

BODILY TRANSITION OUT OF ELITE SPORT: A ONE-YEAR STUDY OF PHYSICAL SELF AND GLOBAL SELF-ESTEEM AMONG TRANSITIONAL ATHLETES

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Abstract

Sports career termination implies a transition during which ex-elite athletes face social, professional, and bodily changes and adjustments. This study evaluated the repercussions of the bodily transition and adjustment process on physical self and global self-esteem. Athletes ($n=16$) in transition following the Sydney Olympic Games were compared with active elite athletes ($n=16$) four times during the first year post-career termination using the Physical Self Inventory (Ninot, Delignieres, & Fortes, 2000). The results revealed that perceived physical condition, physical self-worth and global self-esteem decreased during the first six months of the transition out of elite sport. This stage of crisis was followed by a period of increase in these dimensions, as well as in perceived sports competence and physical strength, illustrating an adjustment to new bodily references. Transitional athletes presented lower global self-esteem, physical self-worth, perceived physical condition, sports competence, and physical attractiveness than active elite athletes, because of decreased training and social recognition of the “performing body”.

Key words: bodily transition, physical self, global self-esteem

In recent years, studies on the transition out of elite sport have received great attention. To better understand the stakes of this transition, however, the psychological characteristics of active elite athletes need to be taken into account (Baillie & Danish, 1992) over the course of the entire sports career “from the beginning to the end” (Wylleman, De Knop, & Lavallee, 2001). Athletes progress through several stages to reach the status of elite (Durand-Bush & Salmela, 2001), including the beginning of sports specialization, followed by intensive training in the chosen sport, high achievement and then career culmination (Stambulova, 2000). These periods of transition are “turning points” (Ebaugh, 1988) in which athletes review their identities, roles, and motivations (Danish, Owens, Green, & Brunelle, 1997). Self-esteem radically shifts during these periods, as well, as when an athlete moves from the local to the national or international level of competition (Fox, 1997), and adjustments to the

new status require new behaviors (Hopson & Adams, 1977). Transition out of elite sport is a fundamental part of the whole career and must be seen as such.

During the sport career, elite athletes invest a great part of their lives in training, with additional time devoted to traveling and competition. They narrow external activities to achieve optimal athletic performance, which becomes their major life focus (Crook & Robertson, 1991) and, as a result, “it is impossible for him [or her] to be much else” (Werthner & Orlick, 1986). The performing body thus comes to play the pivotal role in constructing identity (Loland, 1999). McPherson (1980) noted that the consequence of this investment of so much energy directed toward sport is that the individual’s self-esteem becomes based on athletic performance. Elite athletes ascribe great importance to involvement in sport/exercise and are especially attuned to self-perceptions in the physical domain (Brewer, Van Raalte, & Linder, 1993) because sport success depends on physical competencies. Most elite athletes derive much of their self-worth from their perceived competence in the physical domain (Saint-Phard, Van Dorsten, Marx, & York, 1999), and report finding it difficult to imagine a “life without training, meaning a body without muscles and physically unfit” (Loland, 1999). Individuals with higher levels of athletic competence show more enhanced self-concept and self-esteem (Kay, Felker, & Varoz, 1972; Marsh, Hey, Roche, & Perry, 1997; Marsh, Perry, Horsely, & Roche, 1995), and added to this is the psychological reinforcement of social recognition for their performances (Loland, 1999; Webb, Nasco, Riley, & Headrick, 1998). Thus, elite athletes present greater self-esteem than non-elite athletes (Mahoney, 1989; Marsh et al., 1997) and non-athletes (Kamal, Blais, Kelly, & Ekstrand, 1995; Marsh et al., 1995). Moreover, elite athletes present higher physical self-concepts than non-elite ones (Marsh et al., 1997).

