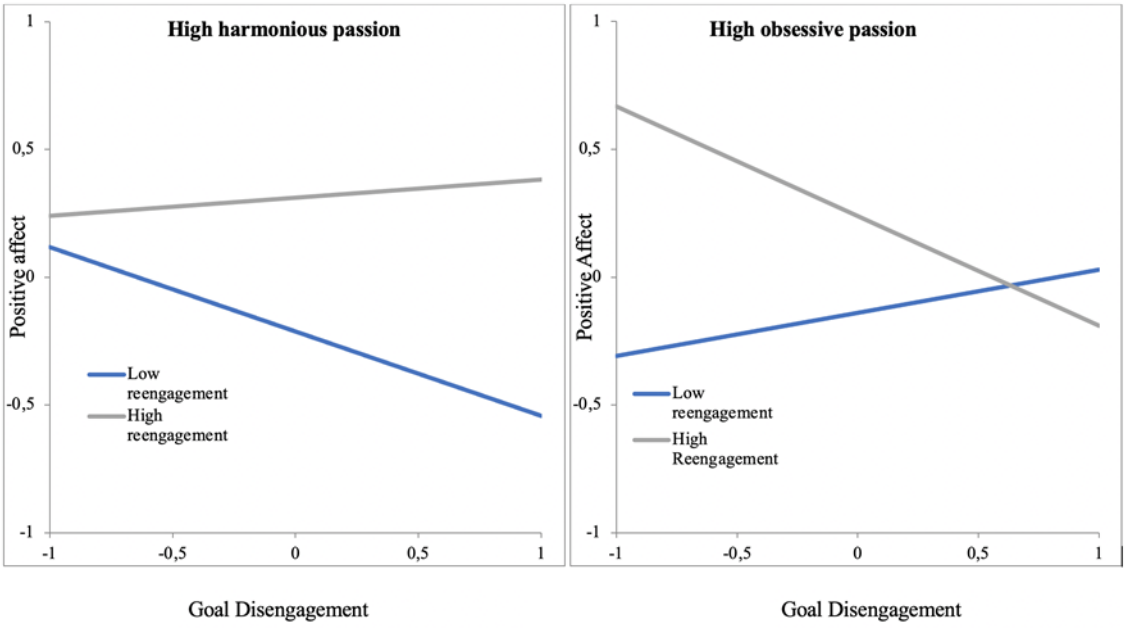


Figure 2.4 The moderating role of reengagement capacities on the disengagement-positive affect relationship under high harmonious and high obsessive passion for sports ; *p < .05

2.2.3 Discussion

The present findings replicated the goal disengagement by goal reengagement interaction found in Study 1, but only for harmoniously passionate athletes. Specifically, results showed a positive three-way interaction on wellbeing when reengagement was coupled with harmonious passion for sports. Hence, when harmonious passion was involved, goal reengagement had a positive influence on the relationship between goal disengagement and positive affect. Similar to findings linking self-determined goal motives and goal regulation (Ntoumanis et al., 2014), it would seem that for athletes with a harmonious passion for sports, disengaging from an unattainable goal can have a positive influence on their wellbeing only if they have the capacity to reengage. Contrastingly, under the condition of obsessive passion for sports, it was found that 1) reengagement negatively moderates the relationship between disengagement and wellbeing, and 2) disengagement alone has a positive relationship with wellbeing. This set of findings suggests that for each passion type, there is a unique proper goal-adjustment process to follow in order to experience positive wellbeing while transitioning out of sport.

As this was the first study linking the dualistic model of passion and goal-regulation theory, these findings left us with multiple unanswered questions about the factors that could explain the differences between obsessive and harmonious passion in the use of goal regulation strategies. Therefore, we turned to the existing literature as an attempt to identify possible variables that could account for these differences. Studies on athletes' responses to unattainable goals had considered rumination (Ntoumanis et al, 2014), feelings of embarrassment (Vallerand, 2015), self-doubt (e.g., Lafrenière et al., 2008), guilt (Verner-Filion et al., 2014), and anxiety (Vallerand et al., 2006) as potential factors that could influence athletes' use of adaptive goal-regulation strategies. Other studies investigating the dualistic model of passion in the sports context had

identified that passionate athletes had strong emotional reactions to success and failures. Taken together, these studies underlined the importance of considering emotional reactivity when studying passionate athletes (Vallerand, 2015; Verner-Filion et al., 2018). Hence, it seemed plausible that distinct emotional pathways could account for harmonious and obsessive passions' own optimal goal-adjustment process. As our first two studies were rooted in self-regulation theories, our third study aimed to pursue the research on emotional reactivity in passionate athletes by including emotion regulation variables to explain why obsessive and harmonious passions require distinct goal-adjustment strategies in order to transition out of sport successfully.

2.3 Study 3

This third study seeks to better understand the differences seen in Study 2 between obsessive and harmonious passion for sport on the goal-adjustment processes of athletes. Specifically, the present study posits that distinct emotional pathways could account for the different optimal goal-adjustment processes between obsessive and harmonious athletes. Hence the present study tested a model, in which, emotion regulation can explain the differences in goal-regulation capacities between obsessive and harmoniously passionate athletes (see Figure 2.5). See Annex B for specific hypotheses.

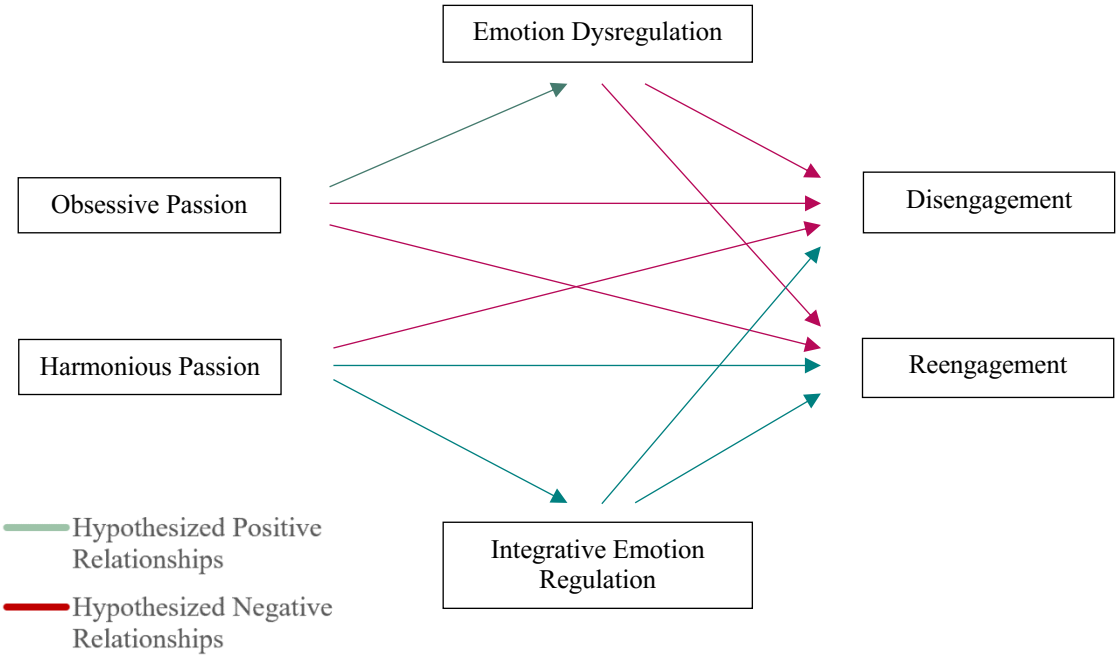


Figure 2.5 Hypothetical model of the relationships between passion, goal-adjustment, and emotion regulation.

