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# Reactions to sport career termination: a cross-national comparison of German, Lithuanian, and Russian athletes

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## Abstract

**Objectives:** To assess the cognitive, emotional, and behavioural consequences of sport career termination of national and international level athletes in three nations.

**Design and methods:** Athletes of Germany ( $n = 88$ ), Lithuania ( $n = 65$ ), and Russia ( $n = 101$ ) were asked to describe in retrospect their reactions to career termination. The Athletic Retirement Questionnaire developed by the first two authors and presented in three corresponding languages was used. Planning of retirement and national identity served as independent variables. Dependent variables were reasons and circumstances for career termination, participants' emotional reactions, coping reactions, athletic identity during and after sport career, and adjustment to life after career termination.

**Results:** Analyses of variance revealed significant main effects of retirement planning and national identity on most dependent variables. Planning of retirement contributed to significantly better cognitive, emotional, and behavioural adaptation. In addition, high athletic identity contributed to less positive reactions to retirement and to more problems in the adaptation process. The emotional reactions of Russian and Lithuanian athletes were similar, but differed from the German athletes who, in general, showed more positive and lesser negative emotions after retirement. Though accepting the reality of retirement was the most often used coping strategy among all participants, Lithuanian athletes showed more denial and Russian athletes more distraction strategies after retirement than the other nations.

**Discussion:** The results are discussed with regard to athletes' readiness for career transition in different social and cultural environments. Recommendations are given on how to help athletes to prepare for and to cope with career termination.

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## Introduction

Studies concerning the transition to post-sport career have mainly concentrated on the *reasons* for and the *adjustment* to career termination. The reasons for career termination are manifold (Boothby, Tungatt, & Townsend, 1981; Bussmann & Alfermann, 1994; Koukouris, 1991; Ogilvie & Taylor, 1993), and seem to play a crucial role for adjustment to post-career life. This is especially true for the subjective feeling of freedom of choice (Alfermann, 2000; Coakley, 1983; Taylor & Ogilvie, 1994, 1998; Webb, Nasco, Riley, & Headrick, 1998). Data obtained so far show quite clearly that an involuntary retirement may have complicating or even devastating consequences for the adjustment process shortly after career termination (e.g. Blinde & Stratta, 1992; Wheeler, Malone, VanVlack, Nelson, & Steadward, 1996). This can be especially true if retirement is regarded as an ‘offtime’ life event due to externally determined causes (Blinde & Stratta, 1992; Pearson & Petitpas, 1990). A subjective feeling of control thus seems to facilitate the transition to post-career life. In addition, it may also contribute to differences in the quality of life.

In their overview of sport career termination research, Ogilvie and Taylor (1993) and Taylor and Ogilvie (1994, 1998) emphasise four main causes of career termination: age, deselection, injury, and free choice. The first three causes underline that athletes are unable to continue competition due to performance decrements. Thus they seem to have no choice about withdrawal, being forced to do so. They have to leave due to circumstances that are out of their control. In addition, Ogilvie and Taylor mention free choice as a fourth category of causes. Webb et al. (1998) even dichotomise the causes of career termination “into two categories—retirements that are freely chosen and those that are forced by circumstances” (p. 341), out of the athletes’ control, like decreasing performance or injuries. The subjective feeling of control over events is a crucial part of social psychological theories of health and illness. In fact, the perception of control not only fosters mental health and a successful development (Seligman, 1991), but also is strongly correlated to heightened feelings of self-efficacy, which play a key role in behaviour change and adjustment (Bandura, 1997). So it can be postulated that free choice vs. forced retirement will influence adjustment to it.

The dichotomy of causes as suggested by Webb et al. (1998) needs further differentiation. Given that the feeling of control over career termination is crucial for emotional and coping reactions, we assessed not only the subjective feeling of voluntary or involuntary drawback from sport, but also if retirement had been planned or not. Thus the first objective of our study is concerned with the effects of planned vs. unplanned retirement. We hypothesise that planned retirement will lead to better emotional and behavioural adjustment to career termination. In addition, gender will be considered as a variable that might contribute to differences in the transition process, even though this has been rather neglected so far. Those studies that do make comparisons between male and female athletes actually find some minor differences in reasons for career termination and in post-career development (Alfermann, 2000; Hastings, Kurth, & Meyer, 1989), but similarities are evident (Greendorfer & Blinde, 1985).