The last transition that elite athletes must face is induced by retirement from elite sport, which, though inevitable, introduces a “discontinuity in one’s life space” (Crook & Robertson, 1991). Instead of being abrupt, career termination induces a period of transition during which elite athletes face social, occupational, and bodily changes. For those who have devoted a great part of their lives to training and competition—and who have acquired the status of “exceptional”—this transition is potentially a source of distressful reactions (Lavallee, Gordon, & Grove, 1997). The literature as a whole has described the psychological repercussions of this transition from social and professional perspectives, from the status of “exceptional” to the status of “ordinary citizens” (Werthner & Orlick, 1986). Studies realized in this area have reported that this passage have negative repercussions, such as identity crisis reactions (Brewer et al., 1993; Ogilvie & Howe, 1982), emotional difficulties (Allison & Meyer, 1988), and/or decreased self-confidence and life satisfaction (Werthner & Orlick, 1986), because of the changes in social and professional references. Others have demonstrated no manifestation of distress during this period (Blinde & Greendorfer, 1985; Curtis & Ennis, 1988; Greendorfer & Blinde, 1985), with retirement from high level competition changing life in a positive way (Sinclair & Orlick, 1993). These discrepancies can be explained by the diversity of potentially distressful social and professional factors and how they are handled by each individual (Crook & Robertson, 1991; Taylor & Ogilvie, 1994).

But research in the area of transition out of elite sport suffers from theoretical limitations. Actually, no research has yet focused on the psychological repercussions of this passage from a bodily perspective. Because the performing body and physical skills are central to self-perceptions and feelings of self-worth in the elite athlete, it is relevant to study how perceptions of physical competencies and self-esteem change with the transition into a new life style. It does not necessarily follow that a successful transition into a new profession will ensure an easy bodily transition (Chamalidis, 2000). In fact, the new career often does not allow the ex-elite athlete to keep fit and, even if an exercise program is maintained, a

substantial discrepancy remains between this activity and the physical over-investment during the athletic career (Chamalidis, 2000). The ex-athlete is thus quickly subject to physical transformations such as weight gain (Koukouris, 1991) or loss of muscle mass because of dramatically reduced training volume and deregulation of eating habits (Wylleman, De Knop, Menkehorst, Theeboom, & Annerel, 1993). In addition, the decrease in exercise induces a decline in physical prowess and capacities (Drahota & Eitzen, 1998). All these bodily changes become preoccupations that may contribute to identity conflict during transition (Chamalidis, 1997).

The hierarchical model of self-esteem in the physical domain (Fox & Corbin, 1989; Fox, 1997) could be useful in understanding how the bodily transition—with the physical modifications that it implies—affects physical self, which is central to the elite athlete's identity, and global self-esteem. In fact, this model has already suggested that physical modifications have an impact on the subdomain of perceived physical competencies at the base of the hierarchy and physical self-worth at the middle; these two levels are physical self-constituent. The above-mentioned authors demonstrated that this effect could be extended from physical self to global self-esteem at the top of the hierarchy, and that this effect is closely tied to the importance attributed to the physical domain by the individual (Fox & Corbin, 1989).

Added to these theoretical considerations, several methodological limitations emerge from the literature. First, quantitative research focused on the psychological repercussions of transition out of elite sport is scarce. Moreover, these studies have investigated the psychological repercussions of this transition using a retrospective design, despite the inherent problems associated with memory decay and recall bias and the clear risk of significant information being neglected (Kerr & Dacyshyn, 2000; Squire, 1989).

The last point raises the need to consider transition out of elite sport as a process, as something occurring over time. Previous research using a retrospective design has emphasized that the average time taken to adjust to the new situation is situated between six months and one year (Brandao, Winterstein, Pinheiro, Agresta, Akel, & Martini, 2001; Sinclair & Orlick, 1993; Stambulova, 1997; Stambulova, 2001) with several stages during this transition period, from an initial feeling of loss and void to a stage of re-orientation of self and adjustment (Kerr & Dacyshyn, 2000; Werthner & Orlick, 1986). Exits from the stages of loss and crises are almost always associated with a change in the place and role of sports in the individual's life, becoming a part of his personal history (Stambulova, 1994). Thus, longitudinal methodologies are needed to better understand the process of adjustment to a new physical state and the evolution of global self-esteem in parallel of this reevaluation.