2.3.1 Method

2.3.1.1 Participants

Participants (N = 132; 72.7% female) were recruited with the collaboration of the athletics department of several universities, CEGEPS, and sports association in the province of Quebec. Many participants were cheerleaders (32.6%) and from a variety of other sports (ex.: swimming 12.9%; volleyball 9.1%; soccer 8.3%). Participants

were between the ages of 18 and 38 years (M = 22.22, SD = 2.70) and most participants had been practising their sport for about 10 years (M = 9.87, SD = 5.28). Detailed participant demographics are listed in Table 2.8.

Table 2.8 Participant demographics

	Range	*M*	*SD*	*%*
Sports				
Number of years participants have been practicing their sport	1-26	9.87	5.27	
Varsity athletes				48.9
Team sport				87.9
General				
Age	18-38	22.22	2.70	
Female				72.7
Planned to retire in the next year				32.6
Participants who think they will retire by choice				73.5

2.3.1.2 Procedure

Student athletes were recruited from both the men's and women's sports teams. Coaches and head of sports departments were contacted through email by the research team in order to explain the research project. The information concerning the project including a survey link was then forwarded to the athletes by their coaches. Prior to starting the survey, participants who were interested in participating gave their informed consent through the online platform. This research project was approved by the university's ethics committee.

2.3.1.3 Measures

2.3.1.3.1 Harmonious and obsessive passion

As in Study 2, the two-factor Passion Scale (Marsh et al., 2013) was used to measure harmonious and obsessive passion in Study 3. Results showed good reliability scores for both harmonious passion (HP: $\alpha = .70$) and obsessive passion (OP: $\alpha = .82$).

2.3.1.3.2 Integrative Emotional Regulation

The integrative emotion regulation scale (Roth et al., 2009) was used to measure three types of emotion regulation (integrative, suppressive, and dysregulation), assessed by 20 items on a 7-point response scale, anchored from 1 (*strongly disagree*) to 7 (*strongly agree*). Participants were asked, "The next few statements are about how you perceive and experience negative emotions. Indicate your level of agreement with each of the statements according to the scale below." Results showed good reliability scores for all three subscales (Integrative: $\alpha = .86$; Suppressive: $\alpha = .88$; Dysregulation: $\alpha = .75$). The integrative emotion subscale measured the extent to which participants are able to be receptive and take interest in their emotions (e.g., "Sometimes experiencing negative emotions helps me understand important things about myself."). The emotion suppression subscale assessed the extent to which participants see their emotions as a potential threat and try to control them by suppressing them from awareness (e.g., "I try to ignore my negative emotions."). Finally, the emotion dysregulation subscale assessed the extent to which participants view their emotions as being overwhelming and overpowering mostly because they interfere with their effective functioning (e.g., "My ability to function decreases significantly when I experience negative emotions.").

2.3.1.3.3 Predicted Goal Disengagement and Goal Reengagement Responses

As in Study 2, the Goal-Adjustment Scale (GAS; Wrosch et al., 2003b) was used in a prospective fashion to assess how athletes plan to handle their sport related career transition. The current research results reported good reliability coefficients for scores on goal disengagement and goal reengagement (Cronbach alphas of .81 and .83, respectively).

2.3.2 Results

2.3.2.1 Data Integrity

Data integrity and descriptive statistics were explored using SPSS version 26. There were no missing data on the dependent variables (goal disengagement, goal reengagement). Data screening revealed no out of range values. The univariate outliers were dealt with by replacing the outlier value with the next highest value within 3 standard deviation points from the mean (Kline, 2009, 2013). Normality was tested using the general rule that skewness should not be greater than the absolute value of 3 and kurtosis should not be greater than the absolute value of 10 (Field, 2013). All variables were normally distributed. All variables met the assumption of linearity and homoscedasticity ($p > .001$). Furthermore, the assumption of multicollinearity ($r < |.50|$; see Table 2.2) and singularity was met. The P-P plot for the model suggested that the assumption of normality of the residuals was also respected. Finally, the Cook's Distance values were all well under 1, suggesting individual cases were not unduly influencing the model.

2.3.2.2 Descriptive Statistics and Bivariate Correlations

Means and standard deviations for the study variables are presented in Table 2.9. One-way between subjects' analysis of variance (ANOVA) and chi-square tests of independence were conducted to assess differences based on demographic characteristics. Analyses of between groups variance revealed no mean differences in goal regulation, emotion regulation, and type of passion based on socio-demographic variables ($p > .05$).

Table 2.9 Means and standard deviations for passion, emotion regulation, and goal regulation

	M	*SD*
Passion		
Harmonious	33.49	4.30
Obsessive	22.08	7.75
Emotion Regulation		
Integrative	37.49	7.04
Suppressive	27.66	9.10
Dysregulation	22.76	4.67
Goal-Regulation		
Disengagement	10.58	3.65
Reengagement	25.86	3.21

Exploratory Pearson bivariate correlations were carried out to assess the relations between the passion, goal-regulation and emotion regulation (see Table 2.10). Most correlations were consistent with the hypotheses, although some relationships were inconsistent with the hypotheses. Specifically, similarly to Study 2, goal reengagement was not correlated with harmonious passion. Also, although obsessive passion was not

correlated with goal reengagement, it was negatively correlated with goal disengagement. Because suppressive emotion regulation did not correlate with any of the passion variables, it was not included in the hypothesized model. All subsequent analyses were conducted using standardized scores.

Table 2.10 Correlations between passion, emotion regulation, and goal-regulation

	1	2	3	4	5	6	7
Passion							
1- Harmonious	-	.25**	.25**	-.06	-.09	-.13	.16
2- Obsessive		-	.08	.14	.25**	-.35**	-.13
Emotion Regulation							
3- Integrative			-	-.18*	-.03	.11	.26**
4- Suppressive				-	-.01	-.11	-.19*
5- Dysregulation					-	-.28**	.04
Goal-Regulation							
6- Disengagement						-	.26**
7- Reengagement							-

Note. ** $p < .01$ (two-tailed)