Besides the differential effects of planned vs. unplanned career termination, we are also interested in comparing the cross-national stability of reactions to career termination. Thus the cross-national comparison is the second objective of our study. Typically, studies were undertaken in Western Europe and North America, thus representing countries with a capitalist economy (for an overview, see Lavalley, Wylleman, & Sinclair, 2000). Career termination was a topic of research in socialist countries only rarely (see Svoboda & Vanek, 1982). One of the reasons could be that in socialism elite sport was glorified and possible negative side effects were withheld from the public. In the former Soviet Union, for example, “an emphasis was placed on athletes’ achievements and on positive examples and facts. The negative facts were either passed over in silence or were given as exceptions to the general rule” (Stambulova, 1994, p. 223). This changed only after Perestroika, when career transitions, including post-career, became a topic of research (e.g. Stambulova, 1994). But, so far, no comparative studies exist about how athletes from countries of former socialist and capitalist societies react to their career termination. We will present data from samples of Germany, Lithuania, and Russia. Lithuania and Russia were formerly united within the Soviet Union, and in those times had an identical system of elite sport support that gave athletes not only optimal training opportunities, but also social status, privileges, and financial security. Athletes were sure to find a job after their sport career. As sport was an important way to help the country gain greater international status, successful elite athletes also were rewarded with an extremely high reputation. After Perestroika, athletes were no longer supported in a way that made elite sport a secure life time investment. Instead, athletes had to make their own choices for post-career and had to find a job by themselves. In addition, elite sport lost its high reputation.

In Germany, the Eastern part of the country, the former German Democratic Republic (GDR), had a political and sport system that was comparable to that of the former Soviet Union. Unification between East and West Germany led to rapid changes so that at present all German athletes have conditions similar to the former West Germany. German athletes are advised to combine their sport and their professional career and to plan for a future after sport. German athletes can get public financial support for their sport career, depending on their performance, and with regard to their career plans after sport they get assistance by a professional consultant (Emrich, Altmeier, & Papathanassiou, 1994). Though successful athletes tend to get high recognition, they do not necessarily profit economically from their investment in sport. No public support system is available for elite athletes after their sport career, and they are not privileged members of society. Instead, it is up to the athletes themselves to decide how and what they do after career termination.

Considering the tremendous political and economic changes in Lithuania and Russia, as well as in the former GDR, it seemed especially attractive to compare the reactions to athletic retirement of former elite athletes from these three countries. Our second set of hypotheses, therefore, is concerned with a comparison between the three nations. It is expected that 10 years after unification athletes from the Eastern and Western parts of Germany would no longer differ from each other with regard to the reasons for and the consequences of career termination. On the other hand, due to their common history, athletes from Lithuania and Russia should be relatively similar in their reactions to career termination. But due to differences in the political and sport systems they should differ from athletes from Germany. In particular, it is to be expected that athletes from these East European countries would feel more committed to sport, have a higher athletic identity (Hale, James, Stambulova, & Collins, 1999) and thus have more negative and

less positive feelings about the end of their sport career. It is expected that they would need a longer time period for adaptation to post-career, and would need more active coping than the Germans.

As identity has been shown to be of additional importance for coping with retirement (Brewer, Van Raalte, & Petitpas, 2000; Grove, Lavalley, & Gordon, 1997), the third objective of our study is directed towards the consequences of athletic identity. In particular, it is hypothesised that athletic identity would correlate negatively with emotional satisfaction after and with adaptation to retirement.

## Method

### *Participants*

The sample of participants was composed of 256 former amateur athletes.<sup>3</sup> There were two criteria for including participants in the study: (a) participation in competitions at national–international level; (b) retirement from sport no longer than 10 years ago. The 43 male and 45 female German athletes participated in rowing, track and field, hockey, swimming, and ice skating; the 36 male and 29 female Lithuanian athletes competed in rowing, track and field, swimming, basketball, and boxing; the 51 male and 52 female Russian athletes participated in different individual and team sports (i.e. track and field, figure skating, artistic gymnastics, swimming, handball, ice-hockey, and others).

The athletes differed significantly in age (Table 1). Lithuanian athletes were older than German and Russian athletes when they started their career, whereas no differences emerged between German and Russian athletes. Russian athletes were younger than the other two groups at the age of best performance. The German and Lithuanian athletes did not differ from each other in age of best performance. Consequently, at the time of career termination, Russian athletes were also younger than the other two groups who did not differ from each other.