Based on the literature (Kerr & Dacyshyn, 2000; Werthner & Orlick, 1986), we assumed that transitional athletes would undergo several stages during the bodily transition and adjustment process in comparison with active elite athletes. We hypothesized that during the first six months following career termination, physical self and global self-esteem would evolve through a stage of crisis provoked by an awareness of the loss of physical capacities and the performing body. This first stage would be followed by one of personal growth and re-orientation based on reevaluation of physical competencies, which would occur between six months and one year post-career termination, and illustrated by an increase in the above-mentioned dimensions. Moreover, we expected between-group differences for physical self-concepts and global self-esteem, with transitional athletes having lower evaluations of physical competencies and global self-esteem because of the decreased training and exercise and reduced social recognition associated with retirement from elite sport.

Method

Participants

Transitional athletes. The transitional athletes selected for this study were 16 French Olympic athletes, eight males and eight females, who retired from elite sport after the Sydney Olympic Games. They represented the following sports: canoeing, badminton, synchronized swimming, fencing, archery, rowing, and wrestling. The mean age of this group was 30.56 ($SD = 3.7$).

Retirement from sports was voluntary. At the time of retirement, they had been competing as members of national teams, i.e., as elite athletes, for 10.81 years ($SD = 2.4$). All reported a sense of accomplishment, saying they had achieved their sports-related goals. They also expressed a desire to discover new activities and new focuses in their lives. All these athletes held part-time jobs during their careers that were adapted to high level performance needs; that is to say, complete availability to train and compete. They all had jobs to focus on after career termination, which in fact became full-time. Athletes whose retirement was involuntary were not available.

Active elite athletes. The transitional athletes were compared with 16 elite athletes who were remaining in high-level sports, all of whom were matched with the transitional group in terms of sport, gender and age ($M = 29.36$ years, $SD = 2.3$). For example, if the transitional group had one female and four male fencers, the active group had the same proportion of males and females with elite status in the same sport. All were members of national teams and competed in World Cups and Championships or European Championships. They had been competing as members of national teams for an average of 9.68 years ($SD = 1.6$).

A t-test demonstrated no statistical difference between the two groups for age, $t(30) = 1.05$, $p = .29$; or years of elite sport participation (i.e., members of national teams), $t(30) = 1.54$, $p = .13$.

Measures

Physical self and global self-esteem. The Physical Self Inventory (PSI) was selected to study the effect of bodily transition on physical self and global self-esteem. This 25-item test, which was adapted by Ninot, Delignières and Fortes (2000), assesses perceived competencies in the physical domain and global self-esteem according to a hierarchical perspective (Fox & Corbin, 1989). This instrument includes six subscales. The first assesses global self-esteem and is adapted from the French version of Coopersmith's Self-Esteem Inventory (Coopersmith, 1984). The remaining five scales are adapted from Fox and Corbin's Physical Self-Perception Profile (1989): one at the domain level, physical self-worth, and four at the subdomain level: perceived physical condition, sports competence, perceived attractiveness, and physical strength. This set, formed by physical self-worth and perceptions of specific competencies, is physical self-constituent. This instrument demonstrated good psychometric properties, with test-retest reliability coefficients of .90 for the global self-esteem scale, .91 for physical self-worth scale, and .95, .96, .94, and .94 respectively for perceived physical condition, sports competence, bodily attractiveness, and physical strength subscales, and internal consistency ranging from .77 to .90 (Ninot et al., 2000). In the present study, the PSI presents good reliability coefficients between each evaluation, ranging from .84 to .96 for the global self-esteem scale, .91 to .93 for physical self-worth, .81 to .88 for perceived physical condition, .91 to .94 for perceived sports competence, .89 to .94 for perceived bodily