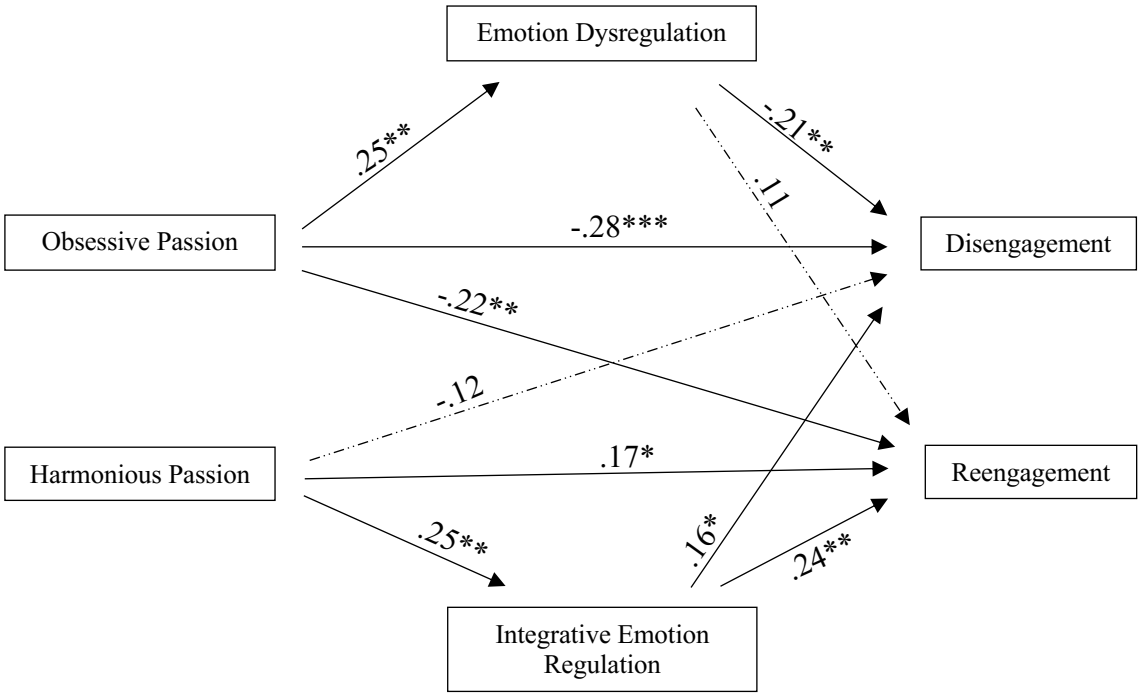
2.3.2.3 Main Analysis

A path analysis was tested using *AMOS* version 26 (Arbuckle, 2019) to test whether emotion regulation could explain the relationships between passion and goal-regulation variables. The hypothesized model comprised two exogenous variables (harmonious and obsessive passion for sports), two mediator variables (integrated emotion regulation and dysregulation), and two endogenous variables (measures of goal disengagement and goal reengagement abilities). The model included direct and indirect paths from harmonious and obsessive passion for sports to athletes'

goal-adjustment abilities through emotion regulation. The covariances were allowed between harmonious and obsessive passion, goal-regulation variables, and emotion regulation variables. The model was tested using maximum likelihood estimation with robust standard errors (MLR estimation). The hypothesized path analysis is presented in Figure 2.5.

The goodness-of-fit was assessed using four indices: the Comparative Fit Index (CFI), the Normed Fit Index (NFI), the Root Mean Square Error of Approximation (RMSEA), and the Standardized Root Mean Square Residuals (SRMR). Values above .90 and .95 for the CFI and NFI indicate a satisfactory and excellent fit, respectively (Hoyle, 1995), and values of .08 or less for the RMSEA and SRMR was deemed acceptable (Browne & Cudeck, 1993).

The model provided good fit to the data. The CFI was .979; NFI was .958; RMSEA was .074; and SRMR was .036. The chi-square result was nonsignificant, χ^2 (2, N = 132) = 3.44, p = .18, which indicated that there was a good fit between the predicted model and the observed data. No post-hoc modifications were made because of the goodness of fit of the data to the model. All but one indirect effect confirmed our initial hypotheses; emotion dysregulation did not mediate the relationship between obsessive passion and goal reengagement. Results are summarized in Figure 2.6.



Note. Dotted lines represent non-significant relationships at $p > .05$

Figure 2.6 Results of path analysis Study 3

2.3.2.4 Direct and Indirect Effects

Results revealed that there were significant direct effects between all variables except harmonious passion and goal disengagement ($p = .15$), as well as between emotion dysregulation and goal reengagement ($p = .18$). We used bootstrapping to determine whether emotion regulation mediated the paths between passion and goal-adjustment. Bias-corrected bootstrap 95% confidence intervals were computed from 5,000 bootstrap samples. Confidence intervals indicate significant mediation when they exclude zero. As per indirect effects, most hypotheses were validated by the results. The relationship between obsessive passion and goal disengagement was significantly

mediated by emotion dysregulation (β = -.05, *SE* = .028, *p* = .009, 95% CI [-.123 - 011]). The relationship between harmonious passion and both goal reengagement and goal disengagement were significantly mediated by emotion integration ($\beta_{reengagement}$ = .06, *SE* = .03, *p* = .005, 95% CI [.014, .138]; $\beta_{disengagement}$ = .04, *SE* = .026, *p* = .030, 95% CI [.003, .107]). Contrastingly to our hypothesis, the relationship between obsessive passion and goal reengagement was not mediated by emotion dysregulation (β = .028, *SE* = .025, *p* = .112, 95% CI [-.008, .094]), but there was a significant direct effect of obsessive passion on goal reengagement (β = -.223, *SE* = .087, *p* = .010).

2.3.3 Discussion

Results show that harmonious and obsessive passion are differentially related to goal-adjustment and emotion regulation processes. More specifically, harmonious passion is positively related to goal disengagement and goal reengagement through emotion integration. Hence, having an integrated emotion regulation style that comes with harmonious passion, may explain why athletes embedded with such a passion tend to let go and move on from their unattainable goals more easily when their athletic goal becomes unattainable. The relationship between obsessive passion and goal regulation is slightly different. In terms of relationship with emotion regulation, obsessive passion for sports was only related to emotion dysregulation. The negative relationship between obsessive passion and goal disengagement was explained by the fact that obsessively passionate athletes become emotionally dysregulated whenever they are confronted with the possibility of having to let go of their goals. We can therefore understand from the results that obsessively passionate individuals might be more likely to be emotionally reactive before processing the emotional information and use it to self-regulate like their harmoniously passionate counterparts. These findings are consistent with Vallerand (2015) and Verner-Filion and colleagues (2018) who pointed

out that obsessive athletes might be more reactive to retirement from sport, as well as having greater emotional reactivity to the experiences of success and failure in sport compared to harmoniously passionate athletes. Although the present findings suggest that having an obsessive passion for sports might make it harder to disengage, results from Study 2 suggest that disengagement would help obsessive athletes to maintain their wellbeing when faced with an unattainable goal. Contrastingly, emotion dysregulation did not mediate the negative relationship between obsessive passion and goal reengagement. As the negative relationship between obsessive passion and reengagement cannot be explained by emotion regulation or a lack thereof, more research should investigate this relationship. Knowing why reengagement when faced with unattainable goals has such a negative connotation for obsessive athletes could help identify the proper adjustment process for these athletes during career transition.

CHAPTER III

GENERAL DISCUSSION

This final chapter concludes the present dissertation. First, an overview of the results is provided, accompanied by a discussion of the results' theoretical contributions to the literature of goal regulation, passion, and emotion regulation theories. Next, the limitations of the three studies will be presented, followed by practical implications of the findings and future research suggestions. Finally, a conclusion underlines the complexities of the career transition process and stresses the importance of promoting a balanced lifestyle for high-level athletes.

3.1 Overview of the results & theoretical implications

3.1.1 Goal-adjustment process and wellbeing

The primary purpose of the present dissertation was to understand the mechanisms behind passionate athletes' career transition through the lens of goal-regulation theory. So far, the literature has posited that there are two outcomes of goal-adjustment based on the developmental life stage of a person and on the availability of resources for goal engagement. First, disengagement and reengagement have been shown to be beneficial for wellbeing when faced with an unattainable goal (Wrosch et al., 2003, 2007, 2011, & 2013; Mens et al., 2014), as pursuing commitment of time, effort, and energy

towards an unattainable goal could quickly deplete energy and create feelings of discouragement and failure. Second, previous studies have noted exceptions to this statement in younger stages of life when opportunities for goal-achievement have been shown to be more readily available (Wrosch et al., 2013). Disengaging could therefore be detrimental if a goal is let go when goal-achievement is still possible, in which case the lack of perseverance precludes them from experiencing success and could create feelings of cowardness and failure.