Table 1  
Mean age of participants at various career stages

	Age of career start	Age of best performance	Age of career termination	Age of study
Germany	10.5 <sub>b</sub> (3.9)	23.6 <sub>b</sub> (3.8)	27.2 <sub>b</sub> (4.2)	30.8 <sub>b</sub> (5.4)
Lithuania	13.5 <sub>a</sub> (3.7)	22.3 <sub>b</sub> (4.0)	27.0 <sub>b</sub> (5.2)	35.6 <sub>c</sub> (6.1)
Russia	9.6 <sub>b</sub> (3.2)	17.1 <sub>a</sub> (2.9)	19.6 <sub>a</sub> (2.8)	22.2 <sub>a</sub> (3.2)

*Note:* means with different subscripts in a column are significantly different from each other (*SD* in brackets).

<sup>3</sup> Due to missing data on some items the number of athletes may be smaller in some statistical analyses.

## *Instruments*

The athletes were administered a questionnaire in their respective languages.<sup>4</sup> Demographic information was obtained first, followed by whether athletes had planned their retirement (yes/no). The dependent variables were assessed with standardised questionnaires or with multiple choice questions and included (1) the reasons and circumstances for career termination, (2) the emotional reactions, (3) the coping reactions, (4) athletic identity during and after the sport career, and (5) adjustment to and satisfaction with current life.

### *Reasons and circumstances for career termination*

Athletes were asked to rate six reasons for career termination including job/profession, sport-related reasons (e.g. performance loss), problems with relationships in sport, problems with health (including injuries), family-related reasons (e.g. more time for the family), and financial reasons. Participants were also asked to rate their satisfaction with performance during the career on a 4-point scale ranging from 1 (=not at all satisfied) to 4 (=very satisfied). In addition, they rated the timeliness of their career termination on a 5-point scale from 1 (=too early) to 5 (=too late).

### *Emotional reactions*

Participants were presented with a list of four typical negative emotions (anxiety, emptiness, sadness, uncertainty) and four typical positive emotions (freedom, happiness, joy, relief) which they rated on 5-point Likert scales anchored from 1 (=not at all) to 5 (=very much). The scale values were averaged for the positive ( $\alpha = 0.80$ ) and negative emotions scales, respectively ( $\alpha = 0.71$ ).

### *Coping reactions*

A 12-item coping scale was derived from a coping questionnaire developed by Carver, Scheier, and Weintraub (1989). For reasons of time the questionnaire was considerably shortened and the items were slightly rephrased in order to meet the sport retirement situation. The items were chosen to represent a variety of coping strategies. The 12 items included were spending time, taking action to make the situation better, taking drugs, giving up, doing something different, making jokes, coming up with a strategy or plan, refusing to believe in retirement, accepting retirement, expressing negative feelings, saying things to let unpleasant feelings escape, and trying to see the situation in a different light. Athletes were asked to rate each item on 5-point Likert scales with higher values corresponding to higher agreement to the item. Answers can range from 1 (=not at all) to 5 (=very much). Intercorrelations between the 12 items are rather low with 0.4 as the highest coefficient. Most of the coefficients are in a range between  $-0.2$  and  $+0.2$ . As intended, the 12 items represent a number of different and independent coping strategies.

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<sup>4</sup> The questionnaire was developed by the first two authors in English. The third author, a native Lithuanian, who is able to speak all four languages, translated the questionnaire into German, Russian, and Lithuanian, and checked the comparability of the items in all three languages in co-operation with the other two authors.

### *Athletic identity*

As a measure of athletic identity during the sport career we used a shortened 5-item version of the scale of Brewer, Van Raalte, and Linder (1993). Answers were given on 7-point Likert scales from 1 (=not at all) to 7 (=very much), with higher values corresponding to higher athletic identity. The alpha coefficient was 0.68.

### *Adjustment to and satisfaction with life after the athletic career*

Athletes were asked on a forced choice scale (yes/no) if they had to readapt to life after career termination, and if yes, how long it had taken (in months). In addition, they rated their athletic identity nowadays (still feeling like an athlete) on one 5-point rating scale from 1 (=not at all) to 5 (=very much). Satisfaction with life nowadays was assessed with four items that were rated on 5-point Likert scales from 1 (=not at all) to 5 (=very much). Scale values were averaged for the four items. The alpha coefficient was 0.79.

### *Procedure*

Former elite athletes from Germany, Lithuania, and Russia were contacted by mail (Germany, Lithuania) or personally (Russia). Due to problems with mail delivery in Russia the latter approach was preferred for the Russian sample. Those who volunteered to participate were sent/given a questionnaire. The athletes of Germany and Lithuania were approached via address lists of sport federations, and those of Russia via personal contact. The German and the Lithuanian athletes returned the questionnaire by mail with a return rate of 29% (Germany) and 23% (Lithuania). The Russian athletes received the questionnaire and returned it via personal contacts with the second author.