attractiveness, and .87 to .96 for perceived physical strength. Examples of items are: “globally, you have a good opinion of yourself” for global self-esteem, “you’re proud of who you are and what you can do physically” for physical self-worth, “you think you are able to run for a long time without fatigue” for perceived physical condition, “you manage well in all the sports” for perceived sports competence, “you think that you have a body pleasant to look at” for perceived attractiveness, and “when you come to situations requiring strength, you are among the first to step forward” for perceived physical strength. The items of the PSI are designed to reflect the perceived product (for example, being good in sports), process (ability to learn skills), and confidence (feeling confident in physical capacities) in the physical self and the whole self. The advantage of this questionnaire is that it allows the study of these components separately (Ninot et al., 2000). The subjects were asked to rate themselves using an analog scale from 0 (*totally agree*) to 10 (*totally disagree*). This kind of response scale allowed us to avoid bias related to learning response effect and it enhanced the sensitivity of the measures.

Procedure

Twenty-one subjects who had decided to end their careers after the Games were contacted at the end of this event by telephone and mail. Four did not respond and one declined the invitation to participate. Informed consent was obtained from 16 athletes, after they were informed that anonymity would be preserved. Dates were arranged to meet the participating athletes individually and, by the same researcher, to administer the above-mentioned instrument.

The 16 active elite athletes were contacted at the National Institute of Sports and Physical Education and were informed of the purpose of the study; consent was also obtained from these athletes. All accepted to complete the quantitative instrument and were informed that anonymity would be preserved.

Each athlete of both the transitional and active groups was evaluated four times during approximately a one-year period. Evaluations were made every three months, with the first taking place between six weeks and two months after career termination (CT1). The second was made five months after career termination (CT2), the third was made about eight months after career termination (CT3), and the fourth, between eleven and twelve months after career termination (CT4). At each of these evaluations, participants completed the Physical Self Inventory to assess changes in physical self and global self-esteem¹.

Data analysis

The means of the subscales were calculated from the score obtained on the PSI analog scale. For the purpose of the present investigation, analyses were repeated-measure ANOVAs in which physical self-concepts and global self-esteem were the dependent measures; time was a repeated-measure independent variable (with four times); and the two groups, transitional and active elite athletes, were independent variables for between-group comparison. These analyses were followed by post-hoc comparisons using the Newman Keuls test when statistical significance was obtained.

Results

Descriptive statistics for transitional and active elite athletes are presented in Table 1.

Table 1: Means and standard deviations for transitional athletes and active elite athletes, and differences between the two groups on the Physical Self Inventory at CT1, CT2, CT3, and CT4

Transitional athletes								
	CT1		CT2		CT3		CT4	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
GSE	7.32**	0.97	6.80**	1.02	7.10**	1.10	7.44**	1.22
PSW	6.77**	1.38	6.33**	1.40	6.56**	1.12	7.11**	1.36
PC	8.01n.s.	1.15	7.53**	1.03	7.72**	1.29	8.12**	1.04
SC	5.87**	1.87	5.92**	1.38	6.40**	1.41	7.01 n.s.	1.33
PA	7.02**	1.18	6.66**	1.38	6.80**	1.51	7.03**	1.62
PS	5.26 n.s.	2.56	5.71n.s.	2.11	6.08 n.s.	1.96	6.63 n.s.	1.66

Active elite athletes								
	CT1		CT2		CT3		CT4	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
GSE	8.19	1.09	8.33	1.03	8.53	0.91	8.37	1.16
PSW	8.31	1.20	8.62	1.25	8.73	1.32	8.58	1.06
PC	8.54	1.33	9.11	0.82	9.26	0.83	9.12	0.88
SC	6.90	1.42	7.28	1.01	7.53	0.91	7.44	0.97
PA	8.28	1.22	8.39	1.14	8.61	1.25	8.34	0.90
PS	5.10	1.99	5.88	1.57	6.64	1.74	6.45	1.46

Note. GSE = Global Self-Esteem; PSW = Physical Self-Worth; PC = Physical Condition; SC = Sports Competence; PA = Perceived Attractiveness; PS = Physical Strength; CT1 = One and a half months after Career Termination; CT2 = Five months after Career Termination; CT3 = About eight months after Career Termination; CT4 = Between eleven and twelve months after Career Termination.

