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PhD Thesis

A Cross-Cultural Comparison of the Transition out of Elite Sport

An investigation across the Swiss, Danish, and Polish elite sports contexts

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Department of Sports Science and Clinical Biomechanics

Faculty of Health Sciences



2017

PhD Thesis

A Cross-Cultural Comparison of the Transition out of Elite Sport

An investigation across the Swiss, Danish, and Polish elite sports contexts

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Odense, 27th January 2017

Andreas Küttel

Summary of the Thesis

The overall purpose of this thesis is to increase the scientific knowledge on the relationship between the national (sport) context and the transition out of elite sport by examining and comparing the retirement process of former Swiss, Danish, and Polish elite athletes, as well as by describing the three contexts under comparison in more detail.

The transition out of elite sport is traditionally approached from a research tradition with roots in sports psychology and sociology. This thesis employs an interdisciplinary approach and applies an ecological and holistic perspective on the transition out of elite sport.

Previous research has identified many factors that either facilitate or hinder a successful transition. These factors include the characteristics of the individual athlete, the transitional situation, and the characteristics of the pre- and post-environments. Initially, researcher aimed to find generalizable patterns about the retirement processes of athletes and developed different models to explain the quality of the transition; more recent attempts emphasize that it is important to understand the transition in a given context. This thesis aims to contribute to the existing literature by examining and comparing the transition out of elite sport across three contrasting contexts, namely Switzerland, Denmark, and Poland, which differ both on macro- (e.g., cultural dimensions, welfare systems, and socio-economic situation) and meso-dimensions (e.g., elite sports system, dual career approaches, and the availability of career assistance programs).

The research project is based on two sets of empirical material: (a) a survey with former Swiss, Danish, and Polish elite athletes from various sports; and (b) semi-structured interviews with experts working with elite athletes and dual career programs in each of the three countries.

On the basis of a modified version of the framework developed by Stambulova, Stephan, and Jäphag (2007), which combines previous transition models with the ecological perspective of human development (Bronfenbrenner, 1979), analyses revealed that athletes from the three countries differed in their precondition for the transitions, their adaptation difficulties, and their life/job situation after the sports career. Different educational levels and work experience at the end of the sports career indicated that athletes receive diverse support for their dual career. The cross-cultural analysis of the dual career environments revealed not only that programs and opportunities for dual career athletes differ substantially between the three contexts, but also that the dual career experts expressed divergent values and beliefs about how to support elite athletes. Typical context-dependent typologies of dual career patterns of elite athletes are suggested.

The findings of this thesis suggest that the national context plays an important role in the transition out of elite sport, and thus context-specific recommendations are proposed.

Resumé af Afhandlingen

Formålet med denne afhandling er at øge den videnskabelige indsigt i hvorledes forholdet mellem forskellige nationale sports-kontekster har betydning for tilbagetrækningsprocessen for eliteudøveres. Dette sker gennem en undersøgelse og sammenligning af tilbagetrækningsprocessen for schweiziske, danske, og polske elitesportsudøvere, samt gennem en detaljeret beskrivelse af de sammenlignede nationale kontekster.

Overordnet set har forskningen fulgt traditionerne indenfor sports-psykologi og -sociologi for dermed at undersøge professionelle eliteudøveres tilbagetrækningsproces. Denne afhandling undersøger derimod processen i et økologisk og holistisk perspektiv.

Indtil nu har forskningen identificeret flere faktorer, som enten fordrer eller hindrer en for sportsudøveren succesfuld tilbagetrækning. Disse faktorer omfatter den individuelle udøvers karakter, omstændighederne omkring tilbagetrækningen, og det der kaldes præ- og post-miljøer. Den tidlige forskning fokuserede mest på at identificere generelle mønstre, som kunne forklare tilbagetrækningsprocessens kvalitet, hvorimod den senere forskning har fokuseret mere på at forstå tilbagetrækningen i dens konkrete kontekst. Denne afhandling har til formål at bidrage til den eksisterende litteratur ved at undersøge og sammenligne tilbagetrækningsprocessen i tre forskellige kontekster, nemlig Schweiz, Danmark og Polen, som er forskellige både makro- (dvs. kulturelt, velfærdsmæssigt, og socioøkonomisk) og meso-dimensionalt (dvs. elitesportssystem, dual career approach, og tilgængelighed og kvalitet af karriere- og vejledningsprogrammer).

Det empiriske grundlag for afhandlingen består af: a) en spørgeskemaundersøgelse udført blandt tidligere schweiziske, danske, og polske elitesportsudøvere fra flere forskellige discipliner; og b) semi-strukturerede interviews med eksperter, som arbejder med dual career programmer for elitesportsudøvere i de tre lande.

På baggrund af en modificeret udgave af den metodiske ramme, som Stambulova, Stephan, og Jäphag (2007) har udviklet, hvor tidligere tilbagetrækningsmodeller kombineres med et økologiske perspektiv (Bronfenbrenner, 1979), viser analysen, at udøverne fra de tre forskellige lande havde forskellige forudsætninger for deres tilbagetrækninger samt forskellige tilpasningsvanskeligheder i forhold til deres livs- og jobsituationer efter endt karriere. Den tværkulturelle analyse af dual career atleterne viste ikke kun, at programmerne og mulighederne for at følge to karrierer var forskellige i de forskellige kontekster, men også at dual career eksperterne udtrykte forskellige værdier og principper i forhold til, hvordan man bedst støtter eliteudøverne. Typiske kontekst-afhængige typologier for atleternes dual career mønstre bliver foreslået.

Resultaterne af denne afhandling viser, at den nationale kontekst spiller en vigtig rolle i tilbagetrækningen fra elitesport, hvorfor afhandlingen indeholder kontekstspecifikke anbefalinger.

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List of Papers Linked to this Thesis

Paper 1:

Kuettel, A., Boyle, E., & Schmid, J. (2017). Factors contributing to the quality of the transition out of elite sports in Swiss, Danish, and Polish Athletes. *Psychology of Sport and Exercise* 29(3), 27-39.

Paper 2:

Kuettel, A., Christensen, M. K., Zysko, J., & Hansen, J. (manuscript). A cross-cultural comparison of the dual career environment for elite athletes in Switzerland, Denmark, and Poland. Manuscript prepared for the *Journal of Applied Sports Psychology*.

Paper 3:

Kuettel, A., Boyle, E., Christensen, M. K., & Schmid J. (manuscript). A cross-national comparison of the transition out of elite sport of Swiss, Danish, and Polish athletes. Manuscript submitted to the *Sport and Exercise Psychology Review*.

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Chapter 1: Introduction

The overall purpose of this thesis is to increase the scientific knowledge on the relationship between the national (sport) context and the transition out of elite sport by examining and comparing the retirement process of former Swiss, Danish, and Polish elite athletes, as well as by describing and examining the three contexts under comparison in more detail.

The increasing commercialization, professionalization, and globalization in elite sport demands that athletes devote a major part of their life to training, competing, and traveling over an extended period of time to reach international sporting success. An elite sports career – from initiation of sports participation to retirement from sport – has been described as a miniature life span, with stages analogous to childhood, adolescence, adulthood, and older age (Alfermann & Stambulova, 2007). During this lifespan, athletes face several transitions such as changes in competitive levels, schools, coaches, and teams. Schlossberg (1981) posits a definition of a transition as “an event or non-event (which) results in a change in assumptions about oneself and the world, and thus requires a corresponding change in one’s behavior and relationships” (p. 5). In the final stage of the athletic career, the termination of the elite sports career is an inevitable transition every athlete has to go through (Wylleman & Lavallee, 2004). Since the end of a sports career is connected with changes in many spheres of an athlete’s life, the research area of athletic retirement has received considerable attention from career researchers and sports psychologists in different parts of the world over the past four decades (e.g., Cecić Erpič, Wylleman, & Zupančič, 2004; Cosh, Crabb, & Tully, 2015; Lerch, 1982; Mihovilovic, 1968; Taylor & Ogilvie, 1994).

Early studies investigating athletic retirement showed a rather negative picture of the athletes’ career end and showed that retiring athletes encounter problems and conflicts, sometimes in a dramatic way (Lerch, 1982; Svoboda & Vanek, 1982). Later studies revealed an alternative view, according to which athletes feel relieved from the heavy burden of their athletic commitment (Coakley, 1983; McPherson, 1984; Sinclair & Orlick, 1993). The majority of research conducted on the topic (e.g., Alfermann, 2000; Grove, Lavallee, & Gordon, 1997; Sinclair & Orlick, 1993) showed that athletes who retire voluntarily, and that had made plans for their future, cope better with the transitional demands than athletes who were (suddenly) forced

to stop due to an injury or deselection from the team. Furthermore, several studies (e.g., Cecić Erpič, 2001; Grove et al., 1997; Martin, Fogarty, & Albion, 2014) investigated the influence of athletic identity (as defined through both the strength and exclusivity of an individual's identification with sport; Brewer, Van Raalte, & Linder, 1993) on the retirement process and suggested that a multidimensional identity can help athletes adjust to the post-sport life.

For a long time, career researchers were convinced that the more their research findings could be generalized, the better. As a result, and in order to understand the adaptation following athletic retirement, research revealed a plentitude of factors that either facilitate or hinder athletes' adaptation to the post-sport career. These (universal) findings were presented as being valid for any athlete population that undergoes athletic retirement, despite the fact that the results were based on national-specific samples. More recent studies concerning athletic retirement also included the influence of contexts on the individual transition (Alfermann, Stambulova, & Zemaityte, 2004; Schmidt & Hackfort, 2001; Stambulova, Stephan, & Jäphag, 2007). These studies emphasized that athletic retirement is a complex and multifaceted topic in which nation and culture plays an important role. Hence, these cross-national studies added a link between the factors influencing the quality of the transition and the corresponding socio-cultural context. However, because cross-national studies are sparse, authors of recent review papers (e.g., Park, Lavallee, & Tod, 2013) acknowledged that future comparative studies are needed to better understand the relationship between national sports systems and athletes' reactions to sports career termination. This thesis aims to make a contribution to the understanding of how the national context influences athletes' transition out of elite sport.

Several theoretical models have been developed to describe the mechanism of sports career termination and its outcomes. Sports psychologists first adopted Schlossberg's (1981) transition model to the sports context but found that it lacked operational details of the specific components related to the adjustment of the retirement process of athletes. Taylor and Ogilvie (1994) developed the *athletic career termination model* that deals specifically with retirement from elite sport and proposes that the quality of the transition is dependent upon the reasons for termination, factors related to the adaptation, and the available resources for the transition. Stambulova's (2003) *athletic career transition model* has also been used to explain retirement from sport. Her model emphasizes that effectiveness in coping with transitions is dependent on a dynamic balance between transition resources and barriers. Since Taylor and Ogilvie developed

their model more than 20 years ago, a great number of variables have been related to the adaptation quality of the transition; thus, the model needs to be updated according to recent advances (Knights, Sherry, & Ruddock-Hudson, 2016; Park et al., 2013; Stephan & Demulier, 2008). Furthermore, there is still a lack of consensus among researchers as to how to measure the quality of the transition (Stambulova, Franck, & Weibull, 2012). Some researchers measured it through athletes' adaptation difficulties and distress (e.g., Blinde & Greendorfer, 1985), while others considered life satisfaction, job success, or satisfaction with the end of the athletic career (e.g., Alfermann et al., 2004; Dewenter & Giessing, 2014; Stambulova et al., 2007).

Stambulova and colleagues (2007) developed a cultural framework for the transition out of elite sport when comparing French and Swedish athletes' reactions to their career end. This framework emphasizes that certain macro-dimensions (e.g., cultural dimension, welfare systems) and features of the sports systems (e.g., financial support, athlete career- and educational programs) influence the transitions and careers trajectories of elite athletes, including retirement from sport. Comparative studies about elite sport systems (De Bosscher, Shibli, Westerbeek, & van Bottenburg, 2015; Houlihan & Green, 2008; Petry, Steinbach, & Tokarski, 2004) showed that the support elite athlete receive differs substantially between countries, especially in terms of athlete career programs (Digel, 2005) and educational opportunities (Aquilina & Henry, 2010, 2014) that facilitate the combination of the athletic with the educational/vocational career, the so-called 'dual career'. There has been a growth of interest in studying athletes' dual careers and transitions (e.g., Stambulova, Engström, Franck, Linnér, & Lindahl, 2015; Tekavc, Wylleman, & Erpic, 2015). However, little research has been conducted on how national dual career settings influence athletes' dual career trajectories and their transition out of elite sport across countries. This thesis intends to provide a better link between athletes' dual career trajectories and their transition and adaptation to the post-sport life.

The phenomenon under study in this thesis is the transition out of elite sport in a comparative study between former Swiss, Danish, and Polish elite athletes. Considering that athletes' careers are constituted by their sociocultural context (Ryba, Schinke, & Tenenbaum, 2010; Stambulova & Ryba, 2013), cultural sports psychology emphasizes that contextualized knowledge about athletes' careers is needed to improve understanding of athletic retirement and to provide cultural-specific career guidance for athletes. Applying a comparative design is

reasonable, as features of one context become more apparent (only) when contrasted with other cultural contexts (Duda & Allison, 1990).

How do elite sports systems prepare their elite athletes for their life after sport? How are elite athletes able to combine elite sport with their educational aspirations in the local context? How much emphasis is placed on athletes' career planning and long-term benefits by the stakeholders involved in athletes' performance enhancement? Are the factors that contribute to a successful transition context-specific? Are there differences between different countries in the way former elite athletes integrate into the domestic job market after their sports career? These types of questions call for a comparative approach by examining differences and similarities across contexts. By making generalizing statements about factors that might influence the quality of the transition out of elite sport and to refer to 'elite athletes' as a collective and universal expression, it is likely that important differences concerning career transitions and trajectories of elite athletes from different cultural contexts are neglected.

My personal background as a former elite ski jumper, who participated in several World Championships and Olympic Games for Switzerland, certainly stimulated my desire to study elite athletes' careers and transitions. After I ended my sports career in 2011, I moved to Denmark where I have been living ever since with my family. Here I gathered first-hand insights into the Danish sports talent development system, the elite sports practices, and the Danish lifestyle and culture traditions. Furthermore, being married to a Polish wife who has a background as an elite swimmer made it possible for me to gather insight into all three cultural contexts studied, particularly in the elite sports systems that were chosen for the comparison in this study.

1.1. Aim of the Thesis

The main question that guided the entire PhD project was:

How does the socio-cultural context, including the sports systems of different countries, influence athletes' transition processes out of sport and the quality of the adaptation to the post-sport life?

I have employed two methodologies to investigate this rather broad research question: first, I have conducted a quantitative study with former elite Swiss, Danish, and Polish athletes concerning their reactions to retirement from sport; second, I undertook a qualitative study in which the athletic career/retirement contexts and dual career opportunities for athletes in the

three countries have been explored through expert interviews and document analysis. The purpose of the present thesis is to present the research project and to:

- Contribute to the understanding of how the broader socio-cultural context and the national elite sports system influences athletes' transition out of sport in terms of pre-conditions, perceived adaptation quality, and long-term consequences of the transition.
- To provide a deeper understanding of the cultural influences on the development of dual career opportunities and dual career trajectories of elite athletes.
- To provide guiding principles that may stimulate cultural competence in coaches, counselors, sports psychologists, educators, and policy makers involved with athletes' (dual) career development and the respective assistance programs and services.

The research project consisted of two main empirical parts according to which this thesis is organized:

- Part 1 relates to the pre-conditions, adaptation period, and outcomes of the transition out of elite sport in specific contexts. Part 1 is based on the survey with 401 former elite athletes from Switzerland, Denmark, and Poland from across different sports focusing on the resources and barriers that influence the transition quality (Paper 1) and about a comparative perspective of the transition out of sport including the adaptation to the post-sport life (Paper 3).
- Part 2 relates to the elite sport- and dual career environments of the three countries under study. Part 2 is a cross-cultural comparative study based on interviews with experts involved in athlete (educational) support in the three contexts (Paper 2).

Based on the two parts, the results will be synthesized and the discussion includes the following: (a) a results discussion where the findings of the present thesis will be related to the previous literature on the transition out of sport and previous cross-national comparative studies on athletic retirement; (b) a theoretical discussion where the applied model and the ecological and holistic perspective on the transition out of sport will be discussed; (c) a method discussion about the strengths and limitations of this research project. The implications and contextualized applied practices will be discussed in the final chapter of this thesis.

1.2. Presentation of the Thesis

Several advantages and disadvantages have been discussed when writing an article-based thesis (Dunleavy, 2003). An article based thesis has the advantage of including a wider range of theories and frameworks in the analysis of the empirical material and to get feedback and comments from reviewers connected to the publication process during the crafting of the thesis. On the other hand, an article-based thesis can run the risk of appearing as a fragmented piece because the individual articles have to stand on their own and might have been pulled in a certain direction during the review process. The thesis presented here is a synthesis of the three articles and presents the overall findings and conclusions including the underlying methodological and theoretical approaches used to gather the empirical data. While the overall aim and research question (as presented above) was guiding my research during the entire project, I have developed my approach to studying the transition out of elite sport in the process of working with the analyses of the empirical material and with current trends in the research field of career transitions and comparative studies about elite sports and dual career systems. This thesis does not reflect the ongoing development of the research process in the way a monograph would do, rather it is the summarizing product of the three-year PhD project. The three papers in this thesis reflect the research process according to the chronological order in which they were produced.

In order to answer my research questions and fulfill its purpose, the thesis takes the following form: succeeding this introduction, *Chapter 2* presents the evolutions and the current status of research on the transition out of elite sport, including theoretical frameworks. Factors that influence the quality of the transition are highlighted and career programs for athletes are outlined. Different national dual career approaches are described, gaps in the current literature are identified, and the aims of the thesis are presented. *Chapter 3* offers an overview of the background theories and theoretical frameworks that served as a basis for developing the overarching theoretical framework for the entire thesis. Additionally, I describe the working model that was developed for studying the quality of the transition out of elite sport. *Chapter 4* describes the comparative case-study design and argues for the case selection of the three countries (Switzerland, Denmark, and Poland) that were chosen to investigate and compare athletic retirement. The quantitative and qualitative research designs and methods used in generating and analyzing the empirical material from Parts 1 and 2 are described in detail. *Chapter 5* briefly describes the aims, methods, and findings of the papers that this thesis is based

on. Each paper’s aim and theoretical point of departure are briefly presented and a summary of their findings is offered. *Chapter 6* is a discussion involving all three papers with reference to the overall research questions. Firstly, I will provide a results discussion about the factors that contribute to a successful transition; then I will synthesize the contribution of the thesis in the cross-national comparison on the transition out of elite sport; after that, I will discuss the applied ecological perspective on the transition, including the developed working model; finally, I will discuss the weaknesses and strengths of the research project. *Chapter 7* discusses the practical implications of approaching the transition out of sport from an ecological and holistic perspective; I also provide guiding general and context-specific principles and questions that can stimulate researchers’, practitioners’, and coaches’ cultural competence. I end by making concluding remarks in relation to the thesis and its findings as a whole.

This PhD thesis comprises the present review text, Papers 1, 2, and 3, and the appendices. The following Figure 1 provides an overview of the PhD thesis.

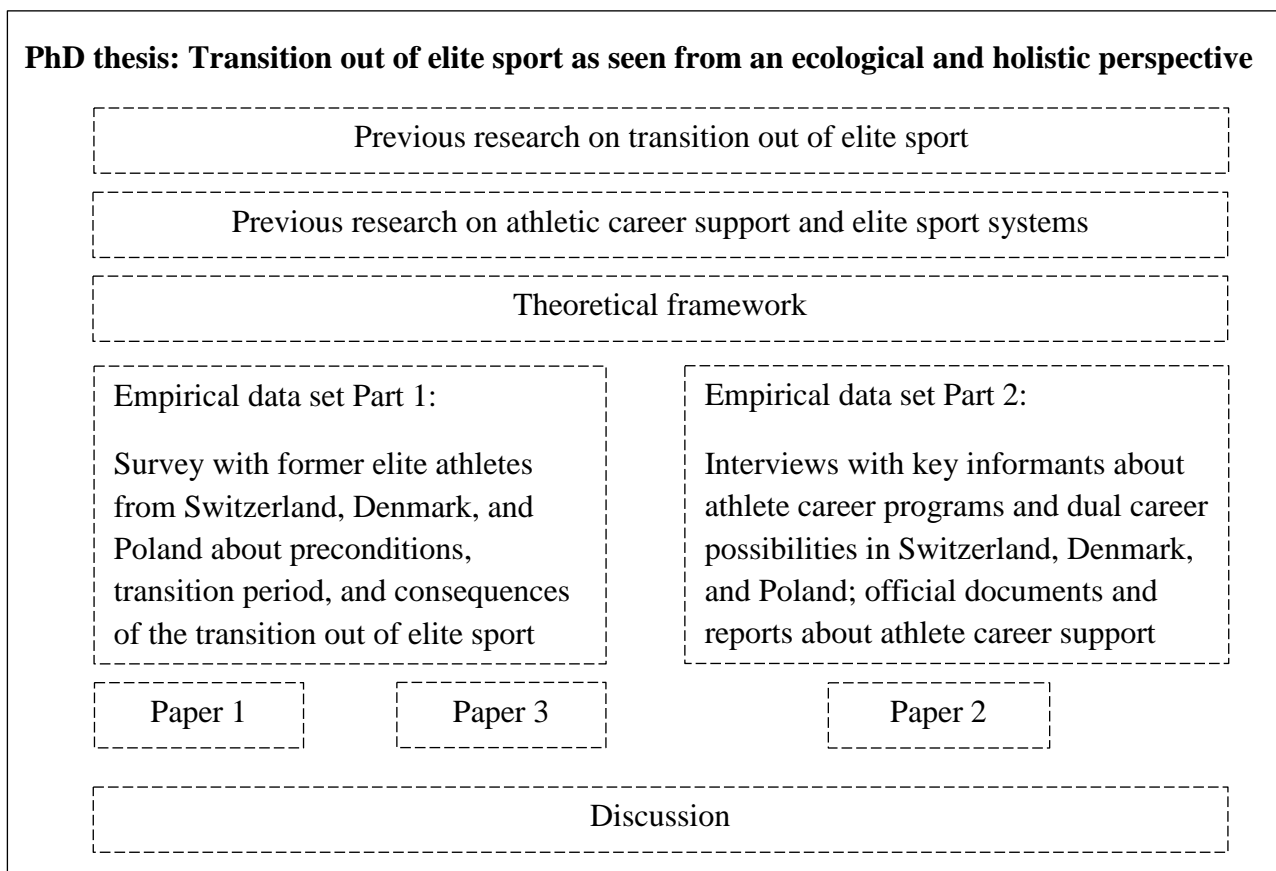


Figure 1: Overview of the PhD thesis.

Chapter 2: Literature Review

This chapter aims to provide a review of the literature on career transitions and athletic retirement in sport; it also identifies unsolved issues in the study area through critical analysis of the existing literature. Initially, the development of athletes' career transition research will be presented in brief. Subsequently, conceptual models of career transition and career development in sport will be discussed. Following on, an overview of the research findings of studies on athletes' career termination will be provided. Then, athlete career assistance programs and retirement services will be presented and typologies of approaches for dual career athletes in higher education will be introduced. Finally, gaps in the study area will be highlighted and the aims of the current thesis will be stated.

2.1. The Development of Athletes' Career Transition and Retirement Research

Studies on career development and transitions of athletes started appearing in the 1960s and have shown a substantial increase, both in terms of their quantity and quality, since the end of the 1980s. Several major shifts in research foci and theoretical frameworks characterize the evolution of the topic in sports psychology (e.g., Alfermann & Stambulova, 2007; Wylleman, Alfermann, & Lavallee, 2004). The first major shift involved a move away from understanding athletic retirement as an event to seeing it as a transitional process that evolves over time. The second major shift was away from perceiving athletic retirement as a 'social death' to seeing it as a coping process with potentially positive or negative outcomes. The third major shift in the career development and transition research was the departure from focusing almost exclusively on athletic retirement to studying a range of transitions within an athletic career – the so-called 'whole career' approach. The fourth major shift was from focusing exclusively on athletes' transitions in sport to more of 'a whole person' lifespan perspective, viewing athletic career transitions in their relation to developmental challenges and transitions in other spheres of an athlete's life (Wylleman & Lavallee, 2004). The fifth major shift concerned the integration of the socio-cultural context and the contextual factors related to career development and transitions. Early studies investigated how coaches, peers, and parents influences athletes' careers and transitions (e.g., Bloom, 1985; Côté, 1999); more recent studies also considered the role of the talent development environment (e.g., Henriksen, Stambulova, & Roessler, 2010a) and the

macro-context (i.e., nation/culture and sports system) as influential when studying career transitions and athletic retirement (e.g., Alfermann et al., 2004; Stambulova et al., 2007).

As summarized by Stambulova, Alfermann, Statler, and Côté (2009), in recent decades, research into the career development of athletes has been evolving from studies of the sports career termination into a holistic, lifespan, and multilevel approach to sports and post-sports careers, including career assistance interventions and programs. The theoretical perspectives on career transition research in sport and the relevant models for studying athletes' careers and transitions will be examined in more detail in the following sections. This should help to improve understanding of the theoretical models that built the fundament for my own theoretical framework, which was developed for this project and which is explained in detail in *Chapter 3*.

2.2. Theoretical Perspectives on Career Transitions and Career Termination in Sport

Historically, pioneer transition studies in sport (e.g., Haerle, 1975; Mihovilovic, 1968) focused on athletic retirement, which was considered analogous to retirement from a working career. Those early studies were conducted without explicit theories or models because there was an absence of elaborated theoretical frameworks. Subsequently, researchers (Lerch, 1982; McPherson, 1980; Rosenberg, 1980) tried to understand career transition in sport by comparing the process to a range of psychological and social models, borrowing frameworks from other disciplines such as social gerontology (the study of the aging process; e.g., Atchley, 1976) and thanatology (the study of death and stages of dying; e.g., Kübler-Ross, 1969). These theories could explain some aspects of athletes' experiences of career transition, for example, that the once active role that is lost upon retirement needs to be substituted with one or several new ones. However, researchers (e.g., Lavalley, 2000; Taylor & Ogilvie, 1994) have argued for the incompatibility between social gerontological theories and athletes' career transition studies, based on differences in the timing of retirement and developmental and vocational needs after retirement. Another shortcoming of the analogy between athletic retirement and gerontological models are the presumptions that the career transition process is an inherently negative event, requiring considerable adjustment. Thanatological models have been used to explain the 'social death' athletes may experience after they retire from sport, particularly in instances of forced retirement (e.g., Lerch, 1982; Rosenberg, 1980). However, as Lavalley (2000) concluded, models of thanatology provide a limited perspective because they do not focus on the life-span

perspective of athletes and do not consider the causes of difficulties athletes may experience in the post-retirement phase.

Because gerontological and thanatological models are unable to adequately account for the complex nature of athletic retirement, which is the “the process of transition from participation in competitive sport to another activity or set of activities” (Coakley, 1983, p.10), it has been suggested that alternative perspectives are needed to achieve an empirical-theoretical balance (Crook & Robertson, 1991). As such, theorists have proposed that athletic career termination may serve as an opportunity for a social rebirth, rather than a social death (Coakley, 1983; Sinclair & Orlick, 1994); accordingly, athletic retirement has to be viewed as a transition that views retirement as a process, rather than as a single event. In general, a transition has been related to the occurrence of one or more specific events (or non-events) that brings about not only an individual change in assumptions about oneself (Schlossberg, 1981), but also a social disequilibrium (Wapner & Craig-Brey, 1992) that goes beyond the ongoing changes of everyday life (Sharf, 1997). Examples of events are when an athlete wins a major title, suffers an injury, gets married or retires from elite sport. An example of a non-event is when an athlete misses qualifying for a major sports event (e.g., Olympic Games) for which she/he has been preparing for years. Sinclair and Orlick (1994) have proposed that every career transition has the potential to be a crisis, a relief, or a combination of both, depending on the athlete’s perception of the situation.

The most frequently employed theory of transition that has been outlined in the sports literature has been the *model of human adaptation to transition*, as proposed by Schlossberg and colleagues (Schlossberg, 1981; Schlossberg, Waters, & Goodman, 1995, 2005). Schlossberg’s early model (1981) characterizes retirement as a process that accompanies changes in individuals’ worlds, behaviors, and relationships. In this model, three major sets of factors interact during a transition; this includes the *characteristics of the individual* experiencing the transition, *the perception of the particular transition*, and the *characteristics of the pre-transition and post-transition environments*. Individual characteristics include such attributes as psychosocial competence, age, sex, health condition, socio-economic status, and previous experiences with transitions of a similar nature (Schlossberg, 1981). These variables may show considerable differences across the population of athletes facing retirement from sport, and thus have to be acknowledged in order to understand the overall adjustment process (Coakley, 1983; Lavalley, 2000; Swain, 1991; Tinley, 2012). Regarding the perception of a particular situation,

Schlossberg et al. (1995) have suggested that role change, affect, source, timing, onset, duration, and the degree of stress are all important factors to consider. In consideration of the pre- and post-transition environments, Schlossberg (1981) emphasized the importance of internal support systems (e.g., family, friends), institutional support (e.g., sports federations, career programs), and physical settings (e.g., living arrangements, workplace).

To summarize, researchers working in the area of athletes' career transition attempted to use various social theories and models to understand athletes' retirement experiences. Some theories and models, such as social gerontological theories and thanatological models, could only provide descriptive information for particular aspects of athletes' retirement experiences. Schlossberg's (1981) model is able to explain general transitional experiences and outcomes; however, it is limited in explaining sports transitions because it does not consider sport specific contexts and components which may influence sport career changes. Since the 1990s, investigators (e.g., Gordon & Lavalley, 2004; Gordon, 1995; Sinclair & Orlick, 1994; Stambulova, 1994, 2003; Taylor & Ogilvie, 1994; Wylleman & Lavalley, 2004) developed models that specifically explain athletes' career transitions. The models of Taylor and Ogilvie (1994) and Stambulova (2003) are widely used in the athletic career transition research; they will be explained in more detail in the following section since they are relevant to the theoretical framework that guided my study.

2.2.1. Conceptual Models for Studying Athletic Career Transitions and Retirement

The *conceptual model of adaptation to retirement among athletes* (Taylor & Ogilvie, 1994) was developed to specifically study athletic retirement; it focuses on causes for career termination (age, deselection, injury, and free choice), factors related to the adaptation to retirement (developmental experiences, self-identity, perception of control, social identity, and tertiary contributors), as well as the available resources related to the transition (coping skills, social support, and pre-retirement planning) that determines the adaptation quality, which is either a healthy transition or career transition distress. In the case of a crisis, a need for psychological interventions is outlined. Although Taylor and Ogilvie's model suggests cognitive, emotional, behavioral, or social interventions, the intervention strategy is reactive. Nowadays, researchers (e.g., Lavalley, 2005; North & Lavalley, 2004; Stambulova, 2012; Wylleman et al., 2004) have emphasized that athletes need to be assisted with proactive interventions, because of the importance of pre-transition planning and life skills development (Jones & Lavalley, 2009).

Furthermore, as Stephan and Demulier (2008) have noted, ever since Taylor and Ogilvie developed their conceptual model a little more than 20 years ago, a great number of variables have been identified as related to transition quality; thus, this model needs to be updated according to the recent advances and research findings (Park et al., 2013).

The *athletic career transition model* developed by Stambulova (2003) incorporates ideas from previous transition models and coping theories (Lazarus & Folkman, 1984; Schlossberg, 1981). It is designed to explain the process of a single transition that could be applied across sports careers (e.g., youth to senior transition or transition out of elite sport). Stambulova (2003) suggested that each transition can be viewed as a process including a number of demands, coping resources and barriers, outcomes, and long-term consequences. Transition demands (e.g., adjustment to a new lifestyle, dealing with bodily changes, adapting to a new social environment) may create developmental conflicts between ‘what the athlete is’ and ‘what he/she wants or ought to be’ (Alfermann & Stambulova, 2007). Effective coping (i.e., successful transition) is achieved when an athlete is able to use/develop necessary resources and to avoid/overcome potential transitional barriers. Ineffective coping (i.e., crisis transition) occurs when the athlete is unable to cope effectively due to a lack of resources and/or insuperable barriers. A transition that leads to a crisis demands an intervention. If effective, the intervention leads to a (delayed) successful transition. In the case of no intervention or an ineffective one, athletes can face negative consequences of the transition and pay the ‘costs’ for failure to cope with the transition. The resources and barriers to coping with the transition demands are not explicitly specified in Stambulova’s (2003) model, but they may be elaborated using previous findings or knowledge generated through practical work. The model points out that a transition is either successful or not. However, concerning the transition out of elite sport, studies have shown that some athletes experience high transition distress, some deal with moderate difficulties, while for others, the transition process is mainly a positive experience (Alfermann et al., 2004; Cecić Erpič et al., 2004). Hence, the dichotomy that the model suggests does not give an adequate picture of the reality of retiring athletes because the transitions’ success might be better described as a continuum, rather than in terms of a ‘successful’ versus a ‘crisis’ transition.

The *athletic career transition model* of Stambulova (2003) and the *conceptual model of adaptation to retirement among athletes* of Taylor and Ogilvie (1994) can help to understand and explain general athletic transitions or the more specific transition out of elite sport. However, to

comprehend a transition from the ‘whole person’ and ‘whole career’ viewpoint, it is necessary to apply a developmental perspective on athletes’ careers because athletes’ previous development and experiences, both within and outside the sports domain, may influence how an athlete reacts to the transition (Schlossberg, 1981). The transition out of elite sport can be considered as one of many transitions in an athlete’s life. Therefore, it is useful to introduce the *holistic athletic career model* (Wylleman, De Knop, & Reints, 2011) that describes the different career stages and which predicts normative career transitions and career pathways of athletes.

2.2.2. Holistic Athletic Career Model

Using data on the career development of pupil athletes, student-athletes, elite athletes, and of former Olympians, Wylleman and Lavalée (2004) introduced the developmental model which includes normative transitions faced by athletes within their sports career and their career end. Wylleman and Lavalée (2004) noted that there are two types of transitions, which are normative and non-normative. A *normative transition* refers to a transition that can be predicted and anticipated, that is related to biological, social, and emotional changes through aging, and which is influenced by social context (Wapner & Craig-Brey, 1992) and contains the development from childhood to adulthood, the transition from the development to the mastery stage, and the retirement from sport. *Non-normative transitions*, in contrast, are those which are unexpected, and thus usually cause more difficulties to cope with (Schlossberg, 1981). Examples of non-normative transitions are when an athlete is (unexpectedly) traded to another team or suffers a career-ending injury. Wylleman and Lavalée’s (2004) developmental model is widely accepted in athletic career research and offers a developmental and holistic perspective on athletes’ normative transitions during their athletic careers, the so-called ‘whole career’ approach.

Inspired by previous career-stage and talent development models (e.g., Bloom, 1985; Côté, 1999; Durand-Bush & Salmela, 2001; Ericsson, 1996; Stambulova, 1994), Wylleman and Lavalée’s (2004) model was the first one to describe a holistic approach to career transitions *in sport*, highlighting within-sport transitions (e.g., youth to senior transition) in addition to changes athletes may experience *outside of their sport* (e.g., moving from high school to university, change of coach or team, becoming a parent). Athletes in this model are seen as persons ‘not just doing sports’, but also as persons being active and involved in other spheres of life. Accordingly, Wylleman and Lavalée’s (2004) model takes a so-called ‘whole person’ perspective on athletes’

life course development and provides a complete picture of the phases and transitions that athletes may experience throughout their careers.

Originally, the model contained four layers that are related to athletes' life span development, including the athletic, psychological, psychosocial, and the academic/vocational level. Recently, after validating the model with former Flemish athletes (Reints, 2011), a fifth layer that incorporated financial development throughout an athletic career was added to the model. The updated model, which is displayed in Figure 2, was termed the *holistic athlete career model* (Reints & Wylleman, 2013; Wylleman et al., 2011). Each level of the model will be explained in more detail below.

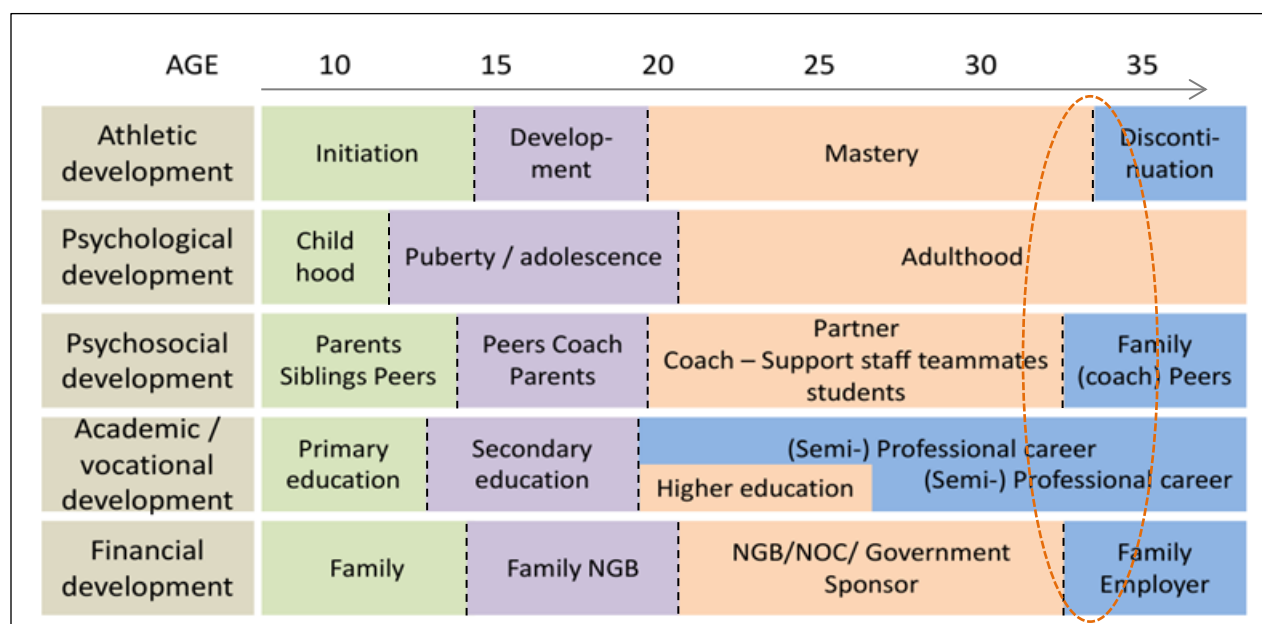


Figure 2: The holistic athletic career model (Wylleman, De Knop, & Reints, 2011). Dotted lines indicate that the age at which the transition occurs is an approximation. The circle (added by the author) highlights the transition out of elite sport which is the main topic of this PhD thesis. NGB stands for National (Sports) Governing Body; NOC stands for National Olympic Committee.

On the *athletic level*, there are four different stages that can occur during athletes' 'within-sport' career transitions, which are Bloom's (1985) three stages of talent development (i.e., initiation, development, and mastery or perfection) and the discontinuation stage. The initiation stage indicates the period when young athletes enter their sport; the developmental stage refers to the time when athletes dedicate time and effort to their sport to develop their sporting skills; the mastery stage is the period when athletes reach their highest performance and the discontinuation stage refers to the transition out of competitive sport. According to Wylleman and Lavallee (2004), the discontinuation stage follows retirement from competitive sport and typically occurs

between the ages of 28 and 30. These age ranges represent guidelines that may not apply to all sports (e.g., gymnasts who may enter the mastery stage earlier in their life and retire from the sport at a younger age; North & Lavallee, 2004).

On the *psychological level*, the model is based on frameworks of individual's life span development (Piaget, 1971; Rice, 1998). Childhood indicates young athletes' readiness for structured sports competition, including motivational viewpoints (e.g., interest in and attention on participating in the sport) and cognitive viewpoints (e.g., capacity for understanding rules, responsibilities, relationships, and causes of performance outcomes). Adolescence and adulthood are periods during which individuals are confronted with a number of developmental tasks. These include achieving new and more mature relations with peers of both sexes, identifying with a masculine or feminine role in society, and attaining emotional independence from parents and other adults. Developing a self-identity is, therefore, a crucial developmental task for adolescents. This is especially relevant for an athlete as it has been shown that participation in competitive sport can have a significant influence on the way self-identity develops (Brewer et al., 1993). The degree to which an individual will develop an athletic identity can have both positive and negative consequences for the athlete. As young athletes become and remain involved in high-level competitive sport through adolescence, their self-identity may become strongly and exclusively based on athletic performance (Coakley, 1983). Individuals who strongly commit to the athlete role may be less likely to explore other careers, education, and lifestyle options (Baillie & Danish, 1992; Werthner & Orlick, 1986). Identity foreclosure, which is the process by which individuals make commitments to roles without engaging in exploratory behavior, also plays an important role as it may negatively influence the use of coping strategies that are essential during career transitions (Danish, Petitpas, & Hale, 1993).

On the *psychosocial level*, the model displays athletes' development of social networks, including interaction with their surroundings, and emphasizes that the roles of significant others change throughout the athletic career. The model shows that parents, siblings, peers, and coaches are the most influential others for young athletes (e.g., Côté, 1999; Storm, Henriksen, Larsen, & Christensen, 2014), and in the latter stages of an athletic career (adulthood), partners, families, and coaches play important roles in athletes' social networks. In the discontinuation stage, the influence of persons connected to the sport is reduced and the social environment contains mainly family, peers, and possibly new working colleagues.

On the *academic and vocational level*, the model describes athletes' educational and occupational development during participation in competitive sport and contains primary education, secondary education, higher education, and their (semi-) professional career. As most countries have compulsory education until the age of 16 or 17, most athletes will be confronted with a major overlap between their academic and athletic development (De Knop, Wylleman, Van Hoecke, De Martalaer, & Bollaert, 1999). On the secondary educational level, athletes often relocate to specialized schools or training centers. This transition is possibly accompanied by changes in their sports teams and social networks, therefore athletes need to deal with these changes (Stambulova et al., 2015). While some athletes set their focus on a professional career (and find ways that this is financially feasible), others decide or need to work part-time to finance their elite sports career during their mastery stage. Some others combine their elite sports career with study in higher education during the mastery stage. Finally, athletes in their discontinuation stage usually need vocational training or learn a professional occupation. Particular to the vocational challenges faced by former elite athletes is the phenomenon of 'occupational delay' (Naul, 1994). As few athletes will have had the opportunity to actively employ the knowledge and skills attained in higher education while active in elite sport, retired athletes may lack the relevant professional skills and experience; consequently, they may need to return to higher education or to basic vocational training in order to gain up-to-date or new professional knowledge or skills. Alfermann (2000) suggested that academic progress is related to different educational policies in different nations (e.g., Aquilina & Henry, 2010) and that athletes' vocational opportunities are associated with the sports structure or level of professionalization. However, most athletes need to find post-sport careers when they face the termination of their sports careers (Stambulova et al., 2007).

On the *financial level*, the model emphasizes that athletes typically receive financial support from different persons or sources during the various stages of their athletic career. In the beginning of their sports career, it is mostly family who supports young athletes by buying sports equipment and paying for training camps. In the development stage, athletes may receive additional financial support from sports clubs or federations. In the mastery stage, athletes may receive financial support from the government through elite sports funding as part of the national team, have their own sponsors, or are under contract with a sports club. However, there are enormous differences in the income structure of athletes, both across different types of sports,

but also between the most successful and less successful athletes within the same sport (De Bosscher et al., 2015).

Wylleman and Lavallee (2004) have suggested that there are also interactions among the different levels in the model, and it is very likely that several transitions may occur simultaneously, which could have an adverse effect on the athletic development. For example, when athletes are moving from the development to the mastery stage on the athletic level, transitions may also be occurring on the academic level (e.g., change from gymnasium to a higher educational institute) and on the social level (e.g., change of coach, new teammates, new friends) that may also affect the athletic development and might cause drop-out from elite sport. The red circle in Figure 2 above indicates that there are changes involved on various levels of an athlete's life when she/he terminates her/his elite sports career. This is why the transition out of sport is often seen as a major life-changing experience for athletes. As such, the athletic career termination can be described as the "clearest example of a normative and even inevitable transition, which mixes sport-related and unrelated contexts in the athletes' retirement planning, reasons for termination, and adaptation to the post-career experiences including studies, work, identity change, and renewing social networks" (Stambulova et al., 2009, p. 398).

To summarize, the *holistic athletic career model* provides a developmental perspective on athletes' careers incorporating the 'whole person' and 'whole career' approaches. It shows the phases and normative transitions which are usually connected with an elite sports career. In order to fully understand and investigate the transition out of elite sport, one has to consider athletes' development on all five levels of the model, as the learned experiences and undergone changes throughout the sports career may act as influential pre-conditions for the transition out of elite sport (Alfermann et al., 2004; Schlossberg, 1981). The *holistic athletic career model* offers a general perspective on athletes' development and transitions. However, it does not take into account that different national contexts might influence athletes' careers and their transitions by providing different educational/vocational and financial opportunities for elite athletes (Aquilina & Henry, 2010; De Bosscher, Bingham, & Shibli, 2008). Because this PhD project intends to compare the transition out of elite sport across different cultural contexts, factors related to the broader socio-cultural contexts also need to be considered. The following section introduces a model that was developed to study athletic retirement among athletes from different countries.

2.2.3. Cross-Cultural Framework for Studying the Transition out of Elite Sport

Considering influential contextual factors is rather a new trend in athletic career and transition research. Initiated by researchers from several European countries, the cross-national *European Project on Athletic Retirement* (EPAR) aimed to increase understanding of how the national context influences athletes' transitions and the adaptation to the post-sport life (Alfermann et al., 2004; Wylleman et al., 2004). To be able to compare athletic retirement across different nations and to increase the contextual sensitivity, Stambulova et al. (2007) developed a conceptual framework which combines existing transition models (Schlossberg, 1981; Stambulova, 1994, 2003; Taylor & Ogilvie, 1994) with the ecological approach (Bronfenbrenner, 1979). The framework, which is displayed in Figure 3, emphasizes that the transition process and outcomes are influenced by the socio-cultural context, which includes the elite sports climate, job possibilities and athletic retirement services available to elite athletes, as well as living standards and cultural traditions.

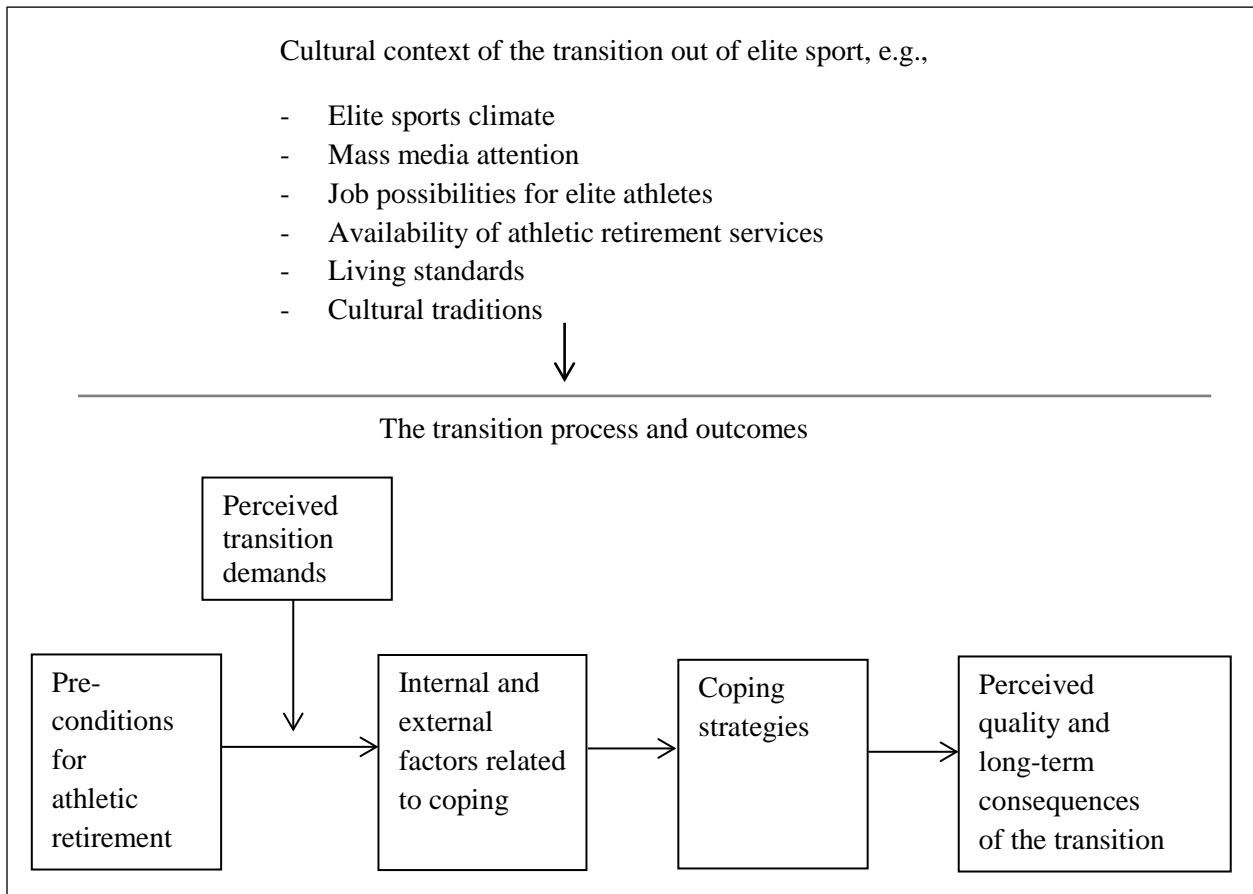


Figure 3: The conceptual framework developed by Stambulova, Stephan, and Jäphag (2007) to study the transition out of elite sport across different national contexts.

The transition process and outcomes in the framework of Stambulova et al. (2007) are explained by the pre-conditions for athletic retirement (e.g., age, satisfaction with career, voluntariness of retirement, and readiness for career change), the perceived transition demands (e.g., adjustment to a new lifestyle with different routines, missing sport atmosphere and competition, dealing with bodily changes, or adapting to a new social environment), the internal and external factors related to coping, and coping strategies. The resources comprise all internal and external factors that facilitate the coping process (e.g., the athlete's self-knowledge, skills, personality traits, motivation, availability of social and/or financial support), and the barriers include all internal and external factors which interfere with effective coping (e.g., a lack of necessary knowledge or skills, interpersonal conflicts, difficulties in combining sport and studies or work). The coping process is central in a transition and includes all strategies that the athlete uses in order to adjust to particular transition demands. The outcomes of the transition are the perceived quality of the transition process and the long-term consequences of the transition.

The framework of Stambulova et al. (2007) displayed in Figure 3 above provides a fruitful starting point to study the transition out of elite sport across different socio-cultural contexts because it provides the opportunity to add a link between athletes' transition and the corresponding cultural context. However, asserting that culture is a multilevel phenomenon, the contextual factors in this framework are juxtaposed without making an attempt to illuminate their mutual dependence; this is a criticism that Stambulova and Alfermann (2009) made themselves when reviewing their cultural framework. Thus, I propose to separate macro-level factors such as welfare systems, living standards, and cultural dimensions from meso-level characteristics such as sports systems and athlete career programs as this is usually done in comparative studies about elite sports systems (De Bosscher et al., 2008; Houlihan & Green, 2008). *Chapter 3* revises the framework of Stambulova et al. (2007), which served as the overarching theoretical framework for this PhD project.

The relevant sport transition (Stambulova et al., 2007; Stambulova, 2003; Taylor & Ogilvie, 1994) and sports career developmental models (Reints & Wylleman, 2013; Wylleman & Lavalley, 2004; Wylleman et al., 2011) on which the theoretical foundation for this PhD study were built have been described in the previous sections in this chapter. In the following sections, the literature is reviewed concerning the empirical findings related to athletic career termination,

which includes the reasons for sports career termination, factors related to the transition quality, and the consequences and outcomes of the transition out of elite sport.