## **Results**

First, the data were analysed for gender differences on the dependent variables. Female athletes reported slightly lesser negative emotions after career termination ( $F(1,239) = 4.36, p < 0.05, \eta^2 = 0.02$ ) and a longer duration of adaptation to post-career life than male athletes ( $F(1,130) = 4.07, p < 0.05, \eta^2 = 0.03$ ). No other significant gender differences emerged. The significant effects are of only minor importance, as can be seen from the low  $\eta^2$  values, therefore the data were combined across genders for further analyses.

Second, the data of the German sample were compared to test for differences between athletes from former East and West Germany. No differences emerged on the dependent variables, which confirmed our hypothesis. Therefore, in the following analyses the data of the German athletes were combined.

Third, comparisons between the three national samples revealed that German athletes significantly more often had planned to retire (50 vs. 37) than athletes from Lithuania (24 vs. 41) and Russia (29 vs. 74), who more often had not planned to retire ( $\chi^2(2, N = 255) = 17.27, p < 0.001$ ). Planning of retirement and nationality served as independent variables in  $2 \times 3$  analysis of variance (ANOVA). If meaningful multivariate ANOVA were calculated first, they were fol-

lowed by univariate analyses. Results revealed no interaction effects, but only main effects of retirement and/or nation. Therefore, in this paper the results for the national comparisons and the planned retirement comparisons are presented separately.

### *Differences between planned and unplanned retirement*

Independent of national identity, comparisons between athletes with planned and unplanned retirement revealed significant differences in emotional and coping reactions to career termination. Though no differences could be found in athletic identity during ( $t = 0.01$ ,  $df = 243$ ) and after the career ( $t = 0.89$ ,  $df = 243$ ), planned retirement correlated with higher satisfaction with the career, more positive and lesser negative emotions after career termination, a shorter duration of adaptation to post-career, and higher life satisfaction nowadays (Table 2). The analysis of coping reactions revealed a significant multivariate main effect ( $F(12,220) = 5.56$ ,  $p < 0.001$ ,  $\eta^2 = 0.23$ ). Significant differences in coping strategies emerged on five items (Table 2). Planned retirement was more often accepted and less often denied, more often followed by making plans, expressing negative feelings, and less often by distraction strategies.

### *Cross-national comparisons*

#### *Reasons and circumstances for career termination*

The Germans finished their career mainly for job-related reasons (e.g. finishing education, getting a job), whereas the athletes from Lithuania and Russia emphasised sport-related reasons most often (Table 3). The rank order of reasons corresponded to the different strategies of career termination in the three subsamples: planned career termination was more often accompanied by job-related reasons, unplanned retirement by health, and sport-related reasons.

Participants were asked to rate their satisfaction with their performance during the career and

Table 2  
Reactions to planned vs. unplanned career termination

	Planned retirement	Unplanned retirement
Satisfaction with performance ( $t = 3.79$ , $df = 241$ , $p < 0.001$ )	$M = 3.02$ , $SD = 0.79$	$M = 2.61$ , $SD = 0.93$
Satisfaction with time of career termination ( $t = 6.39$ , $df = 254$ , $p < 0.001$ )	$M = 2.77$ , $SD = 0.76$	$M = 2.08$ , $SD = 0.90$
Negative emotions ( $t = 2.91$ , $df = 239$ , $p < 0.01$ )	$M = 2.26$ , $SD = 0.76$	$M = 2.58$ , $SD = 0.86$
Positive emotions ( $t = 5.24$ , $df = 237$ , $p < 0.001$ )	$M = 2.89$ , $SD = 0.82$	$M = 2.32$ , $SD = 0.82$
Duration of adaptation to post-career in months ( $t = 2.91$ , $df = 128$ , $p < 0.01$ )	$M = 9.85$ , $SD = 5.94$	$M = 13.48$ , $SD = 8.25$
Satisfaction with life after career ( $t = 2.72$ , $df = 236$ , $p < 0.01$ )	$M = 3.46$ , $SD = 0.74$	$M = 3.17$ , $SD = 0.93$
Refusing to believe in retirement ( $F = 4.97$ , $df = 1,231$ , $p < 0.05$ )	$M = 2.24$ , $SD = 1.29$	$M = 2.64$ , $SD = 1.41$
Coming up with a plan ( $F = 6.18$ , $df = 1,231$ , $p < 0.01$ )	$M = 3.82$ , $SD = 1.18$	$M = 3.40$ , $SD = 1.30$
Expressing negative feelings ( $F = 13.05$ , $df = 1,231$ , $p < 0.001$ )	$M = 2.31$ , $SD = 1.30$	$M = 1.83$ , $SD = 1.08$
Doing something different ( $F = 11.16$ , $df = 1,231$ , $p < 0.001$ )	$M = 1.85$ , $SD = 1.10$	$M = 2.41$ , $SD = 1.34$
Accepting reality ( $F = 15.77$ , $df = 1,231$ , $p < 0.001$ )	$M = 4.03$ , $SD = 1.16$	$M = 3.36$ , $SD = 1.34$