**lower than active athletes at $p < .001$; n.s. : No significant difference

ANOVA's results

Perceived physical condition. Analysis of variance revealed a significant group by time interaction effect, $F(3, 90) = 4.15, p < .01$. Post hoc comparisons using the Newman Keuls test revealed that the perceived physical condition of the transitional athletes decreased between CT1 and CT2 ($p < .05$) and increased between CT2 and CT4 ($p < .05$) (see Figure 1). At the same time, active elite athletes increased their perceived physical condition between CT1 and CT3 ($p < .05$). This analysis also demonstrated significant differences between the two groups, with transitional athletes having a significantly lower mean perceived physical condition than the active elite athletes at CT2 ($p < .001$), CT3 ($p < .001$), and CT4 ($p < .001$), although no differences emerged at CT1 (see Table 1).

Perceived sports competence. Analysis demonstrated a significant group by time interaction effect, $F(3,90) = 3.57, p < .05$. Post hoc comparisons revealed that perceived sports competence increased for the transitional athletes between CT2 and CT3 ($p < .05$) and between CT3 and CT4 ($p < .001$) (see Figure 1). No differences were observed between CT1 and CT2. Active athletes increased their perceived sports competence between CT1 and CT3 ($p < .05$). Transitional athletes had a significantly lower mean perceived sports competence than the active ones at CT1 ($p < .001$), CT2 ($p < .001$), and CT3 ($p < .001$), but no differences emerged at CT4 (see Table 1).

Perceived attractiveness. Analysis of variance found a significant group effect, $F(1,30) = 13.52, p < .001$. The post-hoc comparisons revealed that transitional athletes had a significantly lower mean perceived attractiveness than active elite athletes at all times (see Table 1).

Perceived physical strength. Analysis revealed only a significant time effect, $F(3,90) = 11.83, p < .00001$. Post-hoc test revealed that perceived physical strength increased significantly for transitional athletes between CT2 and CT4 ($p < .05$) (see Figure 1). No differences were found between CT1 and CT2. Active elite athletes increased their perceived physical strength between CT1 and CT3 ($p < .01$).

Physical self-worth. The results demonstrated a significant group by time interaction effect, $F(3,90) = 3.68, p < .05$. Post hoc comparisons demonstrated that physical self-worth decreased significantly between CT1 and CT2 ($p < .05$) and increased significantly between CT2 and CT4 ($p < .01$) and CT3 and CT4 ($p < .05$) for transitional athletes (see Figure 1). No significant differences were noted for the active athletes between the four times. The analysis also demonstrated that the transitional athletes had a significantly lower mean physical self-worth than active elite athletes at all times (see Table 1).

Global self-esteem. Analysis of variance demonstrated a significant group by time interaction effect, $F(3,90) = 2.78, p < .05$. The Newman Keuls test revealed that global self-esteem decreased significantly between CT1 and CT2 ($p < .05$) and increased significantly between CT2 and CT4 ($p < .05$) for transitional athletes (see Figure 1). No significant differences were found between the four times for active athletes. The analysis also demonstrated that transitional athletes had a significantly lower global self-esteem than active elite athletes at the four times (see Table 1).

Discussion

This longitudinal study was designed to assess the psychological reactions to transition out of elite sport from a bodily point of view. The underlying assumption was that transitional athletes face bodily changes, in addition to social and professional changes, that will have an effect on physical self and global self-esteem.

Evolution of physical self and global self-esteem

We hypothesized that the transitional athletes' physical self and global self-esteem would move through a stage of destructure and crisis during the first six months of transition, followed by a stage of adjustment between six months and one year post-career termination. We assumed these reactions would be provoked by the inevitable body changes due to substantially reduced training and exercise (Chamalidis, 1997, 2000; Drahota & Eitzen, 1998; Koukouris, 1991). This hypothesis was confirmed, with two stages clearly noted.