This dissertation's first study showed that athletes' disengagement from their sports-related goals is negatively linked to their wellbeing. Because athletes are trained to persevere in the face of adversity, disengagement could be interpreted as failure or defeat (Ntoumanis et al., 2014). Therefore, athletes might not see disengagement as an advantageous goal-adjustment process that allows to free energy and resources for new goals (Haase et al., 2013; Heckhausen et al., 2010; Mens et al., 2014), but instead view it as a threat to the integrity of their identity and ambitions (Ntoumanis et al., 2014). Moreover, these results substantiate that disengagement from an athletic career can have a negative effect on the athlete's satisfaction with life (e.g., Blinde & Stratta, 1992), especially during these stages of life when energy and personal resources make it easier to stay engaged towards their athletic goals (Wrosch et al., 2000; Haase et al., 2013). Finally, these results also parallel the non-normative career transition literature that states that an unplanned retirement from sports due to a career-ending injury or deselection is more difficult than a normative career transition (Stambulova & Wylleman, 2014). Non-normative transitions are less predictable, thus often associated with stress in relations to the lack of control on the outcome of the athletic career (Wylleman et al., 2004). Often times in a non-normative career transition, the athlete has not yet come to terms with the fact that, although the resources to achieve his or her goals might still be available, the opportunities to do so are no longer.

Contrastingly, the predictability of normative transitions usually creates opportunities for athletes to prepare and plan for new ventures to which direct their time and energy. Studies in the past have shown that having a plan B and other non-athletic goals could facilitate the career transition process. The present dissertation was the first study to explore this hypothesis in terms of the underlying goal-regulation mechanisms of student athletes. While disengagement from sports-related goals can take a toll on wellbeing, the current study took it one step further by demonstrating that the possibility of reengagement in other alternatives goals can lower the negative effect of disengagement. As noted previously, goal reengagement may provide a sense of purpose after a self-relevant goal is let go, thereby preventing a person from experiencing feelings of aimlessness and emptiness (Carver & Scheier, 1999; Haase et al., 2013; Ryff, 1989). Therefore, when athletes are faced with retirement from their athletic career, especially at a young age, reengaging in new goals could be a good way for athletes to get back on their feet.

3.1.2 Role of Passion for Sport in the Goal-Adjustment Process

The second purpose of the present dissertation was to unpack the role that passion for sports might play in facilitating or hindering the goal-adjustment responses of athletes when faced with career transition. Previous studies have explored the relationships between motivation for sports and goal-adjustment abilities of athletes (e.g., Smith & Ntoumanis, 2014). This research program looked to further develop this line of research by arguing that athletes are not only highly motivated to practise their sport, they are passionate about their sport. Indeed the concept of passion represents an important source of motivational energy that leads passionate athletes to dedicate themselves fully to their sport (Vallerand et al., 2008). Thus, the proposed research program aimed to substantiate the use of goal-adjustment responses (i.e., disengagement and

reengagement: e.g., Wrosch et al., 2003a) in the context of passion. Since passionate athletes tend to persist in the face of obstacles (Vallerand et al., 2008), but tend to persevere differently depending on the type of passion (harmonious versus obsessive; Rip et al., 2006; Vallerand, 2015), investigating how the goal-adjustment process operates in a context of harmonious and obsessive passion toward sport appeared to be an important research avenue to better understand athletes' career transition. Findings from the second study permitted to distinctly identify how harmonious and obsessive passion modulates athletes' goal-adjustment process when the time calls for it.

A significant two-way interaction between obsessive passion and goal disengagement was found such that under obsessive passion, goal disengagement was positively related to wellbeing. This result is a first finding pointing to the active role of passion in the goal-regulation process, as it suggests that athletes embedded with an obsessive passion towards their sport could benefit from disengaging from unattainable goals. Hence, goal-disengagement can facilitate wellbeing, when obsessive passion is at play. The same two-way interaction was not found to be true for harmonious passion. These results suggest that in order to pinpoint the proper goal-adjustment process, one that is related to wellbeing for all athletes, one must consider the motivational pull towards their athletic goals, because the proper combination of goal-regulation abilities will differ whether they are harmoniously or obsessively passionate about their athletic career.

In keeping with our higher order goal of identifying the recipe to facilitate the goal-adjustment process for high-level athletes in a context of career transition at a young age, we took our analyses further to investigate the role of passion for sport when both ingredients of the goal-regulation process are in the equation. Again, results suggest that *optimal* goal-regulation process varies depending on the type of passion for one's sport. For harmoniously passionate athletes, the relationship between

disengagement and affect was significant when accounting for the possibility of reengaging in new alternative goals. Specifically, the three-way interaction with harmonious passion revealed that as harmonious passion increased and the capacity for goal reengagement increased, goal disengagement became positively related to athletes' wellbeing. Hence, under high levels of harmonious passion, goal-reengagement appeared necessary to protect athletes against the negative impact of goal disengagement on their wellbeing. These results suggest that reengagement is a key factor for a successful career transition for athletes with high harmonious passion for their sport. According to the DMP, under high harmonious passion the activity is well integrated with other life domains (e.g., Bélanger et al., 2013 ; Vallerand, 2015) and thus allows for activities in other domains to fall back on and engage in. Hence, given the more flexible involvement characteristic of harmonious passion, reengagement seems to be easier in the context of a harmonious passion and can even allow for the development of a second passion. Given that they are harmoniously passionate, they should be able to adapt well to the situation and focus their attention and energy on another passionate activity when the situation requires it. Schellenberg and Bailis (2015) studied the influence of engaging in multiple passions on individuals' psychological wellbeing. They found that having at least one harmonious passion was linked to higher psychological wellbeing than having no harmonious passion at all. Furthermore, having two harmonious passions was linked to higher psychological wellbeing compared to having only one harmonious passion. Therefore, having more than one passion is not only possible but, if these passions are harmonious, it can be highly beneficial for people's psychological wellbeing. Moreover, results of ongoing research on the participation of high school students in sports show that sport's involvement in school could increase students' intrinsic motivation for school (R.J. Vallerand, personal communication, June 28, 2017; Shulruf, 2010). The structured environment provided by teachers and other students, combined with new possibilities of goal achievement in a new domain of interest, could be a good avenue for athletes to reengage in. Thus, athletes' career transition out of sport could potentially be smoother if athletes already

had a second source of passionate feelings towards an activity. Our results support these claims as they suggest that if the prospect of reengaging in other alternative goals is not available when harmonious passion for sports is high, then the lack of being able to derive pleasure from activity engagement could be detrimental to the wellbeing of highly harmonious athletes. Overall, these findings suggest that harmonious passion seems to be an optimal motivational foundation for positive career transition from sports.