Table 3

Rank order of reasons for career termination

	Rank 1	Rank 2	Rank 3
Germany	Professional reasons (education, job etc.)	Sport related reasons (stagnation, age etc.)	Health related reasons (injuries, exhaustion etc.)
Lithuania	Sport related reasons (stagnation, age etc.)	Health related reasons (injuries, exhaustion etc.)	Relationship reasons (coach, teammates etc.)
Russia	Sport related reasons (stagnation, age etc.)	Health related reasons (injuries, exhaustion etc.)	Relationship reasons (coach, teammates etc.)

to rate the timeliness of career termination. On both measures, the German athletes showed a significantly higher satisfaction with performance and with time of retirement than the athletes of Lithuania and Russia who regarded the time of career termination as premature (Table 4).

#### *Emotional reactions after career termination*

One-way ANOVAs for the two emotion scales showed that Germans had significantly lesser negative emotions shortly after career termination than Russians. Lithuanian athletes' negative emotions did not differ from other groups. On the other hand, Germans showed significantly more positive emotions than Lithuanian and Russian athletes and were more satisfied with their sport career and career termination (Table 4).

Table 4

Means and standard deviations of reactions to career termination divided by nation

Item	<i>F</i> -value	Germany	Lithuania	Russia
	<i>df</i> = 2,253	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )	<i>M</i> ( <i>SD</i> )
Satisfaction with performance	23.78***	3.25 <sub>b</sub> (0.78)	2.62 <sub>a</sub> (0.72)	2.45 <sub>a</sub> (0.93)
Satisfaction with time of retirement	10.63***	2.70 <sub>b</sub> (0.82)	2.28 <sub>a</sub> (0.98)	2.13 <sub>a</sub> (0.87)
Negative emotions	7.23**	2.21 <sub>a</sub> (0.74)	2.46 <sub>ab</sub> (0.83)	2.66 <sub>b</sub> (0.87)
Positive emotions	20.71***	3.00 <sub>b</sub> (0.73)	2.37 <sub>a</sub> (0.74)	2.28 <sub>a</sub> (0.89)
Refusing to believe in retirement	12.92***	2.16 <sub>a</sub> (1.13)	3.25 <sub>b</sub> (1.34)	2.33 <sub>a</sub> (1.43)
Giving up to deal with situation	10.62***	1.98 <sub>ab</sub> (0.95)	2.31 <sub>b</sub> (1.29)	1.55 <sub>a</sub> (1.01)
Saying things to let feelings escape	9.39***	1.57 <sub>a</sub> (0.82)	2.22 <sub>b</sub> (1.12)	2.15 <sub>b</sub> (1.21)
Spending time	14.30***	1.54 <sub>a</sub> (0.94)	1.65 <sub>a</sub> (0.82)	2.32 <sub>b</sub> (1.32)
Expressing negative feelings	9.25***	2.41 <sub>b</sub> (1.27)	2.08 <sub>ab</sub> (1.15)	1.68 <sub>a</sub> (1.05)
Doing something different	6.32**	1.79 <sub>a</sub> (0.93)	2.12 <sub>ab</sub> (1.09)	2.52 <sub>b</sub> (1.49)
Accepting reality	20.58***	3.99 <sub>b</sub> (1.04)	4.16 <sub>b</sub> (0.86)	3.09 <sub>a</sub> (1.48)
Making jokes	19.03***	1.60 <sub>a</sub> (0.77)	2.02 <sub>a</sub> (0.86)	2.57 <sub>b</sub> (1.45)

Notes: means with different subscripts in a row are significantly different from each other; higher means correspond to higher scale values; \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .



### *Coping reactions*

A multivariate ANOVA showed that the athletes of the three nations differed significantly in their coping strategies ( $F(24,440) = 8.45, p < 0.001, \eta^2 = 0.32$ ). The high  $\eta^2$  value is a sign that national identity was an important contributor to differences in coping. Univariate ANOVA revealed significant differences on eight of the 12 coping items (Table 4). Though the Lithuanian athletes were more willing than the ones from the other two nations to refuse to believe in retirement, they were also more ready to accept the situation. Accepting retirement was the most preferred coping reaction of all three nations. The Russian athletes preferred significantly more often distraction strategies (doing something different like TV, spending time, making jokes) and less often defensive strategies (repression, resignation) than one or both other nations. The German athletes used distraction strategies least often.

### *Athletic identity*

An one-way ANOVA with nation as independent and athletic identity as dependent variable revealed that Lithuanian athletes had a significantly higher athletic identity ( $F(2,244) = 16.659, p < 0.001$ ) during their career ( $M = 5.75, SD = 0.92$ ) than the Russians ( $M = 4.85, SD = 1.17$ ) and the Germans ( $M = 4.84, SD = 0.97$ ), whose athletic identity did not differ from each other. During the time of data collection, Lithuanian and Russian athletes still had a significantly higher athletic identity than the German participants,  $F(2,244) = 10.95, p < 0.001$  (Lithuania,  $M = 3.54, SD = 1.19$ ; Russia,  $M = 3.50, SD = 1.28$ ; Germany,  $M = 2.77, SD = 1.06$ ). Small, but significant, correlations showed that high athletic identity corresponded to a longer duration of adaptation to the post-career ( $r = 0.20, p < 0.05$ ), to more negative ( $r = 0.24, p < 0.01$ ) and less positive emotions after career termination ( $r = -0.18, p < 0.05$ ) and to less satisfaction with the time of career termination ( $r = -0.14, p < 0.05$ ). Athletic identity correlated with several coping reactions as well. This means that athletes with higher athletic identity were generally more active in coping, regardless of nationality, perhaps because they needed it more.

### *Adjustment to and satisfaction with life after career termination*

About half of all athletes (131 vs. 126) confessed that their life changed after career termination and that they had to adapt to it. Results showed that the Lithuanian athletes needed the longest time for adaptation ( $M = 17.6$  months,  $SD = 8.2$ ), followed by the Russians ( $M = 11.7$  months,  $SD = 6.8$ ) and the Germans ( $M = 8.15$  months,  $SD = 4.5$ ) who differ from each other ( $F(2,126) = 19.57, p < 0.001$ ). With regard to life nowadays, the means showed that the athletes felt quite at ease ( $M = 3.28, SD = 0.87$  on a 5-point scale). There were no differences in life satisfaction with means nearly equal between the three nations.

## **Discussion**

All three sets of hypotheses were supported. In spite of some limitations of the study (different sports of the participants in different samples, some differences in the procedure of data collection), the results revealed both similarities and cross-cultural differences in athletic retire-

ment and post-career adaptation of former athletes from Germany, Lithuania, and Russia. We will discuss these results in three ways. First, why there was no interaction effect of nationality and retirement planning on post-career adaptation, second, why planning retirement obviously facilitates post-career adaptation. Third, discussion centres on what features of the social environment in the three countries might determine cross-national differences in athletes' post-career adaptation.

#### *Absence of interaction effect of retirement planning and nationality*

Retirement planning is a cognitive process of structuring the future after sport career termination which takes into account factors of the social macro-environment (peculiarities of political and sport systems, social reputation of elite sport, cultural traditions, and so forth) as well as individual circumstances of an athlete's life. Nationality is an aspect of the macro system, while the individual athlete plans retirement on the basis of his/her perception of the social context and his/her life circumstances, which is not reflected in the national macro system. Therefore, these two independent variables (retirement planning and national identity) represent different (cognitive vs. social) mechanisms influencing the dependent variables (reactions to athletic retirement) independently which might explain an absence of the interaction effect.

#### *Retirement planning and post-career adaptation*

As expected and in accordance with Taylor and Ogilvie's (1998, p. 435) reflections about the adaptive function of control planned retirement contributes to a better and more positive adaptation to life after the sport career than unplanned retirement. Planned retirement is associated with more positive and less negative emotional reactions to sport career termination, shorter duration of the transitional period, lesser use of distraction strategies, and higher current life satisfaction. It can be interpreted that athletes, who plan retirement in advance, do not waste their energy in wrong directions and, hence, are able to mobilise and use their resources more effectively than athletes who do not plan their retirement. As emphasised in the section Introduction, planning of retirement gives an athlete a feeling of subjective control over the situation and increases his/her self-efficacy with regard to successful post-career adaptation. It could also be hypothesised that athletes who plan retirement have a higher level of readiness for that career transition.