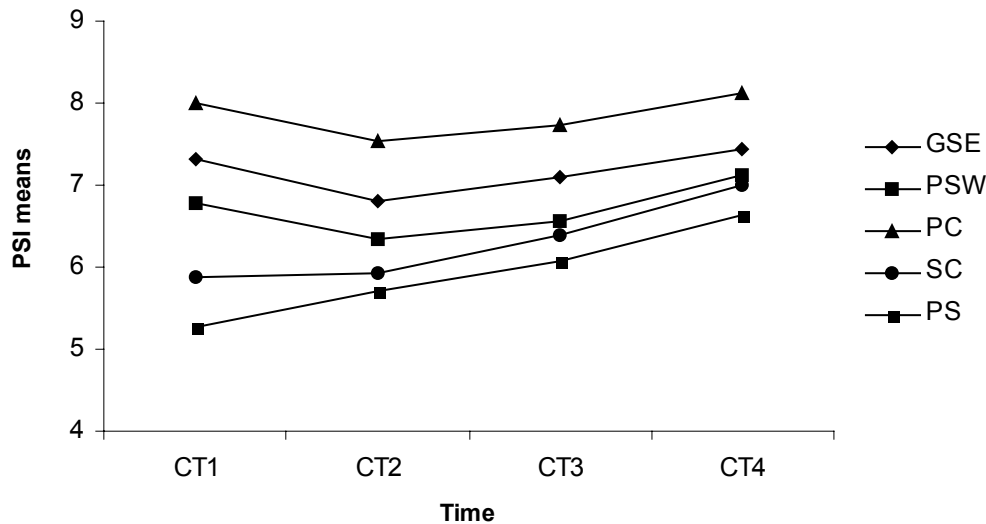


Figure 1. *Evolution of physical self-perceptions and global self-esteem among transitional athletes.* GSE = Global self-esteem; PSW = Physical self-worth; PC = Physical condition; SC = Sports competence; PS = Physical Strength; CT1 = One and a half months after Career Termination; CT2 = Five months after Career Termination; CT3 = About eight months after Career Termination; CT4 = Between eleven and twelve months after Career Termination.

Stage 1: Crisis stage

The results showed that perceived physical condition and physical self-worth decreased for five months after career termination. The decrease in perceived physical condition reflected decreased physical efficacy and efficiency, and signified a shift in the functional and “performing” body. It suggested also that transitional athletes lose confidence in their capacity to maintain effort and in their endurance level. According to Fox and Corbin’s model (1989), the decrease in perceived physical condition at the subdomain level led to diminished physical self-worth at the domain level; that is to say, to reduced feelings of pride, self-respect, satisfaction, and confidence in the physical self. Several factors potentially explain these diminutions. Based on Higgins’ self-discrepancy theory (1987), transitional athletes may perceive a discrepancy between their current and former physical capacities that affects their perceived physical condition and physical self-worth. As suggested by Baillie and Danish (1992), they cannot be as active as they were during their careers because full-time work becomes a priority. Even if they remain involved in sports as coaches or administrators, they are not as active and they thus gain weight (Koukouris, 1991) and lose physical prowess (Drahota & Eitzen, 1998), which surely affects these perceptions. An interesting point, however, is related to the stability of perceived sports competence and physical strength that we observed during this initial period. Fox and Corbin (1989) define perceived sports competence as perceptions of sports and athletic ability, ability to learn sports skills, and confidence in the sports environment. This dimension may thus have been less affected than other perceptions of competence because of the learned nature of these abilities. The stability of this dimension thus indicates that transitional athletes remain confident in their abilities in sport. The stability of perceived physical strength indicates that transitional athletes remain confident in situations requiring strength. This dimension is also perhaps less affected by physical transformations and the lack of training than perceived physical condition and physical self-worth.

In addition to internally perceived discrepancies, external factors are also important. Marsh (1998) underlined that how favorably individuals perceive themselves depends not only on their objective accomplishments, but also on how these accomplishments compare with frames of reference established by significant others. The comparison of transitional athletes' current physical capacities with those of active elite athletes, i.e., the "significant others" with whom they were previously competing, could also have a negative effect on both perceived physical condition and physical self-worth.