Our results also showed a significant obsessive passion X disengagement X reengagement three-way interaction on athletes' wellbeing, such that under high levels of obsessive passion and high goal reengagement, goal disengagement was negatively related to wellbeing. Recall that the obsessive passion by goal disengagement interaction suggested that for individuals with an obsessive passion, disengagement was positively related to wellbeing. Hence, results from the three-way interaction suggest that for athletes with an obsessive passion, having the capacity to reengage negatively affected the positive impact of disengaging from an unattainable goal. Perhaps, as they disengage from their sport-related goal, obsessive athletes who have the ability to reengage feel guilty and are afraid to be perceived as having failed for not reinvesting their energy and resources into their initial athletic pursuit, even if it has become unattainable. According to Vallerand (2015), obsessively passionate individuals tend to mobilize more energy into the activity rather than let it go, which may eventually take a toll on their mental health (e.g., burnout) and negatively impact their wellbeing. When disengagement is inevitable, reengaging in another activity could become overwhelming, requiring more resources than what the individual has. Therefore, under high obsessive passion, reengagement could be detrimental to their wellbeing. It could be said that obsessive athletes are not able to manage both goal regulation responses at once. Obsessive athletes might also be more reactive to retirement from sport, especially if they are not retiring from their own volition

(Vallerand, 2015). Combining results from this and previous studies, perhaps the thought of engaging in new alternative activities for highly obsessive athletes, especially after they have made the decision of letting go, might provoke new feelings of anxiety, guilt, and self-doubt (Verner-Filion et al., 2014; Vallerand, et al., 2006; Vallerand, 2015; Lafrenière et al., 2008), and would explain the negative influence of reengagement on the relationship between goal disengagement and general affect. Also, since obsessive athletes seem to be more reactive when disengaging, they may need more time to reengage; more time to treat, understand and manage their feelings before reengaging towards new meaningful goals.

Supporting these results, Verner-Filion and colleagues (2018) revealed that obsessive passion may be linked with greater emotional reactivity to the experiences of success and failure in sport compared to harmoniously passionate athletes. In their study, harmonious passion did not moderate the relationship of success or failure with affect, whereas obsessive passion did. These results suggest that athletes with high levels of obsessive passion might need to spend greater effort to regulate their emotions when faced with challenges (e.g., Hanin, 2007; Lazarus, 2000; Verner-Filion et al., 2018). Contrastingly, athletes with high harmonious passion are secure in their sense of self (Donahue et al., 2009 ; Lafrenière, et al., 2011), which is not contingent on outcomes related to the passionate activity, and are not led to react in a self-protective or highly sensitive manner to goal attainment failure (Bélanger, Lafrenière et al., 2013).

Therefore, the third aim of this dissertation was an attempt at understanding why obsessive and harmonious passion appears to have different optimal goal-adjustment process by investigating the role of emotion regulation.

3.1.3 Passion, Goal-Adjustment, and Emotional Regulation

Results from our third study revealed that obsessive and harmonious passion for sports were differentially related to goal-adjustment processes through differing emotion regulation responses. On the one hand, harmonious passion was found to be positively related to goal disengagement and reengagement through integrated emotion regulation (IER). Because IER entails volitional exploration of the emotional experience in relations to a current situation, it would allow athletes to take in the significance of the career transition process, and its related emotional turmoil, in terms of its importance to other aspects of one's self, such as goals, values, and preferences (Roth et al., 2018, 2019; Schultz & Ryan, 2015). Athletes would therefore be in a better position to make informed decision about their goal-adjustments. Hence, the ability to successfully let go and move on from unattainable goals might be a result of integrated emotion regulation when it comes to harmoniously passionate athletes. These results parallel findings from previous studies linking autonomous motivation and goal regulation (Smith & Ntoumanis, 2014; Ntoumanis et al., 2014; Guilmette, 2015; Mulvihill, 2015; Mulvihill et al., 2018) and explain why even though harmoniously passionate athletes sometimes perceived messages of goal unattainability as threatening (Schellenberg & Bailis, 2019), they are still able to positively adapt their goal-regulation response when timing is appropriate.

The relationship between obsessive passion and goal regulation was found to be slightly different. Emotion dysregulation partially mediated the relationship between obsessive passion and disengagement. This result suggests that obsessively passionate individuals might find it more difficult to regulate their emotional reactions compared to their harmonious counterparts, which would negatively influence their goal-regulation abilities. Consequently, results from our proposed model suggest that having obsessive passion for sports might make it harder to disengage, even though

disengagement has the potential to be beneficial for obsessive athletes (based on our results from Study 2). When combining these results with the findings of Study 2, our results substantiate the fact that doing the right thing is not always the easy thing to do. For passionate athletes, being faced with an unattainable goal could be highly detrimental for their wellbeing, but it might be harder for obsessive athletes to let go of their goals even if it could help ease the pain. These results substantiate the results from Rip and his colleagues (2006) that while harmonious passion is linked to positive self-regulation and little emotional suffering, obsessively passionate athletes are their counterparts as they tend to suffer for longer periods of time as they pursue their activity involvement rigidly even when the circumstances are not favourable to do so.

The negative relationship between goal reengagement and obsessive passion, on the other hand, was direct and not explained by emotion dysregulation when faced with an unattainable goal. Dysregulated emotions interfere with effective functioning because of their overwhelming nature. Since reengagement requires the identification and initiation of a new goal in the face of failure (Sheldon & Elliot, 1999; Ntoumanis et al., 2014), perhaps, in order to access this self-regulation process, athletes have to first integrate the information that is available to them. As dysregulated individuals experience little choice in behaviour, interested reflection, and decision-making concerning actions or coping, it is possible that dysregulation cannot be directly related to reengagement at all. Future research should investigate other variables that could potentially explain why it is harder for obsessive athletes to reengage in new goals.

3.2 Studies Limitations & Future Directions

Despite the theoretical contributions of the present dissertation, some limitations of the three studies should be addressed in future research. First, self-report measures were

used to assess athletes' levels of goal-regulation abilities, which could be a potential source of response bias. Athletes were also never confronted to a real threat to their current athletic goal. Instead, they were presented with hypothetical scenarios of career transition and threat to goal achievement. This method was taken from previous studies on goal regulation abilities and therefore was considered appropriate for the purpose of our research (e.g., Wrosch et al., 2003a; Guilmette et al., 2019; Mulvihill et al., 2018; Ntounamis et al., 2014; Smith & Ntoumanis, 2014). Moreover, in an effort to limit the contribution of possible biases, the results talked about athletes' *openness* to goal regulation. Despite these possible biases, self-reports and beliefs about athletes' own abilities to goal regulate were considered appropriate because of the importance of people's subjective experiences in life (Diener, 1984) and how one's current belief about their reaction to a specific event might influence their actual reaction later on. Second, our findings did not allow for any causal interpretation. To obtain results that would allow such interpretations, future research should conduct experimental studies to examine the causal relations between goal disengagement, goal reengagement, and passion. Environmental factors of the pandemic created difficult conditions for any of the current studies to be prospective in nature. Given that the situation changes in the coming years, future studies should test the relationship between the variable of interests in a prospective study design. Moreover, longitudinally designed studies could be an appropriate avenue in the future to see the progression of the differences between obsessive and harmonious passionate athletes in terms of their use of goal-regulation responses, as well as their emotional responses to unachievable goals and career transition. Our results arose many questions about the long-term impact of reengagement for athletes with high levels of obsessive passion. Highly obsessive athletes might need to be encouraged to take the time to let go and grieve before they can reengage in alternative goals. Future research should explore these relationships longitudinally.