2.3. Research Findings of Studies on Athletes' Career Termination

Research in the area of career transitions in sport and out of sport has increased gradually over time, as reflected in the growing number of studies and reviews (Jodai & Nogawa, 2012; Knights et al., 2016; Park et al., 2013; Stambulova et al., 2009). Based on early findings (e.g., Haerle, 1975; Koukouris, 1991; Mihovilovic, 1968), researchers have attempted to specify sources that help athletes to have a successful transition out of elite sport such as voluntariness and retirement decisions (e.g., Alfermann, 2000; Crook & Robertson, 1991; Werthner & Orlick, 1986), identity issues (e.g., Brewer et al., 1993; Martin et al., 2014; Webb, Nasco, Riley, & Headrick, 1998), and coping strategies (e.g., Alfermann et al., 2004; Stephan, Bilard, Ninot, & Delignières, 2003a). As shown in the systematic review of the career transition out of sport by Park et al. (2013), the investigators have also broadened the range of participants to include worldwide nations, various types of sport, ages, competitive levels, and athletes' close others. Of the 122 articles examined in the review of Park et al., 55 were qualitative, 56 quantitative, and 15 used mixed methods to examine athletes' career transitions. Park et al. (2013) identified a multitude of correlates related to the quality of athletes' transitions and grouped them into several categories. According to their analysis, the factors related to the transition quality can be divided as follows: (a) reasons for sports career termination, (b) factors that facilitate a successful transition (resources), and (c) factors hindering a successful transition (barriers). As it is one of the main goals of the PhD thesis to explore how relevant factors contribute to the transition quality, these factors will now be described in more detail related to previous research findings.

2.3.1. Reasons for Sports Career Termination

Reasons for retirement are one of the most emphasized influences on the effectiveness of coping with the transition out of elite sport. Initially, four main causes of ending a sports career, namely age, deselection, injury, and free choice, were identified (Taylor & Ogilvie, 1994). Some researchers (e.g., Alfermann, 2000; Webb et al., 1998; Werthner & Orlick, 1986; Wippert & Wippert, 2010) categorized these causes into freely chosen (voluntary) or externally forced retirement (involuntary). Voluntary reasons include athletic and non-athletic reasons such as a decrease in performance, loss of passion for competition, the accomplishment of sporting goals, pursuing goals outside a sports career, and critical life changes (e.g., Alfermann et al., 2004;

Cecić Erpič et al., 2004). Although a voluntary decision to retire is perhaps the most appealing option for athletes, it should not be assumed that when this is the case athletes are precluded from transition difficulties. Injury and deselection from a team are often associated with an involuntary decision to stop participating in elite sport and may cause unexpected and abrupt retirement for athletes. Injury and deselection are related to underperformance because they cause performance detriments; furthermore, underperformance can be a reason for being cut from a team (Lavalley, 2000).

However, the classification of voluntary versus involuntary has been questioned because the distinction between free choice and forced retirement is not always clear; this is because of the diversity and the nature of the potential factors which have an influence on athletes' retirements plans and decisions (Kerr & Dacyshyn, 2000; Park, Tod, & Lavalley, 2012). For example, Fernandez, Stephan, and Fouquereau (2006) suggested that the reasons for deciding to end a sporting career are numerous, varied, and cumulative. Fernandez et al. (2006) have proposed a new organization for retirement decision-making based on the complex interaction between push factors (e.g., injury, conflict with coach), pull factors (e.g., to spend more time with the family, job offer), anti-push factors (e.g., still feeling able to perform, lucrative sponsorship contracts) and anti-pull factors (e.g. uncertainty of the post-sport life, feeling unable to succeed in a new socio-professional environment). Other researchers (e.g., Cecić Erpič et al., 2004) divided the influential factors causing athletes' retirement into athletic reasons (e.g., sports career achievement, duration of career) and non-athletic reasons (e.g., new job, marriage, becoming a parent) and showed that the transition success depends on both.

It should be emphasized that in most cases, career termination results from several causes and not only one. But what seems to be most important for the transition process is the athlete's perception of controllability of their career termination. Locus of control (Fogarty & McGregor-Bayne, 2008) refers to the extent to which people believe outcomes are dependent upon their own actions (internal orientation) or largely under the control of chance factors, powerful others, or the difficulty of the task (external orientation). If an athlete perceives that retirement is his or her own decision, regardless of the cause(s), this was argued to lead to a more positive adaptation (Alfermann & Stambulova, 2007; Fortunato & Marchant, 1999).

2.3.2. Factors Related to the Quality of the Transition out of Elite Sport

According to Stambulova's model (2003), the quality of the transition out of elite sport is affected by the process of coping with a set of specific demands and challenges (e.g., adapting to a new lifestyle, changes of routines, and loss of social environment). The effectiveness of coping in Stambulova's model (2003) depends on the dynamic balance between transitional resources (internal and external factors which facilitate the coping process) and transition barriers (factors which interfere with the coping process). Factors associated with the quality of the transition out of elite sport were summarized by Park et al. (2013) and will be separated according to the empirical findings that separated the factors into potential resources and potential barriers for a successful transition.

2.3.2.1. Resources for a Successful Transition

Several resources have been found to influence athletes' abilities to respond effectively to athletic retirement: pre-retirement planning, psychosocial support, and sports career achievement. Several studies have shown that athletes tend to adjust better to a post-career if they are prepared and have made plans for their post-athletic career (e.g., Alfermann et al., 2004; Baillie & Danish, 1992; Blinde & Stratta, 1992; Ungerleider, 1997). Pre-retirement planning can include vocational, psychological, and financial preparation for the time and life after elite sport. Career planning has been described as a cognitive process of structuring the future, of taking the social environment, as well as the individual circumstances of an athlete's life, into account (Alfermann et al., 2004). Athletes who plan their future for the post-sport life most likely feel they have more control over their retirement situation (Fortunato & Marchant, 1999). Kucharska and Klopot (2013) have suggested that there is a positive association between pre-retirement planning and athletes' vocational adjustment to the post-career. Further, Warriner and Lavallee (2008) advocated that psychological preparation and the setting of clear goals gave athletes a feeling of comfort and control throughout the retirement phase.

The availability and quality of the social support (Barrera & Ainlay, 1983; Rees, 2007) has also been shown to contribute to a smooth retirement process (e.g., Grove et al., 1997; Hemmatinezhad, Benar, Hashemi, & Moemeni, 2013; Park & Lavallee, 2015; Stambulova et al., 2007). The support can be of different kinds: emotional, informational, or tangible. For example, emotional support from family and friends has been shown to ease the degree of retirement difficulties as it helps athletes to adjust to the transition (Werthner & Orlick, 1986). Athletes who

experience a negative transition often mention the loss of a support system, as most of their friends continue with the sport (Mihovilovic, 1968). In this case, support from family, friends, and former athletes/coaches may help athletes during the transition. Informational support from organizations and coaches during the transition were shown to ease transitional difficulties and the negative emotions of athletes (Fernandez et al., 2006; Stephan et al., 2003a). Tangible support is less researched but a few studies have shown that athletes who had opportunities to seek funding for continuing studies after their sports career experienced a relatively healthier transition (e.g., Leung, Carre, & Fu, 2005; Schmid & Seiler, 2003).

The study of Cecić Erpič et al. (2004) revealed that athletes who achieved their sporting goals showed a more balanced self-identity, a higher self-esteem, and fewer occupational difficulties during the adaptation compared to those who did not achieve their expected sporting goals. Similarly, the degree of achievement of sporting goals was positively related to post-sport life satisfaction among retired athletes (Sinclair & Orlick, 1993). Conzelmann and Nagel (2003) examined the situation of former German Olympians and concluded that athletes who succeeded in sport, in terms of achieving objective results (e.g., winning a medal at the Olympic Games or World Championships), tend to have social upward mobility.

Park et al. (2013) identified nine studies that all showed a positive relationship between adjustment to retirement and athletes' career and personal development (e.g., Grove, Lavalley, Gordon, & Harvey, 1998; Swain, 1991). Athletes who developed a broad range of life skills outside their sports career were more likely to adapt well to the transition out of sport because they did not experience a delayed identity shift that is apparent in retirees with a lack of experiences and personal development in non-sporting fields (e.g., Kane, 1991; Price, Morrison, & Arnold, 2010; Vilanova & Puig, 2014).

Taylor and Ogilvie (1994) suggested that individuals' demographic differences may influence the quality of their adjustment to post-sport life, including gender, educational status, marital status, and competitive levels. Findings indicate that educational, financial, and marital status had positive correlations with the quality of athletes' adjustment to post-sport life (e.g., Swain, 1991; Werthner & Orlick, 1986; Wheeler et al., 1999). However, other demographic aspects such as age, gender, and type of sport have not shown clear associations with the quality of adjustment to post-sport life (e.g., Cecić Erpič et al., 2004; Fernandez et al., 2006).

With respect to the educational status, research clearly underlined that the educational level that athletes achieved while active in elite sport is a factor that influences athletes' retirement processes (Cecić Erpič et al., 2004; Marthinus, 2007; Swain, 1991; Tshube & Feltz, 2015). A higher educational status may influence athletes' vocational opportunities in their post-careers. Furthermore, it was suggested that following a dual career improves the balance in athletes' lifestyles, such as the balance between sporting and non-sporting activities (Pink, Saunders, & Stynes, 2015; Stambulova et al., 2015; Wylleman et al., 2004). What is more, athletes that not only focus on their sport but also study/work simultaneously were shown to be less at risk of athletic identity foreclosure (e.g., Danish et al., 1993; Torregrosa, Ramis, Pallarés, Azócar, & Selva, 2015), which is considered to be a risk factor to a healthy transition. Hence, it is not surprising that programs have been developed in several countries that assist athletes in combining their academic and athletic careers (e.g., De Bosscher, De Knop, & Vertonghen, 2016; De Knop et al., 1999; Petitpas, Danish, McKelvain, & Murphy, 1992). Some of these programs, along with some differences between national dual career settings, will be described in more detail in a later section in this chapter.

2.3.2.2. Barriers for a Successful Transition

Besides the resources mentioned above, several common barriers have been associated with the transition quality and outcomes such as athletic identity foreclosure, injuries or health problems, and life changes. Athletic identity issues have been examined for the past 20 years in athletic career research and have been linked negatively to the adaptation quality in 34 out of the 35 studies reviewed by Park et al. (2013). Athletic identity refers to individuals' self-identity in the sports domain and is closely related to athletes' roles, perceived values, and social networks during their athletic careers (Brewer et al., 1993). Empirical findings revealed that athletes who had strong athletic identities experienced a higher degree of career transition difficulties and identity crisis during the career transition process because of their narrowly focused lifestyles and identity development. Grove et al. (1997) and Kerr and Dacyshyn (2000) found that athletes retiring from sport with athletic identity crises required up to one year longer than athletes with low or moderate athletic identities to achieve a stable psychological state after retirement. Furthermore, Grove et al. (1997) found that athletes who have a strong athletic identity are also likely to employ avoidance coping strategies, such as denial and disengagement, rather than proactive problem-centered techniques that can help with adjustment to transition. However,

Fogarty and McGregor-Bayne (2008) showed that athletic identity was not related to the career-decision making (Gati, Krausz, & Osipow, 1996) of retiring athletes and explained this by the possible mediating effect of other roles (e.g., student role) on athletic identity. Several researchers (e.g., Danish et al., 1993; Pearson & Petitpas, 1990) stated that athletes who have a narrowly focused athletic self-identity are vulnerable to delays in their life-skills development and that a lack of life-skills development can be a further source of career transition difficulties.

Injury and health problems can sometimes be related to the voluntariness of the retirement decision. When athletes retire due to ill health or injury, transitional difficulties can be experienced (Gilmore, 2008). Park et al. (2013) found ten papers which revealed a negative association between ill health or injuries and the quality of athletes' retirement. Athletes who had physical problems needed longer periods of time to adjust after entering post-sport life (e.g., Kadlcik & Flemr, 2008; Kucharska & Klopot, 2013; Werthner & Orlick, 1986). In addition, retired athletes' physical condition was strongly related to the quality of their post-sport lives; some athletes expressed difficulties in dealing with the post-sport life because of their physical pains (Gilmore, 2008; Stephan, Torregrosa, & Sanchez, 2007).

Life changes refer to changes in lifestyles and daily routines (Stephan et al., 2003a). All five studies reviewed by Park et al. (2013) indicated that radical changes in former athletes' lives had negative associations with the quality of career transition among retired athletes. Former athletes reported feelings of anxiety associated with their new routines and feelings of being lost resulting from the lack of structure that was provided by daily training plans and scheduled competitions (e.g., Kerr & Dacyshyn, 2000). In addition, accepting a new lifestyle was one of the transitional difficulties for athletes because the transition from a bodily over-investment to a more sedentary state is marked by a loss of physical efficiency, which is detrimental to perceptions of both competencies and global self-esteem (Stephan, Bilard, Ninot, & Delignières, 2003b).

2.3.3. Consequences and Outcomes of the Transition out of Elite Sport

According to Alfermann and Stambulova (2007), research concerning the post-sport career and the outcomes of athletic career termination may be evaluated along one or both of the following criteria: (a) successful coping with career termination, and (b) success in life. With regard to the former, research is concerned with the athletes' individual interpretation of and coping with the process of career termination where the quality, the advantages and disadvantages, the problems

and prospects of career transition, and the process of adaptation to the post-career are the focal points of research. With regard to the latter, namely the analysis of the occupational and life development of former athletes, studies give information about if and how former athletes were able to solve important developmental tasks, and if elite athletes are better or worse prepared for an occupation and success on the job market than comparable non-athletes.

Concerning the first criterion, which investigates successful coping with the transition out of sport, athletes' negative psychological and emotional responses to their retirement from elite sport have been reported in many studies. This includes identity crisis, feelings of loss, fear of an uncertain future, isolation, and frustration (e.g., Kerr & Dacyshyn, 2000; Lavallee & Robinson, 2007). The findings showed that athletes also experienced adjustment difficulties to post-sport lives or careers because retirement from sport accompanies critical life changes (e.g., lifestyle, job, social environment, and the loss of the competitive atmosphere while competing). Some of the studies reported negative outcomes of athletes' retirement in social, behavioral, and occupational areas, including the loss of social or financial status, maladaptive reactions (e.g., smoking, drug abuse, alcohol dependence), and difficulties in finding jobs (Alfermann et al., 2004; Fleuriel & Vincent, 2009). Other studies revealed that not all athletes experienced difficulties during their adjustment to post-sport life, and some athletes perceived their sports career end as a positive event (Alfermann, 1995; Knights et al., 2016). The systematic review of the 122 studies about athletic retirement by Park et al. (2013) discovered that 16% of all athletes experienced adjustment difficulties or problems. This is far lower than the percentage reported in earlier studies (e.g., Blinde & Stratta, 1992; Mihovilovic, 1968) where it was assumed that the majority of the retired athletes had been dealing with serious adjustment distress when ending their sports career.

The second criterion of the career research on athletic retirement focuses more on the long-term adaptation and job or life satisfaction in the post-sport career. Typical research questions in these more sociological-orientated studies are whether athletes experience an upward or downward social mobility, and if they win or lose in prestige and status. Hackfort, Emrich, and Papathanassiou (1997) and Nagel (2002) found that in most cases the occupational careers of former German athletes correspond to their occupational training. The group of amateurs in the study by Hackfort et al. (1997) showed neither a social downward nor upward mobility. However, a more recent study by Dewenter and Giessing (2014) showed that former German

elite athletes have higher monthly net incomes compared to similar non-athletes after their sports career. Findings from another German study, which applied cluster analysis, highlighted that athletes from different types of sports tend to relocate in different kinds of occupations after their sports career (Schmidt & Saller, 2013). The results of studies about former athletes' occupational and life situations point to the fact that athletes are no less successful in life and in work than non-athletes, despite elite athletes usually starting their professional careers at an older age than their peers (Conzelmann & Nagel, 2003; Curtis & Ennis, 1988; Dewenter & Giessing, 2014; Naul, 1994). As such, an elite sports career does not seem to put athletes at a disadvantage for their future life careers.

Cross-national comparative studies revealed that athletes from different socio-cultural backgrounds differed in their patterns when relocating into the job market (Alfermann et al., 2004; Dimoula, Torregrosa, Psychountaki, & Fernandez, 2013; Stambulova et al., 2007). Former athletes from Russia, Lithuania, France, and Greece often tended to relocate in the field of sports (e.g., as coaches and sports teachers), whereas most former German and Swedish athletes needed to find a job in the regular working market. The authors of these cross-national studies concluded that both the athletes' educational pathways and the availability of paid jobs in the sports sector are responsible for these differences. Hence, the socio-cultural context did not only influence athletes' careers and their transition out of sport, but also athletes' long-term development and their future occupational situations (Dimoula et al., 2013). Therefore, it is important to consider the broader socio-cultural context when studying the transition out of sport and the long-term consequences such as life and job success.

To summarize, athletes' retirement from sport has been examined for the past four decades. In the early stages, researchers focused on the reasons and consequences of athletes' sports career end. Based on early findings, specific models were developed that aimed to explain the quality of the transition and several factors were identified that may facilitate or hinder a successful adaptation to the post-sport life. Recently, cross-national comparative studies revealed that the broader socio-cultural context has an influence on athletes' transitions. Hence, a cultural-specific approach in career research and assistance was proposed by Stambulova et al. (2009).

2.4. Athlete Career Assistance Programs (CAPs) and Athlete Retirement Services

Since the 1990s, a number of researchers have emphasized the need for intervention programs to support the process of athletic career transition (e.g., Baillie & Danish, 1992; Danish, Petitpas, &

Hale, 1992; Taylor & Ogilvie, 1994). Various intervention approaches have been suggested to support athletes' healthy career transitions (Lavallee, Nesti, Borkoles, Cockerill, & Edge, 2000). The approaches include life development interventions (Danish et al., 1993; Lavallee, 2005), mentoring (Bloom, Durand-Bush, Schinke, & Salmela, 1998), account-making (Grove et al., 1998), career planning (Stambulova, 2010a), and traditional therapeutic approaches (Nesti, 2004; Yalom, 1980). Accordingly, several intervention strategies and athletes' support programs provided by numerous organizations have been established in different parts of the world. Athlete career assistance programs (CAPs) can be described as an "integrated and comprehensive combination of workshops, seminars, educational modules, individual counseling and/or a referral network providing individualized and/or group-oriented multidisciplinary support services to athletes regarding to their athletic participation, developmental and lifestyle issues, and educational and vocational development" (Wylleman, Theeboom, & Lavallee, 2004, p. 511). Target groups for career programs or services include prospective junior athletes, student-athletes, elite senior athletes, and retiring or already retired athletes. Career assistance is generally based on a set of principles such as a 'whole career' and 'whole person' approach, a developmental and an individual approach, as well as a multilevel treatment and empowerment approach (Alfermann & Stambulova, 2007; Wylleman, Harwood, Elbe, Reints, & de Caluwé, 2009). A multilevel approach means treating athletes in transition not only on the symptomatic level (e.g., negative emotional reactions), providing technique-based symptomatic relief, but also addressing a variety of issues behind the symptoms (e.g., perceptions, decisions, attributions, attitudes, meanings). An empowerment approach means helping athletes to develop coping resources and strategies to allow them to become autonomous after psychological interventions as an alternative to making athletes dependent on consultants and their services.

In recent years, numerous CAPs for athletes have been developed in countries around the world based on the belief that intervention at the organizational level can be a useful means for facilitating the career transition process (Hackfort & Huang, 2005; Thomas & Ermler, 1988). However, although some studies (e.g., Goddard, 2004; Mateos, Torregrosa, & Cruz, 2010) indicated a positive association between athletes' support program involvement, their life skills development and the quality of their transition out of elite sport, the effectiveness and impact of the CAPs is little investigated and research on CAPs is not only scant, but also highly descriptive (Gordon, Lavallee, & Grove, 2005). Thomas and Ermler (1988) have outlined the obligations of

coaches and sports associations in preparing athletes for retirement from high-level sports. However, as noted by Alfermann and Stambulova (2007), the institutional support is usually highest when athletes are at the peak of their career and it decreases dramatically when athletes leave competitive sport.

Andersen and Morris (2000) presented an outline of some CAPs for athletes, including programs that have been started in Australia (*Athlete Career and Education Program*), the United Kingdom (*Performance Lifestyle Program*), Canada (*Olympic Athlete Career Centre*), and the United States (*CHAMPS/Life Skills Program*). According to Gordon et al. (2005), these programs are provided by five major sources, including National Sport Governing Bodies (e.g., Team Denmark, UK Sport), National Olympic Committees (e.g., Swiss Olympic Association), player unions within specific sport federations (e.g., Spillerforening), academic institutes (e.g., Aarhus University, AWF Gdansk) and independent organizations linked to sport settings (e.g., Adecco, KADA). Launched in 2005, the International Olympic Committee (IOC) established its athlete support program and has started to provide guidance and information on athletes' life skills development and career transition issues via its official internet website (<https://www.olympic.org/athlete-career-programme>) together with the recruitment company Adecco. The Swiss Olympic Association started its partnership with Adecco in 2006; Team Denmark began its association in 2008. Poland is not part of the IOC Adecco athlete career program. In general, it is the aim of the CAPs to enhance elite athletes' successful daily lives both inside and outside sport. CAPs usually cover three major areas including education (e.g., basic skills for enhancing academic achievement), life skills (e.g., leadership, teamwork, effective decision-making, and mature career planning), and employment (e.g., CV writing and interview skills). All three areas of the CAPs will now be described in more detail to give an overview of the potential organizational and institutional services and opportunities that are provided to elite athletes.

2.4.1. Educational Services as Part of the CAPs

From an early age, talented athletes are expected to practice their sport more and more often and the hours of practice in sport will intensify during adolescence (Wylleman & Reints, 2010). Therefore, the demands of elite sports make it difficult to balance both school and sport (Brettschneider, 1999; Christensen & Sørensen, 2009). However, it is argued that it is important for talented athletes to also attain the highest possible level at school (van Rens, Elling, &

Reijgersberg, 2015) as the vast majority of talented athletes will never make it to international heights in their sport. The objective of the dual career approach (i.e., combining elite sport with education or work) is to avoid situations in which the talented athlete is forced to choose between sport and education or work (EU Expert Group, 2016; Guidotti, Cortis, & Capranica, 2015). Several benefits have been associated with a so-called 'dual career': for example, the need to focus on more than one aspect of life, the belief that skills learned in one area are transferable and valued in other spheres, intellectual stimulation that helps to maintain interest in physical training, to feel more secure concerning the future, and hence performing better with a safety net of gained qualifications (Aquilina, 2013). However, by maximizing their academic and athletic potential, student-athletes must deal with the challenge of setting priorities when managing academic and athletic commitments (Cosh & Tully, 2014; de Subijana, Barriopedro, & Conde, 2015; Ryan, 2015). Although some effective programs and best practices emerged in the presence of a positive relationship between sport and educational bodies, findings were often related only to specific settings (Henriksen, Stambulova, & Roessler, 2010b; Jonker, Elferink-Gemser, & Visscher, 2009). In fact, several studies also reported that educational programs designed for student-athletes did not achieve the desired effect and contributed to neither a more positive athletic nor academic development of young athletes (Emrich, Fröhlich, Klein, & Pitsch, 2009; Gledhill & Harwood, 2015; Henriksen, Larsen, & Christensen, 2014).

Based on content analysis of interviews with Spanish elite water polo players, Pallarés, Azócar, Torregrosa, Selva, and Ramis (2011) showed that athletes follow different dual career trajectories during their sports career: (a) a *linear* trajectory occurs when the athletes are focused entirely on their sporting career, and thus giving almost 100% dedication to their sport; (b) a *convergent* trajectory occurs when sport is prioritized, but it is compatible with a job or with education; and (c) a *parallel* trajectory occurs when sport and higher education or work are almost equally weighted. These trajectories were found to be highly relevant to how athletes handled their retirement process. For example, athletes who followed the linear trajectory were not planning retirement and saw sport as almost their only possibility of an alternative professional career; they reported a more difficult transition to the post-sport life and used more reactive coping strategies (Torregrosa et al., 2015).

While elite sport has traditionally been closely linked to colleges and universities in Northern America, there has only been a recent development in Europe whereby academic

institutions are investing in programs for student-athletes (De Knop et al., 1999). For example, Loughborough University in the UK launched its *Performance Life Skills Program* in 2008, which comprised a number of mentoring and workshop sessions aimed at teaching student-athletes how to take more responsibility for their decisions, goals, and achievements. Reints (2011) surveyed a total of 28 CAPs concerning their types of services provided to junior, senior, and retired athletes; the overview showed that 74% provided flexible study schedules for athletes in secondary school, and 67% collaborated with a tutor in school. In higher education, distance learning (e.g., Caput-Jogunica & Razbornik, 2009) and flexible exam/study schedules were provided in 74% of the career programs.

To safeguard a healthy and socially responsible development of young athletes, the European Commission has developed *European Guidelines on Dual Careers of Athletes* (EU Expert Group, 2012). More than a rulebook, this tool should inspire stakeholders to consider the proper implementation of the necessary support for student-athletes and serves as a fundament to provide minimum requirements related to athletes' dual careers. Recently, a European project named 'Gold in Education and Elite Sport' has been launched involving nine countries and aiming at studying athletes' dual career experiences (i.e., relevant knowledge, skills, abilities, and attitudes) and experience of dual career experts involved in the CAPs. Previous studies have shown that the settings for student-athletes and the institutional support provided differ substantially between European countries, both on the secondary educational level (Radtke & Coalter, 2007; Stambulova & Ryba, 2013) and on the tertiary level (Amara, Aquilina, & Henry, 2004; Aquilina & Henry, 2010; De Bosscher et al., 2015; Metsä-Tokila, 2002). Typical approaches adopted by the EU Member States to support dual career athletes will be explained later in this chapter (Section 2.5.) to emphasize the different institutional settings concerning the support that is available to elite athletes in different national contexts and to illustrate that the settings in Switzerland, Denmark, and Poland concerning their dual career approaches differ from each other.

2.4.2. Athletes' Life Skills Development Services as Part of CAPs

The second area of the CAPs involves the provision of athletes' life skills training. Life skills are skills that are transferable to any other field or career, regardless of where they were initially developed (Bolles, 1996). Within the career transition literature, several lists of transferable skills have been presented (Jones & Lavalley, 2009; Mayocchi & Hanrahan, 2000; McKnight et

al., 2009), including goal-setting, time management, self-motivation, problem-solving, organizing skills, and the ability to perform under pressure. However, as Gould and Carson (2008) have stated, the problem with life skills through sports research stems from the fact that life skills and associated terms are often not precisely defined. What is more, athletes frequently fail to give credit to the skills they acquired through their sports involvement (Danish et al., 1993; Petitpas, Raalte, Cornelius, & Presbrey, 2004). This may result from tunnel vision when focusing only on athletic performance or foreclosed (athletic) identity; these are both factors that can interfere with athletes' perception of how the skills that made them successful in sport can make them successful in other domains (Petitpas et al., 1992).

In recognizing that one of the barriers to skills transfer is a lack of awareness of the skills acquired through sport, the importance of creating awareness amongst athletes of their transferable skills is highlighted. In their research, Petitpas et al. (1992) and Lavallee (2005) demonstrated that helping athletes to develop relevant life skills increased their level of confidence about skills transfer to the non-athletic settings and challenged their doubts about their post-athletic careers. Acknowledging that life skills are essential tools for managing a dual career and professional life, life skills training has become an integrated part of several athlete career development programs. For example, applying the *holistic athletic career model* (Wylleman et al., 2011), the Flemish athlete career support service developed a proactive educational approach to teaching life skills specific to athletes' developmental stages: time management skills (from age 10 onwards), transition skills (from 14 years of age), media skills (for 16-year-olds), relationships skills (from age 18 onwards), as well as networking skills (from the age of 26 years onwards). Some research has also shown that not all skills that athletes develop during their athletic careers are beneficial for their life after sport. For example, former Olympic elite athletes who were interviewed by Barker, Barker-Ruchti, Rynne, and Lee (2014) acknowledged that their movement to new social settings involved abandoning some elements of their athletic dispositions and skills learned during their elite sports career. This implies that career counselors should raise awareness in athletes that not all of the skills sometimes encouraged in elite sport (e.g., perfectionism, selfishness, and aggression) are positively transferable to life outside elite sport, as these characteristics are unacceptable or undesirable in most workplaces (Mayocchi & Hanrahan, 2000).

2.4.3. Career Management and Employment Services as Part of CAPs

The third area of the CAPs deals with the athletes' employment. Career management involves career support services aimed at meeting athletes' requirements for their transition into the labor market. According to Sinclair and Hackfort (2000), such services can include personal counseling referrals with aptitude or interest assessment, résumé or job interview preparation, job-searching techniques or shadow programs (allowing athletes to 'shadow' individuals in a specific job field of their interest). Sturges, Guest, Conway, and Davey (2002) identified two types of career management: the first is aimed at fostering careers within an organization, while the second type is focused on furthering careers outside of the organization. Hence, athletes who wish to develop a career within their sports organization, for example as a coach or sports administrator, may benefit from getting to know influential people and the opportunity to acquire a coaching certificate. For athletes who aim at pursuing a professional career outside the sports system, internship opportunities and job placement strategies may help them find a job matching their skills and knowledge. Career management strategies can decrease the anxiety athletes experience during their careers about their post-athletic life (Hawkins, Blann, Zaichkowsky, & Kane, 1994; Torregrosa et al., 2015). However, once entering the job market, athletes may find themselves at the 'bottom of the ladder', being confronted not only with lower wages (in comparison to their non-athletic peers) than could be expected on the basis of their age (and athletic achievements), but also with younger co-workers or colleagues who may have seniority over them (Wylleman et al., 2011). Former athletes will need motivational readiness and interpersonal skills to become integrated into such professional settings. Accordingly, CAPs designed to address athletes' long-term development needs should not stop when athletes end their elite sports career, but should also be available for retired athletes (Reints, 2011).

To summarize, although researchers have devoted some attention to CAPs in sport it must be acknowledged that the existing research is not only limited but also highly descriptive in nature. Analyses have consisted mainly of profiling the extent to which athletes have used (or not used) the services and the program components they found to be most (or least) helpful (Andersen & Morris, 2000; Laub, Storm, Jorgensen, & Holskov, 2013; North & Lavalley, 2004). Anderson and Morris (2000) also discussed the limitations or risks of the programs, including a lack of conviction in the need for the programs and financial issues, because only a small amount

of evidence has been found for the effectiveness of intervention programs in athlete career transition or performance enhancement.

As already mentioned, the forms of provisions for student-athletes in secondary and tertiary education vary from negligible to established structures backed by legislation across European countries. The types of response evident to facilitate a dual career for athletes in the EU Member States can be summarized in a typology and will be presented in the section that follows. The different structures that are provided to elite athletes to combine elite sport with education or work in Switzerland, Denmark, and Poland may influence athletes' academic and vocational development (Wylleman & Lavallee, 2004), and thus also influence athletes' pre-condition for their transition out of elite sport.

2.5. Typologies of Support for Athletes in Higher Education in Europe

Generally, there are three main areas in which higher education institutions seek to meet athletes' needs (Henry, 2010): (a) facilitation of the academic progress of elite athletes by providing services such as flexible entry requirements and timetabling, distance-learning, and unlimited tenure of student status; (b) enhancement of the sporting development of elite athletes by providing sport scholarships, elite sport programs, and professional supporting services (tutoring); and (c) provision of assistance for post-athletic career opportunities through study grants and introduction to new career or job programs. Concerning the first area, Aquilina and Henry (2010) reviewed the policy descriptions of (at that time) 25 European Member States. The findings of their study underlined the variability of response in national systems to the demands placed on dual career athletes. Aquilina and Henry (2010) classified the approaches for promoting higher education to student-athletes according to a four-fold typology. The first type is the *state-centric provision* (e.g., France, Spain, and Poland) where action on the part of educational providers is required by legislation or by state regulation; the second type relates to those systems in which the *state/the national sport agency acts as a facilitator* (e.g., Belgium, Finland, Germany, and Denmark), fostering formal agreements between educational and sporting bodies or individual athletes; the third type is one in which the *national federations or sports institutes engage directly in negotiation with educational bodies* on behalf of the individual athlete (e.g., Greece, the UK); the fourth type is termed *laissez-faire* where there are no formal channels or structures in place (e.g., Austria, Italy, Slovenia, and the Netherlands) and where accommodation of the student-athletes' needs is largely a matter of individually and informally

negotiated arrangements. However, as Aquilina and Henry (2010) recognized, it is important to acknowledge that the typology is based on an ideal-typical account; thus, individual nations may exhibit traits of more than one ideal type, not falling neatly into one category.

Aquilina and Henry (2010) further tried to find explanations as to why the policy patterns concerning dual careers differ between countries. Besides the political culture and history, the local academic culture, the size of the country (both in terms of population and area), and the economic situation, along with the broader welfare regime type of a particular nation, seems to have an influence on the sport- and dual career policy. Based on Esping-Andersen's (1990) three types of welfare regimes, Aquilina and Henry (2010) were able to show that countries that are classified as liberal states (e.g., the UK, Canada) most likely adopted the 'laissez-faire' approach, whereas countries classified as conservative corporatists (e.g., Germany, Belgium, and Poland) usually adopted a 'state-centered' approach and social democratic countries (typically Scandinavian countries such as Sweden and Denmark) adopted the 'state as a sponsor/facilitator' approach.

Switzerland is not a member of the European Union and was not included in the study conducted by Aquilina and Henry (2010). However, Switzerland (together with 14 other nations, including Denmark but not Poland) was part of the international comparative study *Sport Policy Factors Leading to International Sporting Success* ('SPLISS') conducted by De Bosscher et al. (2015). The SPLISS study uses one of the most comprehensive frameworks for analyzing the competitiveness of nations in international elite sport. The SPLISS framework is based on the notion that the formula for international elite sports success can be divided into various determinants located on the micro-, meso-, and macro-levels. The SPLISS framework builds on nine pillars as components of elite sports success, including financial input, organization, the structure of sports policies, talent identification/development, athletic (post-) career support, and training facilities for elite athletes. Local research teams in Switzerland and Denmark (Kempf, Weber, Renaud, & Stopper, 2013; Storm & Tofft-Jørgensen, 2013) reviewed (sport) policy documents and collected comprehensive data by asking active elite athletes, coaches, and performance directors about support services connected to the athletic and post-athletic career (pillar 5); they also provided detailed reports about the elite sports environment. I was granted access to the primary data that the local Swiss and Danish research teams had collected and this material served as a solid fundament to describe the Swiss and Danish elite sports systems

concerning elite athletes support and (dual) career programs. Because Poland did not participate in the SPLISS study, I was collecting the data on pillar 5 in Poland. This will be explained in more detail in *Chapter 4*.

Concerning the national dual career approach, the SPLISS study (De Bosscher et al., 2015) differentiated between secondary and tertiary education. Switzerland's approach was classified as 'state as a facilitator' in secondary education and as 'laissez-faire' in higher education. The 'laissez-faire' approach for dual career athletes attending higher educational institutions also fits the liberal welfare systems that Switzerland adopts (Aquilina & Henry, 2010; Esping-Andersen, 1990). Denmark's approach was termed 'state as a facilitator' both on the secondary and tertiary level, which is in line with the categorization in higher education made by Aquilina and Henry (2010).

To sum up, the countries in Europe have adopted various methods for integrating academic and sporting careers over the past few years; this ranges from highly centralized state-controlled systems to far more formal approaches, facilitated by national sports federations. Concerning the three countries that were selected for comparison in this thesis, the Polish dual career approach is the one where the state plays the strongest influence of the three countries. In Switzerland, the state practically does not interfere with the dual career policy in higher education for elite athletes. In Denmark, the state plays an intermediate role facilitating the collaboration between higher educational institutions, Team Denmark, the elite sports federations, and the athletes.

In this chapter, the literature has been reviewed concerning the evolution of the research on the transition out of elite sport. Additionally, several transition models and theoretical frameworks on athletes' careers, on which this thesis builds, were critically reviewed and discussed. Then, numerous factors that were identified in previous research as playing an important role during athletes' transitions were highlighted. Athlete career assistance programs and retirement services were described and differences in the institutionalization of dual career services across European countries were emphasized. Based on the review of the current knowledge about athletes' transition out of elite sport and influential contextual factors, some unsolved issues will be raised in the next section and the aims of the current thesis will be stated.

2.6. Summary, Unsolved Issues, and Aims of the Current PhD Thesis

According to contemporary understanding, the transition out of elite sport is seen as a process evolving over time in a particular context and that is influenced by a variety of sporting and non-sporting factors, including the athletes' individual, situational, and environmental circumstances that demands an athlete's adaptation in different spheres of life (Stambulova et al., 2009). A plentitude of factors has been identified to be associated with the quality of the transition out of elite sport (Park et al., 2013). However, there is a lack of knowledge as to how strongly a certain factor contributes to the transition quality, considering that several factors may be interrelated (Stephan & Demulier, 2008). Furthermore, it is less researched whether the possible resources and barriers influencing the transition quality are context specific or if they apply to the general population of retiring elite athletes across different cultural contexts.

Researchers in past reviews (e.g., Stambulova & Alfermann, 2009; Stambulova et al., 2009) have highlighted that cultural issues and national elite sports systems may act as influential factors for the quality of athletes' career transitions. However, cross-cultural comparison studies about the transition out of elite sport are sparse (e.g., Alfermann et al., 2004; Stambulova et al., 2007) and further comparative studies are needed to increase the knowledge as to how the national context influences athletes' transitions and their adaptation to the post-sport life. Different dual career approaches have been identified along with how countries support athletes' educational or vocational development (Aquilina & Henry, 2010). Nevertheless, it is less researched how these different national dual career settings and the availability of CAPs influence athletes' educational and vocational pathways and how this may influence athletes' transition out of elite sport.

Applying an ecological and holistic approach to studying the transition out of elite sport, this thesis aims to extend the knowledge of athletes' career transitions out of elite sport through: (a) comparing the transition out of sport of former elite athletes from Switzerland, Denmark, and Poland in terms of preconditions, adaptation period, and long-term consequences; (b) identifying how factors contribute to the quality of the transition depending on the national context; and (c) increasing the understanding of how the socio-cultural context, including educational opportunities and athletic career/retirement programs, influence athletes' career paths and their transition out of elite sport.

Chapter 3: Theoretical Framework

This thesis proposes an ecological, holistic, and culturally-sensitive approach to studying the transition out of sport. This approach implies that a number of theories and concepts need to be incorporated. The overall theoretical model of this study is inspired by the framework developed by Stambulova et al. (2007) and builds on central tenets of ecological psychology, of cultural and cross-cultural psychology, and on athletic career development/transition models. The *holistic athletic career model* of Wylleman et al. (2011) and the transition models of Schlossberg (1981), Stambulova (2003) and Taylor and Ogilvie (1994), which are incorporated in Stambulova et al.'s (2007) framework, have already been described in more detail in the previous chapter. As a consequence of this eclectic approach combining different theories and frameworks, the following sections make no claim to outline these cultural theories in all their complexities and details. Instead, some fundamental ideas will be presented that form the theoretical background of this particular study, which are integrated into the framework that is presented in this chapter.

3.1. Ecological Model of Human Development

Bronfenbrenner (1979, 1994) studied child development within the context of the system of relationships that form his or her environment. Strongly influenced by the work of Kurt Lewin (1936) who defined behavior as a joint function of person and environment, Bronfenbrenner argues that in order to understand human development, one must consider the entire ecological system in which growth occurs. Accordingly, he formulated an ecological system theory depicting the environment as a series of nested structures. The *micro-system* consists of relations in which the person (athlete) spends a significant amount of time such as home or school (or training camps); the *meso-system* consists of the interrelations between different micro-systems (e.g., federations, clubs, training academies); the *exo-system* is formed by contexts in which the individual is not actually situated but which have direct influence on their development such as the parents' workplace; and the *macro-system* is made up of larger cultural patterns of the society, including the welfare system, and the country's location and economic situation. Finally, the *chrono-system* encompasses change or consistency over time, not only in the characteristics of the person but also of the environment in which that person lives (e.g., moving to a training academy, recent establishments of dual career services at universities). Bronfenbrenner's use of

the word ecology refers to the interrelatedness between the individual and these different layers of the context.

Bronfenbrenner developed his ecological framework throughout his life (see Krebs, 2009, for an overview), evolving into the *bioecological theory of human development* (Bronfenbrenner & Morris, 2006). In these more recent publications, Bronfenbrenner and Morris stressed how development is affected by the complex interrelationship between process, person, context, and time (PPCT model). Bronfenbrenner proposed that human development takes place through processes of progressively more complex reciprocal interaction between an active, evolving biopsychological human organism and the persons, objects, and symbols in its immediate environment. Furthermore, to be effective, the interaction (which he referred to as proximal processes) must occur on a fairly regular basis over extended periods of time. The form, power, content, and direction of the proximal processes affecting development vary as a joint function of the characteristics of the developing person and the environment (i.e., micro-, meso-, and macro-systems) in which the processes are taking place, as well as the nature of the developmental outcomes. Thus, Bronfenbrenner's proposition acknowledges that the person (i.e., the athlete) affects and is affected by both the close and the proximal context.

The ecological approach to studying athletes' development and transitions has only recently been adopted by sport psychology research (Krebs, 2009). For example, talent development environments that regularly develop international elite athletes have been investigated through the *athletic talent development environment* model (Henriksen et al., 2010a, 2010b; Larsen, 2013). An ecological view was also recently applied to the retirement process of athletes (Alfermann et al., 2004; Dimoula et al., 2013; Stambulova et al., 2007; Tshube & Feltz, 2015), which considered the national context when explaining the differences in athletes' reactions to their athletic career termination. However, the framework that was developed by Stambulova et al. (2007), when comparing French and Swedish athletes, did not make any distinction between the meso- and the macro-systems of the respective contexts. Thus, I propose that their framework needs to be refined by making a clearer distinction between the two different systems. This will help to better understand how the micro-, meso-, and macro-levels are interrelated and it will also provide a more systematic distinction of contextual factors when comparing the transition out of elite sports across different national contexts.

3.2. Cross-Cultural and Cultural Perspectives and Frameworks

The conceptualization of culture is by no means a simple matter. Several researchers have tried to define the term or concept of culture; thus, uncountable definitions of the term exist. As Dorfman (1996) points out, “since many definitions of culture are valid, [...] researchers need not be overly concerned with choosing the most appropriate definition [...] but it is important not to use the term carelessly” (p. 279). In addition to the absence of complete agreement about a definition of culture, researchers also disagree about the best approach to documenting culture’s effect on behavior. Researchers attracted to the approach known as ‘cross-cultural psychology’ and ‘cultural psychology’ have the desire to understand the central role culture plays in people’s lives. Scholars who find the cross-cultural studies a helpful approach (e.g., Berry & Triandis, 2004; Hofstede, 1981) believe that important concepts can be identified and then compared in different cultures. Researchers who prefer the ‘cultural psychology’ approach (e.g., Greenfield & Keller, 2004; Schein, 2004) are less enthusiastic about identifying and removing concepts from their daily existence in cultures and then comparing them with similarly removed versions of those concepts from other cultures. Hence, cultural psychologists argue that important concepts about human behavior only have meaning within a culture and that separating a concept from its cultural context is not a good approach to research (Brislin, 2000). Berry and Triandis (2004) argue that “in practice, both traditions employ individual data, contextual data, and the comparative method in their work” (p. 528), but the traditions differ with respect to their understanding of the ontology of culture.

Although acknowledging the multiplicity of the term ‘culture’, I consider that the fundamental aspect of culture is that it is something all humans learn in one way or another. It is not something people inherit, but rather a code of attitudes, norms and values, and a way of thinking that is learned within a social environment to make sense of the world. I believe that culture affects and is affected by human beings in a dialectic relationship and exists at various levels.

3.2.1. Cross-Cultural Psychology

According to Triandis and Lambert (1980), cross-cultural psychology is “the system study of behavior and experience as it occurs in different cultures, is influenced by culture, or results in changes in existing cultures” (as cited in Berry and Triandis, 2004, p. 527). Cross-cultural psychology derives from both anthropology and psychology, taking various concepts, theories,

and methods from both disciplines. Adopting a more objective ontological position, the social entity in question comes across as something external to the actor and as having an almost tangible reality of its own, which means, having the characteristics of an object. Culture is seen as a contextual factor with the tacit assumption that culture can be peeled away to reveal core processes (Heft, 2013). This is an *etic* approach, concerned with universal constructs that apply to all humans in any culture (Ryba, Stambulova, Si, & Schinke, 2013).

Research using a variety of frameworks has shown that national cultural values are related to workplace behaviors, attitudes, and other organizational outcomes (e.g., Hofstede, 1981; House et al., 1999; Trompenaars, 1993). Perhaps the most influential of cultural classifications is that of Geert Hofstede. Hofstede (1981) undertook an extensive research process within the IBM Company, to understand the behavior of employees exhibited across the many offices IBM had in the world. Hofstede's ideology was that organizational behavior was greatly influenced by national and regional cultural groupings and he referred to culture as "the collective programming of the mind which distinguishes the members of one human group from another" (Hofstede, 1981, p. 24). The conclusions from the original research allowed Hofstede to present five characteristics of culture that he believed were exhibited by organizations in one way or form across the world. These *etic* concepts of culture included power distance, uncertainty avoidance, masculinity vs. femininity, long vs. short-term orientation, and individualism vs. collectivism. Later, a sixth dimension, named 'indulgence', was added (Hofstede, Hofstede, & Minkov, 2010):

- *Power distance* stands for the degree to which a society expects there to be differences in the levels of power. A high score suggests that there is an expectation that some individuals wield larger amounts of power than others. A low score reflects the view that all people should have equal rights and strive to equalize the distribution of power.
- *Individualism vs. collectivism* refers to the extent to which people are expected to stand up for themselves and their immediate families, or alternatively act predominantly as a member of the group or organization in which unquestioned loyalty can be expected.
- *Masculinity vs. femininity* refers to the idea that the masculinity side of this dimension represents a preference in society for achievement, heroism, assertiveness, and material rewards for success: society at large is more competitive. Its opposite, femininity, stands

for a preference for cooperation, modesty, caring for the weak, and quality of life: society at large is more consensus-oriented.

- *Uncertainty avoidance* reflects the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity. The fundamental issue here is how a society deals with the fact that the future can never be known, and whether it should attempt to control the future or just let it happen.
- *Long vs. short-term orientation* describes the importance a society attaches to the future versus the past and present. In long-term oriented societies, thrift and perseverance are valued more and in short-term oriented societies, respect for tradition and reciprocation of gifts and favors are valued more.
- *Indulgence vs. restraint* denotes the situation when indulgence stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. Restraint stands for a society that suppresses gratification of needs and regulates it by means of strict social norms.

Hofstede's framework has been criticized, for example, for considering a domestic population as culturally homogeneous and for equating a cultural group with a nation-state (Jones, 2007). However, his framework and the cultural dimensions are a helpful tool for describing broad tendencies of a nation's culture and to find possible explanations as to why athletes from different countries react differently to athletic retirement. Hence, I considered it as interesting to study the transition out of sport of athletes from countries that differ substantially on several of the national cultural dimensions described by Hofstede et al. (2010). The scores on the six cultural dimensions for Switzerland, Denmark, and Poland are displayed along with other macro- and meso-aspects in Table 1 in *Chapter 4*, which served as the arguments for the selection of the countries as contrasting cases.

3.2.2. Cultural Psychology

Instead of seeing culture as an external reality that acts and constrains people, it can be taken to be an emergent reality in a continuous state of construction and reconstruction (Bryman, 2012). Cultural psychology considers culture and psychological processes as mutually constitutive (Greenfield & Keller, 2004). Accordingly, the concept of culture is based on the assumption that cultures are both structure and structuring, and that people's actions are neither totally determined by the confines of a culture, nor are they totally free (Erez & Gati, 2004). Cultural

psychologists apply an *emic* approach where the emphasis is on understanding insiders' viewpoints and their thinking patterns within a particular setting; they are concerned with what is unique for a socio-cultural context or group (Stead, 2004).

An example of this approach is the study of culture in small groups that has been developed by organizational psychologist Edgar Schein (Schein, 1990, 2010). While Hofstede's model of organization culture relies on the tested ideology of cultural theorists, by underlying the determination of culture in an organization from core values and assumptions of a given national culture (etic approach), Schein's model brings about more functionality to the subject area by inquiring into a deeper understanding of the factors that influenced the exhibited culture in the organization (emic approach). Schein defines culture as what a group learns over a period of time, as that group solves its problems of survival in an external environment, and its problems of internal integration. Organizational culture emerges as a set of solutions, actions, and values that contribute to the group's ability to solve these two tasks. Guiding its members in relation to how they should feel, think and act, culture becomes a stabilizing force in the group and serves a basic human need for cognitive stability. Schein (1990) proposed that there are different levels of culture, ranging from the most visible to the least visible. The most external level is the visible and audible behavioral patterns, and the constructed physical and social environment (*artifacts*). A deeper level is that of *espoused values* reflecting convictions about the nature of reality and what ought to be done to successfully deal with reality. The deepest and invisible level is that of *basic assumptions* and beliefs about human nature and its relationship to the environment. Basic assumptions have become integrated to a degree where they are no longer questioned by the members of one group and, therefore, have to be deduced by the researcher or observer.

In a sporting context, the artifacts may include the training facilities for athletes, the way that successful elite athletes are celebrated, the codes of conduct that federations pose to their athletes, and the clothing style of a team or group. The espoused values reflect, for example, the explicit idea of talent development, how to support athletes to combine education and elite sport, and how to assist retiring athletes when ending their sports career. The basic underlying assumptions of a culture about elite athletes could provide the answers to the following questions: At what price do we want to achieve international sporting success? Are elite athletes special persons who need special treatment? What is the value of education for elite athletes?

Culture exists at various levels and Schein differs between macro-cultures, organizational cultures, sub-cultures, and micro-cultures. The culture of macro-cultures such as societies (to which Hofstede's etic national cultural dimensions refers) is more stable than organizational cultures. Organizational cultures vary in stability, and this is related to the length of time they have existed and the emotional intensity of their actual history. Most organizations consist of various occupational groups, so-called 'sub-cultures' who develop their own micro-culture.

Relating these different levels of culture with the different levels or systems of Bronfenbrenner's ecological model, I agree with Storm (2015) that it is important to make a distinction between the concept of culture and the concept of the context/environment. The environment is an athlete's immediate surroundings at the meso- or micro-level where athletic and personal development takes place. Hence, the concept of environment is more specific and descriptive, focusing on *whom*, *what* and *where*, compared to the more overarching and abstract concept of culture that focuses on *in which way* and *why*, and which derives from interpretation. According to this way of thinking, 'environment' may be considered an artifact of the culture.

3.2.3. Etic and Emic Perspectives Related to This Thesis

In relation to this thesis, the cross-cultural etic perspective inspired me to think of culture as a multilevel and complex phenomenon and to include national culture, dual career culture, and elite sports culture in general, alongside the individual transition process in the theoretical working model. The cultural emic perspective stimulated me to explore the uniqueness of each dual career environment and to find out more about the embedded values and basic assumptions that are nested within these environments in each national context.

My philosophical viewpoint lies within the critical realist paradigm (Bhaskar, 1989) because I believe that although there is a real world existing independently of my perceptions and theories, my understanding of this world is socially constructed from my own standpoint and perspectives. I believe that my own background and experiences are a central part of how I understand both others and myself. Critical realists agree that there is no possibility of gaining a single, 'correct' understanding of the world; many argue that the only way to gain a good understanding of the world is to gain understanding from the perspectives of informative individuals who have a knowledge of the area being assessed through personal experiences (Maxwell, 2012). According to Easton (2010), critical realism is particularly well suited as a companion to case study research because an appreciation of the context is crucial to critical

realist explanations since it serves to shed light on the conditions of the causal mechanism. This point is especially important concerning my research, as I tried to understand from a more etic perspective how the national culture may affect athletes' perceptions, their social roles, and transition patterns; and from a more emic perspective how culture underpins the psychological processes of the actors within each elite sport context, that is to understand the beliefs and basic assumptions about how to support elite athletes. These perspectives are integrated into the theoretical framework for this PhD study, which is presented in the following section.