The global self-esteem of the transitional athletes also decreased during this initial period, illustrating a phase of crisis (Stambulova, 2000). A smooth social and professional transition does not guarantee an easy bodily transition (Chamalidis, 2000). Although all the athletes of our sample had jobs to focus on immediately, the perception of diminished physical condition and physical self-worth could have affected global self-esteem because of the perceived discrepancy between the current and former physical self. Werthner and Orlick (1986) referred to a "living, loving relationship" experienced by active elite athletes with their sport, and suggested that its loss would have substantial impact. The perception of bodily losses after years of invested time and effort is assumed to be particularly stressful and threatening for self-esteem. These losses are compounded by the awareness of the definitive loss of status as "exceptional" and the finding that one has become an "ordinary citizen" (Werthner & Orlick, 1986). The loss of social reinforcement of the "performing body" may further decrease global self-esteem. Last, the "adrenaline rush" from competition is missing (Drahota & Eitzen, 1998), leaving a void of sensation and stimulation from the body (Kerr & Dacyshyn, 2000).

Stage 2: Adjustment period

Perceived physical condition, sports competence, physical strength and physical self-worth increased from five months to about one year after career termination. This increase corresponded to a reevaluation of physical competencies in light of the new bodily state and reflected an increase in confidence in the physical self. During this period, these athletes seemed to have reassessed their physical competencies and capacities and created new personal standards, more adapted to their actual capacities. The physical self was reshaped in light of new leisure time activities, professional roles, and interests. Preoccupations and perceived competencies were no longer based on the ideal of great physical performances.

Global self-esteem increased in parallel to perceived physical condition, sports competence, physical strength and physical self-worth. The reevaluation of the physical self is assumed to have a positive effect on global self-esteem and on psychological adjustment to a new situation as a whole. Sonstroem and Potts (1996) demonstrated that perceived physical condition, sports competence, physical strength and physical self-worth are significantly associated with life adjustment. Their data support the conclusion that self-perceptions of one's physical assets are essentially related to life adjustment. Based on their results, we assumed that the reevaluation and adjustment of physical self was positively tied to psychological adjustment to transition out of elite sport and had a positive effect on global self-esteem. The importance of the physical self decreases to the benefit of other life domains and the body is no longer directed by the production of performances and exercise becomes a factor for enhancing mental health and global self-esteem (Fox, 2000).

Differences in physical self and global self-esteem between transitional and active elite athletes

This study revealed that perceived physical condition, sports competence, perceived physical attractiveness, physical self-worth and global self-esteem were significantly lower during the

first year of transition out of elite sport in comparison with the perceptions of active elite athletes, confirming our second hypothesis.

Terminating a career as an elite athlete inevitably involves a decrease in social valorization and reinforcement of the performing body, which, in addition to weight gain, may affect perceived attractiveness. Moreover, the substantial discrepancy between the bodily over-investment during the sports career and the current sedentary situation (Chamalidis, 2000) explains why transitional athletes evaluate themselves lower than active elite athletes. They logically feel less competent and efficient than during their career because of this lack of training. In addition, weight gain and decreased capacities remind them daily of the change in their status. Even if they remain recreationally active, with a reevaluated physical self and adjustment to a new bodily situation as demonstrated in this study, they know they are not as competent as when they were world-class athletes. Physical self-perceptions are tied to physical activity level (Caglar, Karaca, & Cinemre, 2001; Fox & Corbin, 1989) and, as a result, active elite athletes, who have exercise-focused lives, have higher perceptions of physical competencies than transitional athletes, who train less and are increasingly more invested in other domains.

An interesting point was the lack of difference between the two groups on perceived sports competence at the last evaluation. This could be attributed to the basic sports competence that ex-elite athletes possess. Even if they gain weight or lose physical condition, the overall reevaluation of the new bodily state may have a very positive effect on perceived sports competence in particular because of the certainty and confidence they have in their athletic abilities.