Third, Study 2 did not replicate the goal disengagement by goal-reengagement interaction found in Study1. Statistically, if the initial interaction differs a lot among the levels of a third variable, then it should be reasonable that the two-way interaction should not appear as significant (H. Leduc, personal communication, September 17, 2020). Because Study 2 accounted for the influence of a third variable (passion), and that the interaction between goal disengagement and reengagement differed across this third variable, then it was reasonable that the initial two-way interaction appeared nonsignificant.

Fourth, Study 3 did not account for suppressive emotion regulation because it was not found to be related to goal-regulation and passion variables. Previous studies linking goal motives and goal regulation variables found that only autonomous and amotivation were linked to goal regulation, but not controlled motivation (e.g., Smith & Ntoumanis, 2014; Guilmette, 2015). Our results therefore parallel these previous findings showing that suppressive emotion regulation was not related to goal regulation and passion for sports. We therefore did not account for it in our results.

Finally, issues related to the generalizability of the present findings to other participants and to other activities must be discussed. Samples of all three studies were mainly composed of undergraduate student athletes from Canadian Universities and Colleges who volunteered to participate in the study. Though some Olympian, professional, and international athletes participated in our studies, which allowed for a wider representation of the population under study. Future studies looking at the impact of career transition in high-level athletes would benefit from researching these concepts in more mature, and perhaps professional, athletes whose career transition might be much closer to being a reality and for which the impact of such a transition might have greater lifestyle implications. Additionally, this dissertation was the first to study the relationships between passion, goal regulation, and emotion regulation. Testing these

relationships across the lifespan could give a better portrait of how opportunities for reengagement and emotional reactivity might play different roles according to life stages of athletes. Likewise, it would be important to understand how these relationships might be replicated across different domains and populations as their link to personal identity might be another important variable to consider.

3.3 Overall Implications

A first implication of the present research is that it provides a better understanding of the goal-regulation process of athletes when faced with potential career transition. Although our first study confirmed that at a younger stage of life, such as is often the case for athletes' career transition, reengagement is beneficial to moderate the detrimental impact of disengagement on their satisfaction with life (Haase, et al., 2013), our second study nuanced this finding by specifying that within this group of highly motivated individuals, there are two modes of functioning. Our results therefore highlighted the importance of considering motivational factors that could determine the best course of action in goal-regulation processes for high-level athletes during their post-career transition. The first, more harmonious, mode of functioning is related to more positive integration of emotion regulation when faced with challenges, but also puts emphasis on the importance of continued activity engagement. The second, more obsessive, mode of functioning endures a greater emotionally dysregulated response to challenges, and would seem to benefit from being able to let go when goals become unattainable. The reengagement, on the other hand, did not seem beneficial for highly obsessive athletes as obsessively passionate individuals tend to mobilize more energy into the activity rather than let it go, and reengagement in a new activity may deplete their energy and resources. Also, perhaps as obsessively passionate individuals increasingly gain acceptance of disengagement and letting go, the more the idea of

putting effort and energy into a new pursuit would seem like a burden. This would explain why reengagement was found to negatively influence the positive relationship between disengagement and wellbeing. Albeit these challenges, obsessively passionate athletes are not "doomed," they simply need to find their own positive way to process the transition. Perhaps processing the transition in a more sequential manner—that is, to disengage first before focusing their energy on new goals—might be the best way to protect the wellbeing of obsessive athletes during a career transition. Unfortunately, as they are faced with unattainable goals, obsessive athletes might become more emotionally dysregulated which would make it harder for them to disengage, even though it's the right thing to do for their wellbeing. Over time and support from their coaches, teammates, family and friends, the emotional dysregulation might subside, and they might become willing to let go of their athletic career, which would be beneficial for their wellbeing. Still, more time and acceptance might be needed before they can reengage and start focusing their energies on new meaningful goals.

Unfortunately, our results suggest that obsessively passionate athletes have a harder time disengaging because they are emotionally dysregulated when faced with unattainable goals, which would hinder the adaptive goal disengagement process. This is an important consideration for highly obsessive athletes who are facing career transition at a young age. Perhaps close friends, family members, and coaches could help athletes self regulate and disengage from their sport through need-supportive behaviours (e.g., autonomy support through providing choices in decision-making and acceptance), which could increase their overall wellbeing during career transition (Mulvihill et al., 2018).

Athletes are known to be highly motivated towards their sport in both intrinsic and extrinsic ways, which, paired with internal and external pressures and support, can transform into either types of passion for sport. Need-supportive behaviours by coaches

have been shown to increase autonomous motivation for sport and, consequently, wellbeing in athletes. Unfortunately, the demands of the sport environment are not always aligned in an autonomy supportive way. Consequently, the resultant passion type may be the upshot of an interaction effect between the personality profile of the athlete, the requisite commitments (e.g., preoccupation with the activity (Williams & Krane, 2001) and prolonged deliberate practice (Ericsson, 2003), the sport's environment (e.g., coach support; Mulvihill et al., 2018) and playing standard (Amiot et al., 2006; Sheard & Golby, 2009), and the effect of mediating variables such as intrinsic and extrinsic motivation for sport (e.g., Sheard & Golby, 2009; Vallerand, 2012). Highly competitive levels of sport come with pressure-inducing contingencies, which make athletes more vulnerable to developing obsessive passion (Sheard & Golby, 2009). Interestingly, research found that that obsessively passionate athletes adapt more easily to highly competitive sports environments, as defined by lower depression scores, positive affect, and satisfaction with life (Amiot et al., 2006). Perhaps because highly competitive environments promote a rigid persistence towards goals and involvement at the expense of other life domains, harmoniously passionate athletes might find themselves more in conflict with the increased engagement in the activity at the expense of other life pursuits (Séguin-Lévesque et al., 2003; Amiot et al., 2006). Combined with this dissertation's findings, it could be said that career transition could be harder for athletes who compete at higher levels as they tend to foster a more obsessive passion for their sport. Moreover, competitive playing standards could add to the complexity of disengagement for obsessive athletes as rigid persistence towards goal achievement would have been encouraged in their competitive environment. This highlights the importance of supporting high-level athletes in their disengagement process to help them reap its longer-term benefits. Finally, reengagement might protect harmoniously passionate athletes from negative impacts on wellbeing considering they can let go of the sacrifices they've made for their athletic career and more easily refocus on other life domains that have previously suffered or been neglected. These implications point to the importance of continuing research on high-level athletes and

the factors that may contribute to a successful career transition. Specifically, future research should investigate further the person-environment fit elements to the competitive environment of sports and how that may influence athletes' passion and goal regulation over time.