Because in the existent transition models (for example, Lavalley, 2000; Schlossberg, 1981; Sinclair & Orlick, 1993; Taylor & Ogilvie, 1994) the term 'readiness' is not considered, it might be useful to define it. Originally, readiness was regarded as an antecedent of performance enhancement. For example, Puni (1973) defined readiness for an athletic performance as a (short-term) state which provides an effective mobilisation of the athlete's resources needed to execute the performance goal/task. Puni and his coworkers gave empirical support to five components of such a state which are specific to athletic performance. Besides Puni (1973) described four levels of athletes' readiness for an athletic performance and suggested criteria for each based on the balance between athletes' resources and barriers and on the need for external psychological assistance. These ideas might be fruitful for the definition of the state of readiness to career termination and factors influencing the level of readiness.

Recently, Hanin (2000) suggested a structure of a psychobiosocial state that consists of seven

components: cognitive, affective, motivational, somatic, behavioural, operational, and communicative. This structure looks more universal and less specific than the five components suggested by Puni. If we apply Hanin's structure to the state of readiness for athletic retirement, which is a long-term though dynamic state, it is possible to identify the seven components as: (a) cognitive readiness (retirement planning, acceptance of the fact of sport career termination, feeling of control over the situation etc.); (b) affective readiness (positive emotional reactions to athletic retirement, positive view of retirement etc.); (c) motivational readiness (high motivation of a new professional career, new life interests, changes in the subjective scale of values etc.); (d) somatic readiness (keeping good health conditions, having enough energy to start a new life etc.); (e) behavioural readiness (changes in the life style, including daily regimen, family etc.); (f) operational readiness (vocational training, using positive psychological effects of the sport career, like knowledge, skills, and qualities in the new life etc.); and g) communicative readiness (changes in the social network). All factors influencing formation and dynamics of the state of readiness positively to the transition to post-career might be considered as 'transition resources' (for example, retirement planning, opportune and voluntary retirement, health improvement after sport career termination etc.). All factors that have a negative impact upon the state of readiness (for example, unplanned, involuntary, too early or too late retirement, health deterioration, delay in vocational training, unemployment etc.), might work as 'transition barriers'.

Readiness for the last sport career transition can be defined as a psychobiosocial state of the athlete providing a positive (smooth) transition from sport to life afterwards by means of effective mobilisation of the transition resources needed as well as of avoidance or coping with transition barriers. The level (degree) of readiness to the transition might be characterised by an individual balance of transition resources and transition barriers in all seven components of the state of readiness. Positive transition implies effective usage of the transition resources and avoidance of or coping with the transition barriers.

The results of this study suggest that athletes who plan retirement in advance have higher cognitive, emotional, and behavioural readiness to the last sport career transition than athletes who do not plan their retirement. Besides, this analysis shows that readiness to the career transition might be a fruitful aspect of future studies in the career transition area.

### *Cross-national differences*

The results show that the athletes of the three nations differ in their reasons for career termination. Lithuanian and Russian athletes mention sport-related reasons most often, whereas German athletes focus on job-related reasons. In addition, Germans more often plan to retire, have less negative and more positive emotions after career termination, and they need the shortest time for adaptation to the post-career.

Lithuanian athletes have a higher athletic identity than the German and Russian athletes. Their coping strategies with retirement are quite ambiguous. On the one hand, they pretend to accept the reality of retirement, on the other hand they have problems dealing with it because they deny it by refusing to believe in retirement and by giving up. In contrast, the Russian athletes use denial reactions the least, but instead prefer distraction tactics the most of all nations. In addition, they are less ready to accept the reality of career termination than the German and the Lithuanian athletes.

When considering the results from the standpoint of readiness for career transition, the German athletes are definitely more ready for career transition than the Lithuanians and Russians. The German athletes not only plan more often to retire, they also demonstrate the mobilisation of quite a few transition resources (leaving sport having a job offer, voluntary and opportune retirement, more positive and less negative emotional reactions to retirement, lower athletic identity during and after sport career, emotional coping), and some minor transition barriers (no active coping). The Russian and the Lithuanian athletes use fewer transition resources (mainly coping) and report many more transition barriers than the Germans, including leaving sport due to sport-related reasons, keeping a high athletic identity after the sport career, having less positive and more negative emotional reactions to retirement, using distraction (Russia) and defensive (Lithuania) coping. This results in less effective post-career adaptation of the Lithuanian and Russian athletes, demonstrated by their significantly longer period of adaptation and lower satisfaction with the transitional period compared with the Germans.