3.3. Cross-Cultural Framework for the Transition out of Elite Sport

Adapted from the model of Stambulova et al. (2007) displayed in Figure 3, the overarching theoretical framework for this thesis to studying athletes' transition out of sport from an ecological and holistic view is presented in Figure 4 and is explained in the following section.

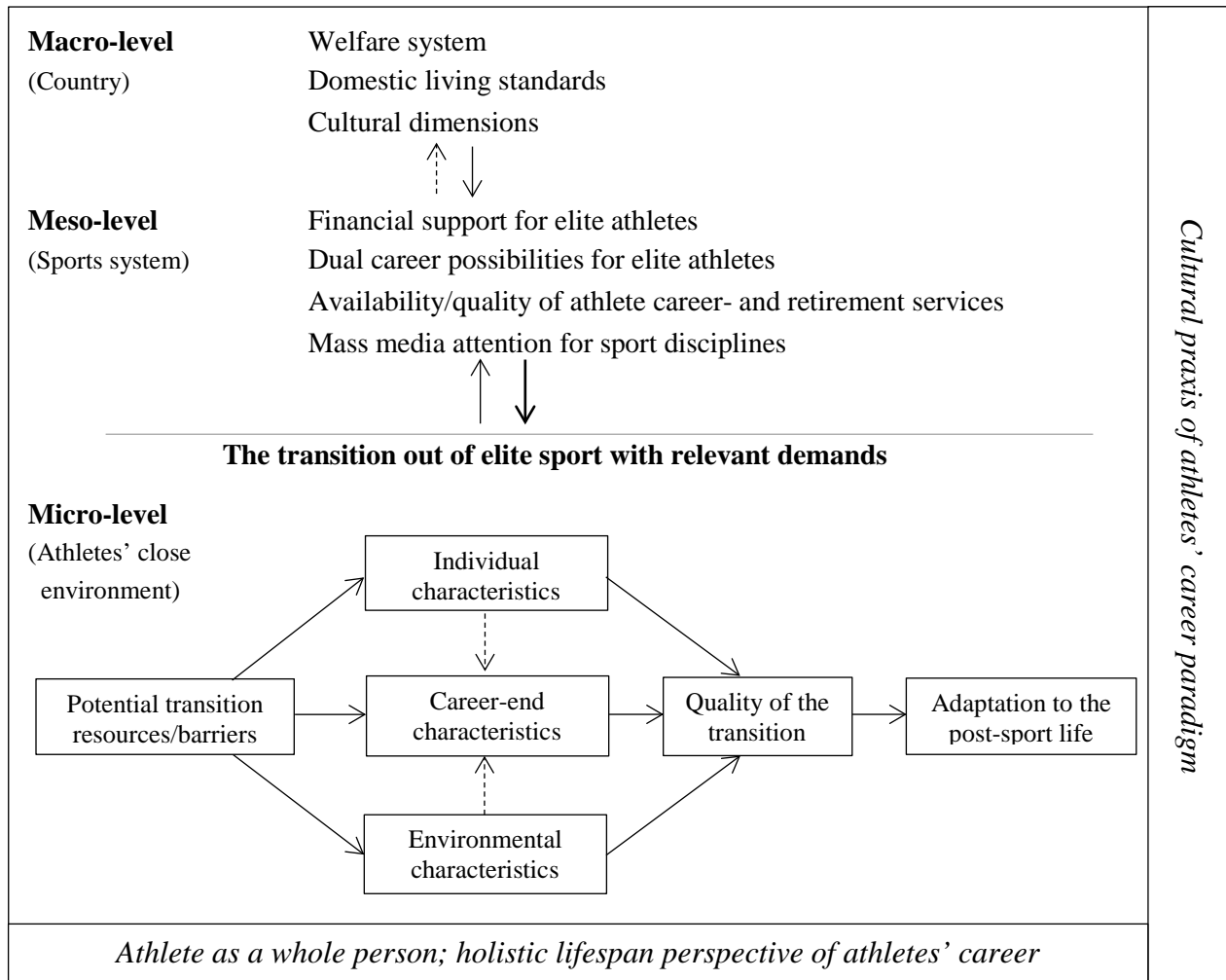


Figure 4: Ecological framework for studying the transition out of elite sport.

The *macro-level* represents the welfare system of the country (Esping-Andersen, 1990, 1999), the cultural dimensions (e.g. Hofstede et al., 2010), as well as general macro-level dimension such as the living standard (OECD, 2016), the geographical location and size, and the size of population of a country. The *meso-level* represents various characteristics of the elite sports systems and is described by the financial support for elite athletes (De Bosscher et al., 2015), job/dual career possibilities (Aquilina & Henry, 2010), athlete career and retirement services (e.g., Andersen & Morris, 2000), the mass media attention that sports disciplines receive (Hedal, 2006; Lamprecht, Fischer, & Stamm, 2014; Pentagon Research, 2014), as well as the values that are embedded within the institutions and organizations responsible for the elite athletes' development (Schein, 2010). The *micro-level* represents the athletes' close environment (e.g., coaches, family, and friends) and includes the transition out of elite sport along with the respective demands (e.g., adjustment to a new lifestyle, dealing with bodily changes, adapting to a new social environment). Potential transitional resources and barriers (Stambulova, 2003) that influence the quality of the transition and the following adaptation to the post-sport life are divided into individual, career-end, and environmental characteristics according to Schlossberg's transitional model (1981).

As a basis for understanding the transition out of elite sport, the 'whole person' approach and the holistic lifespan/developmental perspective, which considers athletes' developments in athletic and non-athletic (psychological, psychosocial, academic/vocational, and financial) domains (Wylleman et al., 2011), serve as the foundation for the theoretical model. The *cultural praxis of athletes' career* paradigm (Stambulova & Ryba, 2013, 2014) emphasizes the contextual sensitivity of the model. Applying this cultural praxis paradigm, researchers and practitioners are urged to apply a holistic perspective in viewing athletes, to investigate the idiosyncratic career patterns and pathways of athletes in their specific contexts, and to position their projects (and themselves) in relevant socio-cultural contexts with contextual awareness and reflexivity (Stambulova & Ryba, 2013; Stambulova, 2016).

The developed theoretical framework, displayed in Figure 4, is ecological in the sense that it regards the development of an athlete as being influenced by the context in which his/her development takes place (Bronfenbrenner, 1979). The arrows between the different levels of the context highlight the reciprocal interaction between the individual (both athletes and people working with athletes) and their environment. The different weights of the arrows represent the

different hypothesized strengths of influence between the levels. The framework is also holistic in the way that it includes both the athletic and the non-athletic domains; it also includes the micro-, meso-, and the macro-level of the context, and the developmental perspective on athletes' careers.

3.3.1. Working Model of Factors Contributing to the Quality of the Transition

To explore athletes' transition out of elite sport in more detail on the micro-level and to investigate potential resources and barriers that contribute to the quality of adaptation, the above-described model was accordingly refined (Figure 5 below) and supplemented with factors that previous research associated with the transition quality of athletes (Park et al., 2013).

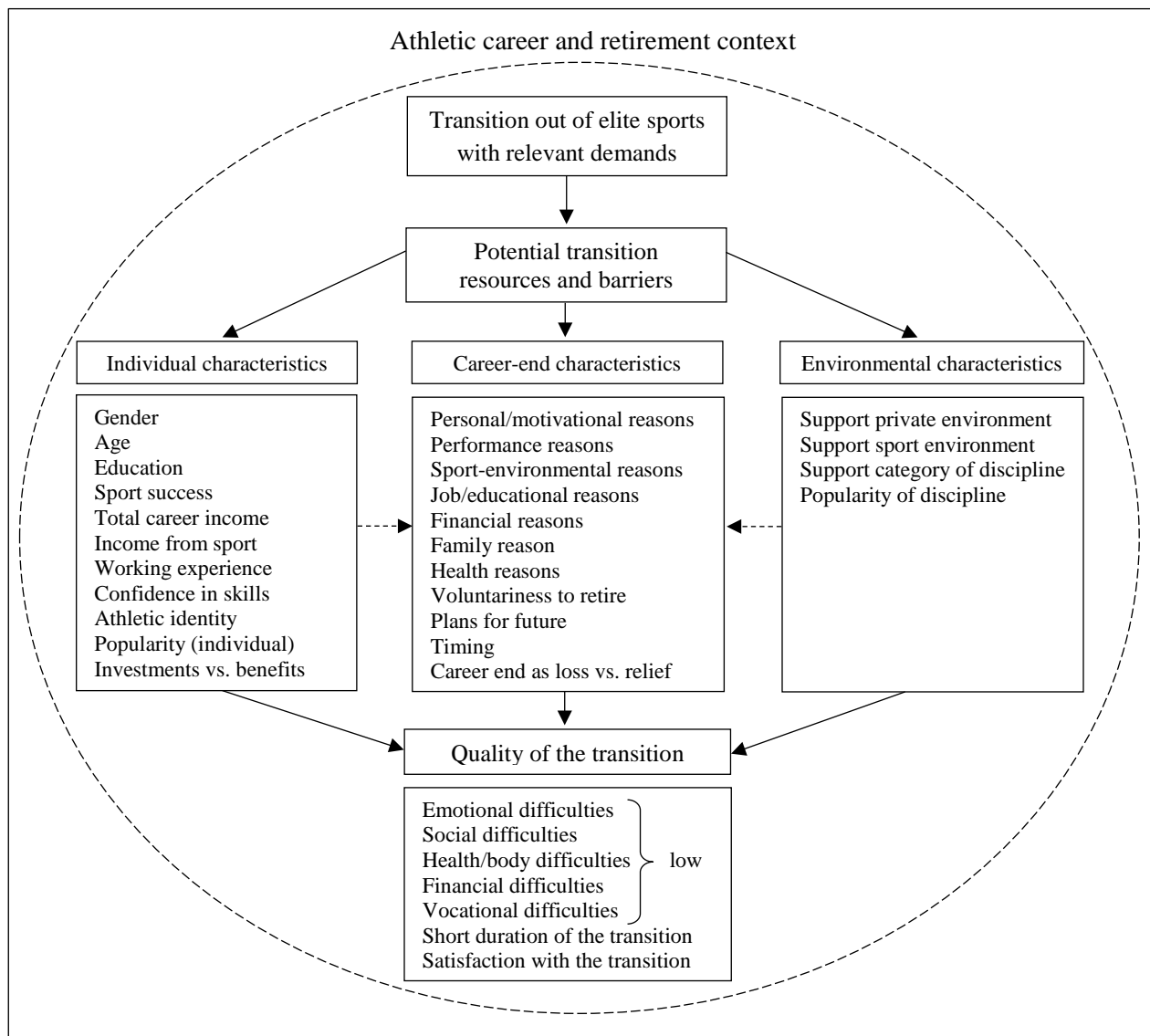


Figure 5: Working model of factors contributing to the quality of the transition out of elite sports.

The working model illustrates how a plentitude of potential resources and barriers contribute to the transition quality within a certain athletic career and retirement context (i.e., the meso- and macro-level described in the model in Figure 4). The many factors included in the model were related to the transition quality in previous research (see Park et al., 2013 for a systematic review), and were described in more detail in *Chapter 2*. Potential resources and barriers (Stambulova, 2003) for a successful transition are divided according to how Schlossberg's (1981) three major sets of factors interact during a transition, namely into individual characteristics, career-end characteristics, and environmental characteristics.

Individual characteristics contain socio-demographic information such as age, gender, education and income, as well as characteristics related to the sporting career (e.g., athletic identity, previous working experience, perceived popularity). The *career-end characteristics* enclose the reasons that led to athletic retirement, together with the degree of voluntariness, pre-retirement planning, timing, and the evaluation of the career end itself. The *environmental characteristics* contain the social support athletes received during the transition from either the private environment (e.g., parents, partner, and friends), or the sport-related environment such as coaches, physiotherapists, sports psychologists, or managers. Furthermore, since disciplines in which athletes participated made up a great deal of their environment while active in elite sport (e.g., Henriksen et al., 2010a), the way a discipline is supported by the national elite sports agency, and how popular a certain sport is (i.e., how much media attention it gets), presumably also influences athletes' careers and their transition out of elite sport. The arrows between the individual, the career-end, and the environmental characteristics emphasize that the factors are interrelated with each other. The model contains a total of 26 factors that all contribute to the quality of the transition.

Acknowledging that the transition requires athletes to adapt in several spheres of life, a high-quality transition (i.e., successful transition) is characterized when athletes are able to successfully make use of their internal and external resources to overcome potential transitional barriers; thus, they experience low difficulties related to the emotional, social, health, vocational, and bodily adaptation (Stambulova, 2012; Wylleman & Lavallee, 2004). Further criteria of a successful transition are when athletes quickly adapt to the new life circumstances and when athletes generally express a high level of satisfaction with their transition process.

The theoretical framework and the working model presented in this chapter guided my project in a variety of ways: they served as a basis for selecting the three countries chosen for comparison due to their different settings on the macro- and meso-level. The framework also guided the development of the questionnaire sent to athletes concerning the variables and factors related to their transition. Furthermore, the *working model of factors contributing to the quality of the transition out of elite sports* directed the use of the statistical tests employed to analyze the data from the athletes' survey. The overarching framework influenced the selection of the interview partners in the different organizations or institutions related to the athletes' career development environment. The interview guides were developed based on the frameworks that are incorporated in the overarching model. Finally, the theoretical framework and the working model also guided the interpretation and discussion of the obtained results in Papers 1, 2, and 3, and in relation to the results discussion in the overall PhD thesis.

3.4. Summary and Hypotheses

In this thesis, I propose an ecological and holistic approach to the study of the transition out of elite sport as the central object of investigation. On the basis of the ecological model of human development, of cross-cultural and cultural psychology, and of career developmental and transition models, a framework for studying and comparing the transition out of sport in different national contexts was developed. The *ecological framework for studying the transition out of elite sport* and the *working model of factors contributing to the quality of the transition* represent the holistic ecological perspective on athletic retirement and complement each other in the way that the former provides a framework to understand that the transition is embedded in a specific (national) context containing distinctive characteristics, and the latter helps to contextualize how factors influence the transition quality in more detail.

The hypotheses for the study were: (a) athletes' transition out of elite sport is influenced by both the meso- and macro-contexts. Hence, athletes from Switzerland, Denmark, and Poland will differ in their reactions to athletic retirement; (b) factors that contribute to the quality of the transition are context-specific, and thus will vary in their strength and relationships depending on the context; and (c) elite athletes' dual career development is culturally infused and influenced both by the given national structure of the sports/educational system (including career programs and retirement services for elite athletes), as well as the deeper underlying assumptions about athletic dual careers that are embedded in the three national contexts.

Chapter 4: Design and Methods

4.1. Comparative Case Study Design

A multiple case-study design was employed to investigate and compare the transition out of elite sport among athletes from different national context. A case study is an empirical inquiry that investigates a contemporary phenomenon (in this case the transition out of elite sport) in depth and within its real-world context, especially when the boundaries between phenomenon and the context may not be clearly evident (Yin, 2014). Furthermore, a case study inquiry relies on multiple sources of evidence and benefits from the prior development of theoretical propositions to guide data collection and analyses. Thus, case study research comprises an all-encompassing method, covering logics of design, data collection techniques, and specific approaches to data analysis (Yin, 2014). A case study frequently employs both quantitative and qualitative methods; thus such research projects often apply a ‘mixed-method’ approach. Through this synthesis it provides the possibility to enhance validity through triangulation, to offer a more comprehensive picture of the area of inquiry, and to answer different research questions (Bryman, 2012). Because both qualitative and quantitative methods have their own strengths and weaknesses, they constitute different, but not mutually exclusive, strategies for research. Patton (2015) reasoned that the researcher should not be bound to view the world through one set of lenses, but rather let the research question(s) determine the methodology to be chosen, which he referred to as the ‘paradigm of choice’.

A research design that entails studying two or more contrasting cases using more or less identical methods is called a comparative case study design (Yin, 2014). It embodies the logic of comparison, in that it implies that we can better understand a social phenomenon (in this case the transition out of elite sport) when it is compared in relation to two or more meaningfully contrasting cases or contexts (Bryman, 2012). The question is, however, how to select cases that are meaningfully contrasting. Patton (2015) provides an overview of 40 different purposeful sampling strategies. I applied a ‘comparison focused’ sampling strategy in which it was important to select countries that had a maximum variation in the meso-level characteristics (i.e., institutionalized support for dual career in higher education, availability of retirement programs, structure of sports system), which was hypothesized to have an impact on the transition process of elite athletes. Admittedly, the case selection was also based on my personal relations and

connections to the three countries under study, which is related to the so-called ‘opportunity sampling’ strategy (Patton, 2015).

When conducting a (multiple) case study, it is important to be clear in mind what the unit of analysis is. For Part 1 of the empirical data collection (Paper 1 and 3), the unit of analysis was the transition out of elite sport of former elite athletes in relation to the broader socio-cultural context. To compare the transition out of sport across athletes from different countries, I employed a quantitative research design and followed an etic approach towards culture. For Part 2 of the data collection (Paper 2), the dual career environment for elite athletes was the unit of analysis. Here I employed a qualitative research design, using semi-structured interviews to better understand how and why the different contexts influence athletes’ careers and transitions. For this purpose, I applied a derived-etic approach (Berry, 1989) towards culture. In the next section in this chapter, I will first argue for the selection of the countries, and then describe the quantitative research design for Part 1 including sampling, the instrument, and analyses. Following on, the qualitative research design for Part 2 will be described in more detail. Finally, the procedure of the entire research process will be explained and graphically displayed.

4.1.1. Case Selection

Three countries were chosen as cases for the study, namely Switzerland, Denmark, and Poland. The cases were selected on the basis of a set of criteria. According to the overarching theoretical framework to study the transition out of elite sport of athletes from different countries (Figure 4), the main criterion was that the selected countries differ on the meso-level aspects that I hypothesized influence athletes’ careers and the transition out of elite sport. Thus, according to the typology of Aquilina and Henry (2010), I wanted to include countries that offer different opportunities for elite athletes concerning higher educational support. To include countries that differ in their availability of career retirement programs and services was another criterion, as these programs and services were shown to be helpful for athletes in the transition out of elite sport (Andersen & Morris, 2000; Jones & Lavalley, 2009; Lavalley, 2005).

To facilitate comparison, the countries selected should also share some common features. The selected countries, Switzerland, Denmark, and Poland are all located in Europe and have ambitions to play a role in international elite sport. Elite sport is an integrated part of their national policies and enjoys great attention from the general public in all three countries. A few macro-dimensions of each country, the cultural dimensions described by Hofstede et al. (2010)

and some characteristics of the sports systems, are summarized in Table 1 below. Following on, the three country settings are briefly described to enhance understanding of the socio-cultural contexts and to provide some background information on the elite sports environment of each the three countries under study.

Table 1: Overview of macro-, meso-, and cultural aspects of Switzerland, Denmark, and Poland

<i>Aspect</i>	Switzerland (CH)	Denmark (DK)	Poland (PL)
<i>Population size (2014)</i>	8.2 million	5.6 million	38.5 million
<i>GDP/capita (2014)</i>	US \$ 59,536	US \$ 46,000	US \$ 24,952
<i>Unemployment rate (2014)</i>	4.5%	6.6%	9.0%
<i>Welfare system</i>	Liberal	Social-democratic	Conservative
<i>Power distance</i>	Low-medium (34)	Very low (18)	High (68)
<i>Individualism</i>	High (68)	High (74)	Medium-high (60)
<i>Masculinity</i>	Medium-high (70)	Very low (16)	Medium-high (64)
<i>Uncertainty avoidance</i>	Medium (58)	Low (23)	Very high (93)
<i>Long-term orientation</i>	High (74)	Low (34)	Low (38)
<i>Indulgence</i>	High (66)	High (70)	Low (29)
<i>Organization of sport system</i>	Bottom-up	Mixed-complementary	Top-down
<i>Dual career typology in higher education</i>	Laissez-faire: no formal structure	State/NSA as facilitators	State-centered approach
<i>Athlete career program</i>	Both during and after career	Both during and after career	Only during career
<i>Athletes supported by the military (2014)</i>	18 Athletes (50% jobs)	None, but under discussion	Over 100 full-time positions
<i>Rankings Olympic Games medal table</i>	33 (Beijing 2008) 6 (Vancouver 2010) 32 (London 2012) 7 (Sochi 2014) 24 (Rio 2016)	30 (Beijing 2008) - (Vancouver 2010) 29 (London 2012) - (Sochi 2014) 28 (Rio 2016)	20 (Beijing 2008) 15 (Vancouver 2010) 30 (London 2012) 11 (Sochi 2014) 33 (Rio 2016)

Note: GDP/capita and unemployment rates were derived from the OECD (2014) database. The welfare state classification relates to the terminology of Esping-Andersen (1999). The measurements with a scale from 0 – 100 on the cultural dimensions (power distance – indulgence) relate to the work of Hofstede, Hofstede, and Minkov (2010). Dual career typologies were described by Aquilina and Henry (2010). NSA = National Sport Association.

4.1.1.1. Switzerland

The Swiss elite sports system is organized by sports clubs and federations that are connected under the umbrella of the *Swiss Olympic Association* (SOA). Strengthening its member federations that traditionally enjoy a strong autonomy is the first principle of the SOA. This indicates the bottom-up approach of the SOA towards the sports federations. Dual career support for combining sport and academic studies (universities/colleges) on the tertiary level is not institutionalized. The adopted ‘laissez-faire’ approach (Aquilina & Henry, 2010) entails that athletes have to directly negotiate possible (individualized) solutions with higher educational institutions and no financial support is provided for student-athletes. The SOA offers career counseling, and both active and retiring/retired athletes have the chance to use the Adecco Athlete Career Program, which supports athletes who need assistance in finding internships or jobs. The SOA supports a wide range of federations and Swiss athletes are successful in both summer and winter sports. Concerning the macro-dimensions, Switzerland is a small but wealthy country located in Central Europe. Adopting a liberal welfare system (Esping-Andersen, 1990), Swiss society can be termed as individualistic, masculine, and long-term orientated (Hofstede et al., 2010). Switzerland has a low unemployment rate and a liberal market orientation.

4.1.1.2. Denmark

The Danish state institution, *Team Denmark* (TD), is responsible for promoting elite sports. Danish sport has traditionally struggled with the division of mass popular sport carried out by associations on a voluntary basis, and competitive sport carried out in professional environments (Hansen, 2012). The 1984 Elite Sports Act demands that there are educational opportunities for elite athletes at all levels of their athletic career. Higher education institutions provide special offices with coordinators that help student-athletes combine their academic and sporting careers. This approach is classified as ‘state/sports associations as facilitators’ (Aquilina & Henry, 2010). All students that are enrolled in tertiary education receive study grants from the state. TD offers athlete career programs for athletes during and after their elite sports career. TD supports 28 Olympic and non-Olympic federations (mainly summer sports) and Denmark ranks among the top nations when comparing Olympic medals divided by the number of the country’s inhabitants. Concerning the macro-dimension, Denmark is located in Northern Europe and has adopted a form of the social democratic welfare system (also called a universal welfare system), which is typical for Scandinavian countries. Danish culture is characterized by a low power distance, high

individualism, weak uncertainty avoidance, and low masculinity. Denmark is a wealthy country with one of the highest overall female employment rates in Europe and generally high gender equality.

4.1.1.3. Poland

The Polish elite sports system is highly centralized, bureaucratic and intensely formalized. Accordingly, the *Ministry of Sport and Tourism* (MSiT) is the dominant state agency that supports (and controls) the sports federations. As a relic from the former communist era, athletes find sport-specific educational opportunities both in secondary as well as in higher education. According to Aquilina and Henry's (2010) typology, the Polish dual career approach could be termed 'state-centered'. Furthermore, the Polish army supports a substantial amount of athletes by offering paid positions. There are no institutionalized programs available that help athletes with the transition out of elite sport or the adaptation to the post-sport life. However, Polish Olympic medalists receive a life-long pension from the state. Concerning the macro-dimensions, Poland is located in Eastern Europe and is larger than the other two countries under comparison, both in size of population and area. As a post-communist country, Poland has adopted a form of conservative welfare regime (Fenger, 2007). Polish society tends to be individualistic and strong power distance, high uncertainty avoidance, and a relatively high level of masculinity characterize Polish culture. Poland is an emerging country in terms of economic success, although wage levels are still below the European average.

The short description of the three countries under study should have highlighted the diversity of the socio-cultural contexts in terms of their macro-, meso-, and cultural dimensions. According to the ecological framework that guided this study, these dimensions are hypothesized to have an influence on athletes' sports careers, their transition, and their post-sport life situation (Figure 4).

4.2. Overview of the Two Empirical Sets of Data

This PhD project is based on two sets of empirical data, which provides an opportunity to illuminate the overarching research question from different perspectives. I present the two parts that make up this project separately, with regard to case selection, participants, and methods for collecting and analyzing the empirical material. Since the research project consists of two sets of empirical data material, I start with an overview of the most important methodological issues for

each part (Table 2). The methods for Parts 1 and 2 will be described in greater detail in the following sections of this chapter.

Table 2: Overview of the methodological issues related to the two sets of empirical data

	Part 1	Part 2
<i>Participants</i>	401 former elite athletes	12 informants about athletes' support
<i>Sports/Field</i>	Team and individual sports from a variety of disciplines	National elite sport governing body; Career advisor of sports federation; Advisor in higher education institute; Athlete Career Programs (CAPs)
<i>Focus</i>	Individual transition out of sport of former elite athletes (micro-level)	Dual career support and athletic career/retirement programs (meso-level)
<i>Topics</i>	Factors influencing the quality of the transition. Cross-national comparison of athletic retirement	Cultural influence on the dual career environment for elite athletes
<i>Research questions</i>	Similarities and differences in the retirement patterns of Swiss, Danish, and Polish athletes? Context-specific influence of resources/barriers related to the transition quality? Reactions to the short, medium, and long-term adaptation of the transition?	Similarities and differences between the dual career possibilities in Switzerland, Denmark, and Poland? How does the national sports system prepare athletes for their life after elite sport? What are the underlying assumptions about athletic (dual) career support in these contexts?
<i>Specific models and frameworks</i>	<i>Holistic athletic career model</i> (Wylleman, De Knop, & Reints 2011); <i>Career transition models</i> (Schlossberg, 1981; Stambulova, 2003; Taylor & Ogilvie, 1994) <i>Ecological model of human development</i> (Bronfenbrenner, 1979) <i>Cross-cultural framework for studying the transition out of elite sport</i> (Stambulova et al., 2007)	<i>(Cross-) cultural frameworks</i> (Hofstede et al., 2010; Schein, 2010) <i>Welfare regime types</i> (Esping-Andersen, 1990) <i>Elite sport comparative model, SPLISS</i> (De Bosscher et al., 2015) <i>Dual career typology in higher education</i> (Aquilina & Henry, 2010) <i>Dual career trajectories of athletes</i> (Pallarés et al., 2011)
<i>Methods</i>	Self-completion online survey; retrospective cross-sectional design	Semi-structured interviews; document analysis
<i>Amount of data</i>	231 (Swiss), 86 (Danish), and 84 (Polish) completed questionnaires	12 interviews (172 pages transcript); documents and websites
<i>Analysis methods</i>	Quantitative comparative analysis	Qualitative cross-case analysis
<i>Papers</i>	Papers 1 and 3	Paper 2

4.3. Quantitative Research Design (Empirical Part 1)

The first part of the empirical data collection was concerned with studying and comparing the transition out of elite sport of former Swiss, Danish, and Polish athletes. For Papers 1 and 3, a retrospective cross-sectional design was applied. Following the recommendations of the International Society of Sports Psychology (ISSP) on culturally competent research and practice in sport and exercise psychology (Ryba et al., 2013), I first negotiated the key concepts of the projects, the theoretical framework, and the project objectives with my supervisors and co-authors from the three countries; after that, I translated the survey instrument and culturally adapted it; I then conducted pilot studies with small samples in all three countries; and, finally, I collected the data in culturally relevant ways. These steps will be explained in more detail below.

4.3.1. Instrument: Athletic Career Termination Questionnaire

The questionnaire that was developed for the purpose of comparing the transition out of elite sport of Swiss, Danish, and Polish athletes was based on previous instruments used to investigate athletic retirement. The *Retirement from Sports Survey* (Alfermann et al., 2004), which was administrated in the previous European cross-national (EPAR) projects, along with the *Sport Career Termination Questionnaire* (Cecić Erpič et al., 2004), served as the main basis for developing my own instrument. Further inspiration was found in the questionnaire that was used to evaluate the Athlete Career and Education Program in Australia (Albion & Fogarty, 2003), as well as the survey conducted in Denmark on how to combine elite sport with education (Riisom, 2002), and the instrument developed by Schmid and Engel for their longitudinal study of the career development of Swiss athletes (Engel, 2014). The final own instrument was named *Athletic Career Termination Questionnaire* (ACTQ) and was divided into three parts, containing a total of 56 questions (see Appendix A).

The first part, *your life and success in elite sport*, asked about the career of the former elite athletes, such as the age of specialization in their main sport, age at the time of their biggest sporting success, participation and rankings at major international sports events, satisfaction with the achieved results, and the perceived popularity in the domestic context. The annual income before taxes at the peak of their career was assessed in eight categories based on national census data on average household income. Athletes further reported what percentage of this income was earned in the sports context, and what was earned through work other than elite sport, through financial support from the family, or from other sources. Athletes were also asked to state how

many hours per week they spent in training and additional efforts, as well as the amount of time they invested in working (full or part-time jobs) and studying during the last three years before ending their sports career. To assess athletes' competences and skills, a list of transferable skills (Gould & Carson, 2008; Mayocchi & Hanrahan, 2000; McKnight et al., 2009) was presented to the former athletes. In a first step, athletes stated whether they had developed these skills; in a second step, they rated their confidence in these particular skills on a 5-point Likert scale. Athletes were further asked how important and supportive certain environments were in developing these skills and competencies (e.g., sports environment, educational environment, personal environment, specific courses) and from which environments they would have expected more support for developing life skills during their elite sports career. To assess the overall satisfaction with the elite sports career, athletes were asked to balance the investments and benefits of their elite sports involvement, and were finally presented with the *Athletic Identity Measurement Scale* (Brewer et al., 1993) to measure their athletic identity while active in elite sport.

In the second part of the ACTQ, the *sports career termination and following transitional period*, athletes were asked when they started to take concrete action to end their sports career, and when they actually terminated their elite sports career. Athletes rated 10 potential reasons on a 5-point Likert scale according to the reasons' importance and how strongly each reason influenced the decision to retire from elite sport. The situation of the career end was more closely scrutinized using several contrasting pairs: no long-term plans – very concrete long-term plans; completely voluntary decision – under strong pressure from external circumstances; a big relief – a big loss, as well as the timing of the career end (much too early – much too late). To evaluate the social support received during the transition process, in the first step athletes were asked with whom and how long before their career end had they talked about their retirement plans. Athletes were consequently asked to rate the importance of these conversations on the transitional process on a 5-point Likert scale. Athletes were presented with an abbreviated 10-item version of the *Career Decision Difficulties Questionnaire* (Gati et al., 1996), with the aim of exploring what kind of difficulties athletes faced when making a job- or educational decisions concerning their future employment. To assess the difficulties that athletes encountered in several spheres of life (Wylleman et al., 2011; Wylleman & Lavallee, 2004), athletes rated potential social, emotional, health, financial, and vocational/educational adaptation difficulties on a 5-point Likert scale.

Athletes further reported how long it took them to adjust to their new life situation; they finally expressed their overall assessment of the adaptation process on a 5-point Likert scale.

In the third part of the questionnaire, the *life after elite sport*, athletes were asked to report their educational level according to country-specific categories that could be aligned to the *International Standard Classification of Education* (UNESCO, 2012), both at the end of their sports career and at the time of questioning. Questions followed that examined the dual career support while active in elite sport. To investigate the job situation, the former athletes were asked about their current job position and the specific job title(s) of their employment(s). Furthermore, athletes reported if they had experienced any periods of unemployment after their elite sports career; if yes, the duration of this period was assessed and athletes stated whether or not being unemployed was their free choice. To evaluate how the former athletic career may act as a resource (Stambulova, 2010b) for future employment, athletes rated the importance of 10 possible reasons (e.g., former working experience, education, popularity, connection to sport clubs) on a 5-point Likert scale that had influenced obtaining their current professional position(s). The satisfaction with the current job situation and the income in the year of questioning was assessed. Athletes answered seven yes/no questions about how their lives are connected with sport (e.g., taking part in competition in the same or another discipline, keep in touch with former coach); finally, general life satisfaction was assessed using the 5-item *Satisfaction with Life Scale* (Pavot & Diener, 1993) on a 7-point Likert scale. Biographical questions concluded the questionnaire. The survey required approximately 35-40 minutes to complete. The English version of the ACTQ can be found in Appendix A. However, it should be noted that the layout of the questionnaire attached is not comparable to the web-design version of the questionnaire that athletes completed on their computers or tablets.

Instead of sending the English version of the questionnaire to the athletes from the three countries, it was my goal to provide the former athletes with a version of the ACTQ in their native language. Consequently, the original English version was translated into German (for Switzerland¹), Danish, and Polish. I translated the English version into German and Danish together with my supervisor who is fluent in all three languages. The Polish version was translated and independently back-translated by a professional agency. To achieve content,

¹ Switzerland has four official national languages (German, French, Italian and Romansh). Two-thirds of the population is German speaking and German is taught in schools in the French, Italian, and Romansh parts. Thus, we considered it as sufficient to provide a German version to all Swiss athletes.

conceptual, and semantic equivalence (Si & Lee, 2007), the translated versions of the ACTQ were slightly adapted after discussing and comparing the English and the translated version in each context with colleagues and experts working with athletes in transition (e.g., Swiss Olympic Association career counsellor, Team Denmark's sports psychologist, representative of the athletes' commission within the Polish Olympic Committee).

4.3.1.1. Methods of Gathering the Empirical Quantitative Material

A web-based version of the survey was chosen for this project, as it seemed most suitable for a sample involving former athletes who are very likely to be familiar with the internet and presumably have an e-mail address. Web-based studies offer the advantage that the participants can individually choose when they want to respond, and an internet survey is also a low-cost method for obtaining responses from participants from different countries. Furthermore, research has shown that the quality of internet findings, generalized across presentation formats, are not adversely affected by non-serious responders, and are consistent with findings from traditional methods (Birnbaum, 2004; Gosling, Vazire, Srivastava, & John, 2004). The finalized German, Danish, and Polish versions of the ACTQ were, consequently, programmed using *Survey X-act* software. Following the recommendations of Dillman, Smith, and Christian (2008) about the graphical display of the items and general layout of the online questionnaire, the chronological order within some response categories (e.g., reasons that influenced the decision to retire, persons talked to during the transition) were randomized to avoid the items that were displayed first receiving more attention and, consequently, being rated as more important. Each language version of the ACTQ was first piloted with fellow researchers, and then with a small sample of athletes; this resulted in minor adjustments being made to the web-design version of the questionnaire. As an example, to assess the participation in international competitions and achieved results, the selection possibilities were changed from an open format to a drop-down list of pre-defined categories.

4.3.2. Sampling and Participants

It was the goal of this study to provide a comprehensive picture of the transition out of sport of elite athletes from different sports; thus, it was the aim to include former elite athletes from a wide range of sports disciplines in the study. Even though there is a considerable inconstancy in the definition of elite athletes in terms of level, experience, professionalization, and amount of

training (Swann, Moran, & Piggott, 2015), the following criteria for elite athletes to be included in the study were applied: (a) athletes had participated in competitions at international level, (b) they had been carded by a national elite sport’s governing body, and (c) retired between one and five years before data collection. Criterion (c) was chosen for three reasons. First, athletes should have stopped their career at least one year before questioning, so that they were able to answer questions about their adaptation period following the career end. Second, athletes should not have stopped their career more than five years ago because of recall bias (Côté, Ericsson, & Law, 2005; Kerr & Dacyshyn, 2000). Third, many dual career/retirement programs were only established in recent years and athletes who retired more than five years ago would not have had the chance to make use of them. The sampling process and the response rate are displayed in Figure 6 below for Swiss (CH), Danish (DK), and Polish athletes (PL), and for the total sample.

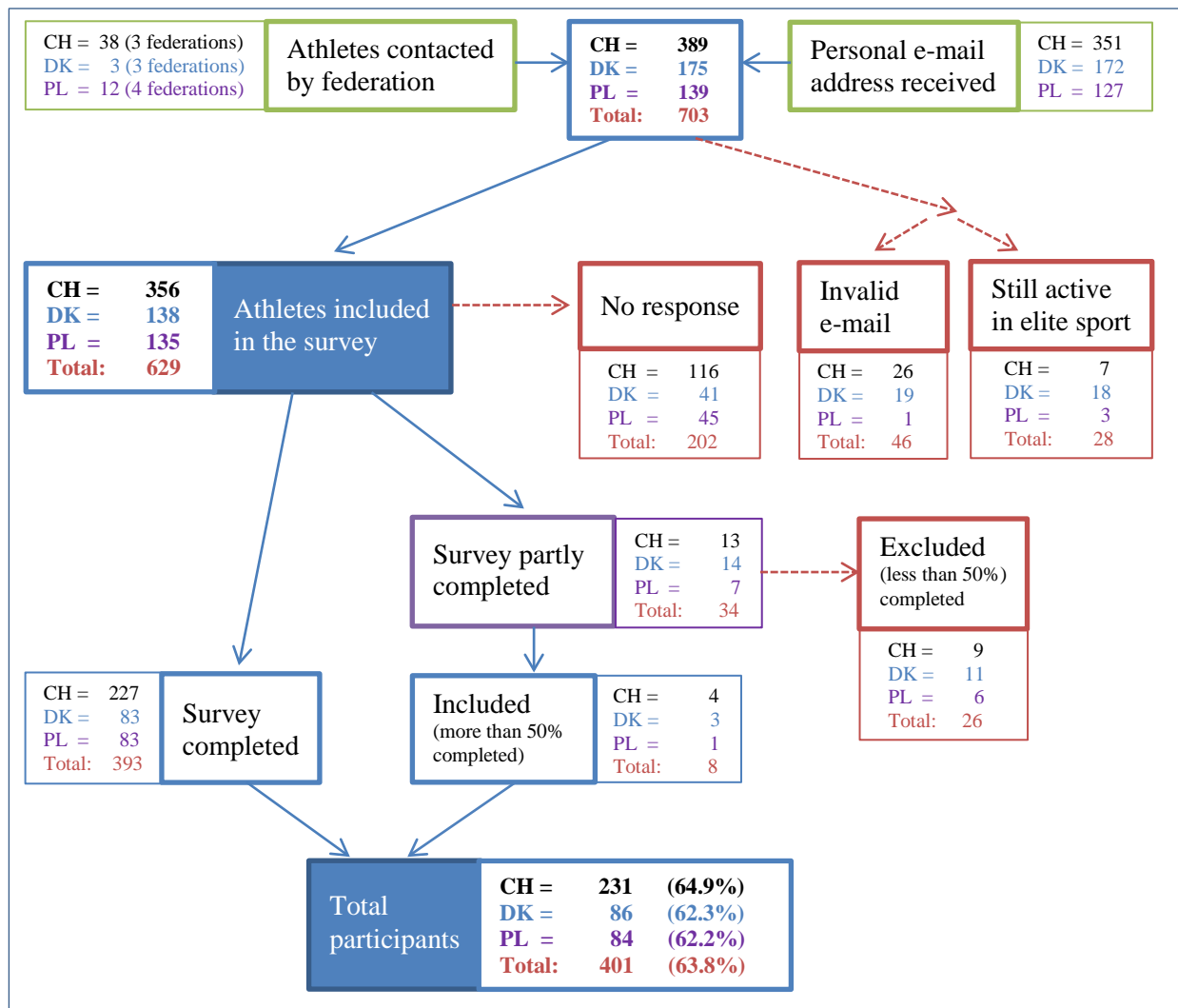


Figure 6: Flow chart of the sampling process of former elite athletes in the three countries.

The population of former international elite athletes that retires within five years is limited in each country. Therefore, a sampling approach that resembled a census was conducted and every potential former athlete that fulfilled the inclusion criteria was contacted. The specific approach how the former athletes in Switzerland, Denmark, and Poland were approached will now be described in more detail for each country.

In *Switzerland*, I first contacted the Anti-Doping Agency and received a list of 187 names of athletes who signed out of the whereabouts control pool in the period 2008-2013. Afterwards, I contacted 32 federations, according to the list of the Swiss Olympic Association, and 30 agreed to participate in the study. There was a good collaboration with these federations and I received a total of 351 personal e-mail addresses of former athletes. Additionally, three federations that could not deliver personal contact information due to data protection sent the link to the survey to 38 athletes. It turned out that some addresses were invalid and, despite efforts to locate a valid e-mail address (e.g., via athletes websites), some athletes could not be contacted. Other athletes wrote to me saying that they are still actively involved with elite sport; therefore, as they did not fulfill one of the inclusion criteria, they were excluded from the survey. Before I contacted each athlete by e-mail, explaining the purpose of the research project and providing a personal link to the survey (Appendix B), the federations were asked to pre-inform their former athletes with a letter that I prepared and to encourage them to participate in the study.

In *Denmark*, I could rely on the internal database of Team Denmark (TD) who had an overview of which carded athletes retired in the period of interest. Additionally, the director of Team Denmark wrote a letter to the 28 federations included in the TD support program recommending supporting this research project and to provide addresses of further athletes who possibly fulfilled the inclusion criteria. Although the volleyball, squash, basketball, floorball, and the ski federations are not part of TD's support program, they were additionally contacted to achieve a sample that participated in similar sports disciplines in Switzerland and Poland. I received a total of 172 addresses of former athletes from the collaborating federations. Three federations (athletic, archery, and soccer) sent the link, together with the informative e-mail that the athletes from the other federations received, out to their former athletes, as they could not deliver personal e-mail addresses due to data protection. This was, however, not a great success as only three athletes responded, despite the fact that the link was sent out three times to possible respondents.

In *Poland*, I first contacted the Ministry of Sport and Tourism (MSiT) and asked for their cooperation to contact the sports federations. Together we developed an information letter about the purpose of this research project, which was sent by e-mail to the sports federations as an invitation to participate in the research project. However, no single federation contacted me and provided information of their former athletes. Consequently, I tried to establish personal contact with the federations, referring to the letter they already received from the MSiT. It turned out that someone who did not feel responsible about such a matter received the initial e-mail. Consequently, I needed to find out exactly who within the federation could help me gather the addresses of former elite athletes. In some cases, it was the director of elite sport, in some cases the national coach, and in other cases the administrator responsible for membership. In addition, many Polish federations did not have any databases of (former) athletes. To enhance the collaboration, I arranged a personal meeting with the volleyball, handball, motorsport, and triathlon federations in Warszawa. Here I found that the sports administrators were far more willing to collaborate as soon as they knew that I was a former ski jumper, a sport which is very popular in Poland. In addition to these efforts, a few addresses of former athletes could be gathered in collaboration with the Polish Olympic Committee athletes' commission. In total, 127 athletes could be contacted personally by e-mail; moreover, four federations sent the informative mail about the study, including the link to the survey, directly to their former athletes.

A total of 629 former elite athletes were included in the study, of which 56.6% were Swiss, 21.9% were Danish and 21.5% were Polish athletes. When comparing the population in the three countries, the number of contacted Swiss athletes seems rather elevated – particularly with respect to the Polish athletes. The reasons for this are twofold: On the one hand, the SOA makes a point of supporting a wide variety of sports (both winter and summer sports), whereas Poland focuses on a smaller number of sports. On the other hand, the collaboration with the Polish sports federations was more difficult, and the federations often did not have any updated information or contact details of their former athletes.

Data collection first took place in Switzerland (June-September 2014), then in Denmark (August-November 2014), and finally in Poland (November 2014-February 2015). Following the recommendations by Dillman et al. (2008), three reminders were sent out (after four, eight, and ten weeks, respectively) in each country in order to increase the response rate. The federations contacted athletes again who did not respond, or just partially completed the questionnaire,

before I sent out the reminders. To further enhance the response rate, two small prizes (e.g., VIP-tickets for a sports event) were raffled among the athletes who completed the questionnaire in each country. Through these efforts, the final sub-samples consisted of 231 Swiss athletes (response rate 65% of athletes that could be contacted), 86 Danish athletes (response rate 62%), and 84 Polish athletes (response rate 62%), making a total of 401 former international elite athletes (see Figure 6 above).

The Swiss sample consisted of 31% female athletes. Respondents were on average 33.6 years old at the time of questioning ($SD = 6.54$, $Min = 18$, $Max = 65$) with no significant differences in age between male and female athletes ($t = -1.72$; $df = 108.87$; $p = .087$). The Danish sample consisted of 34% female athletes. The average age of the total Danish sample was 33.1 years at the time of questioning ($SD = 5.99$, $Min = 22$, $Max = 48$) with no significant differences in age between male and female athletes ($t = -0.61$; $df = 57.93$; $p = .542$). The Polish sample consisted of 37% female athletes. The average age of the total Polish sample was 36.3 years at the time of questioning ($SD = 5.90$, $Min = 25$, $Max = 57$) with no significant differences in age between male and female athletes ($t = -0.61$; $df = 70.93$; $p = .528$). The gender ratio of one-third female and two third male athletes is similar to the gender ratio of carded elite athletes in each country. The samples are considered as representative of the elite athlete population that ended their sports careers within the last five years before the data collection in all three countries. Statistical analyses of respondents and non-respondents could not be made in any country, as I had no information about those athletes who received the link to the survey from their federation. However, the respondents and non-respondents for whom I had e-mail addresses did not differ statistically in their observed and expected frequencies concerning gender, age categories, or support category of the discipline. Table 3 below shows an overview of the sports federations that were included in the study and the respective number of athletes that participated in the study for each country. As the sample sizes of athletes in each discipline are rather small, no statements can be made about athletes from a certain discipline. However, sport disciplines were grouped according to the support they received from the National Sport Governing Body in 2014, and in three different popularity categories according to the media interest in each country to see if the characteristics of a discipline – in terms of financial support or popularity – has an influence on athletes' career and transition out of sport. The table that classifies the sport disciplines is provided in Appendix E.

Table 3: Overview of the former athletes that participated in the study by sport and country

Sport	Switzerland			Denmark			Poland			Total
	<i>n</i>	%	Response rate [%]	<i>n</i>	%	Response rate [%]	<i>n</i>	%	Response rate [%]	<i>n</i>
Athletics	4	1.7	28.6	0	0	0.0	5	5.9	71.4	9
Badminton	7	3.0	77.8	5	5.8	50.0	2	2.4	100.0	14
Basketball	3	1.3	42.9	3	3.5	100.0	-	-	-	6
Curling	9	3.9	90.0	0	0	0.0	-	-	-	9
Cycling	8	3.5	42.1	3	3.5	60.0	1	1.2	20.0	12
Soccer	10	4.3	90.9	0	0	0.0	-	-	-	10
Floorball	10	4.3	77.0	1	1.2	100.0	1	1.2	100.0	12
Golf	2	0.9	100.0	5	5.8	100.0	-	-	-	7
Gymnastic	10	4.3	58.8	1	1.2	100.0	6	7.1	40.0	17
Handball	6	2.6	75.0	7	8.1	53.8	16	19.0	84.2	29
Ice hockey	17	7.4	56.7	3	3.5	37.5	1	1.2	33.3	21
Judo	3	1.3	100.0	1	1.2	100.0	-	-	-	4
Canoe	4	1.7	57.1	6	7.0	75.0	1	1.2	33.3	11
Wrestling	7	3.0	70.0	1	1.2	50.0	1	1.2	100.0	9
Horse riding	2	0.9	100.0	1	1.2	100.0	-	-	-	3
Rowing	10	4.3	55.6	11	12.8	68.8	3	3.6	60.0	24
Sailing	1	0.4	33.3	7	8.1	58.3	4	4.8	100.0	12
Shooting	6	2.6	60.0	3	3.5	50.0	0	0.0	0.0	9
Swimming	13	5.6	68.4	4	4.7	66.7	2	2.4	40.0	19
Ski	23	10.0	88.5	1	1.2	50.0	8	9.5	80.0	32
Squash	2	0.9	33.3	2	2.3	100.0	-	-	-	4
Table tennis	5	2.2	62.5	2	2.3	40.0	2	2.4	66.6	8
Tennis	3	1.3	60.0	3	3.5	75.0	-	-	-	6
Triathlon	5	2.2	41.7	2	2.3	100.0	1	1.2	50.0	8
Volley	17	7.4	81.0	8	9.3	61.5	3	3.6	60.0	28
Orienteering	17	7.4	73.9	2	2.3	100.0	5	5.9	100.0	24
Bob/Skeleton	17	7.4	73.9	-	-	-	4	4.8	100.0	21
Figure skating	3	1.3	50.0	-	-	-	5	5.9	38.5	8
Fencing	2	0.9	25.0	-	-	-	4	4.8	57.1	6
Field hockey	5	2.2	83.3	-	-	-	-	-	-	5
Automobile	-	-	-	-	-	-	0	0.0	0.0	0
Archery	-	-	-	0	0	0.0	3	3.6	42.8	3
Bowling	-	-	-	3	3.5	100.0	-	-	-	3
Sports dance	-	-	-	1	1.2	33.3	1	1.2	50.0	2
Motorsport	-	-	-	0	0	0.0	3	3.6	100.0	3
Weightlifting	-	-	-	-	-	-	2	2.4	100.0	2
Total	231	100	64.9	86	100	62.3	84	100	62.2	401

Note: Sport federations with which no collaboration could be established are marked with “-”.

4.3.3. Methods of Analyzing the Quantitative Data

The surveys with Swiss, Danish, and Polish athletes resulted in three independent data sets that were merged into one overall data set. Data were analyzed using IBM SPSS version 22. Initial analyses were conducted to detect outliers and determine the quality and quantity of missing data. Because missing data was scarce (less than 5%) and randomly distributed (Little's MCAR-test was not significant), missing values were simply imputed using the EM-algorithm (Tabachnick & Fidell, 2014).

4.3.3.1. Factors Influencing the Transition Quality out of Elite Sport (Paper 1)

The goal of Paper 1 was to explore the predictive power of the transitional characteristics in terms of perceived transition quality and to detect relevant differences between the athletes of the three nations. To measure the quality of the transition of each athlete, a principal component analysis (PCA) was performed with a promax rotation to reduce the seven variables characterizing the *quality of the transition* into a small number of component scores. The scree plot suggested extracting one component, as the Eigenvalue of the first component was 2.75, and the Eigenvalue of the second was 1.10. The loadings of the seven items were substantial and of roughly equal magnitude, with emotional difficulties (.75) loading highest and vocational difficulties (.53) loading lowest. PCAs were calculated for both the total sample (N = 401) and the three national sub-samples. When the component scores (derived from the total sample and the country-specific sample) were correlated, the coefficients in all three countries were above $r = .97$. Thus, the component score from the total sample analysis was used for further analyses to enhance the comparability across athletes from the different countries.

To explore the predictive power of possible resources and barriers on the transition quality according to the working model (see Figure 5), a total of 26 transitional characteristics were entered in standard multiple regression with *quality of the transition* as the criterion variable for each of the three national sub-samples. In order to check the assumptions underlying multiple linear regressions, several analyses were carried out: Durbin-Watson scores were close to 2 and, therefore, no autocorrelation existed (Miles & Shevlin, 2001). The average of the variance inflation factor (VIF) was close to 1, which indicates that multicollinearity was not an issue. Residuals were checked for linearity, homoscedasticity, and independence, and caused no reason for concerns. However, one respondent from the Polish sample had extreme scores on all adaptation quality items, which resulted in large residuals and, thus, a large influence on the

model. Therefore, this case was considered an outlier and was removed from the regression analyses. No multivariate outliers were detected by Mahalanobis distance (Field, 2013).