Overall, the present dissertation provided an interesting point of departure for future research in the area. Results paralleled many of the previous findings in the field of goal-regulation and self-determination theories and answered the call to extend the current literature on the importance of having alternative goals for successful development (e.g., Aspinwall & Richter, 1999; Wrosch et al., 2003a,b). In their articles on self-regulation of unattainable goals, Wrosch and colleagues (2003a,b) hypothesized that the impact of having multiple options may "facilitate subsequent adaptation to failure, loss, and abandoned goals by providing the person with back-up goals to pursue" (p. 1506). Results from the present thesis bring important nuances to this assertion, suggesting that the availability of multiple goals and interests may help with the goal disengagement process, but not in the same way for everyone. For harmoniously passionate athletes, maintaining interest and living a balanced life might support adaptive development such that both moving on and letting go are available regulation processes when faced with unattainable goals. For obsessively passionate athletes, on the other hand, our results suggest that although goal disengagement may be difficult, it seems to be essential for their wellbeing, and that reengagement might take a toll on their mental health (e.g., burnout) and negatively impact their wellbeing. Wrosch and colleagues (2003a,b) also pointed out that we "need to be sensitive to the possibility that the acquisition of new goals might be detrimental; that is, at some point, taking on new goals will deplete personal resources to such an extent that the person becomes stretched too thin" (p. 1506). This underlying principle coincides with our results and the literature on obsessive athletes (e.g., Vallerand, 2015). For obsessive athletes, it is possible that reinvesting energy into a new pursuit creates feelings of guilt

and anxiety about being perceived as having failed for not reinvesting their energy and resources into their initial athletic pursuit, even if it has become unattainable. For those obsessive athletes who manage to let go of their goals, immediate reengagement might not be appropriate as they might need time to process their emotions, restore their energy and sense of self, as reengagement was found to be linked with integrated emotions. Other possible explanations are perhaps that those who are ready to let go can't imagine replacing their goals, either because losing them in the first place was too painful or because they were unhappy with the obsessive nature of their pursuits. As athletes get older, the obsessive nature of highly competitive sports might not fulfill their needs as it previously did. With age, athletes' bodies might start to hurt and their joints and muscle might not respond the way they would need them to. Athletes might also relish a more balanced lifestyle and have increased interest in other life domains. Therefore, when the time comes to let it all go, disengagement might be the only viable option, at least for a while until their energy levels are no longer depleted and their drive and motivation for exciting new pursuit are restored (see short animated film "Dear Basketball" by Kobe Bryant, Glen Keane, and John Williams for inspiration and context).

CONCLUSION

Overall, the findings of the present dissertation add to the existing literature by suggesting that the answer to finding the proper goal-adjustment to career transition is not a "one size fits all." In fact, results show that the ideal answer to goal-adjustment considers the motivational pull of athletes towards their athletic goals, because the combination of goal-regulation abilities will differ whether they are harmoniously or obsessively passionate about their athletic career.

Because having a passion for an activity helps us persist towards goal achievement (Vallerand, 2015), passionate athletes do not tend to have high disengagement abilities, regardless of whether they are harmoniously passionate or obsessive about their sport (Schellenberg & Bailis, 2019). That being said, whereas harmonious passion has been related to the capacity to engage in multiple activities, live a balanced life, and maintain high levels of wellbeing, obsessive passion was often its counterpart by being linked to an obsession over one activity, contingent self-esteem, and burnout. It could therefore be said that obsessive athletes might be better off letting go of their obsessive goals, especially when these goals become unattainable.

This dissertation supported this argument by showing that the more obsessive athletes were about their sport, the more important disengagement abilities became in order to protect athletes from low wellbeing. In other words, encouraging greater ability to let go of unattainable goals would be beneficial for highly obsessive athletes. Unfortunately, obsessive athletes tend to be more reactive when faced with challenges and persist in their commitment and effort towards their goal. Implications of the

present dissertation would suggest that obsessive athletes should be encouraged to take a step back when faced with challenges and practice understanding of their emotional experience in order to promote greater reflection (Roth, 2013), openness to adaptive goal regulation, and overall greater wellbeing (Brenning et al., 2015).

Contrastingly, the present dissertations' results highlighted the importance of integrated emotion regulation for harmoniously passionate athletes to help them accept disengagement from their sport-related goals. Moreover, it underscored the importance for harmoniously passionate athletes to lean on their abilities to engage in multiple activities when faced with an unattainable goal. Specifically, it was found that reengagement could protect harmoniously passionate athletes from the negative impact of goal disengagement during career transition.

While this dissertation has hopefully helped clarify the variables which might influence the career transition process of athletes, it has also created many more research avenues to explore the relationship between the variables of passion and goal-regulation.

ANNEX A

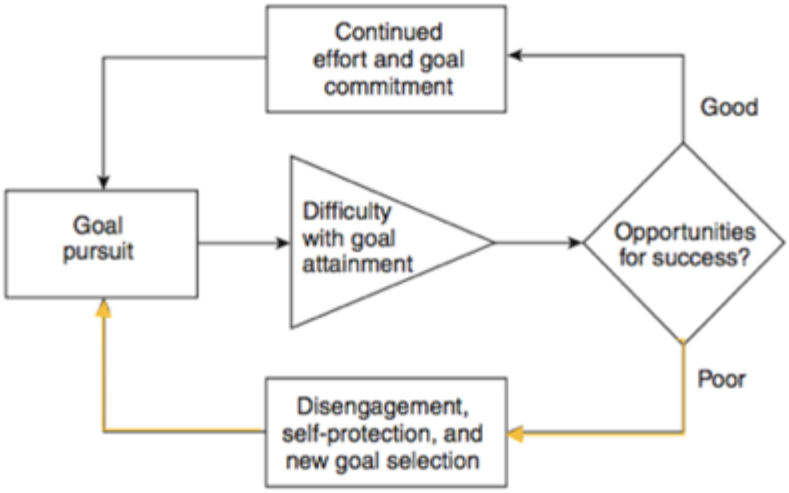


Figure 1.1 Adaptative self-regulation of difficulty with goal attainment (Mens et al., 2014)

ANNEX B

Study 2 specific hypotheses:

- H2a: Goal disengagement will be negatively related to positive affect;
- H2b: Goal reengagement will be positively related to positive affect;
- H2c: Obsessive passion will be negatively related to positive affect;
- H2d: Harmonious passion will be positively related to positive affect;
- H2e: When interacting with obsessive passion, goal reengagement will moderate the relationship between goal disengagement and positive affect, such that goal reengagement will boost the negative relationship between goal disengagement and positive affect;
- H2f: When interacting with harmonious passion, goal reengagement will moderate the relationship between goal disengagement and positive affect, such that goal reengagement will diminish the negative relationship of goal disengagement with positive affect.

Study 3 specific hypotheses:

- H3a: Obsessive passion will be positively related to emotion dysregulation
- H3b: Obsessive passion will be negatively related to disengagement;
- H3c: Obsessive passion will be negatively related to reengagement;
- H3d: Harmonious passion will be positively related to integrative emotion regulation;
- H3e: Harmonious passion will be positively related to reengagement;

- H3f: Harmonious passion will be negatively related to disengagement;
- H3g: Emotion dysregulation will be negatively related to disengagement;
- H3h: Emotion dysregulation will be negatively related to reengagement;
- H3i: Integrative emotion regulation will be positively related to disengagement;
- H3j: Integrative emotion regulation will be positively related to reengagement;
- H3k: Emotion dysregulation will mediate the relationship between obsessive passion and goal disengagement;
- H3l: Emotion dysregulation will mediate the relationship between obsessive passion and goal reengagement;
- H3m: Integrative emotion regulation will mediate the relationship between harmonious passion and goal disengagement;
- H3n: Integrative emotion regulation will mediate the relationship between harmonious passion and goal reengagement.

APPENDIX A

SAMPLE CONSENT FORM

General Information

Person in charge of the project Maude Guilmette, B. Sc.
Doctorate student in Psychology Université du Québec à Montréal
guilmette.maude@courrier.uqam.ca

Purpose of the study

The purpose of the current study is to investigate regulation in goal pursuits, passion, and career transition in athletes.