As already pointed out, the Lithuanian and the Russian athletes showed more similarities to each other, and at the same time both were different from the German athletes. This might be explained by the similarities in the sport systems of Lithuania and Russia. In both countries sport is still considered as a means for upward social mobility. That is why athletes have high commitment to sport and high athletic identity. In both Lithuania and Russia, some privileges for elite and developing athletes still exist at schools and universities (for example, individual study schedule, teachers' positive expectations, etc.). This results in the athletes' desire to prolong their sport career and to use these advantages as long as possible. On the other hand, it may contribute to difficulties in their readiness for transition to the post-career, like making a proper professional choice, or planning retirement in advance. Besides, both in Lithuania and in Russia, athletes are still seriously dependent on decisions of the sport authorities and in fact do not have full control over their sport career. This lack of control interferes with planning athletic retirement in advance. Keeping high athletic identity after the sport career, which again is typical for both the former Lithuanian and Russian athletes, might be considered as a defence mechanism to maintain high self-esteem in spite of some obvious difficulties in post-career adaptation.

There are also some common features in the sport systems of Lithuania and Russia which have developed after Perestroika during the period of political independence. The most important one is the development of professional sport. Nowadays, the higher the performance level of the athlete, the more hope she or he has to continue at the professional level. Impossibility to sign a professional contract might be seen as an absence of future perspectives in sport and leads to leaving sport due to sport-related reasons, which is again typical for both the Lithuanian and the Russian athletes. The other common feature of the current sport systems in Lithuania and Russia is a lack of financial and employment support to former athletes. Whereas during their sport career the athletes are dependent on the sport authorities, after retirement the former Lithuanian and Russian athletes are suddenly on their own, and therefore, have difficulties to monitor their future.

The sport system in Germany gives athletes an opportunity to keep control over their life during sport and afterwards. As our study shows that the athletes from former East Germany nowadays are not different from the athletes from former West Germany this means that all athletes have more or less adjusted to the features of the West European sport system which provides a more favourable social context for athletes' readiness for sport career transition.

In this paper, we stressed cross-national differences. But again, it is important to note that the

athletes of the three nations have also many similarities. One of them is the dominating strategy of accepting the reality of retirement. With regard to distraction strategies that are widely used by the Russian athletes, it should be mentioned that a previous study on Russian athletes' retirement (Stambulova, 1997) showed that from their viewpoint one of the problems is how to use free time after termination of the sport career. In this study, it was shown that one of the typical emotional reactions to retirement is a feeling of emptiness which encourages athletes to do distracting activities (like, for example, spending much time with meeting friends/relatives and talking to them, shopping, watching TV).

### **Applications and future directions for research**

Former elite athletes might be seen as a good investment for society. They are young people who did a good job and succeeded in situations of social evaluation and competition. They are used to working hard and can be a good resource for a society in case of successful adaptation after sport career termination. Neglecting assistance to them is a waste of human resources.

Based on the results of this study, we can suggest psychological interventions aimed at helping athletes to keep subjective control over the retirement process. We recommend psychological training programs (which seem to be particularly useful in the case of athletes from Lithuania and Russia): (a) for athletes approaching sport career termination (but still active in competitive sport), and (b) for already retired athletes. The training program designed for athletes approaching termination should be aimed at helping them to accumulate transition resources and to form a readiness for the transition. For example, it can provide athletes with knowledge and skills for the final sport career stage, reasons of sport career termination, identifying an optimal moment of termination, short-term and long-term planning (including plans for life after a sport career), accumulation of transition resources (self-analysis, transferable skills, social support, and so forth). The training program for retired athletes should help them to be aware of and to use effectively their transition resources as well as to be aware of and to cope effectively with their transition barriers. For example, acceptance of retirement, plans for the post-career (like getting a job or vocational training), solving identity problems, adequate emotional reactions to athletic retirement, effective coping strategies, availability of social support, can be part of the training program. Because during group training programs it is often impossible to go into details of individual athletes' lives, we do recommend complementing psychological training with individual counselling interventions, which might be particularly helpful for athletes with coping problems, regardless of national identity.

This study answered some research questions, but also raised new ones. The readiness for transition is one of them. Further research should be directed, among others, towards (a) studying components and structure of readiness for career termination, (b) developing an instrument to diagnose the level of the state of readiness, and (c) suggesting recommendations for interventions on the basis of that diagnosis. At the same time this study, which showed cross-national differences and similarities in athletic retirement and post-career adaptation, suggests that further research is needed with regard to the relationship between national sport systems and athletes' reactions to sport career termination.

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