4.3.3.2. Cross-National Comparison of the Transition out of Elite Sport (Paper 3)

To compare the transition out of elite sport of former Swiss, Danish, and Polish athletes, in terms of (a) preconditions, (b) career end and transitional period and (c) consequences of the transition, one-way MANOVAs for continuous variables and chi-square tests for ordinal and ratio variables were computed. If a MANOVA was significant, one-way ANOVAs were performed to detect differences across the groups using Hochberg's GT2 test due to rather large differences in sample sizes (Field, 2013). The results of the quantitative analyses are presented in Papers 1 and 3 included at the end of this thesis and summarized in the findings in *Chapter 5*.

4.4. Qualitative Research Design (Empirical Part 2)

The second part of the empirical data collection was concerned with studying and comparing the elite sports and dual career environments in Switzerland, Denmark, and Poland. To investigate the cultural influence on the national dual career environment for elite athletes, an embedded multiple-case study design (Yin, 2014) was used with components of the dual career as the unit of analyses. To get a comprehensive picture of the practices and programs developed for elite dual career athletes in each country, I first examined the official documents about dual career programs in Switzerland, Denmark, and Poland. This background knowledge served as a basis for constructing the semi-structured interview guides for the expert interviews (Sparkes & Smith, 2014). The expression 'expert' describes the specific role of the interview partner as a source of special knowledge and information of the topic/issues of interest (Gläser & Laudel, 2010). Accordingly, expert interviews are a suitable method to get a deeper knowledge about a topic or phenomena, which in this case were the dual career practices and the dual career environment for elite athletes in each country.

4.4.1. Sampling and Participants

According to Reints and Wylleman (2013), elements of CAPs for elite athletes mainly include the following: (a) services related to education (e.g., distance learning, tutor); (b) career management (e.g., job placement or application skills); (c) life skills training (e.g., helping athletes with upcoming transitional demands); and (d) services related to specific retirement issues. To get a wide-ranging picture about the dual career opportunities and the career

assistance/retirement programs in each country, interview partners with a particular knowledge about these four elements of elite athletes' career services were purposefully selected. The possible key informants were contacted either by e-mail or phone in one of the following organizations or institutions in each country: (a) the national governing body responsible for elite sport, (b) a higher educational institution where elite athletes are enrolled, (c) a career program designed for athletes, and (d) a federation of a well-recognized sport in the respective country. A further inclusion criterion was that they were confident to be interviewed either in English or German. The 12 participants of the study were pre-informed about the purpose of the research project and signed a consent form (Appendix F) prior to the interview. Table 4 provides an overview of the interviewed dual career experts, their function within the organization/institution, and their experience on the job.

Table 4: Overview of the interviewed experts on the dual career of athletes in each country

Code	Country	Gender	Organization/ Institution	Function/ Position	Years in position	Own dual career
CH1	Switzerland	Female	Swiss Olympic Association (SOA)	Career support coordinator	8	Yes
CH2	Switzerland	Female	Swiss Ski Federation	Elite sports department program coordinator	8	No
CH3	Switzerland	Female	Adecco Athlete Career Program	Career counselor; job placement	12	Yes
CH4	Switzerland	Female	Academic Sports Association Zurich	Program coordinator for student-athletes	6	No
DK1	Denmark	Male	Team Denmark (TD)	Career support coordinator	2	Yes
DK2	Denmark	Male	Handball Federation	Career support and talent development	4	Yes
DK3	Denmark	Male	Player's Union (Spillerforening)	Program coordinator; job placement	9	Yes
DK4	Denmark	Male	Active Institute Aarhus (University)	Program coordinator, counselor	8	Yes
PL1	Poland	Male	Ministry of Sport and Tourism (MSiT)	Elite sports department program coordinator	2	No
PL2	Poland	Male	Handball Federation	Elite sports department program coordinator	10	Yes
PL3	Poland	Female	Opus Sport Foundation	Program coordinator, job placement	2	Yes
PL4	Poland	Female	AWF Warsaw (Academy of Physical Education)	Career counselor and sports psychologist	12	Yes

4.4.2. Methods of Gathering the Empirical Qualitative Material

The study took a social constructivist perspective, according to which the social phenomena and their meanings are continually being accomplished by social actors. It implies that social phenomena and categories are not only produced through social interaction, but they are also in a constant state of revision (Bryman, 2012). I adopted the idiographic approach when dealing with the experts' descriptions and accounts of the national dual career environments. The interviewees' accounts covered both their personal opinions on dual careers, as well as the norms/beliefs that are embedded in the organization/institution they represented. The approach was also derived etic (Berry, 1989; Si & Lee, 2007) in the sense that it sought first to attain emic knowledge, that is examining a construct from within a specific culture, followed by an etic approach, which employed a comparative perspective of the beliefs and basic assumptions expressed by the experts across the three national contexts studied.

4.4.2.1. Semi-Structured Interviews

Semi-structured interview guides (Gläser & Laudel, 2010; Kvale, 2007) were created, based on Wylleman and Lavallee's (2004) holistic career development model, to allow interviewees to reflect on the dual career settings at the different levels of an athlete's career. The guides (see Appendix G and H) were slightly adapted for each interviewed person (for example, more detailed questions about job placement and internships were asked when interviewing the experts connected to the career programs) and consisted of five parts. The questions in each part were based on previous research and theories concerning the respective topics. In the introductory part, I asked the interviewees about their background and their function and role within the organization/institution, as well as their own experience with elite sport and dual career. The second part covered the programs and opportunities for dual career athletes at both the secondary and tertiary level (Aquilina & Henry, 2010). Vocational education, as well as job opportunities for elite athletes, was discussed in the third part (Petitpas et al., 1992; Reints & Wylleman, 2013). The fourth part dealt with the skills development of athletes, career planning and the availability and quality of athlete career programs (Andersen & Morris, 2000; Jones & Lavallee, 2009; Mayocchi & Hanrahan, 2000). The transition out of elite sport was discussed in the final part (Stambulova, 2003; Taylor & Ogilvie, 1994).

I conducted the interviews face-to-face, either at the interviewees' office or at another place proposed by the interviewee. The interviews lasted between 43 to 97 minutes ($M = 68.75$

min, $SD = 15.96$ min). Since this project involved three countries, language was an issue. In Switzerland, interviews were held in Swiss-German, which is the vernacular language. I subsequently translated the interviews into standard German during the transcription process. In Denmark and Poland, the interviews were conducted in English or German depending on the interviewees' language skills and preferences.

I am aware that my role as a former elite athlete with dual career experience influenced both my pre-assumptions about dual career and my position when interviewing the dual career experts in the different contexts. In Switzerland, I was treated as 'one of our own' because I have been part of the Swiss elite sports system for many years, thus, the interviewees assumed I would know how dual career and elite sport is organized in the Swiss context. Accordingly, I had to ask rather open questions so that the experts expressed their personal opinions and attitudes about each particular topic. In Poland, the interviews had a more formal character (and I was dressed accordingly), and I could feel that the interview partners treated me as a special guest due to my achieved sporting results and the vast media attention ski jumping enjoys in Poland. In Denmark, I felt that the interview partner perceived me rather as a researcher with an elite sports background. In general, however, I believe that my knowledge and experience of an own dual career was an advantage since I was treated as an interviewer that had enough expertise about the topic(s) under discussion.

Adopting a reflexive stance, as proposed by Sparkes and Smith (2014), it is not only the subjective experience of the interviewees that are important but also the subjectivity of the researcher. As most of the interviewees – including myself – had a background in elite sport and dual career, it could be argued that we were all biased towards a generally positive attitude about dual career. I wrote a reflexive journal about my own assumptions about dual career, the interview process, and the atmosphere during the interviews. These reflexive notes were helpful during the data analysis and the interpretation process of the emerged categories on dual career.

4.4.3. Methods of Analyzing the Qualitative Data (Paper 2)

I listened several times to each audiotaped interview to get an initial feeling of the content discussed. During the transcription process I created four mind maps, according to the four main topics of the interviews (education, employment, skills, specific career/retirement programs), for each of the 12 interviews, to get an initial overview and description of what was said about each topic, including my field notes from the interviews. To increase communicative validity (Patton,

2015) the transcripts were sent to the interviewees for a stakeholder check, where they had the possibility to supplement the transcripts with additional comments. The finalized transcripts were subsequently imported into the qualitative analyzing software NVivo10. The transcripts were analyzed with a deductive-inductive approach, which Patton (2015) terms as the ‘analytic induction approach’. The analytic induction approach is graphically displayed in Figure 7 below.

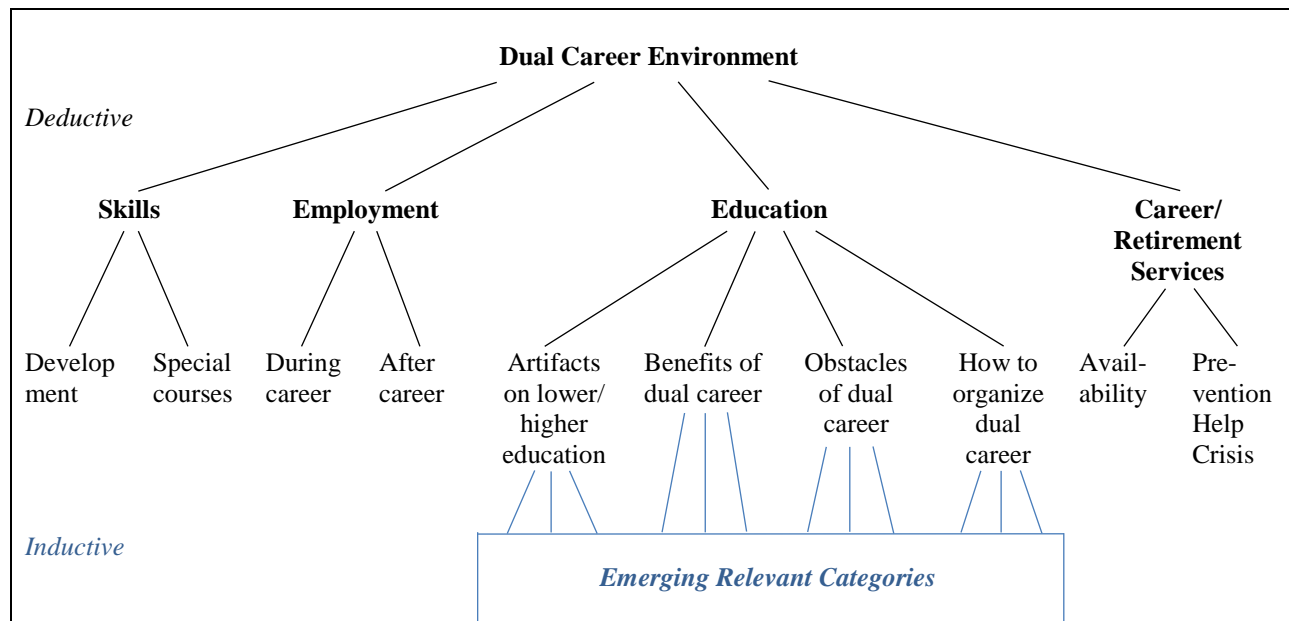


Figure 7: Graphical illustration of the qualitative deductive-inductive analytic approach.

First, a node tree was built based on the four units of analysis, which were the components of the dual career environment for elite athletes. Two child nodes were added to the nodes *skills*, *employment*, and *career/retirement services* for a more detailed analysis of the interviews, and to get a more comprehensive picture of the dual career environment in each country. Because the three countries were categorized as having different types of higher educational support for athletes (Aquilina & Henry, 2010), and because significant differences were found in the educational levels of Swiss, Danish, and Polish athletes in the empirical Part 1, there was a special interest to further investigate the *education* node. Thus, a more in-depth thematic analysis was conducted within the education node using Schein’s (2010) framework for the cultural analysis of the three dual career environments. The *artifacts*, thus, represented the established programs and institutionalized (visible) services that have been set up for dual career athletes in each country during the last few years. The *espoused values* of the interviewed experts were more deeply elaborated on, according to the three child nodes of the benefits/obstacles of a dual

career, and the assumptions as to how a dual career should be organized in an optimal way to support elite athletes.

Following this process, the interviews were subjects for meaning condensation (Kvale, 2007), through which the interviewees' accounts were condensed into more concise formulations, and a summary of each node was written separately for each context. New categories that emerged from the coded material were discussed with the supervisors and the co-authors of the second paper until an agreement was reached and the node tree was, accordingly, expanded with the new categories/topics. Data that had been previously coded were also checked for their potential contribution to the newly identified values as a means of confirming the support for both the early and later emerging values. In the coding phase, inter-rater reliability (Kvale, 2007) was enhanced using a second researcher with experience in qualitative research to code samples of the interviews. The categories that emerged from the inductive approach (see Appendix I) were discussed among the co-authors and are summarized and discussed in Paper 2 of the cross-cultural analysis of the dual career environments for elite athletes.

4.4.3.1. Review of National Documents on Athlete Support Programs

The review of national documents, reports, websites, and program descriptions about dual careers served two purposes. First, it helped me to get a basic understanding and knowledge of the situation in each country, which was supportive when creating the interview guides as I could pose more detailed questions to the experts in each national context. Secondly, the review of national documents was needed for the detailed description of the artifacts of the dual career and to supplement the accounts of the interviewees concerning the dual career programs. As most of the documents are in the local language, the documents could not simply be found entering keywords into a scientific database. Accordingly, relevant documents either had to be found from websites or to localize the documents, entering the terms of interest in German, Danish or Polish using the internet. Due to my limited Polish language skills, I needed to be assisted in locating the documents in the Polish context. I received help from the co-author of Paper 2 and one of her students who made a literature search in Polish to locate documents and local research articles. The Polish documents were translated into English using Google translate, and discussed with my wife and the co-author of the second paper in case of misunderstandings.

In total, 83 documents were located in the Swiss context and 127 in the Danish, along with 50 documents concerning Polish elite sport and dual career context. The documents were

categorized according to the four topics of the dual career programs. Even though it was not my main focus to conduct a discourse analysis reviewing the national documents about elite sport, I realized that the material and the documents were presented in different ways in the three contexts. As an example, the documents about elite sport and dual career in Poland resemble legal contracts, mirroring the highly regulated and centralized sports system (Zysko, 2008) and the high level of uncertainty avoidance rooted in the Polish culture. In Switzerland and Denmark, the information about dual career services and elite sport provisions is, in general, more easily accessible for athletes and available in more laymen-friendly forms. Another example is that in Denmark, carded athletes and coaches are asked each year to evaluate the services provided by Team Denmark (e.g., Laub et al., 2013). Such information does not exist in Poland, as the MSiT does not ask athletes their opinions about the support services; thus, this indicates the stronger power distance of the authorities towards the federations and athletes.

4.4.3.2. SPLISS Pillar 5 Inventory About Athletic (Post-) Career Support

Denmark and Switzerland participated in the SPLISS 2.0 study started in 2011, which comprehensively scrutinized the national elite sports system on nine different pillars (De Bosscher et al., 2015). SPLISS is based on an econometric approach, where the degree of success is measured as the ratio between various factors and the international sports success. Pillar 5 is concerned with the athletic and post-athletic support. The national research teams in Switzerland and Denmark conducted a survey with active elite athletes, performance directors, and coaches to illuminate the athletic career support from different perspectives. The finalized inventory of pillar 5, thus, gives a detailed overview of, for example, the amount of carded elite athletes, the financial support elite athletes may receive, and the availability of support and career programs for carded athletes. This data was available from the local research teams (Kempf et al., 2013; Storm & Tofft-Jørgensen, 2014), and served as a valuable secondary data source to describe the elite sports contexts of both countries. Poland did not participate in the SPLISS 2.0 study. Therefore, I needed to collect the information on pillar 5, in collaboration with the Polish Ministry of Sport and Tourism, to have a comparable basis of information about the athletic career support in all three countries. After permission was granted from the SPLISS group (De Bosscher et al., 2015), information was collected, with the help of the performance directors of the sport federation and the MSiT, to complete the SPLISS *pillar 5 overall inventory* in Poland. The completed inventory can be found in Appendix J.

4.4.3.3. Comparison and Cross-Case Analysis

Descriptive cross-national comparative research has tended to underestimate the impact of cultural differences (Hantrais & Mangan, 1996). Hence, to understand what impact cultural differences have on dual career programs and trajectories of elite athletes, I first tried to describe the uniqueness of each case, highlighting what is special and typical for the dual career environments and sports system in Switzerland, Denmark, and Poland. Accordingly, the underlying assumptions on which the interviewed experts based their espoused values were derived and interpreted separately for each context. The espoused values and underlying assumptions derived from the separate case analyses were reviewed for an accuracy check (Patton, 2015) by the co-authors of Paper 2, who have all have backgrounds in one of the three cultural contexts studied. Only after each case was analyzed and described in detail, a cross-cultural comparison was made. The process is graphically illustrated in Figure 8 below.

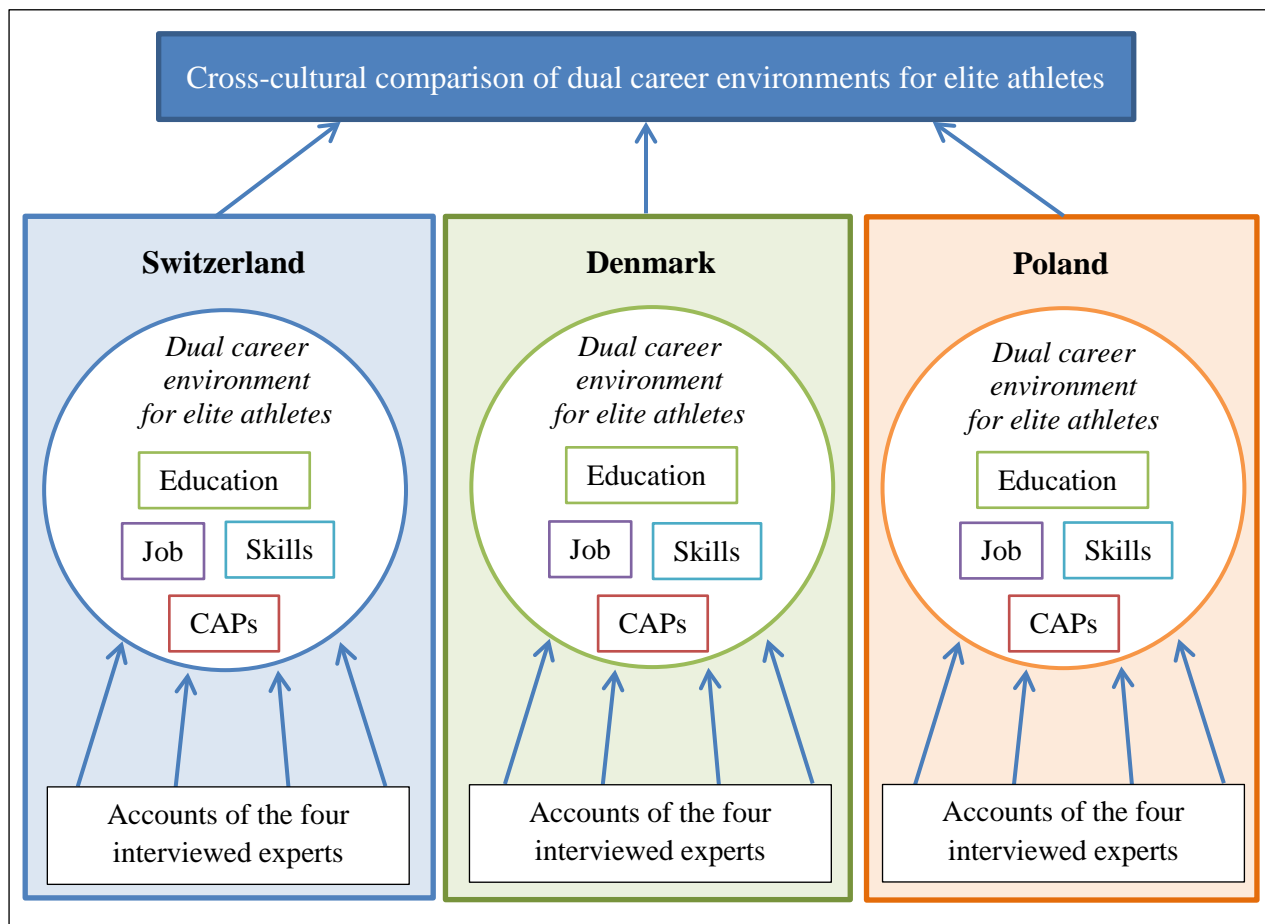


Figure 8: The embedded multiple-case study design to compare the dual career environments for elite athletes in Switzerland, Denmark, and Poland.

4.5. Procedure of the Research Project

The literature review served as a basis for developing the research questions, the theoretical working models, and the development of both the quantitative and qualitative research instruments. The first part was concerned with the survey of former elite athletes in the three countries to examine differences and similarities in the patterns of the transition out of elite sport. To be able to explain these differences and to get a better understanding of the context in which athletes retire, expert interviews in each country were conducted. Preliminary results from the athletes' survey were discussed with the experts following the interview, which was a part of the validation process, and it helped me better interpret the obtained results. On the other hand, the preliminary results provided the experts with information that they could use in their daily work with athletes or the development of dual career programs. Some descriptive results that were not part of the analysis for Papers 1 and 3 (e.g., career decision difficulties, athletes' expectation for skills development and dual career support) were summarized in a short report and discussed with the stakeholders involved in dual careers in each national context. The information about each dual career context, gathered through the interviews, was helpful for discussing the findings of Papers 1 and 3. The findings from both the quantitative and the qualitative parts were used to discuss the findings of the mixed-method approach across the three papers in this thesis, based on the overarching framework (Figure 4) that was introduced and described in *Chapter 3*.

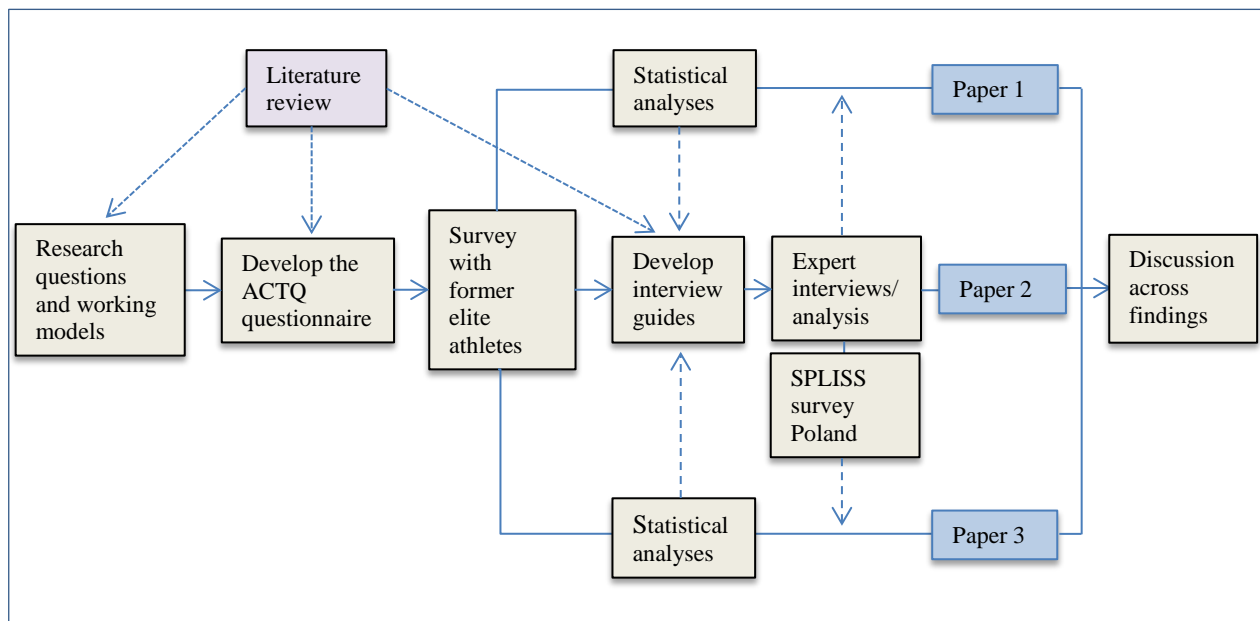


Figure 9: Schematic illustration of the research design and process of this mixed-method project.

4.6. Ethical Considerations

Research is always related to ethical considerations, both in quantitative as well in qualitative research designs. Initially, I contacted the ethical commission of the region of Southern Denmark and the Danish data protection agency to ask whether the study complied with legislation on the processing of personal data. All athletes were notified about the purpose and focus of the study, both by their previous federation and an informative e-mail sent by me. They were informed that the data collected was for specific scientific purposes and would not later be used for other purposes. Furthermore, athletes were informed that the results would not be disclosed in a way that made it possible to recognize individual persons without their permission. The information was sent to the athletes by e-mail, together with the link to the survey in German (Appendix B), Danish (Appendix C), and Polish language (Appendix D).

When doing qualitative research, I was actually taking part in other people's lives with the aim of analyzing and conveying the data that are generated and relevant to the research questions (Bryman, 2012). Therefore, ethical considerations have to be taken into account. Because the field of elite sport is a small world, full anonymity might not be granted. The interview partners agreed that their function and position within the organization/institution may be disclosed, and all interviewees signed an interview consent form prior to the interview (Appendix F). However, the interviewees were aware that it would be relatively simple to identify them as they had unique positions within the respective organizations. This was not considered an issue by any of the interviewees. Nevertheless, the ultimate ethical responsibility falls on the researcher (Schein, 2010). Whenever a researcher publishes information about an individual or an organization, he or she must think carefully about the potential consequences. Naming the institution or organization makes it possible for others to check for 'accuracy', and this gives an impression of authenticity.

After both the quantitative and qualitative data collection and the overall procedure of this mixed-method project have been described in detail in this chapter, the results of both empirical parts, which resulted in Papers 1, 2, and 3, will be presented in the following *Chapter 5*.

Chapter 5: Findings

The aim of this thesis was to provide a deeper understanding of how the national context influences athletes' transition out of elite sport. Three papers contribute to this overall perspective. Since the transition out of elite sport is a complex, multilevel, and multifactorial topic, I cannot provide an all-encompassing analysis, but three selected core issues about athletic retirement have been focused on: (a) a context-specific analysis as to how relevant resources and barriers contribute to the quality of the transition out of elite sport; (b) a cross-cultural comparison of the athletic career and retirement environment; and (c) a cross-national comparison of the retirement process and outcomes of former elite athletes from Switzerland, Denmark, and Poland. Below there is a list of the three papers linked to this thesis. The papers in their full version can be found in the last section of this thesis (starting from page 146).

Paper 1: Kuettel, A., Boyle, E., & Schmid, J. (2017). Factors contributing to the quality of the transition out of elite sports in Swiss, Danish, and Polish Athletes. *Psychology of Sport and Exercise* 23(3), 27-39.

Paper 2: Kuettel, A., Christensen, M. K., Zysko, J., & Hansen, J. (manuscript). A cross-cultural comparison of the dual career environment for elite athletes in Switzerland, Denmark, and Poland. Manuscript prepared for the *Journal of Applied Sports Psychology*.

Paper 3: Kuettel, A., Boyle, E., Christensen, M. K., & Schmid J. (manuscript). A cross-national comparison of the transition out of elite sport of Swiss, Danish, and Polish athletes. Manuscript submitted to the *Sport and Exercise Psychology Review*.

In this chapter, each individual paper will be presented separately with the specific aims, methods, findings, and conclusions. Papers 1 and 3 are based on the empirical Part 1 and include the data from the athletes' survey. Paper 2 includes the qualitative empirical material of Part 2 (see Table 1). However, all the papers are based on the overarching theoretical framework that was presented in *Chapter 3*. Finally, I will sum up the findings across the papers and draw conclusions as to the way the socio-cultural contexts of the three countries under study influence athletes' careers and their transition out of elite sport.

5.1. Paper 1: Factors Contributing to the Quality of the Transition out of Elite Sport in Swiss, Danish, and Polish Athletes

Many factors have been associated with the quality of the transition out of elite sport (Park et al., 2013). However, factors that contribute to a successful transition have so far mainly been examined in bivariate relationships that do not take into account the interrelation of the factors. Paper 1 explores how a plentitude of individual, situational, and environmental factors contribute to the quality of the transition out of elite sport among former Swiss, Danish, and Polish athletes, applying separate multiple regression analyses for each sub-sample.

Aims: The overall aim of the first paper was to examine and compare the influence of transitional characteristics on the quality of the transition among the athletes of the three nations. The objectives were as follows: (1) to examine cross-national similarities and differences in the transitional characteristics and the quality of the transition; and (2) to explore the predictive power of the transitional characteristics in terms of perceived transition quality and relevant differences in the resources/barriers patterns between Swiss, Danish, and Polish athletes.

Design and methods: We applied a retrospective cross-sectional design and surveyed a total of 401 former elite athletes (231 Swiss, 86 Danish, and 84 Polish; response rate 62-64%) with an online version of the ACTQ. The questionnaire was divided into three parts (life in elite sport, sports career termination and transitional period, and life after elite sport); it contained 56 questions, and was translated so that the former athletes could answer the questions in their native language. We developed a working model of factors contributing to the quality of the transition out of elite sports based on previous (sport) transition frameworks (Schlossberg, 1981; Stambulova, 2003; Taylor & Ogilvie, 1994), and supplemented it with the ecological perspective of Bronfenbrenner (1979) to enhance the context-sensitivity. In total, 26 explanatory factors, which were divided into individual, career-end, and environmental characteristics, were used to explain the quality of the transition; this, in turn, was characterized by low adaptation difficulties, a short duration of the adaptation and a high satisfaction level with the overall transition. Cross-national differences in the transitional characteristics (Objective 1) were explored through separated one-way ANOVAs and chi-square tests. To explore the contribution of the 26 factors on the transition quality (Objective 2), a principal component analysis was computed to reduce the variables that characterized the quality of the transition into one component score. This component score served as the criterion variable for the multiple

regression analysis that was performed separately for each country, so that the contribution of the 26 factors on the transition quality could be compared across contexts.

Findings: Regarding Objective 1, the results of the cross-national comparison revealed that Swiss, Danish, and Polish athletes differed in many *individual characteristics* related to the pre-conditions of athletic retirement. A more similar pattern occurred in the *career-end characteristics*. Many differences with substantial effects were found in the variables related to the *transition quality* to the post-sport life among the athletes from the three countries.

Concerning the *individual characteristics*, the most substantial difference was found in the level of education at the end of the sports career, with 85% of Polish athletes having obtained a higher educational degree, compared to 62% of Danish and 39% of Swiss athletes, respectively. Polish athletes reported the highest athletic identity; they were most confident in their skills, perceived themselves as the most popular, and earned a greater portion of their income through their elite sports involvement. Swiss athletes had gathered more previous work experience compared to Danish and Polish athletes; moreover, they had the lowest athletic identity, and earned the smallest portion of their income through sport. Danish athletes rated themselves as less confident in their skills and as least publicly well-known; this is despite being the sample with the relatively highest ratio of top three rankings at major sports events. However, in comparison to the Swiss and Polish athletes, Danish athletes rated their overall elite sports commitment significantly more positively when comparing the investments and benefits of their sports career. Regarding the *career-end characteristics*, our findings suggested that a combination of several reasons influenced athletes' decisions to end their elite sports careers. The most prominent reasons, independent of the national context, were personal/motivational reasons, family-related reasons, and health-related reasons. Job/educational reasons and sport-environmental reasons (e.g., conflict with coach or federation) were not among the prominent reasons in any context. The majority of the athletes across all three countries had made plans for their life after elite sport. About two-thirds of the athletes reported that their decision to retire from elite sport was entirely voluntary. Beside these career-end similarities, a remarkable difference occurred in the way the former athletes judged the end of their sports career: Polish athletes perceived their career end as far more of a loss compared to the athletes from the other two countries. Regarding the variables related to the *quality of the transition*, our results showed that the adaptation period was least problematic for Swiss athletes, who reported the lowest

adaptation difficulties in all five areas (emotional, social, health, vocational, financial), and expressed a high satisfaction with their overall transition process. The adaptation was most problematic for Polish athletes, who reported the highest financial and vocational difficulties during their transition, and expressed far lower satisfaction with their transition process compared to the other athletes. Danish athletes reported the highest social and emotional adaptation difficulties, but rated their overall transition process as satisfying. In general, the adaptation difficulties averages were low to medium in all three countries, suggesting that the majority of the athletes faced minor problems during their transition out of elite sport.

To investigate objective 2, we empirically tested our working model on the 26 factors to predict the transition quality separately for each sub-sample. We found that all three models were statistically significant and a similar percentage (between 26% and 29%) of the transition quality could be explained in each context. Most of the influential factors contributing to the transition quality were found among the career-end characteristics. A positive perception of the career end was a strong positive predictor; what is more, this was the only predictor that was significant in all three models. A voluntary decision to end the sports career was another resource for a successful transition, whereas a high athletic identity acted as a barrier, regardless of the context. Having participated in a popular sport (i.e., in terms of media coverage) was a strong predictor for a successful transition in Denmark and Poland, whereas it had no effect in Switzerland. A completed tertiary education did not show a positive effect on the transition quality in any context, whereas previous work experience contributed positively to a successful transition. The comparison of the influence of possible resources/barriers across countries showed that certain factors were identified as common resources (e.g., positive perception of career end, voluntariness), others as common barriers (e.g., high athletic identity, financial- and health-related reasons to retire), and some even worked as a resource in one context, but as a barrier in another (e.g., job/educational-related reasons to retire).

Taking into account that many transitional factors are interrelated, the results of our multiple regression analyses provide a more nuanced picture of how relevant factors facilitate or hinder a successful transition. Indicated by the different standardized regression weights in the Swiss, Danish, and Polish models, the comparative approach of Paper 1 helps to understand that certain factors play a context-specific role on the transition quality. Because the same factor can facilitate a successful transition in one national context but can work as a barrier in another, our

findings suggest that it is important to think of factors as specific to a certain socio-cultural context, which includes the macro- (e.g., culture), meso- (e.g., sports system), and micro-levels (e.g., personal circumstance, athletes' entourage).

5.2. Paper 2: A Cross-Cultural Comparison of Dual Career Environments for Elite Athletes in Switzerland, Denmark, and Poland

Studies from athletes' careers across cultures have shown that dual career programs vary strongly from one to another national context, and are influenced by how the sports systems are organized (Stambulova & Ryba, 2013). The focus of Paper 2 was to improve understanding of how the elite sports environment of nations that adopted different dual career approaches (Aquilina & Henry, 2010) may influence athletes' dual career trajectories and transitions out of elite sport. A cross-cultural comparison between the dual career environments of Switzerland (adopting a laissez-faire approach), Denmark (state as a facilitator approach), and Poland (state-centered approach) was conducted.

Aims: The objectives of this study were as follows: (a) to give an overview of the available dual career opportunities and CAPs for elite athletes in the three countries; (b) to highlight the dual career pathways that are most commonly taken by elite athletes in each country; and (c) to deepen our understanding of the cultural embeddedness of dual career programs and the respective dual career trajectories of athletes.

Design and methods: A multiple case-study design (Yin, 2014), with the components of the dual career as the units of analysis, was chosen. Semi-structured interviews were conducted with dual career experts in Switzerland, Denmark, and Poland from: (a) the national elite sport governing body; (b) a higher educational institution where elite athletes are enrolled; (c) a career program designed for athletes; and (d) a well-recognized sports federation. All 12 interviews were audio-recorded in English or German and subsequently transcribed verbatim. The interviews lasted between 43 to 97 minutes and filled 172 single-lined spaced pages. The transcripts were analyzed with NVivo10 using a deductive-inductive approach (Patton, 2015). Official documents that were available in each country about dual career programs and opportunities for elite athletes provided the necessary background information for developing the interview guides and supplemented the interview material. We used Schein's (2010) organizational cultural model as the theoretical framework to analyze each dual career environment according to the *artifact level* (availability of dual career programs in secondary and

tertiary education, retirement services), the *espoused values* of the informants about how to support athletes, and the derived underlying *basic assumptions* about a dual career. The dual career typologies of Aquilina and Henry (2010) were used to classify the countries' approaches to secondary and tertiary education, as well as their approach concerning the CAPs.

Findings: The dual career settings (*artifacts*) for elite athletes in secondary education showed a similar structure across the three countries. Special classes and planned educational courses, so that a combination of the athletic and academic career is possible, are provided for talented athletes in all three countries for as long as schooling is compulsory. However, Poland applies an early talent selection in schools, and collects prospective athletes in specialized schools in a more centralized manner than the other two countries. In Switzerland, instead of going to a gymnasium, it is more common (also for athletes) to complete a three-year business apprenticeship, where practical work is combined with two or three schooling days per week. Danish athletes in their teens, aiming for an elite sports career, usually attend a gymnasium where they can prolong their study time with an additional year and where flexibility is granted. In relation to higher education, the differences concerning the dual career opportunities for athletes are more substantial across the three compared countries. Only a minority of Swiss elite athletes are enrolled at universities; this is partly because fewer athletes went to the gymnasium and, thus, are eligible to study compared to the other two countries, and partly because there is practically no institutionalized support available for student-athletes in higher education. The Danish state offers financial grants to all students enrolled in higher education, and specialized services at the universities help athletes combine their sports career with their studies. This may be a reason why many Danish elite athletes continue their educational pathways after the gymnasium at the university. In Poland, most athletes are enrolled in one of the six academies of physical education. Elite athletes can enter these academies without an admission exam and get individualized study curriculums and financial support. Concerning the CAPs, both Team Denmark and the Swiss Olympic Association employ career counselors who support active and retiring/retired athletes. Furthermore, both Switzerland and Denmark are part of the IOC Adecco athlete career program, which offers job opportunities and internship places to elite athletes. In Poland, no such service is provided by the Ministry of Sport and Tourism. A few private initiatives have begun in Poland to match retiring athletes with possible companies, but these services are only for a handful of athletes. Conversely, the Polish state provides a life-long

pension for Olympic medal winners. Furthermore, athletes who were employed by the military during their elite sports career have a chance to continue within the military, for example as sports instructors.

When comparing the *espoused values and beliefs* about dual career embedded in these three contexts, our analysis showed that the interviewed dual career experts from Switzerland, Denmark, and Poland expressed similar values and beliefs about its benefits (e.g., more balanced lifestyle, better chances for employability after sports career) and obstacles (e.g., sport professionalization, missing classes). However, their opinions differed as to *how* a dual career should be organized. The actors within the Swiss dual career context conveyed an attitude suited to the ‘laissez-faire’ approach, expressing that elite athletes are responsible for their own career path and have to adapt to the given educational system. However, doubts were expressed as to whether a dual career is possible in certain sports if athletes want to become world class. The trajectory that is suggested to athletes could be termed ‘convergent’, according to the typology of Pallarés et al. (2011), meaning that sport is prioritized, but it is combined with a job or with education. In Denmark, there is a strong focus on developing athletes in a socially responsible way. Thus, institutionalized services are provided for elite athletes so that it is possible to study all kinds of interest-driven study topics. Interviewees expressed a strong belief that athletes who also study are more balanced and, thus, are more successful in the long run, both in sport and in life. We argue that the proposed pathway offered to athletes in Denmark is the ‘parallel’, which emphasizes that equal weight is given to both sport and education. In Poland, the dual career experts expressed the attitude that education is important, but education should not distract the athletes from their main activity, which is their athletic performance. Thus, elite athletes are advised to study at physical education academies where flexibility is granted. As such, the choice of study is more determined by the authorities (state-centered) and leaves athletes with a narrow focus on the sport. We suggest that the proposed pathway for athletes resembles the ‘linear’ one, whereby athletes give almost 100% dedication to their sport.

In Paper 2, we argued that the interviewed experts based their espoused values as to how to support elite athletes on different *underlying assumptions* about a dual career, which were dependent on the national context. In Switzerland, it is taken for granted that a dual career may benefit some athletes by enhancing their sporting performance, while for others, a dual career would be a hindrance. In Denmark, it is deeply rooted that athletes who follow a dual career are

more balanced and, thus, more successful both in sport and life. In the Polish elite sports context, education is considered important and, therefore, athletes should be ‘equipped’ with a sport-related education. However, the academic endeavors should not distract the athletes from their main mission, which is winning medals for their country.

By describing the dual career environments in more detail, we aimed to provide a better understanding of the educational and vocational opportunities and programs that elite athletes can make use of in the three countries. The results of Paper 2 showed that dual career experts from Switzerland, Denmark, and Poland base their values and attitudes as to how to support elite athletes on different underlying assumptions that indicate that these are influenced by the broader socio-cultural context. By comparing these espoused values and attitudes across the three contexts, our study revealed that elite athletes are advised to follow different dual career trajectories, which influence their educational level and their working experience while active in elite sport. These different trajectories, most probably, have an impact on athletes’ abilities to cope with their transition out of elite sport.

5.3. Paper 3: A Cross-National Comparison of the Transition out of Elite Sport of Swiss, Danish, and Polish Athletes

Cross-national comparison studies about athletic retirement (e.g., Alfermann et al., 2004; Stambulova et al., 2007) showed that nation and culture, respectively, play an important role during athletes’ adaptation process to the post-sport life. Both common and national-specific patterns were described when comparing athletic retirement among athletes from different socio-cultural contexts. Because cross-national comparison studies on the transition out of elite sport are sparse, it was the goal of Paper 3 to increase understanding as to how the socio-cultural context affects both athletic retirement and the adaptation to the post-sport life by comparing the transition out of sport of former elite athletes from Switzerland, Denmark, and Poland.

Aims: It was the aim of the present study to compare athletic retirement of former Swiss, Danish and Polish athletes in terms of (a) their preconditions, (b) their transitional period, and (c) the consequences of the transition. Based on the countries’ different approaches as to how to support athletes in their vocational end educational career, we hypothesized finding differences in athletes’ educational levels and work experience upon retirement. We hypothesized that Swiss, Danish, and Polish athletes would differ concerning their professional athletes’ status, and also hypothesized that Polish athletes would face more vocational difficulties when relocating

after their sports career. We further hypothesized that more Polish athletes would relocate in jobs connected to the sport, both because of their sport-specific education and because there are more paid jobs available in the Polish sports sector.

Design and methods: The framework used for this study is related to the theoretical framework developed by Stambulova et al. (2007), which is used to compare the athletic retirement of athletes from different nations. It combines previous (sport) transition frameworks (Schlossberg, 1981; Stambulova, 2003; Taylor & Ogilvie, 1994) with the ecological perspective of Bronfenbrenner (1979) to enhance the context-sensitivity. We developed the ACTQ, which was administrated online to former elite athletes in the three countries, all of whom had terminated their careers between one to five years before questioning. The response rate was between 62-64% in all three countries and resulted in a total sample of 401 former elite athletes (231 Swiss, 86 Danish, and 84 Polish). The questionnaire, which contained 56 questions and was translated into German, Danish, and Polish, was divided into three parts according to the following: (a) preconditions or life in elite sport, (b) the sports career termination and transitional period, and (c) the consequences and life after elite sport.

Findings: Regarding the *preconditions*, which concern the variables related to the athletic career, the comparison of Swiss, Danish, and Polish athletes revealed more differences than similarities. Athletes from all the three countries had, on average, their best results around the age of 26 and finished their careers between 30-32 years of age. Polish athletes had a longer and more professional sports career (i.e., did not work or study simultaneously), perceived themselves as more popular, and reported higher athletic-identity values compared to Swiss and Danish athletes. The educational situation at the end sports career end showed substantial differences between the athletes from the three countries. Many more Swiss athletes (44%) had completed some form of vocational education during their elite sports career than Danish (11%) and Polish athletes (8%). In contrast, many more Polish athletes (85%) had completed a tertiary educational degree, compared to 62% of Danish and 39% of Swiss athletes. We also found differences concerning the time spent working or studying in conjunction with the elite sports involvement towards the end of the athletes' sports career. Swiss athletes worked significantly more hours than Polish athletes, while Danish athletes spent more time in academic studies in the last three years of their elite sports career. In Poland, 70% of the athletes had periods when they focused solely on their sport (i.e., did not work or study beside), while around half of the athletes

in Denmark and Switzerland had periods as sports professionals. Our results revealed that the average length of time for which these athletes focused only on the sports career was 12 years for the Polish athletes, six years for the Danish athletes, and seven years for the Swiss athletes.

Regarding the *transitional and adaptation period*, our results revealed a relatively similar pattern across national contexts concerning the reasons athletes named as influential in ending their sports career. Swiss, Danish, and Polish athletes did not differ concerning their voluntariness to retire and their pre-retirement planning. Results showed that more than two-thirds of the athletes had made plans for their life after elite sport, and athletes started to take concrete steps for their career end (e.g., talking with coach or partner) between seven and ten months before they actually retired. While a few athletes felt that they terminated their career a bit too early, most athletes perceived that their career end came just about on time. Apart from these similarities, our results revealed many differences concerning the variables related to the adaptation period. Polish athletes reported the highest distress in the vocational and especially in the financial adaptation of the three samples. Danish athletes reported the highest emotional and social adaptation difficulties. Swiss athletes had the least difficulties coping with the adaptation demands of the post-sport life. On average, the adaptation period took nine months, regardless of the national context. Polish athletes rated both their career end and their overall satisfaction with their transition process as far more negative than both the Swiss and Danish athletes.

Regarding the consequences of the transition and the *life after elite sport*, results revealed that 21-32% of athletes had unemployment periods after retiring from sport, but in nearly half of the cases the athletes chose not to work. At the time of questioning, a minority of athletes (1-4%) was unemployed, while the others were either employed (64-70%) or were self-employed (21-32%). There was, however, a substantial difference in the proportion of athletes employed in jobs connected to the sport. Many more Polish athletes (74%) relocated in a job connected to sport (e.g., sports teacher, coach), compared to Swiss (35%) and Danish athletes (31%). Swiss athletes reported higher satisfaction with their current job situation, compared to Danish and Polish athletes. Athletes from all three countries named their personal character traits, their skills learned in/through sport and their obtained education as most helpful for obtaining their current occupation(s). However, being a popular athlete and having established connections to sports clubs and federations were considered significantly more helpful in the Polish context, compared to the other two contexts, at least from the perspective of the former athletes. Concerning the

family situation, significantly fewer Swiss athletes are married or living under common law (46%), compared to Danish (77%) and Polish athletes (85%). Accordingly, fewer former Swiss athletes reported having children. Swiss and Danish athletes expressed higher life satisfaction than Polish athletes in their post-sport career situations. Results revealed that elite athletes stay physically active after their elite sport career, and up to 30% of the athletes had thought about making a comeback.

Paper 3 focused on the comparison of the retirement process of former Swiss, Danish, and Polish athletes. The results supported the hypotheses that more differences than similarities would be found concerning the transition out of elite sport among the athletes of the three countries. Our results indicate that the macro- and meso-contexts have an influence on athletes' preconditions for the transition out of sport, their adaptation period, and their life situation after the elite sports career. Paper 3 reinforces the cultural praxis of athletes' careers and provides a deeper understanding how the socio-cultural context influences athletes' transition.

5.4. Summary of the Findings Across the Three Papers

This project has investigated the way that national context influences the transition out of elite sport of former athletes from three European countries, differing in both macro- (e.g., welfare system, cultural dimensions) and meso-level dimensions (e.g., sports system, dual career support for athletes). It involved the comparison of Swiss, Danish, and Polish athletes' pre-conditions for the transition, their sports career termination and transitional period, their work and life situation after their elite sports career, and the factors that contribute to a successful transition out of elite sport. The transition was investigated as a phenomenon that is embedded in a specific socio-cultural context; on this basis, the study showed that the transition out of elite sport is more unique to the individual environment than the sports career and transition research tends to acknowledge. The findings of Papers 1 and 3 allow us to understand that a successful transition out of elite sport depends on a multitude of factors that are influenced by individual characteristics (e.g., athletic identity, financial status), the situation of the career end (e.g., voluntariness, reasons for retirement), environmental characteristics (e.g., social support, sports discipline), and the characteristics of the wider national context (e.g., dual career opportunities, basic assumptions how to support elite athletes, labor market situation).

Furthermore, the findings of Paper 2 allow us to understand that the opportunities and programs that are offered to elite athletes in the three countries have a strong influence,

especially on the educational/vocational development of athletes (Wylleman & Lavallee, 2004). Based on the survey data on athletes' educational levels (empirical Part 1) and the accounts of the dual career experts in each country (empirical Part 2), the typical educational/vocational pathways that elite athletes commonly take alongside their athletic careers could be identified in the three countries. These typical (simplified) career trajectories of Swiss, Danish, and Polish elite athletes are displayed in Figure 10 below.

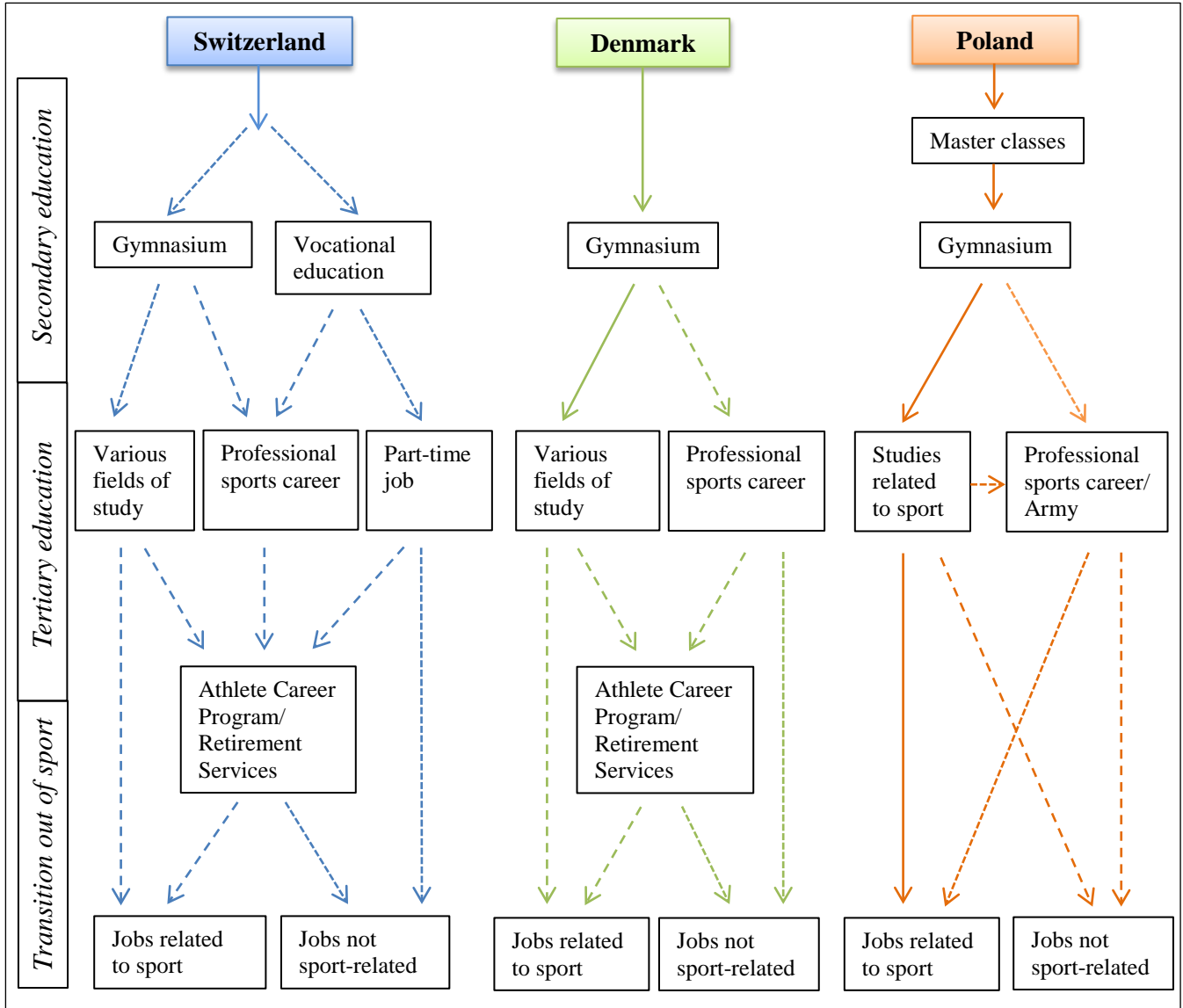


Figure 10: Typical educational and vocational trajectories of Swiss, Danish, and Polish athletes during and after their elite sport career. The different weights of the arrows indicate the probability of the trajectory in the respective context.