Procedures

I understand that to participate in the study, I must be:

Ages of 14 and over

I understand that participation in the study involves completing a series of questions about myself in an online survey. I understand that completion of the online survey should take between 20 and 35 minutes.

I understand that after having completed the survey, the research team may contact me again to complete similar surveys or invite me to participate in an in-person interview study.

Means of diffusion

The results of this research will be published in a doctoral thesis and in a scientific article, which will be submitted to a scholarly journal. If you wish, the results of this research will be communicated to you when they become available.

Risks and benefits

There are no risks associated with your participation in this study.

One benefit of this study is that it will provide important information about athletes' goals and passion and how they are related to athletes' career transition.

I understand that as an added personal benefit, I will have the chance to win: 1 (one) of 2 (two) 50$ visa gift cards.
I also understand that to qualify for the benefits outlined above, I must complete 90% of the survey items.

Anonymity and confidentiality

I understand that my participation in this study is confidential. All information I provide will be identified with a code number. Only individuals authorized by the principal investigator will have access to my personal data and the file linking the confidential code number to my name.

I understand that all study information and data will be stored on a secure, password-protected hard drive in the Department of Psychology at UQAM.

Questionnaires and consent forms will be destroyed 5 years after the last publication of the research results.

Voluntary participation

I understand that my participation in this study is voluntary. I also understand that I am free to discontinue my participation at any time.

The project in which you are going to participate has been approved for the ethics of research involving human beings by the Research Ethics Committee for Student Projects (CERPE) of the Faculty of Social Sciences of UQAM. For any questions that can not be addressed to the Research

Directorate or to make a comment, you can contact the Chair of the Committee through the CERPE Coordination: cerpe4@uqam.ca, 514 987- 3636.

Thanks

Your collaboration is important for the realization of this project and we would like to thank you.

Signature

Participant,
I acknowledge having read this form and voluntarily agree to participate in this research project. I understand that my participation in this research is entirely voluntary and that I may terminate it at any time without penalty of any form or justification.

_____

Signature

APPENDIX B

SAMPLE OF DEMOGRAPHIC QUESTIONS

1. How old are you (in years)?

2. Which of the following best describes your biological sex?
   - Male
   - Female
   - Other: _____

5. What is marital status?
   - Single
   - In common-law partnership
   - Married
   - Other

6. Are you studying:
   - Full time
   - Part time

7. Are you currently employed?
   - No
   - Yes, part time
   - Yes, full time
   - Yes, seasonally or temporarily

8. At what level do you practice your sport?

9. At what age did you become involved in your sport?

10. What is your main competitive sport?
    - Baseball
    - Basketball
    - Cross-country
    - Golf
    - Football
    - Hockey
    - Rugby
    - Restling
    - Ski
    - Soccer
    - Other (please specify) _____

11. How would you categorize your main competitive sport?
    - Team
    - Individual
    - Mixed

12. In general, how many hours per week do you usually spend practicing your sport?

13. Do you anticipate a transition out of your main competitive sport in the next year?

14. If yes, for what reason (s)?

15. When you leave your sport, will you be retiering by choice?

APPENDIX C

SCALES

C.1. GOAL-ADJUSTMENT SCALE (Wrosch et al., 2003b)

When we have to stop doing an activity that we have invested a lot in, like a competitive sport for which we have set specific and high goals, we can react in different ways. On a scale from 1 (very unlikely) to 5 (very likely), please indicate how the following statements are likely represent a reaction you may have when you will need to stop practicing your competitive sport.

When I will have to stop pursuing my main competitive sport...

a. It would be easy for me to reduce my effort toward my sport.

b. I would find it difficult to stop trying to perform in my sport.

c. I would stay committed to my sport for a long time; I couldn't let it go.

d. It would be easy for me to stop thinking about my sport and let it go.

e. I would think about other new goals to pursue.

f. I would seek other meaningful goals.

g. I would convince myself that I have other meaningful goals to pursue.

h. I would tell myself that I have a number of other new goals to draw on.

i. I would start working on other new goals.

j. I would put effort toward other meaningful goals.

C.2. TWO-FACTOR PASSION SCALE (Marsh et al., 2013)

While thinking of your main competitive sport and using the scale below, please indicate your level of agreement with each item on a scale from 1 (Not agree at all) to 7 (Very strongly agree):

a. This activity is in harmony with the other activities in my life.

b. I have difficulties controlling my urge to do my activity.

c. The new things that I discover with this activity allow me to appreciate it even more.

d. I have almost an obsessive feeling for this activity.

e. This activity reflects the qualities I like about myself.

f. This activity allows me to live a variety of experiences.

g. This activity is the only thing that really turns me on.

h. My activity is well integrated in my life.

i. If I could, I would only do my activity.

j. My activity is in harmony with other things that are part of me.

k. This activity is so exciting that I sometimes lose control over it.

l. I have the impression that my activity controls me.

m. I spend a lot of time doing this activity.

n. I like this activity.

o. This activity is important for me.

p. This activity is a passion for me.

C.3. POSITIVE AND NEGATIVE AFFECT SCHEDULE (Watson et al., 1988)

This scale consists of a number of words that describe different feelings and emotions. Indicate to what extent you generally feel this way, that is, how you feel on the average. Use the following scale to record your answers.

From 1 (Very slightly or not at all) to 5 (Extremely):

Interested	Irritable
Distressed	Alert
Excited	Ashamed
Upset	Inspired
Strong	Nervous
Guilty	Determined
Scared	Attentive
Hostile	Jittery
Enthusiastic	Active
Proud	Afraid

C.4. SATISFACTION WITH LIFE SCALE (Diener et al., 1985)

Below are five statements that you may agree or disagree with. Please indicate your agreement with each item on a scale ranging from 1 (Strongly disagree) to 7 (Strongly agree).

In most ways my life is close to my ideal.

The conditions of my life are excellent.

I am satisfied with my life.

So far I have gotten the important things I want in life.

If I could live my life over, I would change almost nothing.

C.5. INTEGRATIVE EMOTION REGULATION SCALE (Roth et al., 2009)

The next statements are about how you perceive and experience negative emotions. Indicate your degree of agreement with each statement based on a scale from 1 (Strongly disagree) to 7 (Strongly agree):

1. On some occasions, my negative emotions allowed me to understand the situation in which I was.

2. When I feel negative emotions, I can not focus on the other things I have to do.

3. I try to ignore my negative emotions.

4. When I experience negative emotions, I show it, even in situations where it is not appropriate.

5. Sometimes experiencing negative emotions allows me to understand important things about myself.

6. In any situation, I prefer not to express my negative emotions.

7. In situations where I feel negative emotions, I try to understand what it means about me and my situation.

8. Negative emotions often influence how I act, even if I do not want to act that way.

9. There have been occasions when talking about my negative emotions has helped me.

10. I do not show my negative emotions to others.

11. I try not to mention it when I feel negative emotions.

12. It's hard for me to control my negative emotions and I do not like the way they manifest themselves.

13. When I have negative emotions, I usually feel that I have little control over my behavior.

14. In situations where I am experiencing negative emotions, it is important for me to try to understand why I feel that way.

15. I almost always try not to express my negative emotions.

16. Generally, I try to ignore my negative emotions.

17. When I experience negative emotions, I almost always hide it so others can not notice it.

18. My ability to function (perform) decreases significantly when I experience negative emotions.

19. When I feel negative emotions, I usually try to understand the reasons behind it.

20. I seriously examine my negative emotions in order to understand their source.

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