Global self-esteem was also lower for the transitional athletes, probably because of the perception of discrepancy between the current and former physical self. Another factor could be the transitional athletes' awareness that he or she may never again be recognized for outstanding performances in sport. In comparison, active elite athletes are still positioned to tell themselves, "Yes, I am one of the top performers in my sport at the international level" (Kamal et al., 1995) and the positive attitudes they have toward their physical competencies and themselves are constantly reinforced by feedback from a social environment that valorizes the "performing body" (Loland, 1999).

Transition out of elite sport induces a reevaluation of references in several life domains. Thus, there is an opening outward toward familial, social, and professional domains. This opening outward could expose them to negative evaluations, which would also have an effect on global self-esteem because of the "discovery" of roles that were hidden by the importance of physical self during their careers. In comparison, active elite athletes are almost exclusively focused on the physical competencies and the athletic domain of the self-concept, and thus are protected from negative evaluations of their competencies in other areas. Coaches, technical staff and others reinforce elite athletes' global self-esteem and perceived physical competencies, by maintaining attention on body exercise and training and controlling factors that are potentially stressful for sport achievement (Werthner & Orlick, 1986).

Conclusion

Transition out of elite sport induces social, professional, and bodily changes. To adjust well to post-sports living, ex-elite athletes therefore have to revalue their references in these areas. Two stages of change were identified in both physical self and global self-esteem, from a period of crisis to a period of reevaluation of physical self. This agrees with Kerr and Dacyshyn (2000) and Werthner and Orlick (1986), who suggested that transitional athletes

face an initial stage of disorientation and loss of self confidence, because of the confrontation to new professional and social references, followed by a period of personal growth and “new beginnings” in the social and professional areas. But even though they revalue and adjust to a new bodily state, they demonstrate lower perceived physical condition, sports competence, physical attractiveness, physical self-worth and global self-esteem than active elite athletes.

The results of this study support the previous research in the area of transition out of elite sport from social and professional points of view by presenting new and complementary data from a bodily point of view. Our results suggest that, because of the centrality of the physical self in identity and feelings of self-worth during the sports career, transition from a bodily over-investment to a more sedentary state is marked by a loss of physical efficiency that is detrimental to perceptions of both competencies and global self-esteem. This stressful period is followed by a period of adjustment to new physical capacities and a reevaluation of self-perceptions. From a theoretical point of view, this study provides information on both a neglected aspect of transition out of elite sport, i.e., the bodily perspective, and the transition process, highlighting two major stages in the adjustment process.

The present research is also original in its methodology. As stated by Grove, Lavalley, and Gordon (1997), longitudinal assessments are needed to better understand the transition process. The use of a longitudinal methodology during the first year after career termination provides valuable information on changes in self-perceptions. Moreover, data collection during the actual transition avoids selective memory, which is a shortcoming of studies using retrospective evaluation (Grove et al., 1997; Kerr & Dacyshyn, 2000). The results agree with and complement previous research that emphasized that the adjustment period lasts between six months and one year. In fact, the first five months were a time of reckoning with loss, and the following period until one year post-career termination was a time of reevaluation and adjustment.

Interpretative data from the transitional athletes would have been a valuable complement to the quantitative approach. The use of a qualitative procedure would be useful in delineating both the sources of stress and the coping strategies used by retired athletes (Crook & Robertson, 1991; Grove et al., 1997). Also, the results need to be verified in a larger sample of transitional athletes. Moreover, the results and two-stage model obtained in the present study could perhaps not be generalizable to other athletes. Transitional athletes in our study chose to retire, and the results would not be applicable to involuntary retired athletes, who end their career because of athletic injury for example.

Transition out of elite sport should be considered as part of the broader sport career. Better understanding of the psychological characteristics of active elite athletes would perhaps facilitate the identification of potentially distressful features of this final transition. Future research based on the multidimensionality of self-concept would be useful in identifying and understanding the mechanisms of transfer of feelings of self-worth from the physical self to new areas of life. Because active athletes narrow their external activities to focus only on the physical competencies and athletic domain, the inverse mechanism of opening up to familial, professional, and social areas when careers end needs to be better examined.

Footnotes

1. The same athletes also provided information about body image at CT1 and CT2. The body image findings are reported elsewhere (Stephan & Bilard, in press).

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