The typical career pathways that are displayed above for Swiss, Danish, and Polish athletes show that athletes' career and educational choices are influenced by the structure of the educational possibilities in each country. This has an influence on the transition out of sport and the integration into the domestic job market, because the athletes gather different educational and vocational experience while active in elite sport. Based on the findings of Papers 1 and 3, the Swiss athletes (who typically followed the 'convergent' dual career trajectory) gathered most work experience while active in elite sport, and they reported an unproblematic transition concerning their vocational/educational adaptation. Most Danish athletes invested in education throughout their career and typically followed the 'parallel' trajectory. Danish athletes coped well with their vocational/educational adaptation after ending their sports career. As in Switzerland, different CAPs are available for athletes when relocating to the labor market. The typical trajectory of elite Polish athletes is the 'linear' type, meaning that athletes focus mostly on their athletic career and follow a course of study related to sport. This linear pathway seems to be the most problematic, as former Polish athletes reported far higher transitional distress concerning their vocational and financial adaptation. The support that is provided for active elite Polish athletes ends when they stop their career, and no institutionalized help or services are provided for athletes that are trying to find a job.

The cross-cultural analysis and comparison of the Swiss, Danish, and Polish dual career environments in Paper 2 revealed that the stakeholders of the three countries build their attitudes and beliefs about how to support elite athletes on different basic assumptions about dual career. Building dual career support on different underlying basic assumptions might not only influence how elite athletes are advised and supported, but also the political and strategic decisions that lead to the establishment or non-establishment of dual career programs and services that help athletes to combine their athletic and academic/vocational careers. This PhD thesis has shown that the transition out of elite sport carries traces of the specific culture, and that these traces influence both the environment related to the elite athletes' development and their trajectories. Hence, the transition out of elite sport needs to be considered within the (national) culture in which it is embedded. This will be discussed in the chapter that follows.

Chapter 6: Discussion

In this chapter, I will first discuss the findings in relation to the previous research in terms of the factors that contribute to a successful transition out of elite sport. Then, I will discuss the results of the comparison of the transition out of elite sport across the three contexts in relation to the findings of previous cross-national comparative studies about athletic retirement. After that, the ecological and holistic perspective on the transition out of elite sport is discussed based on the overarching framework that was developed for this study to improve the understanding of the transition across different cultural contexts. Finally, I will address and discuss some strengths and limitations of this mixed-method research project.

This chapter will fulfill the primary and secondary purposes of this thesis: (a) to contribute to a better understanding of how both the socio-cultural context and the national elite sport system influence athletes' transition out of sport in terms of pre-conditions, perceived adaptation quality, and long-term consequences of the transition; (b) to enhance the understanding of the cultural embeddedness of dual career opportunities and dual career trajectories of elite athletes.

The present thesis contributes to the existing knowledge on the transition out of elite sport in three important ways: (1) by considering the broader context as an important influential element as to how potential resources and barriers influence athletes' transition out of elite sport; (2) by understanding that athletes from different national contexts differ in their patterns of the transition out of elite sport and their adaptation to the post-sport life; (3) by applying an ecological and holistic perspective on the transition out of elite sport, and studying the transition from the perspectives of both former athletes and experts involved in athletes' dual career development and career/retirement programs across three contrasting national contexts. These elements are discussed below.

6.1. Resources and Barriers Related to the Transition out of Elite Sport

Previous literature has revealed many factors that contribute either positively or negatively to a successful transition out of elite sport (Park et al., 2013). The first major contribution of this research project regards the quantification of how strongly potential resources and barriers contribute to the transition quality, considering that many of these factors are interrelated (Stephan & Demulier, 2008). The second major contribution regards the findings that supported the initial (second) hypothesis, namely that the factors (resources/barriers) have a context-

specific role and depend on the broader environment and socio-cultural context in which the transition takes place.

6.1.1. Resources for a Successful Transition

The findings of the regression analyses conducted with the sub-samples of former Swiss, Danish, and Polish athletes (Paper 1) confirmed that certain factors could be considered as common resources for a high-quality transition out of elite sport, as they positively contributed to an enhanced quality of the transition in all three contexts under study. The findings revealed three main resources for a successful transition: (a) pre-retirement planning, (b) a voluntary decision to end the career, and (c) a positive assessment of the career end. In line with previous research (Alfermann et al., 2004; Baillie & Danish, 1992; Warriner & Lavalley, 2008), pre-retirement planning, including vocational, psychological, and financial preparation for the time after elite sport, was shown to be beneficial for a successful transition. The results showed that athletes who are actively engaged in structuring their own future, and that have made plans for their life after the sports career, tend to cope better with the transitional demands. The results of Paper 1 supported the findings of Alfermann (2000), Cecić Erpič et al. (2004), and Taylor and Ogilvie (1994), in that that a voluntary decision to retire is beneficial for the transition out of elite sports. A voluntary and deliberate decision on the part of the individual athlete to end his/her sports career also reflects the degree of control the athlete has over the transitional situation. The degree to which the trigger that initiates the transition is within the individual's control is a central element in the transitional model described by Schlossberg (1981).

A positive perception of the career end was the strongest predictor for a successful transition in the Swiss and Polish regression model, and the third strongest in the Danish model. This indicates that the assessment of the transitional situation, in terms of gain or loss, has an important effect on the upcoming adaptation period. The assessment of the transition is frequently connected with the degree of role change and, thus, is linked to the degree of stress that is accompanied with the transition (Schlossberg, 1981): athletes who perceive their career end more as a role loss (e.g., missing status and benefits of an elite athlete, reduced public popularity and attention) are far more at risk of facing a difficult transition than athletes who perceive their career end as a role gain (e.g., starting a new job, becoming a parent). Hence, athletes who are able to let go and accept that their elite sports career is over have better chances of coping successfully with the demands that are connected to the adaptation to the post-sport

life. This implies that athletes need to be made aware that their elite sports career will definitely come to end at a certain point in time, and that there are still many years ahead in which they can (or need) to build up a second career. For athletes who have a hard time accepting that their sports career is over, specific support, both from the private environment and sports psychologists or career counselors, might be needed.

On the other hand, several factors that previous research typically identified as resources facilitating a successful transition did not clearly contribute to a better quality of the transition in the regression models in Paper 1. For example, social support was shown to be a crucial factor for a successful transition in many earlier studies (e.g., Cecić Erpič et al., 2004; Grove et al., 1997; Park & Lavalley, 2015; Stambulova et al., 2007). We assessed both the amount and the importance of conversations that athletes had within their sports and private environments, but found no correlation between this kind of social support and the transition quality. However, it is quite possible that athletes would place strong emphasis on the importance of their social support when being interviewed in person, rather than with a survey, as this was shown in several qualitative studies conducted both with active and former athletes (e.g., Debois et al., 2015; Park & Lavalley, 2015; Storm et al., 2014; Tekavc et al., 2015).

Education has been highlighted as an important resource for a successful transition in previous literature (e.g., Stambulova et al., 2009; Swain, 1991; Wylleman et al., 2004). However, the findings of this PhD project could not confirm that a higher educational status necessarily contributes to a more successful transition – at least not among the athletes from the three contexts studied. This was rather surprising and somewhat in contrast to the general assumption that a higher education facilitates the adaptation to the post-sport life. In the past few years, policy makers and educational institutes in many countries have placed a strong emphasis on dual career, so that elite athletes have the possibility to achieve a higher educational diploma (Aquilina & Henry, 2010; EU Expert Group, 2012). However, the results of this comparative study suggest that it might be more helpful for a smooth transition when athletes follow a suitable (lower) education, which allows them to gather work experience before the end of their elite sports career. Working part-time or doing internships seems to facilitate the transition and help athletes to quickly relocate to the domestic job market. Furthermore, the occupational delay of former elite athletes (Naul, 1994) might be less pronounced in jobs that demand a lower

educational level, that are less specialized and, thus, are more easily available to athletes after their career end.

The results of this study provide support for the findings of Pallarés et al. (2011) and Torregrosa et al. (2015), in that a ‘parallel’ or a ‘convergent’ dual career trajectory is more beneficial for the transition out of sport than the ‘linear’ pathway, whereby athletes focus mostly (or solely) on their athletic career. Typical dual career trajectories of Swiss, Danish, and Polish athletes have been highlighted in *Chapter 5*, which relate to the national tendencies of athletes’ dual career types (see Figure 10). Since the national dual career culture (dual career settings including the embedded beliefs and assumptions about dual career) support either athletes’ linear (Poland), parallel (Denmark), or convergent (Switzerland) dual career trajectories, the national context can also be considered either as a resource or a barrier for transition success. According to the findings of Paper 2 and the overall thesis, the Swiss and Danish dual career environment provide athletes with more beneficial circumstances for the transition out of sport and the adaptation to the post-sport life than the Polish dual career environment.

Several other factors, for example achieved sporting success (Koukouris, 1991), acquired skills and competences (e.g., Gould & Carsson, 2008; McKnight et al., 2009; Swain, 1991), and financial status (e.g., Werthner & Orlick, 1986), were classified in the systematic review of Park et al. (2013) as resources for the transition. The findings of Paper 1 showed that these factors showed positive, negative, or negligible effects on the transition quality depending on the context. Hence, the findings of this PhD study cannot confirm that outstanding sporting success, transferable skills, and high financial status should be considered as resources that generally facilitate a successful transition out of elite sport. However, this does not mean that these factors have no influence on athletes’ transition: as with the educational level and the social support, it might be more important how the individual athlete can make use of these factors, and use them as resources for her/his transition and their future life career.

6.1.2. Barriers for a Successful Transition

When looking at the barriers to a successful transition that previous literature revealed (Park et al., 2013), an exclusive athletic identity, injury or health problems, and any involuntary reasons that led to athletic retirement have been associated with more adaptation distress when ending an elite sports career. The results of this study confirmed previous empirical findings that athletes who identified more strongly with their athletic role while active in elite sports generally had a

more difficult transition out of elite sport (e.g., Brewer et al., 1993; Giannone, 2016; Lally, 2007). A strongly internalized athletic identity is likely to dominate the individual's overall self-concept (Ryska, 2002). When athletic retirement subsequently denies opportunities to foster and maintain this identity, an individual with such a strong and exclusive athletic identity is presumed to lack the flexibility necessary for redefining the self-concept (Webb et al., 1998) and, thus, may be less ready to see the transition out of sport as a chance for a role gain. Grove et al. (1997) and Alfermann et al. (2004) also showed that a strong athletic identity was related to less effective coping strategies, which led to an increased reliance on denial following retirement.

The results of the regression analyses supported earlier findings (e.g., Kadlcik & Flemr, 2008; Kucharska & Klopot, 2013; Werthner & Orlick, 1986) that injuries and health problems should be considered as factors that reduce the quality of the transition and cause more transitional distress in athletes. According to the career-decision making framework of Fernandez et al. (2006), injuries and health problems can be categorized as push-factors. Other push-factors, such as lack of motivation (e.g., lack of sporting goals, fed up with elite sports lifestyle) or lack of financial support, were identified in Paper 1 as further factors that contributed to a more difficult transition. Interestingly, sport-environmental related reasons for ending the sports career such as conflicts with the coach/teammates or the federation did not show any negative impact on the transition quality.

6.1.3. Context-Specific Factors Related to the Transition

Beside the above-mentioned factors that could be categorized as common (universal) resources or barriers across national contexts and cultures, the results of Paper 1 clearly showed that, depending on the context, many predictors (9 out of 26) in the model varied as to how they affected the transition quality. This is not very surprising considering that cultural differences have been shown to be very influential how athletes cope with stressful events in sports (Anshel, Williams, & Hodge, 1997). The findings of Paper 1 provide strong support for the initial and first hypothesis of this thesis, namely that factors that contribute to the quality of the transition are *context-specific* and, thus, vary in their strength and direction depending on the context. For example, among the individual characteristics, a high income from the sport context, confidence in own skills, and being publicly well-known had opposite effects depending on the context; for example, being publicly well-known was a negative predictor in Switzerland, a positive predictor in Denmark, and had no effect in the Polish context. The transitional characteristics showed a

more common pattern concerning the generalizability of the effect that factors had on the transition quality across the three contexts studied. For example, voluntary decision and pre-retirement planning had a similar positive effect in all three contexts, whereas push-factors (lack of motivation, injury, and financial-related reasons; Fernandez et al., 2006) had a similar negative effect on the transition quality of Swiss, Danish, and Polish athletes. However, a divergent effect was detected regarding the importance of job/educational reasons on the transition quality; in Poland, these reasons had a substantial positive effect, while the same reasons had a substantial negative effect on the adaptation success of Danish athletes. This indicates that job/educational reasons might work as pull-factors (Fernandez et al., 2006) for Polish athletes (having a job opportunity), whereas they might work as push-factors for Danish athletes (the need to earn money). Among the environmental factors, the type of sport showed a substantially different influence on the transition quality. In Denmark and Poland, having participated in a sport that receives a lot of public attention and media coverage was a strong positive predictor, but in Switzerland it had no effect. One reason for these findings could be that the sports classified as most popular are different disciplines depending on the country; for Switzerland: alpine skiing, ice hockey, soccer, and tennis; for Denmark: cycling and handball; for Poland: athletics, handball, and volleyball (see Appendix E). It seems that these specific elite sports environments in Denmark and Poland prepare their athletes well for the upcoming transition demands, and provide athletes with the necessary resources for the adaptation to the post-sport life.

To summarize, the obtained results in Paper 1 and the findings of the overall thesis suggest that the transition out of elite sport is a complex and multifaceted phenomenon. Based on the working model that included 26 factors divided into individual, situational, and environmental characteristics, the results of the multiple regression analyses confirmed the previous findings of cross-national studies (Alfermann et al., 2004; Stambulova et al., 2007), in that the transition quality is influenced by a variety of factors including nationality and culture. But what Paper 1 and this PhD study have added to the existing knowledge is the fact that the influence of certain factors depends on the (national) context. Therefore, instead of relying on generalizable statements about factors contributing to the adaptation quality after athletic retirement, practitioners should take context-specific factors and the broader socio-cultural context into account when working with athletes in transition.

6.2. Cross-National Comparison of the Transition out of Elite Sport

The results of the thesis and Papers 1, 2, and 3 on the comparison of the transition out of elite sport across Swiss, Danish, and Polish athletes supported the first hypothesis of this study, in that the national context influences: (a) pre-conditions of the transition, (b) the transitional and adaptation period, and (c) the job- and life situation after the elite sports career. Each of these three areas will now be discussed in more detail, both across the three contexts studied, but also in relation to findings of previous cross-national studies about the transition out of elite sport.

6.2.1. Pre-conditions for the Transition out of Elite Sport

When comparing the mean values of the variables that were termed pre-conditions for transition out of sport across the three sub-samples, ANOVA and Chi-square analysis showed that Polish athletes had a longer professional career, did not work or study simultaneously, expressed a higher athletic identity and perceived themselves as more publicly well-known than Swiss and Danish athletes. Athletes reported, in general, a high educational level at the time of the career end compared to the domestic population average, especially in Poland and Denmark. However, athletes from the three countries differed substantially from each other concerning their completed educational levels and work experience when finishing their elite sports career. As shown in Paper 3, relatively more Swiss athletes completed vocational education while active in elite sports, whereas most Polish athletes obtained a master's degree from a Physical Education Academy during their sports career. To find out why athletes' development on the vocational/educational level (Wylleman et al., 2011) differed considerably across the three contexts, a more in-depth analysis of the dual career environments within each context was conducted. The findings of Paper 2 provided support for the third hypothesis, that elite athletes' dual career development is influenced by both the given national structure of the sports/educational system (including dual career programs and specific services for elite athletes) and the basic assumptions about dual career that are embedded in each of the three specific socio-cultural contexts.

It was known beforehand that Switzerland, Denmark, and Poland have adopted different dual career approaches in higher education according to the classification of Aquilina and Henry (2010). This was part of the reason why these three countries were selected as contrasting cases for the comparison. However, being classified in a certain dual career typology, according to the policy and practices in higher education, does not necessarily explain why the dual career

trajectories of elite athletes differ across national contexts. The cultural analysis of the three dual career environments in Paper 2 revealed differences in the educational opportunities and programs at the secondary and tertiary school levels. Young, talented Polish athletes are gathered in specialized sports schools; talented athletes in Denmark have the chance for special conditions in gymnasiums, while it is more common for prospering Swiss athletes to conduct some form of vocational education. These academic and vocational opportunities for athletes have been created over many years and relate to the concept of ‘path dependency’ (Houlihan, 2009). Hence, young elite athletes tend to follow the educational paths that were proven to be compatible with elite sport by previous generations of elite athletes. Besides the differences in the institutionalized services in higher education, there are also differences in the financial support that athletes receive while enrolled at a university. This might also influence athletes’ motivation to study. Danish athletes get financial grants from the government and Polish athletes get sport specific grants from the MSiT via their sports federation, whereas Swiss athletes have to pay the regular study fee the same as any other student enrolled in higher education.

It is a rather new approach to investigate athletes’ (dual) career trajectories across cultures. Studying athletes’ careers across 19 different countries, Stambulova and Ryba (2013) asserted that it is important to emphasize the variations in how career development occurs in different socio-cultural contexts. For example, there are different perceptions as to what a ‘talent’ is, different attitudes towards sports specialization and professionalization, and there are differences in access to support services and CAPs across different contexts (Stambulova & Ryba, 2013). To enhance the understanding of the values and basic assumptions that are embedded in the three contexts concerning the dual career of athletes, several experts working within the dual career environment of Switzerland, Denmark, and Poland were interviewed. The findings of Paper 2 revealed that the dual career stakeholders from all three countries basically agreed about the obstacles and benefits that are related to an athletic dual career. Hence, benefits such as a more balanced lifestyle or better chances for future employment (Aquilina, 2013), and obstacles such as missing classes and advanced sport professionalization, could be regarded as etic concepts of a dual career that span different European cultural contexts. On the contrary, the beliefs and attitudes as to *how* dual career athletes should be supported differed across the three studied national contexts. As such, the (practical) implementation of the dual career could be understood

as an emic concept of dual career, which shows considerable variation across different cultures and countries.

The findings of Paper 2 suggest that the national dual career cultures, concerning how to support elite athletes in their academic/vocational development, reflect different ‘software of the mind’ (Hofstede et al., 2010) that separates one cultural group from another. A possible explanation for this different emic interpretation of athletes’ dual career support may be related to Schein’s (2010) functionalistic concept of culture. He emphasizes that what a group learns over a period of time, as that group copes with external adaptation and internal integration, can become the predominant culture; consequently, it will be taught to new members of the group as the correct way to perceive, feel, and act in relation to those problems. It seems that, in the past, the three nations found different solutions to the problems of survival in an external environment (i.e., in elite sport: international medal race and intense competition pressure) and of internal integration (i.e., how to achieve sporting results: holistic development of athletes, social responsibility towards the individual athlete, social legitimacy). This tendency shows that the characteristics of the local national context heavily influences the ways that general ideas, cognitive models, and norms in international elite sport are exploited (Andersen & Ronglan, 2012). This PhD thesis was a comparative study across cultures, which can help to identify different cultural patterns, both in organizations and in individuals. While macro-level dimensions of the culture hardly ever, or only slowly, change (Hofstede, 1981), the (dual career) culture and the organizational settings for elite athletes might be easier to adjust as they are under constant shift and change. This thesis might stimulate policy makers and experts working in sports organizations to reflect on their practices and initiate some action that leads to the (possible) improvement of the career services that help athletes make a healthy transition out of elite sport.

Pallarés et al. (2011) introduced different types of dual career trajectories when studying individual athletes’ dual career pathways. They were termed ‘linear’ (focus only on sport), ‘parallel’ (similar emphasis on academic and sporting career), and ‘convergent’ (sport is prioritized to the detriment of academic development), and relate to the emphasis athletes give to either their athletic career and/or to their academic and/or vocational development. Through the detection of the typical dual career patterns of athletes in Switzerland, Denmark, and Poland, and taking into consideration the expressed values about the dual career in each of the three national

contexts, this thesis suggests that the dual career typologies of ‘linear’, ‘parallel’, and ‘convergent’ do not only refer to individual athletes (Pallarés et al., 2011), but that these typologies can be referred to as national tendencies of the dual career trajectories of elite athletes. Typologies can help to make a frequently chaotic and messy reality easier to comprehend by establishing similarities from apparent differences, which prevents us from becoming disoriented by the multiplicity of the social world (Christensen, 2013). According to Schein (2010), the advantage of typologies is that they order a great variety of phenomena. The disadvantages and danger of using them are that “they are so abstract that they do not reflect adequately the reality of a given set of phenomena being observed” (Schein, 2010, p. 158). It is important to emphasize that the suggested typologies are constructed in the readings of both the quantitative (Papers 1 and 3) and qualitative parts (Paper 2) of the empirical material, and are derived heuristically from analysis and interpretation. As with the national dual career approach typology of Aquilina and Henry (2010), it is vital to acknowledge that the typologies of the trajectory are based on an ideal-typical account. Thus, there are individual athletes or sub-sport cultures that follow trajectories other than those proposed in Figure 10 for elite athletes in the Swiss, Danish, and Polish contexts.

6.2.2. Transitional and Adaptational Period

Regarding the transitional and adaptational period, the results of Papers 1 and 3 showed that athletes’ decision to end their elite sports career was influenced by a combination of different reasons, with personal/motivational-related reasons and family-related reasons being the most prominent. This confirmed the findings of previous studies, in that athletic career termination is caused by multiple sources and is often the result of a longer process of reasoning and decision making on the part of the athlete (e.g., Fernandez et al., 2006; Moesch, 2012; Stambulova et al., 2007, 2009). The majority of athletes that participated in the survey had made plans for their life after elite sport. The cultures of Switzerland, Denmark, and Poland can be considered as being individualist cultures (Hofstede et al., 2010), which also tend to be planning cultures (Triandis, 2004). The results of the athletes’ survey supported the findings of the previous comparison studies of the EPAR project; namely, athletes from Western European countries tend to plan for their retirement in advance. Even though Poland is located in Eastern Europe, the planning pattern of Polish athletes resembles that of athletes from Germany, France, Switzerland, and

Denmark, rather than that of former Russian and Lithuanian athletes (Alfermann et al., 2004; Stambulova et al., 2007, 2009).

Despite most of the athletes from the three countries under study retiring voluntarily, a remarkable difference was found in the way athletes from the different contexts perceived their career end and coped with the demands during the adaptation to the post-sport life. Polish athletes perceived their career end as far more of loss compared to the athletes from the other two countries. Polish athletes also expressed the highest vocational and financial adaptation difficulties. The negative perception of their career end may be related to the high athletic identity that the Polish athletes expressed, since athletic identity foreclosure has been shown to be related to higher adaptation difficulties during the transition out of sport (e.g., Grove et al., 1997; Webb et al., 1998). Another reason might be that the privileges connected with elite athlete status (e.g., special regulations for studying, salary from the federation/army, high public recognition) suddenly come to an end when Polish athletes retire from high-performance sport. Similar reactions to retirement distress have been described among Russian and Lithuanian athletes (Alfermann et al., 2004). The athletes from these two countries also developed their sports careers in the more autocratic sports systems that are common in former communist countries, such as Poland or other Eastern European countries (Poupaux & Andreff, 2007).

Many Swiss athletes completed a qualified vocational educational course and were working part-time while active in elite sport. Hence, their pre- and post-environment concerning their working situation may not have been as different as it is for athletes from the other two nations. Accordingly, Swiss athletes reported the lowest vocational-related difficulties. Having gathered relevant work experience before ending their elite sports career, both the low employment rate and the generally good economic situation in Switzerland are possible reasons why most Swiss athletes had a rather smooth transition concerning their relocation to the labor market.

Danish athletes coped well with the transition concerning their vocational and financial adaptation, but they reported higher distress in their emotional and social adaptation than Polish and Swiss athletes. This might be related to the Danish cultural value of equality, the so-called 'Jante-law' (Sandemose, 1933), which emphasizes 'being within the standard' (i.e., not higher, but also not lower than the majority of people) as a basis for personal satisfaction and self-esteem. This principle of equality stands in opposition to the notion of elite sport (i.e., to be the

best and to achieve outstanding results) and might lead to a conflict of values in retiring Danish elite athletes. Swedish athletes (from a similar socio-cultural context as Denmark) reported similar adjustment difficulties, and it took them longer to find their social role and to adapt to the high living standards after ending their elite sports career (Stambulova et al., 2007). In general, when comparing the component scores of the transition quality across the samples from Switzerland, Denmark, and Poland, the results in Paper 1 revealed that the national context plays an important role in how well former athletes coped with the demands of the transition.

6.2.3. Consequences of the Transition: Life After Elite Sport

Concerning the life after the elite sports career, the results of Paper 3 revealed a similar structure of the current employment situation among the retired athletes in all three countries. Despite around one-fourth of all athletes experiencing periods of unemployment following their career end, only one to four percent of the athletes were unemployed at the time of questioning, which was one to five years after their career end. Most of the athletes from all three countries were either employed or self-employed and/or were in (further) education. Many athletes stated that they pursued more than one job, which indicated that elite athletes do not necessarily exchange their athletic career for one permanent job position. Often, athletes are employed part-time, have their own small businesses, or work part-time in the sports sector, for example, as coaches, TV-experts, or brand ambassadors. The results of Paper 3 further revealed that many more Polish than Swiss and Danish athletes found a job that is connected to the field of sport. Thus, as proposed by Torregrosa, Boixadós, Valiente, and Cruz (2004), the transition after top-level sports in the Polish context should be conceptualized as a ‘relocation in sport’, instead of a ‘retirement from sport’; this is because many Polish athletes follow a professional career in sport as physical education teachers, coaches, physiotherapists, directors of sport clubs, or media commentators. Various patterns in the job situations were also found when athletes from other European countries were compared in the previous EPAR projects (Alfermann et al., 2004; Dimoula et al., 2013; Stambulova et al., 2007), indicating that the macro- and meso-contexts play a crucial role concerning the job possibilities and future trajectories of former elite athletes. For example, in Russia and France, the sports system provides many paid jobs and there is a close relation and co-operation between the universities and the sports system, which can help athletes with a sport-related education to find a job in sport after they have finished their athletic career. In contrast, German and Swedish athletes mostly relocated into jobs outside the sports

sector, both because there is a lack of paid jobs available in professional sports, but also because the athletes from these two countries tend to have a less sport-specific education that offers other employment possibilities (Alfermann et al., 2004; Stambulova et al., 2007).

A substantial difference was found when comparing the family situation of retired Swiss, Danish and Polish athletes. Relatively more Polish than Swiss athletes are married and have children, indicating that it was more difficult for Swiss athletes to combine their elite sport career with becoming a parent. Thus, Swiss athletes seem to wait to start a family until they terminate their elite sports career. As such, according to the holistic career model of Wylleman et al. (2011), Swiss athletes tend to have delayed development on the psychosocial level. Athletes from all three countries expressed generally high satisfaction with their current life situation, but the life satisfaction scores of the Swiss and Danish athletes were substantially higher than those of the Polish athletes. This is, however, not surprising or especially specific for athletes, as Switzerland and Denmark constantly rank among the countries with the highest life quality and the highest subjective well-being (OECD, 2016). The results also revealed that many more former Danish and Polish athletes considered a comeback than did Swiss athletes. Even though the reasons behind these differences were not further explored, it can be hypothesized that the Swiss athletes were more advanced in their acceptance of their new life situation, and that most of them did not consider returning to high performance sport as a desirable option.

To sum up, the results of Papers 1, 2, and 3 contributed to a better understanding as to how the socio-cultural contexts influence athletes' careers and trajectories while active in elite sport, their transition and adaptation period, and their relocation to the post-sport life. As stated by Stambulova and Ryba (2013), "by enriching our understanding of athletes' careers in specific socio-cultural contexts, we not only improve the quality of theory and future research but also enhance the effectiveness of career assistance services for athletes" (p. 5). This thesis made a contribution to this understanding and the scientific knowledge by examining Swiss, Danish, and Polish athletes' careers and their transition out of sport from a holistic and ecological perspective. Based on the results of Papers 1, 2, and 3, some context-specific practical implications for CAPs will be provided in the following and final *Chapter 7*.

6.3. Ecological Perspective on the Transition out of Elite Sport

Regarding cross-cultural studies in sport, Stambulova and Alfermann (2009) encouraged researchers to modify the internationally recognized career models to match their respective

culture or develop culturally specific frameworks. Furthermore, Stambulova and Alfermann (2009) emphasized the need to study both athletes and the career development environment as multilevel contexts that are infused by national culture and several sub-cultures. Based on these recommendations, I developed the *ecological framework for studying the transition out of elite sport* (Figure 4), so that an ecological and holistic perspective could be applied to both athletes' career development and the multilevel context. The framework introduced in *Chapter 3* guided this PhD study and was built on the existing framework of Stambulova et al. (2007). The revised framework divided the context according to Bronfenbrenner's (1979) macro-, meso-, and micro-levels, in which the athletes' transition is embedded. This distinction underlines the fact that culture is not simply an external factor, but rather a multilevel phenomenon, and that the athletes, as well as their entourage living in a certain environment, affect and are affected by both the close and proximal contexts (Bronfenbrenner, 1979; Bronfenbrenner & Morris, 2006).

Ecological psychology (Bronfenbrenner, 1979) emphasizes that human development is influenced by the context in which it takes place. The results of the present study support the assumption that in order to understand the complex nature of the transition out of elite sport, researchers must look beyond the individual athlete and include the environment in their investigation (Stambulova et al., 2009; Stambulova & Ryba, 2013). The *ecological framework for studying the transition out of elite sport* underscores that the wider socio-historical context has an impact on the elite sports environment, and these distinguishing national settings influence elite athletes' career development, their transition out of sport, and their adaptation to the post-sport life.

Cultural psychology and cross-cultural psychology agree on the basic recommendation of cultural sensitivity, which implies that researchers should not neglect the cultural contexts in which their objects of investigation are embedded. In the present study, the cultural perspective was integrated from the very beginning. The ecological framework that guided this study is related to the *cultural praxis of athletes' careers* paradigm (Stambulova & Ryba, 2013), implying a holistic perspective in career research and assistance, which combines the perspective of the whole career, the whole person, and the whole environment approach (Wylleman et al., 2011). Hence, I tried to follow the recommendations proposed by Ryba et al. (2013) on culturally competent research and practice in sport and exercise psychology as follows: (a) I raised my own awareness and reflexivity about how research questions originate from the contexts that

participants live in; (b) I provided culturally specific meanings and definitions of key concepts; (c) I implemented research instruments that were understandable for the participants; and (d) I treated and interpreted the research results as embedded in their specific contexts and provided contextualized conclusions and practical implications.

Moreover, the cultural praxis of athletes' careers values an idiosyncratic approach and draws attention to diversity in career patterns and trajectories, which should be matched with relevant career services. This study clearly showed that athletes from different countries have access to different dual career services and follow diverse (dual) career trajectories. These diverse career patterns provide athletes with different educational levels and work experience for their transition out of elite sport and their future lives. As such, athletes' careers are more culturally situated than we often tend to acknowledge. As Ryba et al. (2013) pointed out:

Cultural praxis challenges culture-blind theories, research and practice, and the intention of a cultural praxis is to move the sport psychology field from decontextualized knowledge to a new way of thinking about athletes and coaches as being constituted by various discourses of the role of the national sport system. (p. 133)

The more specific *working model of factors contributing to the quality of the transition* (Figure 5) was developed to describe and explain the influence of potential resources and demands on the transition quality in a specific context. When empirically testing the model in the three contexts under study, the results in Paper 1 showed that the transition out of elite sport is a complex and multifaceted phenomenon, and that a variety of factors, including nationality and culture, contribute to the transition quality. Despite the model including most of the commonly assumed resources and barriers found in the literature for a successful transition (Park et al., 2013), it explained less than one-third of the variance in the outcome (i.e., the transition quality). Accordingly, there was a notable variation in the outcome that was not accounted for by the many predictors included in the model in every context. This might be explained by measurement error, which is more common in cross-national investigations, or by concepts (e.g., social support) that were too narrowly assessed. From a psychological perspective, however, it might be difficult to predict the quality of the transition more precisely, independent of the national context: Schlossberg (1981) emphasizes that every person – even under similar circumstances and pre-conditions – reacts differently to a transition. The working model could

accordingly be expanded with other personality concepts related to the transition, such as self-efficacy (Bandura, 1997) or different types of coping strategies (Lazarus & Folkman, 1984).

The *working model of factors contributing to the quality of the transition* illustrates the complexity of the transition out of sport and the interrelatedness of many factors that contribute to the transition quality. By dividing the factors into individual, situational, and environmental characteristics, the model provides a structure that facilitates understanding as to how athletes' individual characteristics and preconditions, their perception of the career end itself, and their private- and sporting support may influence the outcome of the transition. The results of the explorative approach in Paper 1 indicated that the factors categorized as individual characteristics (e.g., age, education, working experience, skills, athletic identity, popularity) showed more diversity across contexts in the way they contributed to a successful transition compared to the factors that were categorized as career-end characteristics (e.g., reasons for retirement, voluntariness, planning). Hence, it seems that the national context plays a crucial role by influencing athletes' pre-conditions for the transition and by placing different demands on athletes. On the other hand, the common tendencies of the influence of the career-end characteristics for a successful transition across countries indicated that these factors have a more generalizable effect on the transition quality across cultural contexts.

6.4. Methodological Reflections – Strengths and Limitations

This PhD study was a mixed-method research project that explored the transition out of elite sport through a combination of quantitative data from the perspectives of former athletes from Switzerland, Denmark, and Poland, and a qualitative approach that involved interviewing dual career experts and document analysis to provide a better understanding of the three contexts and the environments in which athletes' transition took place. The mixed-method approach enabled the answering of different kinds of research questions: the quantitative survey data with former athletes (Papers 1 and 3) provided possible answers to the questions about *what kind* of differences exist in transition patterns across Swiss, Danish, and Polish athletes, and *how strongly* factors contribute to the transition quality; whereas, the qualitative inquiry (Paper 2) tried to illuminate the elite sports environment from a cultural perspective and to provide probable reasons *why* these differences occurred. The qualitative investigation helped to enhance the contextual understanding of the transition out of elite sport, which was the main goal of this

thesis, and facilitated illustrating the results of the quantitative inquiry, referred to as “putting meat on the bone of ‘dry’ quantitative findings” (Bryman, 2012, p. 634).

The *ecological framework for studying the transition out of elite sport* that guided this research project invited an interdisciplinary approach between psychology and sociology, which facilitated a broad analytical view, providing the opportunity of operating at several analytical levels. Overall, the ecological framework served to translate the background theories into a manageable framework and provided a good basis for the comparative study. In order to investigate the continuities and changes of a person’s biopsychological characteristics in developmental research, Bronfenbrenner (1994) recommended being in the discovery mode, rather than in the verification mode, when investigating human development. Accordingly, research on athletes’ careers and transitions should have an exploratory rather than a confirmatory design, and athletes’ careers should be considered in their own cultural contexts and environments (Stambulova & Ryba, 2013). The present thesis tried to link the holistic ecological approach and the traditional individual and psychological approach to studying the transition out of elite sport within the same project. This led to the situation whereby several (background) theories and frameworks had to be combined, which might be seen as a limitation of the project because none of these theories or frameworks could be elaborated in sufficient depth and detail. However, the overarching framework, which is displayed in Figure 4, was helpful to answer the rather wide initial research questions stated in the introductory chapter; what is more, it also facilitated new insights and helped to broaden the understanding of the career transition out of elite sport in the three different national contexts.

Admittedly, it was ambitious and daring to conduct a cross-cultural comparison project that included both quantitative and qualitative data collection in Switzerland, Denmark, and Poland. Usually, local collaborating research teams conduct cross-cultural or cross-national research projects by collecting data in their own country and then comparing the data (Hantrais & Mangan, 1996). However, I considered it advantageous to steer the entire project, which involved developing the multi-language questionnaire, collecting the data by personally contacting each former athlete, cooperating with the co-authors of Papers 1, 2, and 3 (who are familiar with the national elite sports contexts studied) during the analysis, and the interpretation of the data.

My former role as a successful athlete opened many doors in all three elite sports systems and facilitated the data collection, which resulted in relatively large samples of former international top athletes from a variety of disciplines. Since accessing former elite athletes is not without difficulties (Jodai & Nogawa, 2012), the high response rate in the survey can be considered as one of the strengths of this study. My position for this research project was unique; firstly, because I have a close relationship to all three cultural contexts studied and, secondly, because I ended my own elite sports career in the same period as the athletes included in the study. Hence, I have first-hand experience of an elite athlete (dual) career and recent personal experience of the transition out of sport.

Applying a cultural praxis in sports psychology, Schinke, McGannon, Parham, and Lane (2012) propose self-reflexivity as a strategy to become highly aware of one's situatedness and, thus, to increase openness. Confronting oneself with one's own background, biases, and interests in a self-reflexive manner provides an opportunity to draw attention to dilemmas about how to express one's social position and identity without marginalizing another's culture and identity (Sparkes & Smith, 2014). Without a doubt, I was influenced by the culture and the elite sports system in Switzerland where I grew up and developed my sports career. Nevertheless, living in Denmark for the last five years and getting to know the local culture from an ethnographic insider perspective provided me with a more objective perspective towards my original cultural background. The comparative cross-cultural perspective certainly opened my eyes to the approaches and perspectives that are taken for granted in the Swiss context. 'Looking back' at the elite sports environment in which I grew up helped me to better understand my own athletic (dual) career and my own career path. Hence, for my own understanding, as well as for the ecological understanding of the career transition studied in this project, it was reasonable to apply a comparative research design as the features of the three contexts became more apparent when they were contrasted with each other.

This project has several limitations. Concerning the quantitative research design, a retrospective cross-sectional design was applied, asking former elite athletes about their life in sport, their transitional experience, and their adaptation to the post-sport life. The retrospective design might have caused a recall bias (Côté et al., 2005) and may have failed to capture the transition as a dynamic process (Schlossberg, 1981). As proposed by Stambulova et al. (2009), a possible way

to face these limitations could be by using a longitudinal research design following athletes in several stages during their transition process. What is more, the samples consisted of athletes who participated in a great variety of sports disciplines that differed substantially in their level of professionalization. Although only international elite athletes were included in the study, we still deal with a rather heterogeneous group within one country in terms of income generated through sport, public recognition, and educational level, and sometimes even within one sport. Nevertheless, general statements were made about ‘Swiss’, ‘Danish’, and ‘Polish’ athletes and these statements about the ‘typical athlete’ may not be true for all subgroups within one context.

Conceptualizing culture as an external entity and treating nationality as an independent variable bears the risk of objectifying culture (Ryba et al., 2010), which is a criticism already made by the researchers discussing their EPAR project (Stambulova et al., 2007). Applying a culturally-sensitive approach towards the transition out of elite sport (Stambulova & Alfermann, 2009), I intended to compensate for this shortcoming by describing each cultural context in detail to enable understanding of the constitutive dynamic between athletes’ psychological processes, their development, and the socio-cultural contexts under study (Bronfenbrenner, 1979). Furthermore, I applied a derived-etic approach (Berry, 1989) that, first, aimed to understand the culture from an emic and insider perspective before comparing these perspectives and constructs across the three cultural contexts under study.

Another limitation concerns the regression analyses that were calculated to investigate the factors contributing to a successful transition (Paper 1). The model contains 26 explanatory variables (predictors) to explain the outcome, which is the quality of the transition out of sport. Considering that the Danish and Polish samples consisted of fewer than 90 athletes, the ratio between the number of predictors and the number of sampled athletes are above the conventions for multiple regression models (Miles & Shevlin, 2001). As a consequence, the beta coefficients in the Danish and Polish models are not very stable and, thus, have to be interpreted with caution. Taking into account that measurement error is a problem both in ANOVA and in multiple regression, regression techniques are generally recommended for cross-cultural studies, as they are considered less sensitive to cultural bias than the comparison of means across samples taken from different contexts (Ember & Ember, 2009). It should be noted that differences between the mean values of athletes across countries could have simply occurred due to different cultural response styles (Harzing, 2006), or to subtle differences in the understanding

of the question and answer choices as they were posed in the different languages (Si & Lee, 2007). As proposed by Brislin (2000), drawing conclusions, especially regarding 'soft' variables measuring athletes' perceptions and attitudes, was done cautiously and context-related.

Some limitations are also connected to the qualitative research design. The interview partners were selected because of their positions within relevant organizations or institutions involved with athletes' dual careers in each country. Their accounts served for the cultural analysis of the attitudes and beliefs in Paper 2, which are embedded in each of the three national contexts. I am aware that their accounts were strongly influenced by their own personal backgrounds and experience (Sparkes & Smith, 2014); thus, the accounts of only four individuals per country provide a limited empirical foundation on which to make generalizations about the national attitude to dual career. However, the interviews were, foremost, conducted as expert interviews with the aim of gathering information about the practices and settings of the dual career environment in each country, and not as life-stories on part of the interviewees.

For this purpose, the interviewees tended to answer the questions on behalf of their organization/institution, and their accounts also involved the shared values that are embedded within this organization (i.e., the national elite sport governing bodies, sport federations, CAPs, and educational services for elite athletes in higher education). The interviewees could be understood as key players or cultural leaders (Schein, 2010) who have been involved in the dual career environment in Switzerland, Denmark, and Poland over the last few years. From an ecological perspective (Bronfenbrenner, 1979), it can be assumed that the interviewed experts both affect and are affected by their broader social environment. Thus, their beliefs and attitudes most likely influenced the direction in which dual programs were developed. During the interviews, it also became clear that there is an intense collaboration and exchange of ideas among the domestic actors (educational institutions, Olympic Associations, sport federations), which might also have fostered the national dual career culture in Switzerland, Denmark, and Poland highlighted in Paper 2. To interview additional stakeholders involved in dual careers, such as leaders of talented sports schools, coaches, or additional career counselors, would have undoubtedly provided a more comprehensive picture about the dual career practices that are common in each of the three countries. In an attempt to create and describe the related typical (dual) career trajectories of elite athletes in each country, I relied mainly on the causal relationships perceived by the interviewees, as well as on the interpretation of athletes' survey

data and the analyzed documents. However, this should not be considered simply as a weakness in design, but a natural consequence of the complexity of athletes' careers and transitions, and of the theoretical framework that guided the study.

This cross-cultural comparative project was conducted in three national contexts, which were characterized as contrasting cases (see Table 1) to illuminate the influence of the context on the studied phenomenon (i.e., transition out of elite sport). A methodological discussion point is the very status of the case study as a scientific method (Flyvbjerg, 2006), for example, whether general, theoretical, and context-independent knowledge is more valuable than concrete, practical, and context-dependent knowledge. Some researchers argue that the case study cannot contribute to scientific progress, because the detailed examination of a single example of a class of phenomena cannot provide reliable information about the broader class (e.g., Dogan & Pelassy, 1990). However, in this thesis, the transition out of elite sport was investigated across three purposefully selected cases (countries), questioning former athletes to detect common and country-specific transitional patterns. Key persons that are involved with elite athletes' careers were interviewed to elaborate on a general understanding of how culture influences athletes' developmental pathways, their transition out of elite sport, and their relocation to the post-sport life; this was not done in order to develop general, theoretical (context-independent) knowledge, but rather to understand the complex nature of the transition out of sport and its cultural embeddedness. Flyvbjerg (2006) argues that concrete, context-dependent knowledge is more valuable than the vain search for predictive theories and universals. This does not mean that the case study is always appropriate or relevant as a method, or that large samples are without value. Instead, as Patton (2015) proposes, purposeful case sampling focuses on gaining in-depth understanding from which readers can draw parallels to their own situation or circumstances, which is something that these specific samples allow. Comparing the transition out of sport across more than three national contexts might have helped to detect additional context-specific or generalizable patterns, but it would have narrowed the depth in which each case (i.e., the macro- and meso-dimensions of each country, including the sports systems, CAPs, and dual career settings) could have been explored, described and understood. Given the limited resources and time for this PhD project, a reasonable mix of methods and cases was chosen to answer the research questions.

Chapter 7: Applied Perspectives, Future Research, and Concluding Thoughts

In this closing chapter, I will first discuss the applied perspectives of the research project. The present thesis may inspire practitioners and policy makers to become aware of their own culture on several levels, and how they influence athletes' careers in their efforts to support and prepare athletes for their transition out of elite sport and their general life career. Following on, I will suggest directions for future research and, finally, provide my concluding thoughts.

7.1. Applied Perspectives

This section fulfills the tertiary purpose of this thesis, which is to provide guiding principles and practical implications that may stimulate the development of cultural competence (i.e., cultural awareness and cultural knowledge) in both elite sport practitioners (coaches, counselors, educators, and sports psychologists) and policy makers involved in dual career and elite sport, so that they can make reflexive, informed, and strategic choices regarding elite athletes' development and their relocation to the post-sport life.

The present thesis has important practical implications because it emphasizes the need to take culture into consideration on different levels in order to understand athletes' careers and transitions. This PhD project applied an ecological and holistic approach to studying the transition and showed that national culture has an influence on elite sports policy, dual career opportunities for athletes, and experts' beliefs/values working in the elite sports system. Furthermore, the national culture was shown to be influential in terms of athletes' perception of their athletic identity, their status in society, and their perception of their career end. Moreover, the holistic perspective showed that both athletic and non-athletic factors influence the adaptation to the post-sport life. Stambulova and Ryba (2013) share the following opinion about the combination of ecological and holistic (lifespan) perspectives in career research:

Merging the holistic lifespan and the ecological perspectives will lead us to a better understanding of athletes' career/transition experiences as constituted by relevant cultures and will facilitate not only individual career-assistance interventions but also ecological interventions aimed at optimizing athletes' career development environments. (p. 247)

The identification of common and country-specific transition patterns in elite Swiss, Danish, and Polish athletes enables us to give both practical implications that may be valid more generally for

athletes in transition out of elite sport across cultural contexts and borders, as well as context-specific recommendations that apply to the three specific countries investigated.

Athletes from Switzerland, Denmark, and Poland generally faced the greatest difficulties in their emotional and social adaptation after ending their elite sports career. Therefore, and as previously recommended by many other authors (e.g., Alfermann & Stambulova, 2007; Gordon et al., 2005; Reints & Wylleman, 2013; Surujlal, 2016), athletes need to be prepared for their transition, both by their sport (e.g., coaches, counselors, and sports psychologists) and private environments (e.g., partner, family, and friends). Athletes need to realize that because life will be different after ending the elite sports career, the nature of close personal relationships may also change and need to be worked at (Cockerill, 2005). As emphasized by Schlossberg (1981), any transition requires a corresponding change in one's behavior and relationships, and athletes need to be made aware of that so they can be better prepared for these changes. Furthermore, athletes need to understand that attaining personal satisfaction after leaving sport may take longer than expected. To be able to let go and be detached from the elite sports role during the transition will help former athletes to move on to the next stage of life.

The results of Paper 1 showed that a positive perception of the career-end situation is the strongest facilitator for a successful transition to the post-sport life. Hence, preparing and assisting athletes to see their career end (voluntarily or not) as a possible positive turnaround point in life, one that opens up new opportunities, will increase the chances that individual athletes cope better with the transitional demands. In addition, it is important to develop programs that are accessible and relevant to elite athletes; moreover, such programs should assist athletes to adjust to a less regimented lifestyle after retirement. Current programs, especially in Poland, seem to largely target elite athletes still competing, with little attention directed to recently retired athletes who find themselves in an 'in-between' social status (still perceived as an athlete yet trying to assume other social roles). This is a crucial time for continued intervention to influence the quality and development of an athlete into post-sport life, and prevent the difficulties associated with the transition (Smith & McManus, 2008).

The results of this project also revealed career and retirement patterns that are distinctive for Swiss, Danish, and Polish athletes. Swiss athletes experienced, in general, a positive transition out of elite sport and dealt with minor problems during the adaptation period. The findings

revealed that Swiss athletes achieve a lower educational level than their non-athlete peers of the same age. This seems not to have caused difficulties for the initial transition and the more immediate adaptation period (first few months) after ending the sports career, but it might influence former athletes' employment status and life quality in the long-term. The limited support from higher education institutes calls for action to provide a more institutionalized structure for elite athletes, so that a tertiary education is more compatible with an elite sports career. A similar need for action was already proposed in the Swiss report of the SPLISS study (Kempf et al., 2013). Furthermore, based on the accounts of the conducted interviews, the Swiss stakeholders involved in dual career are invited to challenge their beliefs and basic assumptions about how to support student-athletes, as some interviewees, in fact, expressed attitudes about the development of elite athletes that are in opposition to what dual career actually means (i.e., the successful *combination* of education, training or work with elite sport to enable an individual to reach his/her full potential in life). Other countries (e.g., the UK, Finland, and Australia) have shown that student-athletes enrolled in higher education win a high proportion of Olympic medals for their country (Knaus, 2012). As such, providing optimal conditions for dual career athletes in higher education may even help Switzerland to be more competitive in the international medal race (De Bosscher et al., 2015).

Danish athletes were, in general, very satisfied with their overall elite sports career and their transition out of sport, despite their reporting the highest social and emotional difficulties of all three samples. The Danish elite sports policy approach, which focuses on the development of the 'whole athlete' in a socially responsible way by providing (by law) educational opportunities for elite athletes at all stages of their career, seems to work out fine, as athletes coped well with their educational and vocational demands during their transition. Additionally, several programs have been established to support athletes in finding an occupation and to relocate to the post-sport career. However, these programs could be expanded with sport psychological assistance or mentoring services that emphasize the emotional and social adaptation connected with the transition out of elite sport, because this is the area in which Danish athletes expressed most difficulties during their adaptation period to the post-sport life. Such interventions should also include the athletes' private environment and raise athletes' awareness about their expectations of their relationships and future life careers.

According to the findings of this study, the greatest need for action was discovered in the Polish context, as Polish athletes experienced their career end and their transition rather negatively, and reported the most distress during the adaptation to the post-sport life. Additionally, Polish athletes reported significantly higher financial and vocational adaptation difficulties compared to the Swiss and Danish athletes. On the micro-level, coaches and sports psychologists should encourage athletes to explore roles other than their athletic one during the elite sports career. Furthermore, athletes could profit from psychological support in the transitional period that helps them to perceive the career end more as a gain rather than as a loss. Applying an empowerment approach, psychological counseling should help athletes to develop coping resources and strategies that allow them to become autonomous after psychological interventions as an alternative to making athletes dependent on consultants and their services (Wylleman et al., 2009). On the meso-level, Polish athletes could profit from a broader range of study options than the topics related to sport. Similar flexibility should be provided in a variety of other educational areas so that athletes can choose their studies based on their interests rather than the given (dictated) structure. Following an education that is not related to sport could also help athletes to balance their athletic role with other roles and provide them with a wider range of future job opportunities. Since many former Polish athletes struggled in their vocational adaptation and had problems finding a job, which resulted in financial difficulties, it is highly recommended that athlete career services be established in Poland in the near future. These services should include career planning, job placement opportunities, vocational and psychological counseling, and should be accessible to both active and retiring/retired elite athletes.

The findings of this PhD project reinforce that the transition out of elite sport can only be understood when taking into account athletes' whole career and whole person perspective (Wylleman & Lavallee, 2004; Wylleman et al., 2011), because many factors influence the successful transition out of elite sport. The specifically developed *working model of factors contributing to the quality of the transition* (Figure 5) may serve as a useful orientation tool for individual consultants (both educational and clinical), and also within CAPs to identify potential resources and barriers for individual athletes facing a variety of transitional demands. According to Stambulova (2012), the ethos of helping athletes to make their athletic career a part of and a

resource for their life career, and to prepare them well for athletic retirement, should be seen as the umbrella goal for career assistance. Therefore, and in line with the proposals of Stambulova and Wylleman (2014), this thesis advocates for the following principles of the athletes' career assistance professional culture:

- *A whole career approach* to help athletes cope with both normative and non-normative transitions throughout the whole course of an athletic career.
- *A whole person approach* to help them deal with transitions in various spheres of life.
- *A developmental approach* to help athletes link their past career experience, present situation, and their future plans.
- *A cultural-specific approach* to help athletes adjust within a particular sports system, society, and culture.
- *An individual approach* to accommodate the athletes' perceptions of the transition and their distinctive resources and barriers for the transition(s).
- *An activity-specific approach* to take into account not only common but also the type-of-sport-specific demands in each athletic transition.
- *A transferable skills approach* to teach athletes life skills that are applicable both in and outside sport and in the athletic and post-athletic career.

7.2. Future Research

Future research concerning the transition out of sport still has the major challenge of looking further into the relationship between the broader cultural context, the respective sports systems, and the athletes' transitional process and adaptation to the post-sport life. I have chosen three countries as contrasting cases that substantially differed in several macro- and meso-aspects to highlight the influence of the context on the transition. Based on the overarching framework that guided this thesis, some possible contextual explanations for the differences in the retirement pattern of Swiss, Danish, and Polish athletes could be found. However, because the three countries differed on several macro- and meso-dimensions (see Table 1), and because these dimensions are interrelated (Erez & Gati, 2004), it still leaves us partly speculating how macro- and meso-factors work as resources or barriers for athletes' transition out of elite sport. Therefore, to improve the understanding of the complex influence of the wider socio-cultural context on the transition, future cross-national studies about athletic retirement may profit from comparing national contexts that have adopted a similar dual career approach in higher education

(Aquilina & Henry, 2010), or countries that have certain similar cultural dimensions such as individualism, power distance, or masculinity (Hofstede et al., 2010).

Furthermore, CAPs could profit from a more systematic evaluation of the changing needs of high-performance athletes as they move out of sport and into another career. As Sinclair and Hackfort (2000) proposed, a needs-assessment is an organized and objective way of measuring athletes' opinions, attitudes, and behaviors relative to the transitional program. Such an assessment would focus on what athletes need and how they feel about these services, rather than on what they want. Hence, program evaluation is critical in determining which services are working well, why they are working well, and what can be done to improve the existing program. Since evaluation as a one-time effort is nonproductive (Sinclair & Hackfort, 2000), periodical evaluation of programs through database monitoring would permit drawing better conclusions about the effectiveness and efficiency of the existing CAPs.

Another challenge is to investigate the transition out of elite sport in a longitudinal design. The present study could not confirm that a higher educational degree is a resource for the transition and the adaptation process to the post-sport life – at least not for the athletes that had recently retired in Switzerland, Denmark, and Poland. Therefore, it would be interesting to follow a group of athletes that obtained a tertiary degree while active in elite sport before, during, and after their career end, and compare their adaptation process and progress with a group of athletes that did not study at a university; this could lead to a better understanding of the influence of educational levels on the adaptation process after the elite sports career, both with questionnaires and by interviewing athletes in different stages of their transitional and adaptational process.

Finally, both the current findings (Paper 3) and the previous literature (e.g., Park et al., 2012; Sinclair & Orlick, 1993) indicated that up to one-third of the athletes plan a comeback from retirement. Since the data from the current study was not sufficient to examine athletes' comeback, no possible explanations for these experiences and motivations could be provided. Sinclair and Orlick (1993) revealed that athletes who came back from their previous retirement showed more dissatisfaction when they experienced their next retirement, in terms of having feelings of failure from the previous adaptations to their post-sport lives. Because athletes' previous experiences are one of the major influential factors on athletes' career transitions (Gordon, 1995; Swain, 1991), it might be helpful to examine the reasons for these comebacks

and what pros and cons of re-entry to their athletic lives have been considered among such athletes.

7.3. Concluding Thoughts

This thesis aimed to extend the knowledge of athletes' career transition out of elite sport by identifying relevant resources and barriers that facilitate or hinder a successful transition in different socio-cultural context. Modified from Stambulova et al.'s (2007) framework, an adapted ecological and holistic framework for studying the transition out of elite sport has been proposed in this thesis, which facilitates understanding of the embeddedness of the transition in the broader socio-cultural context. The findings of this PhD project revealed that certain factors work as common resources or barriers across the three contexts, while others had a context-specific effect on the transition quality. Providing evidence to support the use of transitional models to help to predict and support athletes' transition out of elite sport advances the literature. In addition, by examining the elite sport contexts of Switzerland, Denmark, and Poland in more detail, the thesis combined empirical quantitative and qualitative material and, thus, contributed to a better understanding of how both the macro- (e.g., cultural dimensions, welfare system, and socio-economic situation) and meso-contexts (e.g., elite sports system, dual career environment, and career programs) influence athletes' career trajectories and their transition out of elite sport. Furthermore, by comparing the pre-conditions, the transitional period, and the outcomes of the transition across former Swiss, Danish, and Polish elite athletes, common and country-specific athletic retirement patterns could be identified. Based on these findings, both general as well as context-specific practical implications were suggested and some ideas for future research directions were provided.

Conducting meaningful, that is contextually and culturally informed, career research and providing a tailored approach to career assistance is a way to help athletes to find personal meanings in the lived experiences of their career in sport and life (Stambulova & Ryba, 2013). Considering the differences that this thesis identified concerning elite athletes' development, their career transitions, and the way that elite athletes are supported and assisted across different cultural contexts, I agree with Pawson and Tilley (1997), who suggested that many roads lead to Rome, but each nation has to find its own path that best fits its history, context, culture, and the here and now.

References

- Albion, M., & Fogarty, G. (2003). *Evaluation of the Athlete Career and Education Program, Phase 1 - 2003*. Centre for Organisational Research and Evaluation, University of Southern Queensland, Brisbane.
- Alfermann, D. (1995, July). *Career transitions of elite athletes: Drop-out and retirement*. Paper presented at the 9th European Congress of Sport Psychology, Brussels, Belgium.
- Alfermann, D. (2000). Causes and consequences of sport career termination. In D. Lavallee & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 45–58). Morgantown, WV: Fitness Information Technology.
- Alfermann, D., & Stambulova, N. (2007). Career transitions and career termination. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of Sport Psychology* (3rd ed., pp. 712–733). New York, NY: Wiley.
- Alfermann, D., Stambulova, N., & Zemaityte, A. (2004). Reactions to sport career termination: A cross-national comparison of German, Lithuanian, and Russian athletes. *Psychology of Sport and Exercise*, 5(1), 61–75. doi:[http://dx.doi.org/10.1016/s1469-0292\(02\)00050-x](http://dx.doi.org/10.1016/s1469-0292(02)00050-x)
- Amara, M., Aquilina, D., Henry, I., & PMP Consultants (2004). *Education of elite young sportspersons in Europe*. Brussels: European Commission: DG Education and Culture. Retrieved January 2017 from http://edz.bib.uni-mannheim.de/daten/edz-b/gdbk/04/pmp-study-dual-career_en.pdf
- Andersen, D., & Morris, T. (2000). Athlete lifestyle programs. In D. Lavallee & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 59–80). Morgantown, WV: Fitness Information Technology.
- Andersen, S. S., & Ronglan, L. T. (2012). Same ambitions-different tracks: A comparative perspective on Nordic elite sport. *Managing Leisure*, 17(2-3), 155–169. doi:<http://dx.doi.org/10.1080/13606719.2012.674392>
- Anshel, M. H., Williams, L. R. T., & Hodge, K. (1997). Cross-cultural and gender differences on coping style in sport. *International Journal of Sport Psychology*, 28(2), 141–156.
- Aquilina, D. (2013). A study of the relationship between elite athletes' educational development and sporting performance. *The International Journal of the History of Sport*, 30(4), 374–392. doi:<http://dx.doi.org/10.1080/09523367.2013.765723>
- Aquilina, D., & Henry, I. (2010). Elite athletes and university education in Europe: A review of policy and practice in higher education in the European Union Member States. *International Journal of Sport Policy*, 2(1), 25–47. doi:<http://dx.doi.org/10.1080/19406941003634024>
- Aquilina, D., & Henry, I. (2014). Promoting student-athletes interests in European elite sport systems. In I. Henry & L.-M. Ko (Eds.), *Routledge Handbook of Sport Policy* (pp. 225–240). Oxon: Routledge.
- Atchley, R. C. (1976). *The sociology of retirement*. Cambridge, MA: Schenkman.

References

- Baillie, P. H., & Danish, S. J. (1992). Understanding the career transition of athletes. *The Sport Psychologist*, 6, 77–98. doi:<https://doi.org/10.1123/tsp.6.1.77>
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Barker, D., Barker-Ruchti, N., Rynne, S., & Lee, J. (2014). Moving out of sports: A sociocultural examination of Olympic career transitions. *International Journal of Sports Science & Coaching*, 9(2), 255–270. doi:<https://doi.org/10.1260/1747-9541.9.2.255>
- Barrera, M., & Ainlay, S. L. (1983). The structure of social support: A conceptual and empirical analysis. *Journal of Community Psychology*, 11(2), 133–143. doi:[https://doi.org/10.1002/1520-6629\(198304\)11:2<133::aid-jcop2290110207>3.0.co;2-1](https://doi.org/10.1002/1520-6629(198304)11:2<133::aid-jcop2290110207>3.0.co;2-1)
- Berry, J. W. (1989). Imposed etics-emics-derived etics: The operationalization of a compelling idea. *International Journal of Psychology*, 24(6), 721–735. doi:<https://doi.org/10.1080/00207598908246808>
- Berry, J. W., & Triandis, H. C. (2004). Cross-cultural psychology, overview. In C. Spielberger (Ed.), *Encyclopedia of Applied Psychology* (pp. 527–538). New York, NY: Elsevier.
- Bhaskar, R. (1989). *Reclaiming reality*. London: Verso.
- Birnbaum, M. H. (2004). Human research and data collection via the internet. *Annual Review of Psychology*, 55, 803–832. doi:<https://doi.org/10.1146/annurev.psych.55.090902.141601>
- Blinde, E. M., & Greendorfer, S. L. (1985). A reconceptualization of the process of leaving the role of competitive athlete. *International Review for the Sociology of Sport*, 20(1-2), 87–94. doi:<https://doi.org/10.1177/101269028502000108>
- Blinde, E. M., & Stratta, T. M. (1992). The “sport career death” of college athletes: Involuntary and unanticipated sport exits. *Journal of Sport Behavior*, 15(1), 3–21.
- Bloom, B. (1985). *Developing talent in young people*. New York, NY: Ballentine.
- Bloom, G. A., Durand-Bush, N., Schinke, R. J., & Salmela, J. H. (1998). The importance of mentoring in the development of coaches and athletes. *International Journal of Sport Psychology*, 29(3), 267–281.
- Bolles, R. N. (1996). *What colour is your parachute? A practical manual for job-hunters and career-changers*. Berkley, CA: Ten Speed Press.
- Brettschneider, W. D. (1999). Risks and opportunities: Adolescents in top-level sport – growing up with the pressures of school and training. *European Physical Education Review*, 5(2), 121–133. doi:<https://doi.org/10.1177/1356336x990052004>
- Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules’ muscles or Achilles heel? *International Journal of Sport Psychology*, 24, 237–254.
- Brislin, R. (2000). *Understanding culture’s influence on behavior* (2nd ed.). Toronto: Earl McPeck.

References

- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge: Harvard University Press.
- Bronfenbrenner, U. (1994). Ecological models of human development. In T. Husen & T. N. Postlethwaite (Eds.), *International encyclopedia of education* (2nd ed., Vol. 3, pp. 1643–1647). Oxford, UK: Pergamon Press.
- Bronfenbrenner, U., & Morris, P. A. (2006) The bioecological model of human development. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology: Vol. 1. Theoretical models of human development* (6th ed., pp.793–828) New York: John Wiley.
- Bryman, A. (2012). *Social research methods* (4th ed.). Oxford: Oxford University Press.
- Caput-Jogunica, R., & Razbornik, S. (2009, June). The role of distance learning study for the Croatian top level athletes. In *Proceedings of the ITI 2009 31st Int. Conf. on Information Technology Interfaces, June 22-25, 2009, Cavtat, Croatia* (pp. 349–352).
- Cecić Erpič, S. (2001). Athletic identity and adjustment to sport career termination and to post-sport life. In A. Papaioannou & M. Goudas, & Y. Theodorakis (Eds.), *10th World congress of sport psychology: Programme and proceedings* (Vol. 5, pp. 164–166). Skiathos: Christodoulidi Publications.
- Cecić Erpič, S., Wylleman, P., & Zupančič, M. (2004). The effect of athletic and non-athletic factors on the sports career termination process. *Psychology of Sport and Exercise*, 5(1), 45–59. doi:[http://dx.doi.org/10.1016/s1469-0292\(02\)00046-8](http://dx.doi.org/10.1016/s1469-0292(02)00046-8)
- Christensen, M. K. (2013). Outlining a typology of sports coaching careers: paradigmatic trajectories and ideal career types among high-performance sports coaches. *Sports Coaching Review*, 2(2), 98–113. doi:<http://dx.doi.org/10.1080/21640629.2014.898826>
- Christensen, M. K., & Sørensen, J. K. (2009). Sport or school? Dreams and dilemmas for talented young Danish football players. *European Physical Education Review*, 15(1), 115–133. doi:[10.1177/1356336X09105214](http://dx.doi.org/10.1177/1356336X09105214)
- Coakley, J. J. (1983). Leaving competitive sport: retirement or rebirth? *Quest*, 35(1), 1–11. doi:<http://dx.doi.org/10.1080/00336297.1983.10483777>
- Cockerill, I. M. (2005). They think it's all over, but it may not be! *British Journal of Sports Medicine*, 39(12), 880–883. doi:[10.1136/bjism.2004.016642](http://dx.doi.org/10.1136/bjism.2004.016642)
- Conzelmann, A., & Nagel, S. (2003). Professional careers of the German Olympic athletes. *International Review for the Sociology of Sport*, 38(3), 259–280. doi:<http://dx.doi.org/10.1177/10126902030383001>
- Cosh, S., Crabb, S., & Tully, P. J. (2015). A champion out of the pool? A discursive exploration of two Australian Olympic swimmers' transition from elite sport to retirement. *Psychology of Sport and Exercise*, 19(11), 33–41. doi:<https://doi.org/10.1016/j.psychsport.2015.02.006>

References

- Cosh, S., & Tully, P. J. (2014). "All I have to do is pass": A discursive analysis of student athletes' talk about prioritising sport to the detriment of education to overcome stressors encountered in combining elite sport and tertiary education. *Psychology of Sport and Exercise, 15*(2), 180–189. doi:<https://doi.org/10.1016/j.psychsport.2013.10.015>
- Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport Psychologist, 13*(4), 395–417. doi:<https://doi.org/10.1123/tsp.13.4.395>
- Côté, J., Ericsson, K. A., & Law, M. P. (2005). Tracing the development of athletes using retrospective interview methods: A proposed interview and validation procedure for reported information. *Journal of Applied Sport Psychology, 17*(1), 1–19. doi:<http://dx.doi.org/10.1080/10413200590907531>
- Crook, J. M., & Robertson, S. E. (1991). Transitions out of elite sport. *International Journal of Sport Psychology, (22)*, 115–127.
- Curtis, J., & Ennis, R. (1988). Negative consequences of leaving competitive sport? Comparative findings for former elite-level hockey players. *Sociology of Sport Journal, 5*(2), 87–106. doi:<https://doi.org/10.1123/ssj.5.2.87>
- Danish, S. J., Petitpas, A. J., & Hale, B. C. (1992). A developmental-educational intervention model of sport psychology. *The Sport Psychologist, 6*(4), 403–415. doi:<https://doi.org/10.1123/tsp.6.4.403>
- Danish, S. J., Petitpas, A. J., & Hale, B. D. (1993). Life development intervention for athletes life skills through sports. *The Counseling Psychologist, 21*(3), 352–385. doi:<https://doi.org/10.1177/0011000093213002>
- De Bosscher, V., Bingham, J. & Shibli, S. (2008). *The global sporting arms race: An international comparative study on sports policy factors leading to international sporting success*. Aachen: Meyer & Meyer.
- De Bosscher, V., De Knop, P., & Vertonghen, J. (2016). A multidimensional approach to evaluate the policy effectiveness of elite sport schools in Flanders. *Sport in Society, 19*(10), 1596–1621. doi:<https://doi.org/10.1080/17430437.2016.1159196>
- De Bosscher, V., Shibli, S., Westerbeek, H., & van Bottenburg, M. (2015). *Successful elite sport policies: An international comparison of the Sport Policy factors Leading to International Sporting Success (SPLISS 2.0.) in 15 nations*. Maidenhead: Meyer & Meyer Sport.
- De Knop, P., Wylleman, P., Van Hoecke, J., De Martalaer, K., & Bollaert, L. (1999). Sports management– A European approach to the management of the combination of academics and elite-level sport. In S. Bailey (Ed.), *Perspectives - The interdisciplinary series of physical education and sport science: School sports and competition* (Vol. 1, pp. 49–62). Oxford: Meyer & Meyer Sports.
- De Subijana, C. L., Barriopedro, M., & Conde, E. (2015). Supporting dual career in Spain: Elite athletes' barriers to study. *Psychology of Sport and Exercise, 21*(11), 57–64. doi:<https://doi.org/10.1016/j.psychsport.2015.04.012>

References

- Dewenter, R., & Giessing, L. (2014). *The effects of elite sports on later job success*. DICE Discussion Paper 172, Düsseldorf Institute for Competition Economics (DICE), University of Düsseldorf. Retrieved January 2017 from <https://www.deutsche-digitale-bibliothek.de/binary/DR7LRZ2XL2SWLXEUU7M7WCCYTGXL2SKF/full/1.pdf>
- Digel, H. (2005). Comparison of successful sport systems. *New Studies in Athletics*, 20(2), 7–18.
- Dillman, D. A., Smith J. D., & Christian L. M. (2008). *Internet, mail, and mixed-mode surveys: The tailored design method* (3rd ed.). Hoboken; NJ: Wiley.
- Dimoula, F., Torregrosa, M., Psychountaki, M., & Fernandez, M. D. G. (2013). Retiring from elite sports in Greece and Spain. *The Spanish Journal of Psychology*, 16, 1–11. doi:<https://doi.org/10.1017/sjp.2013.18>
- Dogan, M., & Pelassy, D. (1990). *How to compare nations: Strategies in comparative politics* (2nd ed.). Chatham, UK: Chatham House.
- Dorfman, P. W. (1996). International and cross-cultural leadership research. In B. J. Punnet & O. Shenkar (Eds.), *Handbook for international management research* (pp. 267–349). Oxford: Blackwell.
- Duda, J. L., & Allison, M. T. (1990). Cross-cultural analysis in exercise and sport psychology: A void in the field. *Journal of Sport & Exercise Psychology*, 12, 114–131. doi:<https://doi.org/10.1123/jsep.12.2.114>
- Dunleavy, P. (2003). *How to write a PhD*. New York, NY: Palgrave MacMillan.
- Durand-Bush, N., & Salmela, J. H. (2001). The development of talent in sport. In G. Tenenbaum & R. C. Eklund (Eds.), *Handbook of sport psychology* (Vol. 2, pp. 269–289). New York, NY: Wiley.
- Easton, G. (2010). Critical realism in case study research. *Industrial Marketing Management*, 39(1), 118–128. doi:[10.1016/j.indmarman.2008.06.004](https://doi.org/10.1016/j.indmarman.2008.06.004)
- Ember, C. R., & Ember, M. (2009). *Cross-cultural research methods* (2nd ed.). Plymouth: AltaMira Press.
- Emrich, E., Fröhlich, M., Klein, M., & Pitsch, W. (2009). Evaluation of the elite schools of sport: Empirical findings from an individual and collective point of view. *International Review for the Sociology of Sport*, 44(2-3), 151–171. doi:<https://doi.org/10.1177/1012690209104797>
- Engel, R. (2014). *Laufbahnen von ehemaligen Schweizer Nachwuchs-Elite-Athleten unter dem Aspekt des Erfolgs [Trajectories of former Swiss junior-elite athletes under the aspect of the success]* (Unpublished doctoral dissertation). University of Bern, Switzerland. Retrieved January 2017 from http://www.zb.unibe.ch/download/eldiss/14engel_r.pdf
- Erez, M., & Gati, E. (2004). A dynamic, multi-level model of culture: From the micro level of the individual to the macro level of a global culture. *Applied Psychology: An International Review*, 53(4), 583–598. doi:<https://doi.org/10.1111/j.1464-0597.2004.00190.x>
- Ericsson, K. A. (1996). *The road to excellence: The acquisition of expert performance in the arts and sciences, sports and games*. Mahwah, NJ: Erlbaum.

References

- Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Princeton, NJ: Princeton University Press.
- EU Expert Group (2012). *EU guidelines on dual careers of athletes: Recommended policy actions in support of dual careers in high-performance sport*. Brussels: European Commission Sport. Retrieved January 2017 from http://ec.europa.eu/sport/library/documents/dual-career-guidelines-final_en.pdf
- EU Expert Group (2016). *Study on the minimum quality requirements for dual career services*. Brussels: European Commission Sport. Retrieved January 2017 from <http://www.sportknowhowxl.nl/files/2016/DualCareer.pdf>
- Fenger, H. J. M. (2007). Welfare regimes in Central and Eastern Europe: Incorporating post-communist countries in a welfare regime typology. *Contemporary Issues and Ideas in Social Sciences*, 3(2), 1–30.
- Fernandez, A., Stephan, Y., & Fouquereau, E. (2006). Assessing reasons for sports career termination: Development of the Athletes' Retirement Decision Inventory (ARDI). *Psychology of Sport and Exercise*, 7(4), 407–421. doi:<http://dx.doi.org/10.1016/j.psychsport.2005.11.001>
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Thousand Oaks, CA: Sage.
- Fleuriel, S., & Vincent, J. (2009). The quest for a successful career change among elite athletes in France: A case study of a French rugby player. *Leisure Studies*, 28(2), 173–188. doi:<https://doi.org/10.1080/02614360902774589>
- Flyvbjerg, B. (2006). Five misunderstandings about case-study research. *Qualitative Inquiry*, 12(2), 219–245. doi:<https://doi.org/10.4135/9781473915480.n40>
- Fogarty, G. J., & McGregor-Bayne, H. (2008). Factors that influence career decision-making among elite athletes. *Australian Journal of Career Development*, 17(3), 26–38. doi:<https://doi.org/10.1177/103841620801700306>
- Fortunato, V., Marchant, D. (1999). Forced retirement from elite football in Australia. *Journal of Personal and Interpersonal loss*, 4, 269–280.
- Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of Counseling Psychology*, 43(4), 510–526.
- Giannone, Z. A. (2016). *Life after sport: The relationship between athletic identity and mental health outcomes after sport retirement* (Unpublished doctoral dissertation). University of British Columbia, Vancouver, Canada. Retrieved January 2017 from <https://open.library.ubc.ca/cIRcle/collections/ubctheses/24/items/1.0223581>
- Gilmore, O. (2008). *Leaving competitive sport: Scottish female athletes' experiences of sport career transitions* (Unpublished doctoral dissertation). University of Stirling, Scotland. Retrieved January 2017 from <http://dspace.stir.ac.uk/handle/1893/496>

References

- Gledhill, A., & Harwood, C. (2015). A holistic perspective on career development in UK female soccer players: A negative case analysis. *Psychology of Sport and Exercise, 21*(11), 65–77. doi:
<https://doi.org/10.1016/j.psychsport.2015.04.003>
- Gläser, J., & Laudel, G. (2010). *Experteninterviews und qualitative Inhaltsanalyse [Expert interviews and qualitative content analysis]*. Wiesbaden: VS Verlag.
- Goddard, M. (2004). *An assessment of the effectiveness of the CHAMPS/Life Skills program at the University of North Texas: A pilot study* (Doctoral dissertation). University of Northern Texas, USA. Available from ProQuest Dissertations and Theses Database. (ProQuest document ID:765816191)
- Gordon, S. (1995). Career transitions in competitive sport. In T. Morris & J. Summers (Eds.), *Sport psychology: Theory, applications and issues* (pp. 474–501). Brisbane: Wiley.
- Gordon, S., & Lavalley, D. (2004). Career transitions in competitive sport. In T. Morris & J. Summers (Eds.), *Sport psychology: Theory, applications and issues* (2nd ed., pp. 584–610). Milton: Wiley.
- Gordon, S., Lavalley, D., & Grove, J. R. (2005). Career assistance program interventions in sport. In D. Hackfort, J. Duda, & R. Lidor (Eds.), *Handbook of research in applied sport and exercise psychology: International perspectives* (pp. 233–244). Morgantown, WV: Fitness Information Technology .
- Gosling, S. D., Vazire, S., Srivastava, S., & John, O. P. (2004). Should we trust web-based studies? A comparative analysis of six preceptions about internet questionnaires. *American Psychologist, 59*(2), 93. doi:<https://doi.org/10.1037/0003-066x.59.2.93>
- Gould, D., & Carson, S. (2008). Life skills development through sport: Current status and future directions. *International Review of Sport and Exercise Psychology, 1*(1), 58–78. doi:<https://doi.org/10.1080/17509840701834573>
- Greenfield, P. M., & Keller, H. (2004). Cultural Psychology. In C. Spielberger (Ed.), *Encyclopedia of applied psychology*. (Vol. 1, pp. 545–553). New York, NY: Elsevier.
- Grove, J. R., Lavalley, D. & Gordon, S. (1997). Coping with retirement from sport: The influence of athletic identity. *Journal of Applied Sport Psychology, 9*(2), 191–203. doi:<http://dx.doi.org/10.1080/10413209708406481>
- Grove, J. R., Lavalley, D., Gordon, S. & Harvey, J. H. (1998). Account-making: A model for understanding and resolving distressful reactions to retirement from sport. *The Sport Psychologist, 12*(1), 52–67. doi:<https://doi.org/10.1123/tsp.12.1.52>
- Guidotti, F., Cortis, C., & Capranica, L. (2015). Dual career of European student-athletes: A systematic literature review. *Kinesiologia Slovenica, 21*(3), 5–20.
- Hackfort, D., Emrich, E., & Papathanassiou, V. (1997). *Nachsportliche Karriereverläufe [Athletic post-career trajectories]*. Schorndorf: Hofmann.

References

- Hackfort, D., & Huang, Z. (2005). Considerations for research on career counseling and career transition. In D. Hackfort, J. Duda, & R. Lidor (Eds.), *Handbook of research in applied sport and exercise psychology: International perspectives* (pp. 245-255). Morgantown, WV: Fitness Information Technology.
- Haerle, R. K. (1975). Career patterns and career contingencies of professional baseball players: An occupational analysis. In D. W. Ball & J. W. Loy (Eds.), *Sport and Social Order* (pp. 461-519). Reading, MA: Addison-Wesley.
- Hansen, J. (2012). The institutionalization of Team Denmark. In S. S. Andersen & L. T. Ronglan (Eds.), *Nordic elite sport: Same ambitions - different tracks* (pp. 43-61). Oslo: Universitetsforlaget.
- Hantrais, L., & Mangan, S. (1996). *Cross-national research methods in the social sciences*. London: Pinter.
- Harzing, A.W. (2006). Response styles in cross-national survey research: A 26-country study. *International Journal of Cross Cultural Management*, 6(2), 243-266. doi:<https://doi.org/10.1177/1470595806066332>
- Hawkins, K., Blann, W., Zaichkowsky, L., & Kane, M. A. (1994). *Athlete/coach career development and transition: Coaches report*. Cranberra: National Sports Research Centre. Retrieved January 2017 from https://www.clearinghouseforsport.gov.au/__data/assets/pdf_file/0011/199505/HK1996.pdf
- Hedal, M. (2006). *Sport på dansk tv [Sport on Danish TV]*. Copenhagen: Danish Institute for Sports Studies. Retrieved January 2017 from <http://www.idan.dk/vidensbank/udgivelser/sport-paa-dansk-tv-en-analyse-af-samspillet-mellem-sport-og-dansk-tv-19932005/b748eb95-c831-4c0b-b946-989100c47191>
- Heft, H. (2013). Environment, cognition, and culture: Reconsidering the cognitive map. *Journal of Environmental Psychology*, 33, 14-25. doi:<https://doi.org/10.1016/j.jenvp.2012.09.002>
- Hemmatinezhad, M., Benar, N., Hashemi, M., & Moemeni, S. (2013). The causes of career termination from sport and their relationship to post-retirement difficult among professional athletes in Iran. *International Journal of Sport Studies*, 3(1), 111-116.
- Henriksen, K., Larsen, C. H., & Christensen, M. K. (2014). Looking at success from its opposite pole: The case of a talent development golf environment in Denmark. *International Journal of Sport and Exercise Psychology*, 12(2), 134-149. doi:<https://doi.org/10.1080/1612197x.2013.853473>
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2010a). Holistic approach to athletic talent development environments: A successful sailing milieu. *Psychology of Sport and Exercise*, 11(3), 212-222. doi:<https://doi.org/10.1016/j.psychsport.2009.10.005>
- Henriksen, K., Stambulova, N., & Roessler, K. K. (2010b). Successful talent development in track and field: Considering the role of environment. *Scandinavian Journal of Medicine & Science in Sports*, 20(2), 122-132.

References

- Henry, I. (2010). *Elite athletes and higher education: Lifestyle, balance and the management of sporting and educational performance*. Paper written in the framework of the IOC's Postgraduate Grant Selection Committee (2010) meeting. Retrieved January 2017 from https://doc.rero.ch/record/22126/files/2010_-_Henry.pdf.
- Hofstede, G. (1981). Culture and organizations. *International Studies of Management & Organization*, 10(4), 15–41.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind. Intercultural cooperation and its importance for survival* (3rd ed.). New York, NY: McGraw-Hill.
- Houlihan, B. (2009). Mechanisms of international influence on domestic elite sport policy. *International Journal of Sport Policy*, 1(1), 51–69. <https://doi.org/10.1080/19406940902739090>
- Houlihan, B., & Green, M. (2008). *Comparative elite sport development: Systems, structures and public policy*. Oxford: Butterworth-Heinemann .
- House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A., Dorfman, P. W., Javidan, M., Dickson, M., & Gupta, V. (1999). Cultural influences on leadership and organizations: Project GLOBE. *Advances in Global Leadership*, 1(2), 171–233.
- Jodai, K., & Nogawa, H. (2012). A study on professional athlete career transition: An overview of the literature. *Football Science*, 9, 50–61.
- Jones, M. (2007 June). *Hofstede - culturally questionable?* Paper presented at the Oxford Business & Economics Conference. Oxford. Retrieved January 2017 from <http://ro.uow.edu.au/cgi/viewcontent.cgi?article=1389&context=commpapers>
- Jones, M. I., & Lavalley, D. (2009). Exploring the life skills needs of British adolescent athletes. *Psychology of Sport and Exercise*, 10(1), 159–167. doi:<https://doi.org/10.1016/j.psychsport.2008.06.005>
- Jonker, L., Elferink-Gemser, M. T., & Visscher, C. (2009). Talented athletes and academic achievements: A comparison over 14 years. *High Ability Studies*, 20(1), 55–64.
- Kadlcik, J., & Flemr, L. (2008). Athletic career termination model in the Czech Republic. *International Review for the Sociology of Sport*, 43(3), 251–269. doi:<https://doi.org/10.1177/1012690208098544>
- Kane, M. A. (1991). *The metagonic transition: A study of career transition, marital stress and identity transformation in former professional athletes* (Unpublished doctoral dissertation). Boston University, USA. Retrieved January 2017 from ProQuest Dissertations and Theses Database (ProQuest document ID: 746446081).
- Kempf, H., Weber, A. C., Renaud, A. & Stopper, M. (2013). *Der Leistungssport in der Schweiz: Momentaufnahme SPLISS-CH 2011 [Elite sport in Switzerland: Snapshot SPLISS-CH 2011]*. Magglingen: Bundesamt für Sport. Retrieved January 2017 from http://www.baspo.admin.ch/content/baspo-internet/de/dokumentation/publikationen/leistungssport-schweiz/_jcr_content/contentPar/downloadlist/downloadItems/696_1464357049405.download/der_leistungssport_in_der_schweiz_momentaufnahme_d.pdf

References

- Kerr, G., & Dacyshyn, A. (2000). The retirement experiences of elite, female gymnasts. *Journal of Applied Sport Psychology, 12*(2), 115–133. doi:<https://doi.org/10.1080/10413200008404218>
- Knapp, D. (2012). *Performance of student-athletes at Olympic Games*. Report made by the Australian University Sport. Retrieved January 2017 from http://www.unirooms.com.au/images/Performance_of_student-athletes_at_Olympic_Games.pdf
- Knights, S., Sherry, E., & Ruddock-Hudson, M. (2016). Investigating elite end-of-athletic-career transition: A systematic review. *Journal of Applied Sport Psychology, 1*–18. doi:<https://doi.org/10.1080/10413200.2015.1128992>
- Koukouris, K. (1991). Quantitative aspects of the disengagement process of advanced and elite Greek male athletes from organized competitive sport. *Journal of Sport Behavior, 14*(4), 227–246. doi:<https://doi.org/10.1177/101269029102600405>
- Krebs, R. J. (2009). Bronfenbrenner’s Bioecological Theory of Human Development and the process of development of sports talent. *International Journal of Sport Psychology, 40*(1), 108–135.
- Kucharska, A., & Klopot, S. W. (2013). Life after a sports career: The case of polish ex-fencers. *Physical Culture and Sport. Studies and Research, 58*(1), 61–75. doi:10.2478/pcssr-2013-0015
- Kvale, S. (2007). *Doing interviews*. London: Sage.
- Kübler-Ross, E. (1969). *On death and dying*. New York, NY: MacMilan.
- Lally, P. (2007). Identity and athletic retirement: A prospective study. *Psychology of Sport and Exercise, 8*(1), 85–99. doi:<http://dx.doi.org/10.1016/j.psychsport.2006.03.003>
- Lamprecht, M., Fischer, A. & Stamm, H. (2014). *Sport Schweiz 2014: Sportaktivität und Sportinteresse der Schweizer Bevölkerung [Sport activities and sport interest of the Swiss population in 2014]*. Magglingen: Bundesamt für Sport. Retrieved January 2017 from http://www.sportobs.ch/fileadmin/sportobs-dateien/Downloads/Sport_Schweiz_2014_d.pdf
- Larsen, C. H. (2013). “Made in Denmark” *Ecological perspectives on applied sport psychology and talent development in Danish professional football* (Unpublished doctoral dissertation). University of Southern Denmark, Odense, Denmark. Retrieved January 2017 from <http://www.google.dk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0ahUKEwia1tf-ufPQAWhW2SwKHWLDBAAQFggcMAA&url=http%3A%2F%2Fwww.teamdanmark.dk%2F~%2Fmedia%2FFiles%2FPhD%2520Carsten%2520Hvid%2520Larsen%25202013.pdf&usg=AFQjCNF-dzrCfOILjUtSaLcKHVNF7arB7w&sig2=kCBVEKpXf9AsAQ9OaR01Nw>
- Laub, T. B., Storm, R. K., Jorgensen, L. T. & Holskov, U. (2013). *Team Danmark tilfredshedundersogelse 2013. [Team Denmark customer service inquiry 2013]*. Retrieved January 2017 from <http://www.idan.dk/vidensbank/downloads/team-danmark-tilfredshedsundersogelse-2013-baggrundsrapport/a98a1646-89d9-4490-ac6a-a2bb00c2ec46>.
- Lavallee, D. (2000). Theoretical perspectives on career transitions in sport. In D. Lavallee & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 1–28). Morgantown, WV: Fitness Information Technology.

References

- Lavallee, D. (2005). The effect of a life development intervention on sports career transition adjustment. *The Sport Psychologist, 19*(2), 193–202. doi:<https://doi.org/10.1123/tsp.19.2.193>
- Lavallee, D., Nesti, M., Borkoles, E., Cockerill, I., & Edge, A. (2000). Intervention strategies for athletes in transition. In D. Lavallee & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 111–130). Morgantown, WV: Fitness Information Technology.
- Lavallee, D., & Robinson, H. K. (2007). In pursuit of an identity: A qualitative exploration of retirement from women's artistic gymnastics. *Psychology of Sport and Exercise, 8*(1), 119–141. doi:<https://doi.org/10.1016/j.psychsport.2006.05.003>
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- Lerch, S. H. (1982). Athletic retirement as social death: An overview. In N. Therberge & P. Donnelly (Eds.), *Sport and the sociological imagination* (pp. 259–272). Fort Worth, TX : Christian University Press.
- Leung, M., Carre, A., & Fu, F. H. (2005). Retirement rationale for Chinese female elite athletes. *International Journal of Eastern Sport and Physical Education, 3*(1), 87–94.
- Marthinus, J. M. (2007). *Psychological effects of retirement on elite athletes* (Unpublished doctoral dissertation. Stellenbosch University, Stellenbosch, South Africa. Retrieved January 2017 from https://www.google.dk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0ahUKEwiP2tCEu_PQAhVMkywKHXruDc8QFggsMAE&url=https%3A%2F%2Fscholar.sun.ac.za%2Fbitstream%2Fhandle%2F10019.1%2F1133%2FMarthin.pdf%3Fsequence%3D1&usg=AFQjCNFD0v0qbMarYAzV8MypoAYCrRoShw&sig2=MJxXBf_fHDo3852S7Wt-FQ
- Martin, L. A., Fogarty, G. J., & Albion, M. J. (2014). Changes in athletic identity and life satisfaction of elite athletes as a function of retirement status. *Journal of Applied Sport Psychology, 26*(1), 96–110. doi:<https://doi.org/10.1080/10413200.2013.798371>
- Mateos, M., Torregrosa, M., & Cruz, J. (2010). Evaluation of a career assistance programme for elite athletes: Satisfaction levels and exploration of career decision making and athletic-identity. *Kinesiology Slovenica, 16*(1-2), 30–43.
- Maxwell, J. A. (2012). *Qualitative research design: An interactive approach* (3rd ed.) London: Sage.
- Mayocchi, L., & Hanrahan, S. J. (2000). Transferable skills for career change. In D. Lavallee & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 95–110). Morgantown, WV: Fitness Information Technology.
- McKnight, K., Bernes, K., Gunn, T., Chorney, D., Orr, D., & Bardick, A. (2009). Life after sport: Athletic career transition and transferable skills. *Journal of Excellence, 13*, 63–77.
- McPherson, B. D. (1980). Retirement from professional sport: The process and problems of occupational and psychological adjustment. *Sociological Symposium, 30*, 126–143.
- McPherson, B. D. (1984). Sport participation across the life cycle: A review of the literature and suggestions for future research. *Sociology of Sport Journal, 1*(3), 213–230.

References

- Metsä-Tokila, T. (2002). Combining competitive sports and education: How top-level sport became part of the school system in the Soviet Union, Sweden and Finland. *European Physical Education Review*, 8(3), 196–206. doi:<https://doi.org/10.1177/1356336x020083002>
- Mihovilovic, M. A. (1968). The status of former sportsmen. *International Review for the Sociology of Sport*, 3(1), 73–96. doi:<https://doi.org/10.1177/101269026800300105>
- Miles, J. N. V. & Shevlin, M. (2001). *Applying regression and correlation: A guide for students and researchers*. London: Sage.
- Moesch, K. (2012). Reasons for career termination in Danish elite athletes: Investigating gender differences and the time-point as potential correlates. *Sport Science Review*, 21(5-6), 49–68. doi:<https://doi.org/10.2478/v10237-012-0018-2>
- Nagel, S. (2002). *Medaillen im Sport-Erfolg im Beruf?: Berufskarrieren von Hochleistungssportlerinnen und Hochleistungssportlern [Medals in sport-success in business?: Occupational careers of high performance athletes]*. Schorndorf: Hofmann.
- Naul, R. (1994). The elite athlete career: Sport pedagogy must counsel social and professional problems in life development. In D. Hackfort (Ed.), *Psycho-social issues and interventions in elite sport* (pp. 237–258). Frankfurt: Lang.
- Nesti, M. (2004). *Existential psychology and sport: Theory and application*. New York, NY: Routledge.
- North, J., & Lavalley, D. (2004). An investigation of potential users of career transition services in the United Kingdom. *Psychology of Sport and Exercise*, 5(1), 77–84. doi:[https://doi.org/10.1016/s1469-0292\(02\)00051-1](https://doi.org/10.1016/s1469-0292(02)00051-1)
- OECD (2014a). *Gross domestic product (GDP) 2014*. Retrieved January 2017 from <https://data.oecd.org/gdp/gross-domestic-product-gdp.htm> doi: 10.1787/dc2f7aec-en
- OECD (2014b). *Unemployment rate 2014*. Retrieved January 2017 from <https://data.oecd.org/unemp/unemployment-rate.htm> doi: 10.1787/997c8750-en
- OECD (2016). *Better life index*. Retrieved January 2017 from <http://www.oecdbetterlifeindex.org/topics/life-satisfaction/>
- Pallarés, S., Azócar, F., Torregrosa, M., Selva, C. & Ramis, Y. (2011). Modelos de trayectoria deportiva en waterpolo y su implicación en la transición hacia una carrera profesional alternativa [Athletic Career Models in Water Polo and their Involvement in the Transition to an Alternative Career]. *Cultura, Ciencia Y Deporte*, (6), 93–103. doi:<http://dx.doi.org/10.12800/ccd.v6i17.36>
- Park, S., & Lavalley, D. (2015). Roles and influences of Olympic athletes' entourages in athletes' preparation for career transition out of sport. *Sport and Exercise Psychology Review*, 11(1), 3–19.
- Park, S., Lavalley, D., & Tod, D. (2013). Athletes' career transition out of sport: A systematic review. *International Review of Sport and Exercise Psychology*, 6(1), 22–53. doi:<https://doi.org/10.1080/1750984x.2012.687053>

References

- Park, S., Tod, D., & Lavallee, D. (2012). Exploring the retirement from sport decision-making process based on the transtheoretical model. *Psychology of Sport and Exercise, 13*(4), 444–453. doi:<https://doi.org/10.1016/j.psychsport.2012.02.003>
- Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological Assessment, 5*(5), 164–172. doi:<https://doi.org/10.1037//1040-3590.5.2.164>
- Pawson, R., & Tilley, N. (1997). *Realistic evaluation*. London: Sage.
- Pearson, R. E., & Petitpas, A. J. (1990). Transitions of athletes: Developmental and preventive perspectives. *Journal of Counseling & Development, 69*(1), 7–10. doi:<https://doi.org/10.1002/j.1556-6676.1990.tb01445.x>
- Pentagon Research (2014). *Sport Barometr (unpublished report)*. Wroclaw, Poland.
- Petitpas, A. J., Danish, S., McKelvain, R., & Murphy, S. (1992). A career assistance program for elite athletes. *Journal of Counseling & Development, 70*(3), 383–386. doi:<https://doi.org/10.1002/j.1556-6676.1992.tb01620.x>
- Petitpas, A. J., Raalte, J. L. V., Cornelius, A. E., & Presbrey, J. (2004). A life skills development program for high school student-athletes. *Journal of Primary Prevention, 24*(3), 325–334. doi:<https://doi.org/10.1023/b:jopp.0000018053.94080.f3>
- Petry, K., Steinbach, D., & Tokarski, W. (2004). Sport systems in the countries of the European Union. Similarities and differences. *European Journal for Sport and Society, 1*(1), 15–21.
- Piaget, J. (1971). *Biology and knowledge: An essay on the relations between organic regulations and cognitive processes*. Chicago: University of Chicago Press.
- Pink, M., Saunders, J., & Stynes, J. (2015). Reconciling the maintenance of on-field success with off-field player development: A case study of a club culture within the Australian Football League. *Psychology of Sport and Exercise, 21*(11), 98–108. doi:<https://doi.org/10.1016/j.psychsport.2014.11.009>
- Poupaux, S., & Andreff, W. (2007). The institutional dimension of the sport economy in transition countries. In M. P. Parent & T. Slack (Eds.), *International perspectives on the management of sport* (pp. 99–124). London: Elsevier.
- Price, N., Morrison, N., & Arnold, S. (2010). Life out of the limelight: Understanding the non-sporting pursuits of elite athletes. *The International Journal of Sport and Society, 1*(3), 69–79.
- Radtke, S., & Coalter, F. (2007). *Sports schools: An international review*. Report to the Scottish Institute of Sport Foundation. Stirling: University of Stirling. Retrieved January 2017 from https://eas-media.s3.amazonaws.com/ccpages/2012/11/12/Report_Elite_Sports_Schools_Radtke_Coalter_2007.pdf
- Rees, T. (2007). Influence of social support on athletes. In S. Jowett & D. Lavallee (Eds.), *Social psychology in sport* (pp. 223–231). Champaign, IL: Human Kinetics.

References

- Reints, A. (2011). *Validation of the holistic athletic career model and the identification of variables related to athletic retirement*. Published doctoral dissertation. Brussels: VUB Press.
- Reints, A., & Wylleman, P. (2013). Managing athletes' post-athletic careers. In P. Sotiriadou & V. De Bosscher (Eds.), *Managing high performance sport* (pp. 376–407). New York, NY: Routledge.
- Rice, P. F. (1998). *Human development: A life-span approach*. Upper Saddle River, NJ: Prentice Hall.
- Riisom, T. (2002). *At forene eliteidret og uddannelse [To combine elite sport and education]*. Report made by KPMG consulting for the Danish Sports Federation. Brøndby, Denmark.
- Rosenberg, E. (1980). Social disorganizational aspects of professional sports careers. *Journal of Sport & Social Issues*, 4(2), 14–25. doi:<https://doi.org/10.1177/019372358000400202>
- Ryan, C. (2015). Factors impacting carded athlete's readiness for dual careers. *Psychology of Sport and Exercise*, 21(11), 91–97. doi:<https://doi.org/10.1016/j.psychsport.2015.04.008>
- Ryba, T. V., Schinke, R., & Tenenbaum, G. (2010). *The cultural turn in sport psychology*. Morgantown, WV: Fitness Information Technology.
- Ryba, T. V., Stambulova, N., Si, G., & Schinke, R. J. (2013). ISSP Position Stand: Culturally competent research and practice in sport and exercise psychology. *International Journal of Sport and Exercise Psychology*, 11(2), 123–142. doi:<http://dx.doi.org/10.1080/1612197x.2013.779812>
- Ryska, T. A. (2002). The effects of athletic identity and motivation goals on global competence perceptions of student-athletes. *Child Study Journal*, 32(2), 109–129.
- Sandemose, A. (1933). *En flyktning krysser sitt spor [A refugee crosses his tracks]*. Oslo: Tiden Norsk Forlag.
- Schein, E. H. (1990). Organizational culture. *American Psychologist*, 45(2), 109–119. doi:<https://doi.org/10.1037//0003-066x.45.2.109>
- Schein, E. H. (2004). *Organizational culture and leadership* (3rd ed.). San Francisco, CA: Jossey-Bass.
- Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). San Francisco, CA: John Wiley & Sons.
- Schinke, R. J., McGannon, K. R., Parham, W. D., & Lane, A. M. (2012). Toward cultural praxis and cultural sensitivity: Strategies for self-reflexive sport psychology practice. *Quest*, 64(1), 34–46. doi:<https://doi.org/10.1080/00336297.2012.653264>
- Schlossberg, N. K. (1981). A model for analyzing human adaptation to transition. *The Counseling Psychologist*, 9(2), 2–15. doi:<http://dx.doi.org/10.1177/001100008100900202>
- Schlossberg, N. K., Waters, E. B., & Goodman, J. (1995). *Counseling adults in transition* (2nd ed.). New York: Springer.
- Schlossberg, N. K., Waters, E. B., & Goodman, J. (2005). *Counseling adults in transition: Linking practice with theory* (3rd ed.). New York, NY: Springer.

References

- Schmid, J., & Seiler, R. (2003). Leaving competitive sports: Perceived reasons for positive and negative transitions. In *Paper presented at the 11th European Congress of Sport Psychology, Copenhagen, Denmark*. Retrieved January 2017 from http://www.ktn.gv.at/24078_DE-PDF-Abstract
- Schmidt, S., & Saller, T. (2013). *Kollege Spitzensportler. Chancen für Wirtschaft und Athleten [Elite sport athletes as co-workers. Opportunities for business and athletes]*. Institute for Sport, Business, & Society, EBS Business School, Oestrich-Winkel, Germany. Retrieved January 2017 from https://www.dosb.de/fileadmin/fm-dosb/arbeitsfelder/leistungssport/Publikationen/Studie_Spitzensportler_Beruf_.pdf
- Schmidt, U., & Hackfort, D. (2001). Convergent and divergent results of a bi-national study on career transitions of former French and German top athletes. In A. Papaioannou, M. Goudas & Y. Theodorakis (Eds.), *Proceedings of the 10th World Congress of Sport Psychology* (Vol. 5, pp. 5–7). Athens: Christodoulidi Publications Thessaloniki.
- Sharf, R. S. (1997). *Applying career development theory to counseling*. Pacific Grove: Brooks/Cole.
- Si, G., & Lee, H. (2007). Cross-cultural issues in sport psychology research. In S. Jowett & D. Lavallee (Eds.), *Social psychology in sport* (pp. 279–288). Champaign, IL: Human Kinetics.
- Sinclair, D. A., & Hackfort, D. (2000). The role of the sport organization in the career transition process. In D. Lavallee & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 131–142). Morgantown, WV: Fitness Information Technology.
- Sinclair, D. A., & Orlick, T. (1993). Positive transitions from high-performance sport. *Sport Psychologist*, 7, 138–150. doi:<https://doi.org/10.1123/tsp.7.2.138>
- Sinclair, D. A., & Orlick, T. (1994). The effects of transition on high performance sport. In D. Hackfort (Ed.), *Psycho-social issues and interventions in elite sports* (Vol. 1, pp. 29–56). Frankfurt: Peter Lang.
- Smith, J., & McManus, A. (2008). A review on transitional implications for retiring elite athletes: What happens when the spotlight dims? *The Open Sports Science Journal*, 1, 45–49. doi:<https://doi.org/10.2174/1875399x00801010045>
- Sparkes, A. C., & Smith, B. (2014). *Qualitative research methods in sport, exercise and health: From process to product*. New York, NY: Routledge.
- Stambulova, N. (1994). Developmental sports career investigations in Russia: A post-perestroika analysis. *Sport Psychologist*, 8(3), 221–237. doi:<https://doi.org/10.1123/tsp.8.3.221>
- Stambulova, N. (2003). Symptoms of a crisis-transition: A grounded theory study. In N. Hassmén (Ed.), *SIPF Yearbook 2003* (pp. 97–109). Örebro: Örebro University Press.
- Stambulova, N. (2010a). Counseling athletes in career transitions: The five-step career planning strategy. *Journal of Sport Psychology in Action*, 1(2), 95–105. doi:<https://doi.org/10.1080/21520704.2010.528829>

References

- Stambulova, N. (2010b). Professional culture of career assistance to athletes: A look through contrasting lenses of career metaphors. In T. V. Ryba & R. J. Schinke & G. Tenenbaum (Eds.), *The cultural turn in sport psychology* (pp. 285–314). Morgantown, WV: Fitness Information Technology.
- Stambulova, N. (2012). Working with athletes in career transitions. In S. Hanton & D. Mellalieu (Eds.), *Professional Practice in Sport Psychology* (pp. 165–194). New York: Routledge.
- Stambulova, N. (2016). Athletes' transitions in sport and life: positioning new research trends within the existing system of athlete career knowledge. In R. J. Schinke & K.R. McGannon & B. Smith (Eds.), *Routledge International Handbook of Sport Psychology* (pp. 519–535). Oxon: Taylor & Francis.
- Stambulova, N., & Alfermann, D. (2009). Putting culture into context: Cultural and cross-cultural perspectives in career development and transition research and practice. *International Journal of Sport and Exercise Psychology*, 7(3), 292–308.
doi:http://dx.doi.org/10.1080/1612197x.2009.9671911
- Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). Career development and transitions of athletes: The ISSP position stand. *International Journal of Sport and Exercise Psychology*, 7(4), 395–412. doi:http://dx.doi.org/10.1080/1612197x.2009.9671916
- Stambulova, N. B., Engström, C., Franck, A., Linnér, L., & Lindahl, K. (2015). Searching for an optimal balance: Dual career experiences of Swedish adolescent athletes. *Psychology of Sport and Exercise*, 21(11), 4–14. doi:https://doi.org/10.1016/j.psychsport.2014.08.009
- Stambulova, N., Franck, A., & Weibull, F. (2012). Assessment of the transition from junior-to-senior sports in Swedish athletes. *International Journal of Sport and Exercise Psychology*, 10(2), 79–95. doi:https://doi.org/10.1080/1612197x.2012.645136
- Stambulova, N., & Ryba, T. V. (2013). *Athletes' careers across cultures*. London: Routledge.
- Stambulova, N., Stephan, Y., & Jäphag, U. (2007). Athletic retirement: A cross-national comparison of elite French and Swedish athletes. *Psychology of Sport and Exercise*, 8(1), 101–118. doi:http://dx.doi.org/10.1016/j.psychsport.2006.05.002
- Stambulova, N., & Wylleman, P. (2014). Athletes' career development and transitions . In A.G. Papaioannou & D. Hackfort (Eds.), *Routledge Companion to Sport and Exercise Psychology* (pp. 605–620). Hove: Routledge.
- Stead, G. B. (2004). Culture and career psychology: A social constructionist perspective. *Journal of Vocational Behavior*, 64(3), 389–406. doi:https://doi.org/10.1016/j.jvb.2003.12.006
- Stephan, Y., Bilard, J., Ninot, G., & Delignières, D. (2003a). Bodily transition out of elite sport: A one-year study of physical self and global self-esteem among transitional athletes. *International Journal of Sport and Exercise Psychology*, 1(2), 192–207. doi:https://doi.org/10.1080/1612197x.2003.9671712
- Stephan, Y., Bilard, J., Ninot, G., & Delignières, D. (2003b). Repercussions of transition out of elite sport on subjective well-being: A one-year study. *Journal of Applied Sport Psychology*, 15(4), 354–371. doi:https://doi.org/10.1080/714044202

References

- Stephan, Y., & Demulier, V. (2008). Transition out of elite sport: A dynamic, multidimensional, and complex phenomenon. In M. P. Simmons & L. A. Foster (Eds.), *Sport and Exercise Psychology Research Advances* (pp. 175–190). Hauppauge, NY: Nova Science.
- Stephan, Y., Torregrosa, M., & Sanchez, X. (2007). The body matters: Psychophysical impact of retiring from elite sport. *Psychology of Sport and Exercise*, 8(1), 73–83.
doi:<https://doi.org/10.1016/j.psychsport.2006.01.006>
- Storm, L. K. (2015). “*Coloured by culture*”: *Talent development in Scandinavian elite sport as seen from a cultural perspective* (Unpublished doctoral dissertation). University of Southern Denmark, Odense, Denmark.
- Storm, L. K., Henriksen, K., Larsen, C. H., & Christensen, M. K. (2014). Influential relationships as contexts of learning and becoming elite: Athletes’ retrospective interpretations. *International Journal of Sports Science and Coaching*, 9(6), 1341–1356. doi:<https://doi.org/10.1260/1747-9541.9.6.1341>
- Storm, R. K., & Tofft-Jørgensen, L. (2013). *Elitesportsmiljøet i Danmark 2012 [Elite sport environment in Denmark 2012]*. Copenhagen: Idrættens Analyseinstitut. Retrieved January 2017 from <http://www.idan.dk/vidensbank/>
- Storm, R. K., & Tofft-Jørgensen, L. (2014). *Dansk eliteidræt i international sammenligning – foreløbige resultater SPLISS [Danish elite sport in international comparison – preliminary results from SPLISS]*. Copenhagen: Idrættens Analyseinstitut. Retrieved January 2017 from <http://www.idan.dk/vidensbank/>
- Sturges, J., Guest, D., Conway, N., & Davey, K. M. (2002). A longitudinal study of the relationship between career management and organizational commitment among graduates in the first ten years at work. *Journal of Organizational Behavior*, 23(6), 731–748. doi:<https://doi.org/10.1002/job.164>
- Surujlal, J. (2016). Influence of organizational support on retirement planning and financial management of professional soccer players. *Polish Journal of Management Studies*, 13(2), 164–174.
doi:<https://doi.org/10.17512/pjms.2016.13.2.16>
- Svoboda, B., & Vanek, M. (1982). Retirement from high level competition. In T. Orlick, J.T. Partington & J.H. Salmela (Eds.), *Proceedings of the 5th world congress of sport psychology* (pp. 166–175). Ottawa: Coaching Association of Canada.
- Swain, D. A. (1991). Withdrawal from sport and Schlossberg’s model of transitions. *Sociology of Sport Journal*, 8(2), 152–160. doi:<https://doi.org/10.1123/ssj.8.2.152>
- Swann, C., Moran, A., & Piggott, D. (2015). Defining elite athletes: Issues in the study of expert performance in sport psychology. *Psychology of Sport and Exercise*, 16(1), 3–14.
doi:<https://doi.org/10.1016/j.psychsport.2014.07.004>
- Tabachnick, B. G., & Fidell, L. S. (2014). *Using multivariate statistics* (6th ed.). New York, NY: Pearson.
- Taylor, J., & Ogilvie, B. C. (1994). A conceptual model of adaptation to retirement among athletes. *Journal of Applied Sport Psychology*, 6(1), 1–20.
doi:<https://dx.doi.org/10.1080/10413209408406462>

References

- Tekavc, J., Wylleman, P., & Erpic, S. C. (2015). Perceptions of dual career development among elite level swimmers and basketball players. *Psychology of Sport and Exercise, 21*(11), 27–41. doi:<https://doi.org/10.1016/j.psychsport.2015.03.002>
- Tinley, S. P. (2012). *Seeing Stars: Emotional trauma in athlete retirement: Contexts, intersections, and explorations*. Doctoral dissertation. Claremont Graduate University, USA. Retrieved January 2017 from http://scholarship.claremont.edu/cgi/viewcontent.cgi?article=1041&context=cgu_etd doi:10.5642/cguetd/40.
- Torregrosa, M., Boixadós, M., Valiente, L., & Cruz, J. (2004). Elite athletes' image of retirement: The way to relocation in sport. *Psychology of Sport and Exercise, 5*(1), 35–43. doi:[https://doi.org/10.1016/s1469-0292\(02\)00052-3](https://doi.org/10.1016/s1469-0292(02)00052-3)
- Torregrosa, M., Ramis, Y., Pallarés, S., Azócar, F., & Selva, C. (2015). Olympic athletes back to retirement: A qualitative longitudinal study. *Psychology of Sport and Exercise, 21*(11), 50–56. doi:<http://dx.doi.org/10.1016/j.psychsport.2015.03.003>
- Triandis, H. C. (2004). Cultural Syndroms. In C. Spielberger (Ed.), *Encyclopedia of applied psychology* (pp. 555–560). New York, NY: Elsevier.
- Trompenaars, F. (1993). *Riding the wave of culture: Understanding diversity in global business*. Chicago, IL: Irwin.
- Tshube, T., & Feltz, D. L. (2015). The relationship between dual-career and post-sport career transition among elite athletes in South Africa, Botswana, Namibia and Zimbabwe. *Psychology of Sport and Exercise, 21*(11), 109–114. doi:<http://dx.doi.org/10.1016/j.psychsport.2015.05.005>
- UNESCO (2012). *International Standard Classification of Education (ISCED) 2011*. Montreal: Unesco Institute for Statistics. Retrieved January 2017 from <http://www.uis.unesco.org/Education/Documents/isced-2011-en.pdf>
- Ungerleider, S. (1997). Olympic athletes' transition from sport to workplace. *Perceptual and Motor Skills, 84*(3c), 1287–1295. doi:<https://doi.org/10.2466/pms.1997.84.3c.1287>
- Van Rens, F., Elling, A., & Reijgersberg, N. (2015). Topsport Talent Schools in the Netherlands: A retrospective analysis of the effect on performance in sport and education. *International Review for the Sociology of Sport, 50*(1), 64–82. doi:<https://doi.org/10.1177/1012690212468585>
- Vilanova, A., & Puig, N. (2014). Personal strategies for managing a second career: The experiences of Spanish Olympians. *International Review for the Sociology of Sport, 51*(5), 529–546. doi:<https://doi.org/10.1177/1012690214536168>
- Wapner, S., & Craig-Brey, L. (1992). Person-in-environment transitions: Theoretical and methodological approaches. *Environmental and Behavior, 2*(24), 161–188. doi:<https://doi.org/10.1177/0013916592242002>
- Warriner, K., & Lavalley, D. (2008). The retirement experiences of elite female gymnasts: Self identity and the physical self. *Journal of Applied Sport Psychology, 20*(3), 301–317. doi:<https://doi.org/10.1080/10413200801998564>

References

- Webb, W. M., Nasco, S. A., Riley, S., & Headrick, B. (1998). Athlete identity and reactions to retirement from sports. *Journal of Sport Behavior*, *21*(3), 338–362.
- Werthner, P., & Orlick, T. (1986). Retirement experiences of successful Olympic athletes. *International Journal of Sport Psychology*, *17*(5), 337–363.
- Wheeler, G. D., Steadward, R. D., Legg, D., Hutzler, Y., Campbell, E., & Johnson, A. (1999). Personal investment in disability sport careers: An international study. *Adapted Physical Activity Quarterly*, *16*, 219–237.
- Wippert, P.-M., & Wippert, J. (2010). The effects of involuntary athletic career termination on psychological distress. *Journal of Clinical Sport Psychology*, *4*(2), 133–149.
doi:<https://doi.org/10.1123/jcsp.4.2.133>
- Wylleman, P., Alfermann, D., & Lavalley, D. (2004). Career transitions in sport: European perspectives. *Psychology of Sport and Exercise*, *5*(1), 7–20. doi: [https://doi.org/10.1016/s1469-0292\(02\)00049-3](https://doi.org/10.1016/s1469-0292(02)00049-3)
- Wylleman, P., De Knop, P., & Reints, A. (2011). Transitions in competitive sports. In N. L. Holt & M. Talbot (Eds.), *Lifelong engagement in sport and physical activity: Participation and performance across the life span* (pp. 63–76). New York, NY: Routledge.
- Wylleman, P., Harwood, C., Elbe, A. M., Reints, A., & de Caluwé, D. (2009). A perspective on education and professional development in applied sport psychology. *Psychology of Sport and Exercise*, *10*(4), 435–446. doi:<https://doi.org/10.1016/j.psychsport.2009.03.008>
- Wylleman, P., & Lavalley, D. (2004). A developmental perspective on transitions faced by athletes. In M. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 507–527). Morgantown, WV: Fitness Information Technology.
- Wylleman, P., & Reints, A. (2010). A lifespan perspective on the career of talented and elite athletes: Perspectives on high-intensity sports. *Scandinavian Journal of Medicine & Science in Sports*, *20*(2), 88–94. doi:<https://doi.org/10.1111/j.1600-0838.2010.01194.x>
- Wylleman, P., Theeboom, M., & Lavalley, D. (2004). Successful athletic careers. In C. Spielberger (Ed.) *Encyclopedia of applied psychology* (Vol. 3, pp. 511–517). New York, NY: Elsevier.
- Yalom, I. D. (1980). *Existential psychotherapy*. New York, NY: Harper/Collins.
- Yin, R. K. (2014). *Case study research, design and methods* (5th ed.). Thousand Oaks, CA: Sage.
- Zysko, J. (2008). Poland. In B. Houlihan & M. Green (Eds.), *Comparative elite sport development: Systems, structures and public policy* (pp. 166–193). Oxford: Butterworth-Heinemann.

Websites (selection)

Switzerland

www.swissolympic.ch
www.baspo.ch
www.adecco.ch/de-ch/ueber-adecco-werte/athleten-karriere-programm
www.shsv.ch/de/spitzensport_und_studium
www.sportobs.ch
www.sportclic.ch
www.lssfb.ch

Denmark

www.teamdanmark.dk
www.idan.dk
www.study4players.dk
www.job4players.dk
www.syddanskelite.dk
<http://elitesport.au.dk>
<http://activeinstitute.dk>
www.nordjyskelitesport.dk
www.spillerforening.dk
www.teamcopenhagen.dk

Poland

www.msport.gov.pl
www.olimpijski.pl
www.mpis.gov.pl
www.awf.edu.pl
www.awf.gda.pl
www.opussport.pl
www.dips.pl/sportowcy

Dual Career International

www.dualcareer.eu
www.olympic.org/athlete-career-programme
<http://athlete.adecco.com>
www.eas.eu
<http://gees.eu>
www.athletes2business.eu
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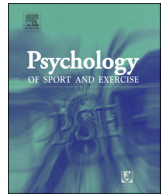
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Factors contributing to the quality of the transition out of elite sports in Swiss, Danish, and Polish athletes



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ABSTRACT

Objectives: The aim of this study was (a) to compare athletic retirement of former Swiss, Danish, and Polish athletes; and (b) to explore the influence of factors on the quality of the transition. Based on existing transitional models, we developed a working model to investigate the predictive power of commonly assumed resources and barriers related to the transition (Park, Lavallee, & Tod, 2013).

Design and methods: Former international elite athletes from Switzerland (n = 231), Denmark (n = 86), and Poland (n = 84) from 35 different sports completed an online questionnaire in their native language. Mean/proportional differences across countries were explored using ANOVAs and chi-square tests. For each sample, a multiple regression analysis was performed with 26 predictors on the transition quality, which was a component score of seven variables.

Results and conclusions: More differences were found among individual characteristics (e.g., educational level, athletic identity, confidence in skills), whereas athletes reported a similar pattern concerning retirement planning and voluntariness to end their career regardless of the context. The adaptation process following the career end was easiest for Swiss athletes and most difficult for Polish athletes. Results of the multiple regressions revealed both common resources (e.g., voluntariness) and barriers (e.g., athletic identity), but also factors that worked as resources in one context, but as barriers in another (e.g., high sportcareer income). We propose to avoid generalizations about resources and barriers influencing the transition, but to apply a culturally sensitive approach when studying athletic retirement in different contexts.

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1. Evolution in career termination and athletic retirement research

In sports science research, athletic career termination came into focus in the late 1960s. For the first decades, the main interest of researchers was to identify the nature of the retirement from elite sports and to understand athletes' reactions to sport career termination (Coakley, 1983; Hill & Lowe, 1974; Lerch, 1982; Mihovilovic, 1968; Pawlak, 1984; Svoboda & Vanek, 1982). Drawing on theoretical frameworks from thanatology and gerontology, the end of the athletic career was typically seen as a negative and traumatic (single) life event (Hill & Lowe, 1974; Lerch, 1982). Later

on, McPherson (1984) proposed a more process-orientated perspective on the athletic career end followed by an adaptation with a potentially positive or negative outcome.

For a long time, career researchers were convinced that the more their research findings could be generalized, the better. As a result, researchers focused on factors influencing the transition quality and found that individual characteristics (e.g., educational level, financial status, vocational and educational skills, and sports career achievements), pre-retirement planning, voluntariness of termination, and social support all facilitate athletes' adaptation to the post-career demands. On the other hand, an exclusive or strong athletic identity, injuries, and health problems were identified as common barriers to the adaptation (for reviews, see Alfermann & Stambulova, 2007; Park, Lavallee, & Tod, 2013; Stephan & Demulier, 2008). These findings were presented as universal and generalizable for understanding athletes' transitions, even though they were based on national samples and possibly influenced by

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scholars' cultural backgrounds (Stambulova, Alfermann, Statler, & Côté, 2009).

Following this first phase, a new line of thinking emerged, according to which the more research findings and practical recommendations could be contextualized, the better (Stambulova & Ryba, 2013, 2014; Stambulova, 2016). The discussion on the role of context could be seen as a new trend towards cultural sensitivity in sports career studies. Approaching culture with a positivist epistemology and nations as independent variables, cross-national studies (e.g., Schmidt & Hackfort, 2001; Seiler, Anders, & Irlinger, 1998) revealed both common and nationally specific patterns in retirement of athletes from different countries. Cross-national comparison of the transition out of sport was further explored in the *European perspectives on athletic retirement* (EPAR) project (Alfermann, Stambulova, & Zemaityte, 2004; Stambulova, Stephan, & Jäphag, 2007). These studies added a link between the factors that influence the transition and the corresponding socio-cultural contexts. In addition, they showed that the national context plays an important role when studying athletic retirement. Despite these findings and the call for more cross-cultural studies on athletic career termination (e.g., Alfermann & Stambulova, 2007; Park et al., 2013; Stambulova, 2012), research on cross-national studies on athletic retirement is limited and only a few additional comparative studies have been conducted (e.g., Dimoula, Torregrosa, Psychountaki, & Fernandez, 2013; Park & Lavallee, 2015).

The reasons for this paucity may be found in three main challenges when studying athletic retirement across cultures. The first is to understand the transition out of elite sports as a multidimensional process with a number of factors interplaying, including national identity (Alfermann et al., 2004; Stambulova et al., 2007). This multifactorial approach demands that several relevant theoretical frameworks for studying athletic transitions (presented below) are combined with an ecological perspective. The second challenge is to apply a “cultural turn” perspective (Ryba, Stambulova, Si, & Schinke, 2013), which means that athletes' transitions should be studied within particular socio-cultural contexts applying culturally informed research instruments and models (Stambulova & Alfermann, 2009). As response style in questionnaires can be influenced by cultural dimensions such as power distance or uncertainty avoidance (Harzing, 2006), drawing conclusions, especially regarding “soft” variables measuring perceptions and attitudes, should be done cautiously (Brislin, 2000). Consequently, regression techniques are recommended for cross-cultural studies, as they are considered less sensitive to cultural bias than the comparison of means across samples taken from different contexts (Ember & Ember, 2009). The third challenge deals with the position of the researchers who are infused by their own culture (Stambulova & Alfermann, 2009). Therefore, cross-national research projects require researchers' cultural awareness and, in particular, demand negotiations about terminology and linguistic aspects (Ryba et al., 2013; Si & Lee, 2007).

Although many elite athletes live their sporting lives across national borders and cultural contexts (Agergaard & Ryba, 2014), their transition out of elite sports often takes place within a specific national context. While athletic career transition research moves towards context-specific and culturally informed studies (Stambulova & Ryba, 2013, 2014), cross-cultural comparison studies seem increasingly relevant for coaches and sports psychology practitioners within the field of globalized elite sports. Consequently, there is a need for more systematic knowledge about both context-specific factors and common determinants of a successful versus difficult transition out of elite sports across national borders and cultural contexts.

This study is related to the EPAR project and compares former Swiss, Danish, and Polish elite athletes in terms of processes and

outcomes of the transition out of elite sport. Furthermore, it examines and compares the contribution of transitional characteristics on the quality of the transition in these three contexts. To compare the transition out of elite sports across nations, we built on existing career transition models (Schlossberg, 1981; Stambulova, 2003; Taylor & Ogilvie, 1994) which consider the transition as a process and where several factors influence the adaptation to a new life or career situation.

2. Career transition and retirement frameworks

Schlossberg's *Model of analyzing human adaptation to transition* (1981) comprises characteristics of the individual (e.g., age, gender, socio-economic status, and ethnicity/culture), the situation (reasons that triggered the transition, timing, control, assessment, and duration), and the pre- and post-environments (circles and functions of support) that are seen as influential when determining adaptation success. A transition (caused either by an event or non-event) results in a change in assumption about oneself and thus requires a corresponding change in one's behavior and relationships (Schlossberg, 1981, p. 5). The *Conceptual model of adaptation to retirement among athletes* (Taylor & Ogilvie, 1994) focuses on causes for career termination, as well as factors and available resources related to the transition that determines the adaptation quality (a healthy transition versus a retirement crisis). In the case of a crisis, a need for psychological intervention is outlined. The *Athletic career transition model* (Stambulova, 2003) considers the transition as a process of coping with specific demands. Effective coping (i.e., successful transition) is achieved when an athlete is able to use/develop necessary resources and to avoid/overcome potential transitional barriers. Ineffective coping (i.e., crisis transition) occurs when the athlete is unable to cope effectively due to a lack of resources and/or insuperable barriers. A crisis transition demands an intervention. If effective, the intervention leads to a (delayed) successful transition. In case of none or ineffective intervention, athletes face negative consequences of the transition. Athletes' transitions can be understood as critical periods between different phases on the athletic, psychological, psychosocial, academic/vocational, and financial level of an athlete's career (Wylleman & Lavallee, 2004; Wylleman, De Knop, & Reints, 2011), as these periods come with specific demands athletes have to cope with to successfully continue their career or effectively adapt to the post-sport life (Stambulova, 2003). The *Ecological model of human development* (Bronfenbrenner, 1979) was associated along with the transition models in order to be able to interpret the findings of the cross-national comparison about athletic retirement. Bronfenbrenner's model (1979) helps to understand that the individual transition is embedded in a specific context and is influenced by macro-level (e.g., the socio-cultural context of a society, the country's economy), meso-level (e.g., federations, clubs, and support systems for athletes), and a number of micro-level systems (e.g., family, friends, coaches, and teachers) in which athletes are involved.

2.1. Working model of factors contributing to the quality of transition out of elite sports

We combined the elements from the above-described frameworks to develop our working model for studying the transition out of elite sport (Fig. 1).

Transition demands (e.g., adjustment to a new lifestyle, dealing with bodily changes, adapting to a new social environment) create developmental conflicts between “what the athlete is” and “what he/she wants or ought to be” (Alfermann & Stambulova, 2007, p. 717). Potential resources and barriers that facilitate or hinder a

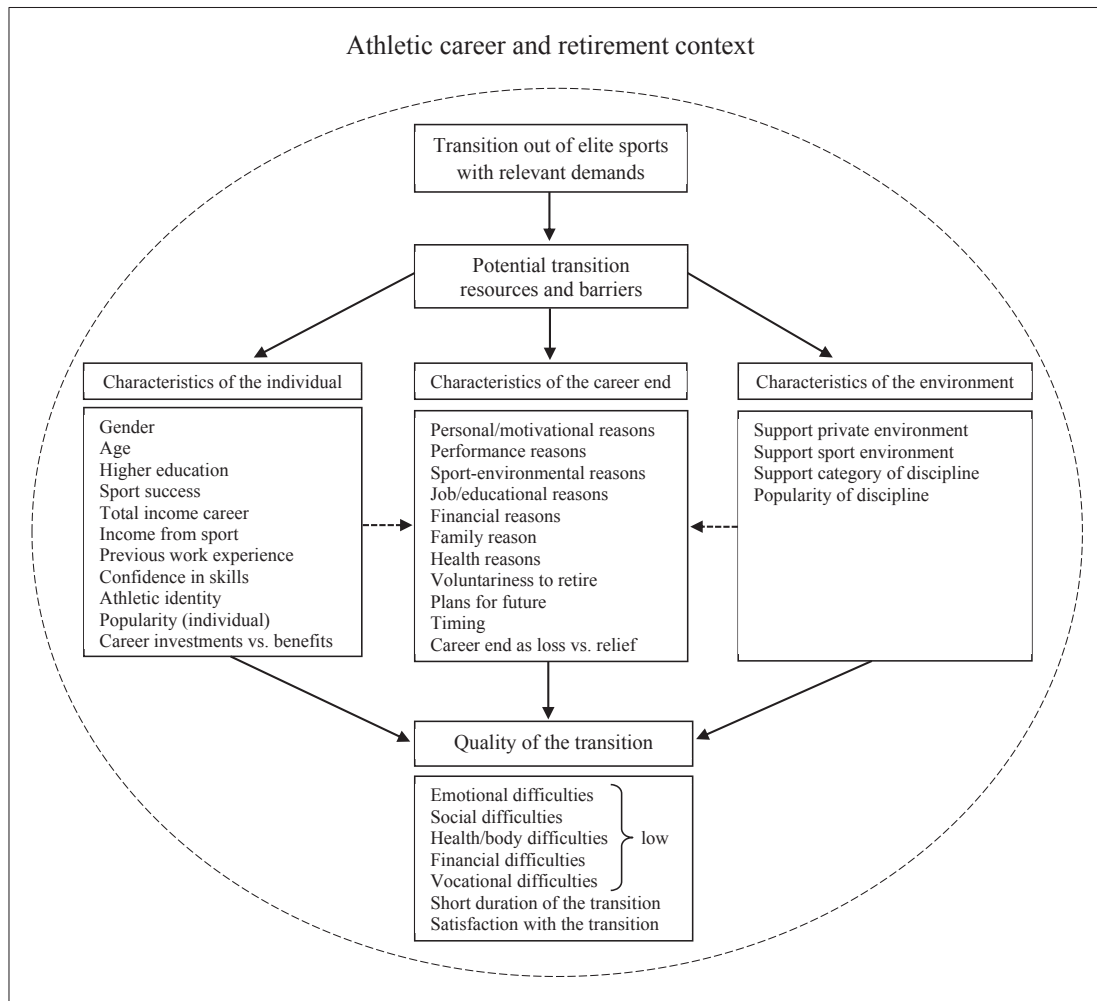


Fig. 1. Working model of factors contributing to the quality of the transition out of elite sports.

successful transition are divided into characteristics of the individual, characteristics of the career end, and characteristics of the environment. The potential resources/barriers incorporated in our model have been shown to be related to the quality of the transition (Park et al., 2013, for an overview). The following identifies a high quality (successful) transition: low perceived adaptation difficulties in different spheres of life, a short duration of the adaptation process, and a high satisfaction with the transition. The circle surrounding the transitional characteristics and outcomes emphasizes to consider the relevant (national) context.

3. Athletic career and retirement contexts in Switzerland, Denmark, and Poland

Following Patton's (2015) recommendation for the case selection, we applied a purposeful maximum-variation sampling strategy. Thus, the three countries selected are insofar interesting to compare athletic retirement as these European countries are similarly successful in elite sport according to the London 2012 Olympic medal table, but differ on several macro- and meso-dimensions. Besides their different geographical size and number of inhabitants, Switzerland (liberal), Denmark (socio-democratic), and Poland (conservative) developed different welfare state types according to Esping-Andersen's (1999) typology. Concerning national cultural dimensions, the three countries score notably

different on several cultural dimensions according to Hofstede, Hofstede, and Minkov (2010). For example for power distance Poland is high and Denmark is very low and for masculinity both Switzerland and Poland are high, but Denmark is low. As the larger macro-context have an impact on the sports system (Bergsgard, Houlihan, Mangset, Nødland, & Rommetvedt, 2007), the countries also provide different athletic career support (De Bosscher, Shibli, Westerbeek, & van Bottenburg, 2015) and offer different support for student-athletes (Aquilina & Henry, 2010). An overview of relevant macro- and meso aspects of the three countries is provided as an electronic supplementary. For a better understanding of each athletic career environment, we will briefly describe the athletic career and retirement contexts of Switzerland, Denmark, and Poland.

Switzerland. The Swiss elite sports system is built upon autonomous sports federations that are connected under the umbrella of the Swiss Olympic Association (SOA). Education is regulated at the cantonal level and thus varies from region to region in terms of dual-career possibilities for athletes on all stages of their career. The SOA has several partner schools on the lower and upper secondary level, where carded talents benefit from special conditions. Regarding higher education, institutionalized services for elite athletes hardly exist. It is a common career path for young athletes to choose a vocational education. Switzerland is known for its flexible job market, which makes it possible for athletes to work

part-time within their field. Concerning career planning and job placement opportunities, the SOA has a wide service for carded and retired athletes. In recent years, the army has increased its role in supporting elite athletes and provides a few full-time job opportunities. Most former athletes need to find a job in the regular labor market as there are only a few paid positions in the sports sector.

Denmark. Team Denmark (TD) is the national institution responsible for the promotion and funding of elite sports. Guided by the Elite Sports Act, TD is obliged to promote talent development and elite sports in a socially responsible manner. This includes educational and vocational opportunities for elite athletes and mirrors the Danish social-welfare state attitude. Gymnasiums provide flexible courses for athletes included in the national talent program. Not only athletes, but every student taking a tertiary education receives money from the state. Recently, higher educational institutions have established special offices that help athletes to combine elite sports with studies. To be eligible for these services, athletes must be part of TDs support system, which also guarantees access to financial support, career planning, and sport psychological counseling. TD and its partners provide job-related services for athletes at different stages of their career. There are only a few jobs available within the Danish sports sector for former elite athletes as sports clubs to a large extent are based on voluntary commitment of coaches.

Poland. The Ministry of Sport and Tourism acts as the principal institution for governing elite sports and has a strong power over the sports federations in terms of both funding and regulations. As a relic of the communistic era, elite sports schools for young athletes with professional coaches are the source for talent development of Polish elite sports. A common career path of most athletes is to continue their education at sports universities where they get substantial help in terms of extra teaching, flexible courses, and financial support. Additionally, the army supports many top athletes and provides pension and job opportunities for retiring athletes. There are hardly any networks or institutional help to combine work with elite sports. Career services for the transition out of sport are generally not available. Instead, Olympic medal winners receive a lifelong pension from the state. Due to their sport-specific education and the professional club system, many former Polish athletes relocate in the sports sector.

To summarize, different possibilities and support services are provided to student-athletes in these three countries. Polish athletes develop their career in a more state-supported sports system that provides a standard (educational) solution for athletes, while Swiss athletes are part of a more liberal sports system that puts more responsibility on the individual athletes. Athletes in the Danish elite sports context receive dual-career support throughout their athletic career as well as during the transition out of elite sport (Kuettel, Christensen, Zysko, & Hansen, 2016).

Embracing the methodological and epistemological challenges when conducting cross-cultural studies, we acknowledge that our own cultural background was influential when choosing the countries for comparison. The first author was a national team member and represented Switzerland at several Olympic Games and World Championships. He has been living in Denmark with his Polish wife since he ended his sports career in 2011. These circumstances provided him with cultural insights in all three contexts studied in this project.

4. Objectives and hypotheses

The first objective of the study was to examine cross-national similarities and differences in the transitional characteristics and the quality of the transition among former elite Swiss, Danish, and Polish athletes. The second objective was to explore the predictive

power of the transitional characteristics in terms of perceived transition quality and relevant differences in the resources/barriers patterns between the athletes of the three nations.

Based on the above-mentioned differences in cultural dimension, welfare systems and dual-career opportunities provided in the three countries, our hypothesis concerning the first objective was that we will find differences in athletes' individual characteristics (e.g., educational level, income from the sports context). We expected to find a similar pattern among the career-end characteristics, as the athletic career end is connected to many changes of an athlete's life, which is a general issue for retiring athletes. Finally, we expected Polish athletes to report higher adaptation difficulties due to the high level of professionalism and due to the lack of available retirement services.

5. Method

5.1. Research design

We applied a retrospective cross-sectional research design and followed the recommendations of the ISSP position stand on culturally competent research and practice in sport and exercise psychology (Ryba et al., 2013). This was done by (a) the key concepts of the project, theoretical frameworks, and the project objectives were negotiated among the co-authors; (b) the instrument was translated and culturally adapted; (c) pilot studies were conducted in all three contexts; (d) data were collected in culturally relevant ways; (e) results were interpreted keeping in mind the major characteristics of each cultural context involved; and (f) contextualized conclusions and practical implications of the project were developed.

5.2. Procedure and participants

Criteria to be included in the study were (a) participation in competitions at international level, (b) carded by a national elite sport governing body, and (c) retired between one and five years before data collection. After receiving approval from the regional ethics committees, names and e-mail addresses of retired athletes were obtained from either the Olympic associations or sports federations in each country. Athletes were first contacted by their federation and informed about the purpose of this study. Afterwards, the first author sent an e-mail containing a personal link to the questionnaire to a total of 629 athletes (356 Swiss, 138 Danish, and 135 Polish). When comparing the population in the three countries, the number of contacted Swiss athletes seems rather elevated – particularly with respect to the Polish athletes. The reasons for this are twofold: On the one hand, the SOA makes a point of supporting a wide variety of both winter and summer sports, whereas Poland focuses on a smaller number of sports. On the other hand, in Poland the collaboration with the federations was more difficult, and the federations were more reluctant to provide contact information of former athletes.

We received completed questionnaires from 231 Swiss (65% response rate), 86 Danish (62%), and 84 Polish athletes (62%), a total of 401 responses (64%) from 35 different sports. The 72 female and 159 male Swiss athletes (age at career end: $M = 30.55$, $SD = 6.30$; years since retirement: $M = 3.07$, $SD = 2.24$) competed in 34 different sports with skiing (10%) constituting the largest group. The 29 female and 57 male athletes from Denmark (age at career end: $M = 30.38$, $SD = 5.40$; years since retirement: $M = 2.76$, $SD = 2.09$) participated in 25 different disciplines with rowing (13%) as the largest group. The 31 female and 53 male Polish athletes (age at career end: $M = 32.69$, $SD = 5.85$; years since retirement: $M = 3.74$, $SD = 3.04$) came from 25 sports, with handball

(19%) as the largest group. The samples contain around one-third of female athletes, which is equal to the male/female ratio of carded athletes in the respective countries. Seventeen disciplines were represented in each of the three countries. Slightly more athletes participated in individual rather than in team sports (54% Danish, 55% Swiss, and 62% Polish). Mirroring domestic sports traditions and geographical location, significantly fewer Danish athletes (5%) participated in winter sports compared to Swiss (30%) and Polish (21%) athletes. Chi-square tests and independent *t*-tests uncovered no pattern among non-respondents in terms of gender and age. However, response rates varied between athletes from different disciplines in each country.

5.3. Instrument

Data were collected using the *Athletic career termination questionnaire* (ACTQ) that was developed from existing English and German versions of the *Retirement from sports survey* (Alfermann et al., 2004) and administered in the previous EPAR projects. Supplementary questions that measured transferable skills and social support were added to the questionnaire. The instrument was translated from English into Danish by the first author and his supervisor and cross-checked with the German version, as both are fluent in the three languages. The Polish version was translated and independently back-translated by a professional agency. To achieve content, conceptual, and semantic equivalence (Si & Lee, 2007), the translated versions were discussed in each context with experts working with athletes in transitions. Minor adjustments were made to each questionnaire after pilot testing with three to five former athletes from each country. The ACTQ contains 56 questions that are organized into three sections: (a) life in elite sports, (b) sports career termination and transitional period, and (c) life after sport and general biographical data. Our working model of the transition out of elite sports (see Fig. 1) presents the variables analyzed in this paper structured into *characteristics of the individual*, *the career end*, and *the environment*, and their contribution to the *quality of the transition*.

5.3.1. Characteristics of the individual

Athletes reported age and completed educational level at the time of their career end (1 = *completed tertiary education*, 0 = *secondary education only*). Athletes who achieved top 3 results in either the Olympics or World were coded 1, while the others were coded 0 indicating the lack of achievement of a top 3 finish. The financial situation in sports was assessed by the total income in eight categories (1 = *low*, 8 = *high*) based on national census data on average household income (e.g., value 5 represents an annual income of 60'000–79'999 Swiss Francs). Athletes furthermore stated what percentage of their income was earned within the sports context (contracts, prize money, etc.). As a measurement of previous work experience, athletes specified their time (e.g., 15 h per week) for employment outside of their elite sports activity in the last three years of their sports career. Athletes rated their confidence in eleven transferable skills (e.g., adaptability, perseverance, performance under pressure, self-awareness, problem-solving, administrative skills; Mayocchi & Hanrahan, 2000) on a five-point Likert-scale anchored 1 (*not confident at all*) to 5 (*very confident*). These values were summarized to a total score of 55 that represents their overall confidence in their skills (Cronbach α -coefficients ranged from 0.66 to 0.73 for the three samples). Athletes rated their athletic identity (Brewer, Van Raalte, & Linder, 1993) while active in sports on a seven-point Likert-scale from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher values representing a higher athletic identity (α -coefficients between 0.82 and 0.84 for the 10-items scale). Athletes rated their perceived popularity from

1 (*publicly unknown*) to 5 (*very well-known*) and finally rated their overall sports career from 1 (*investments much bigger than benefits*) to 5 (*benefits much bigger than investments*).

5.3.2. Characteristics of the career end

Based on the instrument of Alfermann et al. (2004), athletes rated seven reasons (e.g., personal/motivational-, job/educational-, financial-, health-related) that might have influenced their decision to retire from elite sports (1 = *no influence at all* to 5 = *very strong influence*). Given two contrasting pairs, participants described their career end with regard to pre-retirement planning (1 = *no plans at all* to 5 = *very concrete long-term plans*), voluntariness (1 = *under strong pressure from external circumstances* to 5 = *completely voluntary*), perception of their career end (1 = *big loss* to 5 = *big relief*) and timing (1 = *much too early* over 3 = *just about right* to 5 = *much too late*). The timing variable was later dichotomized into 0 (*too late/too early*) and 1 (*on time*).

5.3.3. Characteristics of the environment

To assess the potential social support (Rees, 2007) received during the transition, athletes were presented with a list of five persons from the private environment (e.g., parents, partner, and friends) and thirteen from the sports environment (e.g., coach, teammate, manager, sport psychologist) where they stated with whom they had important conversations concerning their transition. We categorized the sports disciplines from 1 (*lowest support*) to 4 (*highest support*) according to the classifications of the national elite sports governing bodies. The disciplines were additionally classified according to their received mass media attention in each country (Hedal, 2006; Lamprecht, Fischer, & Stamm, 2014; Pentagon Research, 2014) from 1 = *not popular* to 3 = *very popular* (e.g., in Poland, archery is not popular, cycling is popular, and volleyball is very popular).

5.3.4. Quality of the transition out of elite sports

To assess the quality of adaptation in a broad concept (Stambulova, 2012), athletes rated their perceived adaptation difficulties in five areas (Wylleman et al., 2011): emotional (e.g., missing the lifestyle of an athlete), social (e.g., difficulties in establishing social network), body/health (e.g., detraining difficulties, injuries), financial (e.g., reduced income, debts), and vocational (e.g., problems with finding a job) from 1 (*no difficulties at all*) to 5 (*very big difficulties*) together with the months they needed to adjust to their new life situation. Months were then grouped into categories from 1 (*long: more than 18 months*) over 3 (*middle: 7–12 months*) to 5 (*short: 0–3 months*). Finally, athletes rated their overall satisfaction of the transition from 1 (*not satisfied at all*) to 5 (*very satisfied*).

5.4. Data analysis

The following statistical analyses were conducted using IBM SPSS 22:

- To check for gender differences, *t*-test and chi-square tests were performed.
- To evaluate the cross-national differences in the transitional characteristics and the variables related to the quality of the transition (study objective 1), one-way MANOVAs and chi-square tests were computed. If a multivariate ANOVA was significant, one-way ANOVAs were performed to detect differences across the groups using Hochberg's GT2 test due to rather large differences in sample sizes. In order to facilitate comparison, we report effect sizes as Cramér's *V* for the chi-square tests and *r* (square root of η^2) for the ANOVAs (Field, 2013).

- To measure the overall *quality of the transition*, a principal component analysis (PCA) was performed with the total sample ($N = 401$) to reduce the seven variables characterizing the quality of transition into a single score. As suggested by the scree-plot (Eigenvalues 2.75, 1.10, 0.82, ...), the first component was extracted and retained for further analyses. All loadings were substantial and roughly equal in magnitude (from 0.75 for emotional difficulties to 0.53 for vocational difficulties). To facilitate interpretation of the component score, the values of the adaptation difficulties were reversed scaled in order to have all variables in the same direction. Hence, higher component scores would mean a better quality of the transition out of elite sport.
- To explore the predictive power of the 26 transitional characteristics (study objective 2), standard multiple regression analyses with *quality of the transition* as the criterion variable were calculated separately for each country. Observed statistical power to detect significance at the 0.05 level was above 0.99 for all models. Durbin-Watson scores were close to 2 and therefore no autocorrelation existed (Miles & Shevlin, 2001). Average of the variance inflation factor was close to 1, indicating that multicollinearity was not an issue. Residuals were checked for linearity, homoscedasticity, and independence. One Polish respondent had extreme scores on all adaptation quality items, which resulted in large residuals and thus a large influence on the model. Therefore, this case was considered an outlier and removed from the regression analyses. No multivariate outliers were detected by Mahalanobis distance. Because missing data were scarce (less than 5%) and randomly distributed (non-significant Little's MCAR-test), missing values were simply imputed using the EM-algorithm (Tabachnick & Fidell, 2014).
- To check for relevant differences in the resources/barrier patterns between the three nations (study objective 2), the variables that were significant in at least one of the multiple regression models described above were interacted with country to determine if they were moderated by country. Switzerland was the reference category as this country had the largest number of participating athletes. A backwards regression analysis was performed in which the interaction with the highest p -value was removed after each modeling step until all the interaction terms were significant (Miles & Shevlin, 2001).

6. Results

When analyzing the data for gender differences, we detected differences in three out of the 26 transitional variables with male athletes earning a higher total income, earning a greater amount of the respective income from the sport context (sponsoring contracts, etc.), and reporting sport-environmental reasons (e.g., conflict with federation or coach) as significantly less important to end the career than female athletes. As effect sizes (Cohen, 1988) were small ($r = 0.1$) to moderate ($r = 0.3$) and no other significant gender differences emerged among the 26 transitional characteristics, the data were combined across genders for the remaining analyses.

6.1. Cross-national comparison of the transitional characteristics among Swiss, Danish, and Polish athletes

6.1.1. Individual characteristics compared across countries

Table 1 shows the means and standard deviations of the individual, career-end, and environmental characteristics divided by country.

In the upper section of the table, where individual characteristics are displayed, we observed statistically significant differences with small ($r = 0.1$) to moderate ($r = 0.3$) effects in eight out of

eleven characteristics across countries. A significantly higher proportion of Polish (85%) than Danish (62%) and Swiss athletes (40%) completed a higher educational degree while competing in elite sports. On average, Swiss athletes ($M = 13.35$, $SD = 9.13$) reported significantly more previous work experience than Polish athletes ($M = 8.50$, $SD = 11.71$) with Danish athletes in between ($M = 11.88$, $SD = 13.07$). Regarding the financial situation, Polish athletes earned a greater portion of their income within the sports context (59%) compared to Danish (52%) and Swiss athletes (47%). When athletes were asked to judge their skills and competencies, Danish athletes rated themselves significantly less confident than both Polish and Swiss athletes. On average, Swiss athletes ($M = 5.28$, $SD = 0.84$) reported a significantly lower athletic identity while active in elite sports compared to Polish athletes ($M = 5.81$, $SD = 0.88$). Polish athletes perceived themselves significantly more well-known in the public than both Swiss and Danish athletes. When comparing investments and benefits of their elite sports involvement, Danish athletes rated the benefits significantly higher than both Swiss and Polish athletes.

6.1.2. Career-end characteristics compared across countries

Three out of eleven factors were significantly different when comparing the career-end characteristics across athletes from the three countries (Table 1, middle section). Personal/motivational reasons to end the sports career were significantly more prominent for Danish athletes ($M = 3.19$, $SD = 1.19$) than both Swiss and Polish athletes ($M = 2.71$, $SD = 1.22$, $M = 2.58$, $SD = 1.21$, respectively). Furthermore, family-related reasons were significantly more important for Danish ($M = 3.30$, $SD = 1.51$) than for Swiss athletes ($M = 2.47$, $SD = 1.54$). In general, the effect sizes of the differences between the reasons that influenced athletes' decision to retire from sports were rather small when compared across the countries. However, a significant difference with a moderate to large effect ($r = 0.37$) was found in the perception of the career end, with Polish athletes ($M = 2.25$, $SD = 1.09$) perceiving their career end as much more of a loss than Swiss and Danish athletes ($M = 3.12$, $SD = 0.87$; $M = 3.31$, $SD = 1.09$, respectively). No differences were found in terms of voluntariness and plans for the future across countries. The majority of athletes (60–67%) in all three countries decided to retire voluntarily, and 61–68% of the athletes had concrete or very concrete plans for their life after elite sports. Furthermore, our results showed some similarities across the countries concerning the importance of reasons for athletic retirement. Danish and Polish athletes named family-related reasons as most influential, while they were the third-most important reasons for the Swiss athletes to end their sports career. Personal/motivational-related reasons were most influential for Swiss athletes and second- and fourth-most important for Danish and Polish athletes, respectively. Sport-environmental reasons and job/educational reasons were not among the prominent reasons leading to athletic retirement in any of the compared countries.

6.1.3. Environmental characteristics compared across countries

Athletes in all three contexts showed a similar pattern of social support during the transition (Table 1, lower section). On average, the athletes had two or three persons within their private environment (e.g., partner, parent, or friend) and one or two persons within their sports environment (e.g., coach, teammate, doctor, or manager) with whom they had important conversations concerning their transition. However, Swiss athletes ($M = 1.95$, $SD = 1.94$) had a significantly higher number of persons within their sports environment with whom they talked about their retirement process than Danish athletes ($M = 1.40$, $SD = 1.50$). According to our classification of athletes based on their sports disciplines, results showed that relatively more Swiss athletes participated in sports

Table 1

Means (M), standard deviations (SD), F/χ^2 -values, and effect sizes (r), of the 26 explanatory variables grouped into characteristics of the individual, the career end, and the environment by country.

Item (range)	Switzerland ($n = 231$)		Denmark ($n = 86$)		Poland ($n = 84$)		F/χ^2	r
	M	SD	M	SD	M	SD		
Characteristics of the individual								
Gender ^d (0 = male, 1 = female)	0.31	0.46	0.34	0.48	0.37	0.49	0.95	0.05
Age at retirement (years)	30.55 _a	6.30	30.38 _a	5.40	32.69 _b	5.85	4.39*	0.15
Education ^d (0 = secondary, 1 = tertiary)	0.39 _a	0.49	0.62 _b	0.49	0.85 _c	0.36	53.27***	0.36
Sport success ^d (0 = not top 3, 1 = top 3)	0.34	0.48	0.44	0.50	0.33	0.47	3.08	0.09
Total income career ^d (1–8)	4.31	2.30	4.31	1.98	4.39	2.55	23.15	0.17
Income from sport (in %)	46.52 _a	39.25	52.09	36.66	58.87 _b	34.67	3.41*	0.14
Previous work experience (h/week)	13.35 _a	14.12	11.88	13.07	8.50 _b	11.71	4.03*	0.14
Confidence in skills (11–55)	38.97 _a	9.13	33.35 _a	8.25	40.88 _b	7.91	18.26***	0.29
Athletic identity (1–7)	5.28 _a	0.84	5.54	0.81	5.81 _b	0.88	12.94***	0.25
Popularity (1–5)	2.47 _a	1.12	2.26 _a	1.22	3.02 _b	1.13	10.55***	0.22
Career investments vs. benefits (1–5)	3.18 _a	1.45	4.22 _b	1.05	2.86 _a	1.34	25.20***	0.34
Characteristics of the career end								
Personal/motivational reasons (1–5)	2.71 _a	1.22	3.19 _b	1.19	2.58 _a	1.21	6.44**	0.18
Performance-related reasons (1–5)	2.40	1.43	2.58	1.40	2.42	1.50	0.50	0.05
Sport-environmental reasons (1–5)	1.90	1.34	2.09	1.31	2.24	1.65	1.96	0.10
Job/educational reasons (1–5)	2.44	1.24	2.49	1.07	2.18	1.08	1.88	0.10
Financial-related reasons (1–5)	2.38	1.49	2.66	1.44	2.81	1.67	2.86	0.12
Family-related reasons (1–5)	2.47 _a	1.54	3.30 _b	1.51	2.82	1.61	9.36***	0.21
Health-related reasons (1–5)	2.63	1.64	2.59	1.52	2.81	1.54	0.48	0.01
Voluntariness (1–5)	3.60	1.57	3.98	1.41	3.83	1.41	1.96	0.10
Plans for future (1–5)	3.57	1.32	3.71	1.12	3.83	1.41	1.39	0.08
Timing ^d (0 = too late/early, 1 = on time)	0.70	0.46	0.62	0.49	0.56	0.49	5.69	0.12
Career end as loss vs. relief (1–5)	3.12 _a	0.87	3.31 _a	1.09	2.25 _b	1.07	31.81***	0.37
Characteristics of the environment								
Support private environment (0–5)	2.61	1.45	2.43	1.49	2.20	1.45	2.43	0.11
Support sports environment (0–13)	1.95 _a	1.94	1.40 _b	1.50	1.56	2.01	3.28*	0.13
Support category discipline ^d (1–4)	2.94 _a	1.01	3.10	1.09	3.20 _b	0.99	18.01**	0.15
Popularity of discipline ^d (1–3)	1.39 _a	0.76	1.52 _b	0.75	1.71 _c	0.90	24.50***	0.18

Note. Test statistics are F -values for continuous variables ($df = 2, 398$) and chi-square values for categorical variables as indicated by ^d. Means with different subscripts in a row are significantly different from each other. Higher values correspond to higher income, athletic identity, popularity, and career satisfaction. Higher values correspond to more pronounced reasons to retire, higher voluntariness, more concrete plans for future, and a more positive perception of the career end. Higher values correspond to a higher amount of important conversations within private/sports environment, a higher support and more media attention for disciplines. Effect sizes (r) are 0.10 ≈ small; 0.30 ≈ moderate; 0.50 ≈ large (Cohen, 1988).

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

that received rather little public attention and low support from the national sports governing body.

6.1.4. Comparison of the transition quality across countries

The country-specific means and standard deviations of the variables related to the transition quality are displayed in Table 2.

Results from a one-way between-groups MANOVA showed significant differences between the countries with respect to the

seven indicators of the transition quality, Wilks's lambda = 0.70, $F(14, 784) = 10.99$, $p < 0.001$, $r = 0.40$. The high r value and the many differences with moderate to large effects indicated that nationality contributed strongly to the differences in the variables related to adaptation quality. As indicated by one-way between-groups ANOVAs and post hoc analyses, the adaptation period was most problematic for Polish athletes ($M = 3.61$, $SD = 0.97$), as they perceived their adaptation much more negatively ($r = 0.43$) than

Table 2

Means (M), standard deviations (SD), F -values, and effect sizes (r) of variables related to adaptation quality of the transition out of elite sports by country.

Item (range)	Switzerland ($n = 231$)		Denmark ($n = 86$)		Poland ($n = 84$)		F	r
	M	SD	M	SD	M	SD		
Emotional difficulties (1–5)	2.76 _a	1.33	3.20 _b	1.32	3.01	1.34	3.69*	0.13
Social difficulties (1–5)	2.43 _a	1.19	2.92 _b	1.34	2.79	1.30	5.91**	0.17
Health/body difficulties (1–5)	2.00 _a	1.17	2.41 _b	1.22	2.38 _b	1.31	5.19**	0.16
Vocational difficulties (1–5)	1.81 _a	1.14	2.01	1.09	2.40 _b	1.20	8.30***	0.20
Financial difficulties (1–5)	1.71 _a	1.01	1.88 _a	0.98	2.75 _b	1.38	26.91***	0.35
Duration of adaptation (0–48 months)	9.23	8.95	10.44	8.33	9.05	9.05	0.70	0.06
Satisfaction with the transition (1–5)	4.45 _a	0.65	4.45 _a	0.62	3.61 _b	0.97	45.19***	0.43
Quality of the transition (composite score)	0.21 _a	0.94	−0.18 _b	0.88	−0.40 _c	1.12	14.34***	0.26

Note. Higher means correspond to more pronounced difficulties, a longer adaptation time, a higher satisfaction with the transition, and a higher quality of the transition out of elite sport. Df for F -values = 2, 398. Means with different subscripts in a row differ significantly from each other. Effect sizes (r) are 0.10 ≈ small; 0.30 ≈ moderate; 0.50 ≈ large (Cohen, 1988).

* $p < 0.05$. ** $p < 0.01$. *** $p < 0.001$.

both Swiss and Danish athletes ($M = 4.45$, $SD = 0.65$, $M = 4.45$, $SD = 0.62$, respectively). Most significantly, Polish athletes reported higher financial and vocational adaptation difficulties than Swiss and Danish athletes. Swiss athletes reported the lowest difficulties in all five areas of adaptation and in general rated their adaptation very positively. Danish athletes perceived their transition in the same positive way as the Swiss athletes despite facing significantly higher emotional, social, and physical/health-related difficulties during their adaptation period. The average duration of adaptation to the new life situation was nine months independent of the context. However, as indicated by the relatively large standard deviations, great inter-individual differences were reported in all three countries. The transition quality component score showed that Swiss athletes ($M = 0.21$, $SD = 0.94$) experienced a significantly better quality of the transition out of elite sports than Danish ($M = -0.18$, $SD = 0.88$) and especially Polish athletes ($M = -0.40$, $SD = 1.12$). In general, emotional and social adaptation was perceived as most challenging in all three countries. However, it should be noted that the averages of the adaptation difficulties (between 1.71 and 3.20 on a 5-point scale) were rather low. Thus, the former elite athletes included in our study generally faced low to moderate difficulties during their adaptation process.

6.2. Factors contributing to the transition quality and differences in athletic retirement patterns across the three nations

To facilitate comparisons between the factors measured in different units and to compare the relative predictive power of the 26 predictor variables on *quality of the transition* across the countries, we present the standardized regression coefficients (β) of the multiple regression analyses in Table 3.

All models were statistically significant and explained a similar percentage of the transition quality in each context, with an $R^2_{\text{adjusted}} = 0.26$ for Switzerland ($F(26, 204) = 4.13$, $p < 0.001$), $R^2_{\text{adjusted}} = 0.28$ for Denmark ($F(26, 59) = 2.27$, $p = 0.005$), and $R^2_{\text{adjusted}} = 0.29$ for Poland ($F(26, 56) = 2.31$, $p = 0.005$). In total, nine different factors made a significant contribution with a moderate to large effect on the transition quality. Concerning the distribution of the most influential factors according to our working model, it can be seen that, in the Swiss context, four out of the ten most influential predictors were found among the individual characteristics and six among the career-end characteristics. In the Danish model, two individual, seven career-end, and one environmental factor(s) were the most influential predictors. In the Polish model, two individual, six career-end, and two environmental factors were among the ten predictors with the highest β coefficients. Consequently, relatively more individual factors played a role in the Swiss context compared to the other two contexts. Contrary to this, environmental factors (e.g., popularity of discipline) were important predictors in the Danish and Polish contexts, but not in the Swiss. In general, many of the contributing factors were among the career-end indicating that the situational circumstances while ending the sports career played an important role for the transition quality. In the following sections, resources and barriers for a successful transition will be presented separately for Switzerland, Denmark, and Poland. Afterwards, common positive and negative factors will be highlighted. Finally, we will point out a few factors that appeared to function as resources for a successful transition in one context, but as barriers in another.

6.2.1. Resources and barriers for a successful transition in the Swiss context

Four statistically significant facilitators for a successful transition were identified in the Swiss context: a positive perception of the career end ($\beta = 0.25$), a higher age at the point of retirement

($\beta = 0.18$), a voluntary decision to retire ($\beta = 0.18$), and concrete plans for the future ($\beta = 0.14$). On the contrary, both a high perceived popularity ($\beta = -0.17$) and personal/motivational reasons ($\beta = -0.19$) influencing the decision to retire had a significant negative effect on the quality of the transition. Environmental factors such as social support or different categorizations of the discipline had no impact on the adaptation quality of athletes in the Swiss context.

6.2.2. Resources and barriers for a successful transition in the Danish context

In the Danish context, having participated in a popular discipline ($\beta = 0.52$), voluntariness to retire ($\beta = 0.34$), and a positive perception of the career end ($\beta = 0.21$) were the three statistically significant resources for high transition quality to the post-sports life. Looking at barriers, a high total income during the sports career ($\beta = -0.31$) and job/educational reasons ($\beta = -0.24$) showed a statistically significant negative effect on transition quality. Factors such as being female, having completed a higher education, top sports success, high athletic identity, and some specific reasons that led to retirement (personal/motivational-, performance-, and health-related reasons) were further barriers to a successful transition with small to medium negative effects.

6.2.3. Resources and barriers for a successful transition in the Polish context

To perceive the career end as a relief ($\beta = 0.50$), the popularity of the discipline ($\beta = 0.29$), and job/educational-related reasons influencing the decision to retire ($\beta = 0.23$) were the three significant resources for Polish athletes. Other factors, such as previous work experience and confidence in own skills did not reach significance, but their effect size indicated that these factors helped Polish athletes during the transition. High athletic identity, exclusive income from activities related to sports, as well as personal/motivational-, performance-, and financial-related reasons were all factors hindering a successful adaptation to the post-sports life.

6.3. Cross-national comparison of factors contributing to the quality of the transition

The results of the separate regressions by country clearly showed that many transitional characteristics affecting the transition quality were influenced by the socio-cultural context. A few common barriers or resources for a successful transition could be identified, while other factors worked as barriers in one context, but as resources in another. *Common resources* for a high adaptation quality in the transition out of elite sports in all three countries were perceiving the end of the sports career as a relief and not as a loss as well as a voluntary decision to retire. *Common barriers* independent of the national context were a high athletic identity and several reasons that lead to athletic retirement, such as personal/motivational-related reasons (e.g., lack of motivation, too many deprivations), performance-related reasons (e.g., age or deselection), financial-related reasons (e.g., lack of financial support), and health-related reasons (e.g., injury or burnout). Furthermore, a completed higher educational degree did not show to have a beneficial effect on the adaptation quality in any country.

Beside the factors that had a similar effect on the transition quality across contexts, we found several factors that showed opposite effects depending on the retirement context. For example, high total income, income from sports, confidence in own skills, popularity, and job/educational-related reasons were factors where the β values pointed in opposite directions when compared across countries. Furthermore, having participated in a popular discipline was a strong facilitator in the Danish and Polish context, while it

Table 3

Standard multiple regression of the transitional characteristics on the quality of the transition out of elite sports by country.

Predictor (range)	Switzerland (n = 231)	Denmark (n = 86)	Poland (n = 83)	β-spread
	β	β	β	
Characteristics of the individual				
Gender (0 = male, 1 = female)	−0.06	−0.15	−0.11	0.09
Age at retirement (years)	0.18**	0.05	0.01	0.17
Education (0 = secondary, 1 = tertiary)	−0.02	−0.13	−0.01	0.11
Sport success (0 = not top 3, 1 = top 3)	0.03	−0.15	0.03	0.18
Total income career (1–8)	−0.16	−0.31*	0.08	0.39
Income from sport (in %)	0.14	−0.08	−0.19	0.33
Previous work experience (h/week)	0.07	0.00	0.10	0.10
Confidence in skills (11–55)	0.07	−0.12	0.12	0.24
Athletic identity (1–7)	−0.09	−0.16	−0.13	0.07
Popularity (1–5)	−0.17**	0.15	0.02	0.32
Career investments vs. benefits (1–5)	0.00	−0.06	−0.07	0.07
Characteristics of the career end				
Personal/motivational reasons (1–5)	−0.19**	−0.21	−0.12	0.09
Performance reasons (1–5)	−0.04	−0.17	−0.18	0.14
Sport-environmental reasons (1–5)	−0.07	0.17	0.02	0.24
Job/educational reasons (1–5)	−0.02	−0.24**	0.23*	0.47
Financial-related reasons (1–5)	−0.11	−0.08	−0.13	0.05
Family-related reasons (1–5)	−0.01	0.22	0.17	0.23
Health-related reasons (1–5)	−0.11	−0.15	−0.04	0.09
Voluntariness (1–5)	0.18**	0.34**	0.02	0.32
Plans for future (1–5)	0.14**	−0.04	−0.01	0.18**
Timing (0 = too late/early, 1 = on time)	0.05	0.07	−0.08	0.13
Career end as loss vs. relief (1–5)	0.25***	0.21*	0.50***	0.29**
Characteristics of the environment				
Support private environment (0–5)	−0.02	0.09	−0.13	0.22
Support sport environment (0–13)	−0.04	−0.01	−0.06	0.05
Support category discipline (1–4)	0.01	−0.03	−0.09	0.10
Popularity of discipline (1–3)	−0.04	0.52***	0.29**	0.56***
R ²	0.35	0.50	0.52	
R ² _{adjusted}	0.26	0.28	0.29	
Unique explained variance	18%	41%	32%	
Shared variance	17%	9%	20%	
F-value	4.13***	2.27***	2.31***	
df	26/204	26/59	26/56	

Notes. β = standardized beta coefficient. Higher values correspond to higher income, athletic identity, popularity, and career satisfaction. Higher values correspond to more pronounced reasons to retire, higher voluntariness, more concrete plans for future, and a more positive perception of the career end. Higher values correspond to a higher amount of important conversations within private/sports environment, a higher support and more media attention for disciplines. The difference between the highest and the lowest β-value by country is displayed in the last column, labelled β-spread. Predictors indicated with * in the β-spread column are significantly moderated by country.

*p < 0.10. **p < 0.05. ***p < 0.01.

was a slightly negative predictor in Switzerland. The spread of the β values (Table 3, last column) emphasizes the considerable variation in the way factors contributed to the transition quality. When testing the nine significant variables in the models for interaction effects, moderation analyses revealed that plans for the future, the perception of the career end, and the popularity of the discipline were significantly moderated by country.

7. Discussion

The results of the present study supported all three hypotheses of our first study objective. Differences in eight out of 11 individual characteristics with substantial effect sizes are an indirect indicator that the national elite sports system including dual-career opportunities had a significant influence on athletes' individual characteristics related to the sports career included in our working model, which could be termed pre-conditions for the transition out of elite sport. Differences between Swiss, Danish, and Polish athletes were found both in more "objective" individual characteristics such as educational level and work experience, as well as in individual factors where perception plays a role (e.g., perceived popularity, confidence in one's skills, and athletic identity). Our results

supported our second hypothesis that the career-end characteristics would be less influenced by the national context as athletes reported similar patterns in terms of voluntariness to retire and plans for life after sports. Finally, the comparison of the adaptation difficulties across countries also supported our third hypothesis that Polish athletes would face more severe problems while relocating to the life after elite sports. In total, fourteen out of twenty-six factors incorporated in our working model differed significantly when comparing the three samples. Thus, our results support the findings of previous cross-national studies (Alfermann et al., 2004; Dimoula et al., 2013; Stambulova et al., 2007) that both similarities and differences can be found when comparing the retirement of athletes from different socio-cultural contexts.

A common pattern was that most of the former international elite athletes from all three countries decided to retire voluntarily. Their decision to retire was influenced by a mixture of different reasons with personal/motivational- and family-related reasons playing a major role. About two-thirds of the athletes in all three countries made concrete plans for their life after elite sports, which is in line with findings of other cross-cultural studies on athletic retirement (Dimoula et al., 2013; Stambulova et al., 2007). In general, athletes perceived their emotional adaptation (e.g., identifying

with the new role outside elite sports, missing the elite sports lifestyle) and their social adaptation (e.g., renewing social networks, conflicts with their partner) as most challenging during the adaptation period, which on average took around nine months independent of the context. During their transition, athletes in all three contexts received more support from persons within their private environment and less support from persons connected to their former elite sports activity. In general, the common pattern among the career-end characteristics across countries indicated that the retirement decision process and the considerations about the future career were more affected by the athletes' individual assessment of the situation, and less by macro-level factors such as national cultural dimensions or the welfare system.

Besides these similarities, we also found *country-specific patterns* about the transition out of elite sports. Our results showed that athletes' educational level differed heavily when compared across the samples with 85% of Polish athletes having completed a tertiary education compared to 62% Danish and 39% Swiss athletes. The educational level of the general population who completed a tertiary education (age group of 25–34 years) was 42–46% in all three countries (OECD, 2014). Thus, Swiss athletes reached a lower educational level than their peers in the same age group. This underlines that higher educational support for elite athletes is less institutionalized in Switzerland (Kempf, Weber, Renaud, & Stopper, 2013). Many Swiss athletes had to work part-time and, accordingly, earned a greater portion of their income from activities unconnected to elite sports. This might have affected their athletic identity, which was lower than that of Polish and Danish athletes. Low scores on all adaptation difficulties variables showed that the adaptation process was the least demanding for Swiss athletes, as their pre- and post-environments of the transition did not differ as widely as for Danish and Polish athletes.

Danish athletes judged themselves least confident in their skills and competencies and perceived themselves as least popular, despite being the sub-sample with the highest international success in terms of top three rankings. However, Danish athletes expressed a greater general satisfaction with their sports career by emphasizing that their benefits outbalanced their investments. The vocational or educational adaptation caused little problems for Danish athletes, but they perceived their social and emotional adaptation as more demanding than athletes from the other two countries.

Most of the Polish athletes were financially supported by their sports federations and profited from substantial help during their studies, such as personal study plans, individual tutoring, and stipends. However, when terminating their elite sports career, the privileges connected with the elite athlete status came to an end, and the career end was thus associated with more negative feelings. Polish athletes identified strongly with their role as elite athletes and also felt that their sporting achievements were connected with high public recognition. Only a few athletes gathered work experience during their sports career. The adaptation period was marked by financial difficulties and many former Polish athletes reported complications integrating into the job market. A comparable pattern of a more problematic adaptation process was observed in Russia and Lithuania, which have state-centered sports systems similar to the one in Poland (Alfermann et al., 2004).

Some of these country-specific patterns or differences can be explained using Bronfenbrenner's ecological model (1979), considering that the athletes' transition is embedded in a specific context. The national dual-career contexts outlined earlier provide a possible systemic explanation why athletes from the three contexts differed with regard to their educational level. The culture within Scandinavian countries influenced by the egalitarian welfare-state thinking could be a reason for the rather modest

attitude towards their skills and the perceived lack of popularity of Danish athletes (Bairner, 2010), whereas a strong power distance (Hofstede et al., 2010) and a more dominant hierarchical structure in Poland might be the reason for the higher status of elite athletes in society. The differences in work experience and income connected to sports are most probably caused by different national athletic support systems (Aquilina & Henry, 2010; De Bosscher et al., 2015), but also by the heterogeneities of the samples with relatively more Swiss athletes having competed in less commercialized sports.

To sum up, when empirically testing our working model of factors contributing to the quality of the transition in the comparison of former Swiss, Danish, and Polish athletes, our results indicated that the national context influenced, especially, the individual characteristics and the factors related to the quality of the transition. Therefore, based on the many differences between the sub-samples, it was reasonable to investigate how the transitional characteristics incorporated in our model contribute to the transition quality separately for each context.

7.1. Factors contributing to the transition quality out of elite sports

Our second study objective was to explore the predictive power of the transitional characteristics in terms of the perceived transition quality depending on the three cultural contexts. Our working model included most of the commonly assumed resources and barriers found in the literature for a successful transition (Park et al., 2013) and explained 25–29% of the transition quality in each context, which we consider as satisfying given that the transition quality is a complex construct that involves an adaptation in several spheres of life. Our results showed that out of the 26 factors considered, nine were both significant and substantial predictors in the models. Consequently, many factors that previous research revealed as influential resources or barriers for a successful transition showed negligible effects on the transition quality when controlling for other factors. There was a notable variation in the outcome that could not be explained by the many predictors included in our working model. Therefore, the working model could be expanded with other relevant concepts related to the transition, such as self-efficacy (Bandura, 1997) or factors related to coping (Lazarus & Folkman, 1984). However, the fact that every person – even under similar circumstances and pre-conditions – reacts differently to a transition (Schlossberg, 1981) might be another reason why it is difficult to predict the quality of the transition more precisely.

7.1.1. Commonly assumed resources for a successful transition

A positive assessment of the career end was a main resource and the only factor which showed a significant positive effect on the transition quality in all three countries. In line with the findings of Schmid, Adler Zwahlen, Engel, and Seiler (2016), we conclude that having a feeling of relief when ending their elite sports career helps athletes substantially in coping with the upcoming adaptation demands. Our results confirmed that a voluntary decision to retire is beneficial for the transition out of elite sports, as athletes feel more in control of their adaptation process (Alfermann, 2000; Cecić Erpić, Wylleman, & Zupancić, 2004; Taylor & Ogilvie, 1994). Contrary to this, having concrete plans for life after elite sports showed only a small positive effect in Switzerland, although pre-retirement planning was thought to be among the most important resources for a successful transition (Alfermann et al., 2004; Taylor & Ogilvie, 1994). Unlike previous studies (Cecić Erpić et al., 2004; Conzelmann & Nagel, 2003), we found no obvious positive effects of sports career achievements (i.e., Olympic or World Championship medal), financial status (i.e., high income in sport), and social support (i.e.,

important conversations) on the adaptation quality. To our surprise, and in contrast to many other studies (e.g., [Cecić Erpić et al., 2004](#); [Guidotti, Cortis, & Capranica, 2015](#); [Torregrosa, Ramis, Pallarés, Azócar, & Selva, 2015](#); [Tshube & Feltz, 2015](#)), a higher educational degree did not make a positive contribution to the transition quality in any country. However, it should be noted that many athletes holding a university degree had collected little work experience when they entered the job market in the period after the economic/financial crisis in 2008 since companies hardly employed any new employees.

7.1.2. Commonly assumed barriers for a successful transition

Our results supported previous findings that a strong athletic identity is a risk factor for athletes facing the transition ([Alfermann et al., 2004](#); [Brewer et al., 1993](#); [Cecić Erpić et al., 2004](#); [Grove, Lavallee, & Gordon, 1997](#); [Lally, 2007](#)). Reasons categorized as push-factors according to the decision-making framework of [Fernandez, Stephan, and Fouquereau \(2006\)](#), such as injury, lack of motivation or financial support generally had a negative effect on the transition quality.

7.1.3. Country-specific resources and barriers

Several factors related to the transition differed in strength and direction depending on the national context. Factors such as the financial situation, job/educational reasons, the perception of the career end, and the popularity of the discipline showed a wide spread of β values indicating that the national context played an important role in the way these factors contributed to the transition quality. Future plans, a positively perceived career end, and the popularity of disciplines were significantly moderated by country and, therefore, their contribution differed significantly depending on the national context. As an example, a positive perception of the career end was an even stronger facilitator in the Polish than in the Swiss context.

To summarize, our working model facilitated the data collection, which was based on the hypothesis that many individual, situational, and environmental factors interplay with defining the transition quality. Our results suggest that the transition out of elite sport is a complex and multifaceted phenomenon. A variety of factors including nationality and culture contribute to the transition quality. Therefore, instead of relying on generalizable statements about factors contributing to the adaptation quality after athletic retirement, practitioners should take context-specific factors into account when working with athletes in the transition ([Stambulova & Ryba, 2014](#); [Stambulova et al., 2009](#)).

Based on the country-specific patterns in athletic retirement, we may offer some ideas for contextualized practical implementations. Assisting athletes to explore alternative roles outside elite sport might help Polish athletes to perceive their career end as less negative. During the retirement process, Polish athletes could benefit from psychological assistance that aims to enhance athletes' self-efficacy to cope with the transition demands. Furthermore, offering new career choices when relocating in the job market could reduce their vocational and financial adaptation difficulties. Danish athletes, especially those who earned a substantial amount of money through their sporting commitment, may benefit from sports psychological support that would help the athletes to deal with the social and emotional adaptation difficulties during the transition. Swiss athletes could profit from more flexible study programs on higher education so that studies and elite sports are better combinable.

7.2. Strengths and limitations

Applying multiple regression techniques, we were able to

increase the understanding of how a certain factor contributes to the transition quality when controlling for many other relevant transitional characteristics. A further strength of this study was the cross-cultural comparative design, as features of one context become more apparent (only) when contrasted with other cultural contexts ([Duda & Allison, 1990](#)). As a basis for comparison, we were able to survey large samples of former Swiss, Danish, and Polish elite athletes from a wide range of sports disciplines. The role and position of the first author as a former elite athlete having connections to all three contexts studied was helpful in when collaborating with federations, increasing the response rate of the athletes, and in the interpretation of the results.

This study has several limitations. First, as an exploratory study, we applied a cross-sectional retrospective design. Although this approach enabled collecting data in the three contexts, there are certain aspects of athletes' transitions that might be better examined using a longitudinal research design. Second, the retrospective nature of the data collection could have raised a concern regarding athletes' ability to accurately recall their change-event experiences ([Côté, Ericsson, & Law, 2005](#)). However, to reduce the recall bias, we included only athletes who retired a maximum of five years before their interview. Third, the ratio between the number of predictors and the number of sampled athletes are above the conventions for multiple regression models ([Miles & Shevlin, 2001](#)). As a consequence, the beta coefficients in the Danish and Polish models are not very stable and thus have to be interpreted with caution.

7.3. Recommendations for future research

Our results supported the line of thinking that cross-cultural comparative studies are needed to increase the understanding of how contextual factors contribute to the transition quality out of elite sports ([Stambulova & Ryba, 2014](#)). However, the countries in our study and as well the countries included in the previous EPAR projects differed on several macro- and meso dimensions. This leaves us to speculate on how these dimensions behave as resources or barriers for the transition and how they influence athletes' transitional characteristics. Thus, to increase the understanding of certain macro- and meso factors on the transitional outcomes, we propose a more systematic selection of countries for future comparative studies. For example, countries adopting the same welfare regime or countries that provide a similar dual-career support for student-athletes on higher education could be compared.

With the development of our working model, we attempted to include the previous theoretical contributions that emerged from the European career transition sports psychology discourse ([Stambulova, 2016](#)) including the conceptualization of an athlete as a whole person within the holistic athletic career model ([Wylleman & Lavallee, 2004](#); [Wylleman et al., 2011](#)) and the athletic career transition models ([Stambulova, 2003](#); [Stambulova et al., 2007](#)). Applied perspectives of this study relate to a deeper and more contextualized understanding of the transition out of sport in which nation/cultures plays an important role. Our working model could be used and culturally adapted to further investigate cross-national similarities and dissimilarities of athletic retirement, but also to compare the transition out of sport of athletes that developed their career in different athletic environments within a country, such as highly professionalized sports versus amateur sports. Furthermore, our model provides a framework that can help sports psychologists and career counselors to locate potential resources and barriers that may help or hinder athletes in overcoming the transitional demands in a specific environment.

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Appendix A. Supplementary data

Supplementary data related to this article can be found at <http://dx.doi.org/10.1016/j.psychsport.2016.11.008>.

References

- Agergaard, S., & Ryba, T. (2014). Migration and career transitions in professional sports: Transnational athletic careers in psychological and sociological perspective. *Sociology of Sport Journal*, 31(2), 228–247. <http://dx.doi.org/10.1123/ssj.2013-0031>.
- Alfermann, D. (2000). Causes and consequences of sport career termination. In D. Lavallee, & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 45–58). Morgantown, WV: Fitness Information Technology.
- Alfermann, D., & Stambulova, N. (2007). Career transitions and career termination. In G. Tenenbaum, & R. C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 712–736). New York, NY: Wiley.
- Alfermann, D., Stambulova, N., & Zemaityte, A. (2004). Reactions to sport career termination: A cross-national comparison of German, Lithuanian, and Russian athletes. *Psychology of Sport and Exercise*, 5(1), 61–75. [http://dx.doi.org/10.1016/S1469-0292\(02\)00050-X](http://dx.doi.org/10.1016/S1469-0292(02)00050-X).
- Aquilina, D., & Henry, I. (2010). Elite athletes and university education in Europe: A review of policy and practice in higher education in the European Union Member States. *International Journal of Sport Policy*, 2(1), 25–47. <http://dx.doi.org/10.1080/19406941003634024>.
- Bairner, A. (2010). What's Scandinavian about Scandinavian sport? *Sport in Society*, 13(4), 734–743. <http://dx.doi.org/10.1080/17430431003616555>.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Bergsgard, N. A., Houlihan, B., Mangset, P., Nørdland, S. I., & Rommetvedt, H. (2007). *Sport policy: A comparative analysis of stability and change*. Oxford: Butterworth-Heinemann.
- Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or Achilles heel? *International Journal of Sport Psychology*, 24, 237–254.
- Brislin, R. (2000). *Understanding culture's influence on behavior* (2nd ed.). Toronto: Earl McPeck.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge: Harvard University Press.
- Cecić Erpić, S., Wylleman, P., & Zupančić, M. (2004). The effect of athletic and non-athletic factors on the sports career termination process. *Psychology of Sport and Exercise*, 5(1), 45–59. [http://dx.doi.org/10.1016/S1469-0292\(02\)00046-8](http://dx.doi.org/10.1016/S1469-0292(02)00046-8).
- Coakley, J. J. (1983). Leaving competitive sport: Retirement or rebirth? *Quest*, 35(1), 1–11. <http://dx.doi.org/10.1080/00336297.1983.10483777>.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- Conzelmann, A., & Nagel, S. (2003). Professional careers of the German Olympic athletes. *International Review for the Sociology of Sport*, 38(3), 259–280. <http://dx.doi.org/10.1177/10126902030383001>.
- Côté, J., Ericsson, K. A., & Law, M. P. (2005). Tracing the development of athletes using retrospective interview methods: A proposed interview and validation procedure for reported information. *Journal of Applied Sport Psychology*, 17(1), 1–19. <http://dx.doi.org/10.1080/10413200509097531>.
- De Bosscher, V., Shibli, S., Westerbeek, H., & van Bottenburg, M. (2015). *Successful elite sport policies: An international comparison of Sport Policy factors Leading to International Sporting Success (SPLISS 2.0.) in 15 nations*. Maidenhead: Meyer & Meyer Sport.
- Dimoula, F., Torregrosa, M., Psychountaki, M., & Fernandez, M. D. G. (2013). Retiring from elite sports in Greece and Spain. *The Spanish Journal of Psychology*, 16, 1–11.
- Duda, J. L., & Allison, M. T. (1990). Cross-cultural analysis in exercise and sport psychology: A void in the field. *Journal of Sport & Exercise Psychology*, 12, 114–131.
- Ember, C. R., & Ember, M. (2009). *Cross-cultural research methods* (2nd ed.). Plymouth: AltaMira Press.
- Esping-Andersen, G. (1999). *Social foundations of postindustrial economies*. Oxford: Oxford University Press.
- Fernandez, A., Stephan, Y., & Fouquereau, E. (2006). Assessing reasons for sports career termination: Development of the Athletes' Retirement Decision Inventory (ARDI). *Psychology of Sport and Exercise*, 7(4), 407–421. <http://dx.doi.org/10.1016/j.psychsport.2005.11.001>.
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Thousand Oaks, CA: Sage.
- Grove, J. R., Lavallee, D., & Gordon, S. (1997). Coping with retirement from sport: The influence of athletic identity. *Journal of Applied Sport Psychology*, 9(2), 191–203. <http://dx.doi.org/10.1080/10413209708406481>.
- Guidotti, F., Cortis, C., & Capranica, L. (2015). Dual Career of European student-athletes: A systematic literature review. *Kinesiology Slovenica*, 21(3), 5–20.
- Harzing, A. W. (2006). Response styles in cross-national survey research: A 26-country study. *International Journal of Cross Cultural Management*, 6(2), 243–266. <http://dx.doi.org/10.1177/1470595806066332>.
- Hedal, M. (2006). *Sport på dansk tv [Sport on Danish TV]*. Copenhagen: Danish Institute for Sports Studies. Retrieved March 24, 2014, from <http://www.idan.dk/vidensbank/udgivelser/sport-paa-dansk-tv-en-analyse-af-samspillet-mellem-sport-og-dansk-tv-19932005/b748eb95-c831-4c0b-b946-989100c47191>.
- Hill, P., & Lowe, B. (1974). The inevitable metathesis of the retiring athlete. *International Review for the Sociology of Sport*, 9(3), 5–32. <http://dx.doi.org/10.1177/101269027400900301>.
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the mind. Intercultural cooperation and its importance for survival* (3rd ed.). New York, NY: McGraw-Hill.
- Kempf, H., Weber, A. C., Renaud, A., & Stopper, M. (2013). *Der Leistungssport in der Schweiz: Momentaufnahme SPLISS-CH 2011 [Elite sport in Switzerland: Snapshot SPLISS-CH 2011]*. Magglingen: Federal Office of Sport.
- Kuettel, A., Christensen, M. K., Zysko, J., & Hansen, J. (2016). *A cross-cultural comparison of dual career environments for elite athletes in Switzerland, Denmark, and Poland* (Manuscript under review).
- Lally, P. (2007). Identity and athletic retirement: A prospective study. *Psychology of Sport and Exercise*, 8(1), 85–99. <http://dx.doi.org/10.1016/j.psychsport.2006.03.003>.
- Lamprecht, M., Fischer, A., & Stamm, H. (2014). *Sport Schweiz 2014: Sportaktivität und Sportinteresse der Schweizer Bevölkerung [Sport Switzerland 2014: Sport activity and sport interest of the Swiss population]*. Magglingen: Federal Office of Sport.
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York, NY: Springer.
- Lerch, S. H. (1982). Athletic retirement as social death: An overview. In N. Therberge, & P. Donnelly (Eds.), *Sport and the sociological imagination* (pp. 259–272). Fort Worth, TX: Christian University Press.
- Mayocchi, L., & Hanrahan, S. J. (2000). Transferable skills for career change. In D. Lavallee, & P. Wylleman (Eds.), *Career transitions in sport: International perspectives* (pp. 95–110). Morgantown, WV: Fitness Information Technology.
- McPherson, B. D. (1984). Sport participation across the life cycle: A review of the literature and suggestions for future research. *Sociology of Sport Journal*, 1(3), 213–230.
- Mihovilovic, M. A. (1968). The status of former sportsmen. *International Review for the Sociology of Sport*, 3(1), 73–96. <http://dx.doi.org/10.1177/101269026800300105>.
- Miles, J. N. V., & Shevlin, M. (2001). *Applying regression and correlation: A guide for students and researchers*. London: Sage.
- OECD. (2014). *Population with tertiary education*. <http://dx.doi.org/10.1787/0b8f90e9-en>. Retrieved February 16, 2016, from <https://data.oecd.org/eduatp/population-with-tertiary-education.htm>.
- Park, S., & Lavallee, D. (2015). Roles and influences of Olympic athletes' entourages in athletes' preparation for career transition out of sport. *Sport and Exercise Psychology Review*, 11(1), 3–19.
- Park, S., Lavallee, D., & Tod, D. (2013). Athletes' career transition out of sport: A systematic review. *International Review of Sport and Exercise Psychology*, 6(1), 22–53. <http://dx.doi.org/10.1080/1750984x.2012.687053>.
- Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). Thousand Oaks, CA: Sage.
- Pawlak, A. (1984). The status and style of life of Polish Olympians after completion of their sports careers. *International Review for the Sociology of Sport*, 19(2), 169–183.
- Pentagon Research. (2014). *Sport Barometr [Sport barometer] (unpublished report)*. Wrocław.
- Rees, T. (2007). Influence of social support on athletes. In S. Jowett, & D. Lavallee (Eds.), *Social psychology in sport* (pp. 223–231). Champaign, IL: Human Kinetics.
- Ryba, T. V., Stambulova, N. B., Si, G., & Schinke, R. J. (2013). ISSP Position Stand: Culturally competent research and practice in sport and exercise psychology. *International Journal of Sport and Exercise Psychology*, 11(2), 123–142. <http://dx.doi.org/10.1080/1612197x.2013.779812>.
- Schlossberg, N. K. (1981). A model for analyzing human adaptation to transition. *The Counseling Psychologist*, 9(2), 2–15. <http://dx.doi.org/10.1177/00110008100900202>.
- Schmid, J., Adler Zwahlen, J., Engel, R., & Seiler, R. (2016). *The role of benefit finding for the quality of the adjustment to life after top-level sport* (Manuscript submitted for publication).
- Schmidt, U., & Hackfort, D. (2001). Convergent and divergent results of a bi-national study on career transitions of former French and German top athletes. In A. Papaioannou, M. Goudas, & Y. Theodorakis (Eds.), *Proceedings of the 10th World Congress of Sport Psychology* (Vol. 5, pp. 5–7). Athens: Christodoulidi Publications Thessaloniki.
- Seiler, R., Anders, G., & Irlinger, P. (1998). *Das Leben nach dem Spitzensport: 37. Magglinger Symposium vom 21–23. Mai 1998. [Life after elite sport: 37. Symposium of Magglingen from 21–23 May 1998]*. Magglingen: Federal Office of Sport.
- Si, G., & Lee, H. (2007). Cross-cultural issues in sport psychology research. In

- S. Jowett, & D. Lavallee (Eds.), *Social psychology in sport* (pp. 279–288). Champaign, IL: Human Kinetics.
- Stambulova, N. (2003). Symptoms of a crisis-transition: A grounded theory study. In N. Hassmén (Ed.), *SIPF yearbook 2003* (pp. 97–109). Örebro: Örebro University Press.
- Stambulova, N. (2012). Working with athletes in career transitions. In S. Hanton, & D. Mellalieu (Eds.), *Professional practice in sport psychology* (pp. 165–194). New York, NY: Routledge.
- Stambulova, N. (2016). Theoretical developments in the career transition topic: Contribution of European sport psychology. In M. Raab, P. Wylleman, R. Seiler, A. M. Elbe, & A. Hatzigeorgiadis (Eds.), *Sport and exercise psychology research: From theory to practice* (pp. 251–268). London: Elsevier.
- Stambulova, N., & Alfermann, D. (2009). Putting culture into context: Cultural and cross-cultural perspectives in career development and transition research and practice. *International Journal of Sport and Exercise Psychology*, 7(3), 292–308. <http://dx.doi.org/10.1080/1612197x.2009.9671911>.
- Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). Career development and transitions of athletes: The ISSP position stand. *International Journal of Sport and Exercise Psychology*, 7(4), 395–412. <http://dx.doi.org/10.1080/1612197x.2009.9671916>.
- Stambulova, N., & Ryba, T. (2013). *Athletes' careers across cultures*. New York, NY: Routledge.
- Stambulova, N., & Ryba, T. V. (2014). A critical review of career research and assistance through the cultural lens: Towards cultural praxis of athletes' careers. *International Review of Sport and Exercise Psychology*, 7(1), 1–17. <http://dx.doi.org/10.1080/1750984x.2013.851727>.
- Stambulova, N., Stephan, Y., & Jäphag, U. (2007). Athletic retirement: A cross-national comparison of elite French and Swedish athletes. *Psychology of Sport and Exercise*, 8(1), 101–118. <http://dx.doi.org/10.1016/j.psychsport.2006.05.002>.
- Stephan, Y., & Demulier, V. (2008). Transition out of elite sport: A dynamic, multi-dimensional, and complex phenomenon. In M. P. Simmons, & L. A. Foster (Eds.), *Sport and exercise psychology research advances* (pp. 175–190). Hauppauge, NY: Nova Science.
- Svoboda, B., & Vanek, M. (1982). Retirement from high level competition. In T. Orlick, J. T. Partington, & J. H. Salmela (Eds.), *Proceedings of the fifth world congress of sport psychology* (pp. 166–175). Ottawa: Coaching Association of Canada.
- Tabachnick, B. G., & Fidell, L. S. (2014). *Using multivariate statistics* (6th ed.). New York, NY: Pearson.
- Taylor, J., & Ogilvie, B. C. (1994). A conceptual model of adaptation to retirement among athletes. *Journal of Applied Sport Psychology*, 6(1), 1–20. <http://dx.doi.org/10.1080/10413209408406462>.
- Torregrosa, M., Ramis, Y., Pallarés, S., Azócar, F., & Selva, C. (2015). Olympic athletes back to retirement: A qualitative longitudinal study. *Psychology of Sport and Exercise*, 21, 50–56. <http://dx.doi.org/10.1016/j.psychsport.2015.03.003>.
- Tshube, T., & Feltz, D. L. (2015). The relationship between dual-career and post-sport career transition among elite athletes in South Africa, Botswana, Namibia and Zimbabwe. *Psychology of Sport and Exercise*, 21, 109–114. <http://dx.doi.org/10.1016/j.psychsport.2015.05.005>.
- Wylleman, P., De Knop, P., & Reints, A. (2011). Transitions in competitive sports. In N. L. Holt, & M. Talbot (Eds.), *Lifelong engagement in sport and physical activity* (pp. 63–76). New York, NY: Routledge.
- Wylleman, P., & Lavallee, D. (2004). A developmental perspective on transitions faced by athletes. In M. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp. 507–527). Morgantown, WV: Fitness Information Technology.

Paper 2

Kuettel, A., Christensen, M. K., Zysko, J., & Hansen, J. (manuscript). A cross-cultural comparison of the dual career environment for elite athletes in Switzerland, Denmark, and Poland. Manuscript prepared for the *Journal of Applied Sport Psychology*.

1 **A Cross-Cultural Comparison of Dual Career Environments for Elite Athletes in**
2 **Switzerland, Denmark, and Poland**

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Abstract

The purpose of this qualitative study was (a) to provide an overview of the provided dual career opportunities for elite athletes in Switzerland, Denmark, and Poland; and (b) to deepen our understanding of how the cultural context influences the development of dual career programs and trajectories of elite athletes. In each country, four semi-structured interviews with key informants involved in dual career were used to discuss benefits, obstacles and best practices of the national dual career settings and programs. Interviews were transcribed verbatim and content analyzed in a deductive-inductive way. Beside the differences in the higher educational support for elite athletes and the availability of athlete career programs, stakeholders expressed divergent values and attitudes, which were related to their opinions on how dual careers should be organized. These values were found to be linked to the ideologies of the welfare regimes in their respective countries. Since dual career practices and programs are based on different basic assumptions about the development of athletes, divergent dual career trajectories and environments are proposed to athletes as the desired way to combine elite sport and education. Based on the results of our cross-cultural comparison, we assert that culture is not only an influential but also a constituting factor in the development of dual career opportunities. Thus, we recommend a cultural-sensitive approach towards the dual career of athletes and to consider national ideologies and welfare systems when implementing European dual-career policies and guidelines.

Key words: elite sport, dual career, sports system, cultural comparison, education

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1. Introduction

3 To achieve top-level performance and to maintain a sports career during their adult years,
4 athletes engage in a long-term, deliberate practice which often conflicts with educational
5 commitment. Consequently, many elite athletes face the dilemma of whether they should focus
6 solely on sport or undertake a dual career (i.e., combining sport with education and/or work).
7 Athletes who focus exclusively on their athletic career are in risk of athletic identity foreclosure,
8 which can lead to athletic drop-out and adaptation difficulties when ending the sports career
9 (Grove, Lavalley, & Gordon, 1997; Lally, 2007). Dual career pathways have been shown to be
10 helpful for balancing sport and other spheres of an athlete's life (Debois, Ledon, & Wylleman,
11 2015; Wylleman & Lavalley, 2004). In addition, there are several benefits associated with a dual
12 career such as a reduced stress level, better conditions to develop life skills, social benefits, better
13 career/retirement planning, and enhanced future employment prospects (e.g., Aquilina, 2013).

14 Three different trajectories of dual career pathways have been identified by Pallarés,
15 Azócar, Torregrosa, Selva, & Ramis (2011): (a) a *linear trajectory* occurs when the athletes are
16 focused entirely on their sporting career, and thus giving almost 100% dedication to their sport;
17 (b) a *convergent trajectory* occurs when sport is prioritized, but it is compatible with a job or
18 with education; and (c) a *parallel trajectory* occurs when sport and higher education or work are
19 almost equally weighted. These trajectories were found to be highly relevant as to how athletes
20 handled their retirement process (Torregrosa, Ramis, Pallarés, Azócar, & Selva, 2015).

21 1.1 Elite Sports Systems and Dual Career

22 The totalization process of elite sport (Heinilä, 1984) recognizes that the continuous
23 growing demands in international sport lead to a competition between sports systems, which has
24 led to an increasing trend of convergence of national sports systems (Digel, 2005; Green &

1 Oakley, 2001; Houlihan & Green, 2008). Common elements include talent development
2 programs for athletes, construction of elite sports facilities/ training centers, full-time support for
3 elite athletes, and flexibility in lower and higher education. Concerning dual career, the *SPLISS*
4 study (Sport Policy factors Leading to International Sporting Success; De Bosscher, Shibli,
5 Westerbeek, & van Bottenburg, 2015) concluded that countries adopted various methods for
6 integrating academic and sporting careers ranging from highly centralized state-controlled
7 systems to much more informal approaches, but no single best approach could be identified.

8 **1.2. Typology of Approaches to Educational Services for Elite Athletes in Higher Education**

9 In Europe, it is only since the early 1990s that initiatives have been established to better
10 combine academics with high-level athletic activities (De Knop, Wylleman, Van Hoecke, De
11 Martalaer, & Bollaert, 1999). Aquilina and Henry (2010) classified the approaches of the EU
12 Member States for promoting higher education to student-athletes according to a four-fold
13 typology: (1) *state-centric provision* for dual career athletes which is based on legal grounds; (2)
14 *state as a facilitator*, fostering formal agreements between educational and sporting bodies; (3)
15 *national federations/sport institutes as facilitators or mediators* between athletes and educational
16 bodies; and (4) a “*laissez-faire*” approach does not have a formal structure in place.

17 Furthermore, Aquilina and Henry (2010) were able to show that socio-economic and
18 cultural foundations of a country (collectively referred to as “welfare regime”) influenced the
19 way dual career policy was shaped. Depending on Esping-Andersen’s (1990) welfare regime
20 types, countries tended to adopt different approaches to higher educational support for athletes:
21 countries labeled as *liberal* (e.g., the UK, Switzerland) typically implemented either a *laissez-*
22 *faire* approach or the approach where federations and sports institutes act as mediators in the
23 negotiations between athletes and higher education institutes; countries with a *conservative*

1 *corporatist* regime (e.g., Italy, Poland) typically adopted the state-centric dual career approach;
2 finally, in *social democratic* regimes (mainly Scandinavian countries¹), the state usually acts as a
3 facilitator for the development of dual career opportunities for elite athletes.

4 **1.3. A Cultural Perspective on Dual Career**

5 Since dual career settings differ substantially across different national contexts and dual
6 careers of athletes have been shown to vary between different sports systems, a cultural-sensitive
7 approach towards athletes' careers and their socio-cultural context has been proposed by
8 Stambulova and Ryba (2013). When reviewing national career research and assistance programs
9 from 19 countries, Stambulova and Ryba concluded that "the vast majority of athletes face rather
10 similar challenges, but how these challenges are perceived and addressed heavily depends on the
11 context in which the athlete is embedded" (p. 236). However, while Stambulova and Ryba
12 raised the issue of the cultural influence on athletes' careers, little recent research into dual career
13 take the influence of national dual career settings on athletes' career trajectories as its central
14 concern. Consequently, the focus of this paper is to increase the understanding of the cultural
15 influence on athletes' dual career trajectories and the way the national context prepare athletes
16 for their life after elite sport.

17 Cross-cultural research has revealed that cultural dimensions of societies such as
18 individualism or power distance are relatively stable over time (e.g., Hofstede, Hofstede, &
19 Minkov, 2010), whereas organizational and micro-cultures are more influenced by changes due
20 to turnovers in leaders or members of organizations. Organizational culture in sports settings has
21 been studied in a variety of ways, ranging from exploring coaching practices, understanding
22 talent identification, and linking the strength of a culture with organizational performance

¹ The welfare model of Scandinavian countries is also referred to as the universal model which is characterized by a high degree of social inclusion, taxation, and redistribution (Larsen & Andersen, 2015).

1 (Maitland, Hills, & Rhind, 2015). Most often, researchers were inspired by Schein's (1985,
2 2010) functional definition of culture. Schein defines culture as what a group learns over a period
3 of time as that group solves its problems of survival in an external environment (i.e., in elite
4 sport: international medal race) and its problems of internal integration (i.e., how to achieve
5 results: social legitimacy). According to Schein (2010), any group's culture can be studied at
6 three levels: cultural artifacts, espoused values, and its basic underlying assumptions.

7 *Cultural artifacts* include visible products of a group, such as architecture, language,
8 technology, customs, and traditions. Established programs and support services for athletes could
9 be understood as artifacts concerning dual career. Artifacts are easy to observe but are hard to
10 decipher. *Espoused values* are the social principles, norms, and standards that an organization
11 and its members show to the world. These values remain conscious and are explicitly articulated
12 because they serve as normative and moral functions to guide members of the group. *Basic*
13 *assumptions* can be defined as a concept that has become taken for granted so that one finds little
14 variation for other solutions within a social unit. The deeply rooted beliefs and assumptions are
15 no longer questioned and exist at a level below the members' consciousness, and therefore have
16 to be derived by the researcher. These assumptions tend to be very difficult to change, and
17 questioning basic assumptions often leads to anxiety, unease, and defensiveness (Schein, 2010).

18 **1.4. Objectives**

19 Focusing mostly on historical development and contextual factors, contemporary research
20 of comparing elite sports systems and career support programs (e.g., Anderson & Ronglan, 2012;
21 De Bosscher et al., 2015) has not included the deeper levels of cultural contexts as possible
22 explanations why athletes' career trajectories differ between different national contexts. Thus, it
23 was the goal of the present study to explore the beliefs and values of the stakeholders working in

1 national dual career environments and to enhance the understanding of the relationship between
2 athletes' dual career trajectories and the respective national context. The three objectives of this
3 study were (a) to provide an overview of the dual career opportunities and athlete career
4 programs provided for elite athletes in Switzerland, Denmark, and Poland; (b) to highlight the
5 dual career pathways that are most commonly taken by elite athletes in each country; and (c) to
6 deepen our understanding of the cultural embeddedness of dual career programs and the
7 respective trajectories of dual career athletes.

8 **2. Method**

9 **2.1. Design**

10 To investigate the cultural influence on the national dual career environment for elite
11 athletes, an embedded multiple-case study design (Yin, 2014) was used with components of the
12 dual career as the unit of analyses. Following Patton's (2015) recommendation for the case
13 selection, we applied a typical-case/maximum-variation sampling strategy. According to
14 Aquilina and Henry (2010) and De Bosscher et al. (2015), the three countries that were chosen
15 have been categorized as having different dual-career typologies in higher education: Poland
16 (state-centric regulation), Denmark (state as sponsor/facilitator), and Switzerland (laissez-faire).

17 Culture is a societal-level construct but exists within the knowledge systems of individuals
18 (Thomas & Inkson, 2007). Thus, to understand the meaning that people construct, researchers
19 need to understand the particular contexts in which people act and the influence this context has
20 on thoughts, beliefs, and actions (Sparkes & Smith, 2014). Therefore, in the context of this study,
21 the idiographic approach was adopted, dealing with the experts' descriptions and accounts of the
22 national dual career environments. The interviewees' accounts covered both their personal
23 opinions on dual career, as well as the norms/beliefs that are embedded in the organization they

1 represented. The approach was also *derived etic* (Si & Lee, 2007) in the sense that it sought first
2 to attain *emic* knowledge (examine a construct from within a specific culture), followed by an
3 *etic* approach employing a comparative perspective of the beliefs and basic assumptions
4 expressed by the experts across the three contexts studied.

5 **2.2. Interviews and Procedure**

6 After approval was granted by the university's ethical committee, prospective participants
7 were contacted either by e-mail or phone. We purposefully selected key informants in one of the
8 following organizations or institutions in each country: (a) the national sport agency responsible
9 for elite sport, (b) a higher educational institution where elite athletes are enrolled, (c) a career
10 program designed for athletes, and (d) a federation which represents a well-recognized sport in
11 the respective country. The participants of the study were pre-informed about the purpose of the
12 research project. All participants signed a consent form prior to the interview stating that
13 participation is voluntary, that they had the right to withdraw at any time, and that names of all
14 individuals mentioned in the discussion would be kept confidential.

15 Semi-structured interview guides (Gläser & Laudel, 2010; Kvale, 2007) were created,
16 based on Wylleman and Lavallee's (2004) holistic career development model, to allow
17 interviewees to reflect on the dual career settings at the different levels of an athlete's career. The
18 guides were slightly adapted for each interviewed person and consisted of five parts. In the
19 introductory part, the interviewees were asked about their background and their function and role
20 within the organization/institution. The second part covered the educational pathways of athletes
21 at both the secondary and tertiary level. Vocational education, as well as job opportunities, were
22 discussed in the third part. The fourth part dealt with skills development of athletes, career
23 planning, and the availability and quality of athlete career assistance programs (CAPs). The

1 transition out of elite sport was the final topic. The interviews were conducted face-to-face by the
2 first author. The interviews were conducted in either English or German depending on the
3 interviewees' language skills and preferences. The interviews lasted between 43 to 97 minutes
4 ($M = 68.75$ min, $SD = 15.96$ min). Since half of the interviews were in German, the English
5 quotes presented in this article were translated in collaboration between the first and last author
6 who are fluent in both languages. Of particular interest were the informants' accounts on how to
7 combine education and elite sport. Therefore, the cultural analysis presented in this article has a
8 focus mainly on the educational part of the dual career environment.

9 **2.3. Data Treatment and Interpretation**

10 All 12 interviews were audio-recorded and subsequently transcribed verbatim by the first
11 author resulting in a total of 172 single-lined spaced pages. We used Schein's (2010)
12 organizational cultural model as the theoretical framework to analyze each dual career
13 environment according to the artifact level (availability of dual career programs in secondary and
14 tertiary education, retirement services), the espoused values of the informants about how to
15 support athletes, and the derived underlying basic assumptions about a dual career. The first
16 author analyzed the transcripts with a deductive-inductive (Patton, 2015) approach using QSR
17 NVivo 10. First, a node tree was built (deductive) based on the three components (education,
18 employment, life skills development) of dual career. Then, a more in-depth thematic analysis
19 was conducted within the node "education" with *benefits of a dual career*, *how dual career*
20 *should be organized*, and *obstacles of a dual career* as child nodes. New categories that emerged
21 from the coded material were discussed among the authors until an agreement was reached and
22 the node tree was accordingly expanded with the new categories/topics (inductive). The
23 previously coded material was then inspected again for signs of the emerged categories.

1 Different steps were taken into account to establish trustworthiness: To increase
2 communicative validity (Patton, 2015), the transcripts were sent to the interviewees for a
3 stakeholder check including the possibility to add additional comments. In the coding phase,
4 inter-rater reliability (Kvale, 2007) was enhanced using a second researcher with experience in
5 qualitative research to code samples of the interviews. During the analysis and the interpretation
6 process, critical reflections were provided from each of the authors on the espoused value and the
7 derived basic assumptions of their own cultural context, as well as on the elaborated taken-for-
8 granted assumptions of the other two contexts.

9 **2.4. Reflexivity**

10 Adopting a reflexive stance as proposed by Sparkes and Smith (2014), it is not only the
11 subjective experience of the interviewees that are important but also the subjectivity of the
12 researcher. The first author, having had a long career in elite sport and representing Switzerland
13 at several Olympic Games and World Championships, followed a dual career pathway himself.
14 Knowing some of the participants beforehand helped in establishing contact with the participants
15 and in building trust. On the other hand, his former elite athlete's status and dual career
16 background did not only influence his knowledge about elite sport and his perspective of the dual
17 career pathways, but also his role and impact during the interview. Living in Denmark for the
18 past five years and married to a Polish wife enabled him to gather cultural insight in the three
19 contexts. During the research process, the first author wrote a reflexive journal about the
20 interview process, the interpersonal relationship, the atmosphere during the interviews, and his
21 own assumptions. These reflexive notes were helpful during data analysis and interpretation.

22 **2.5. Documents as Further Data Sources**

1 Official documents of the national elite sports agency, codes of conduct for elite athletes,
2 regulations for allocation of financial support for athletes and federations, papers about talent
3 development programs, guidelines for student-athletes at universities, and reports about athlete
4 career programs were collected, thoroughly read, and summarized. Furthermore, satisfaction
5 survey reports of athletes (e.g., Storm, Tofft-Jørgensen, Asserhøj, & Holskov, 2014) and the
6 national SPLISS reports in Switzerland and Denmark (Kempf, Weber, Renaud, & Stopper, 2013;
7 Storm & Tofft-Jørgensen, 2013) served as background information about how athletes are
8 supported during and after their sports career. In Poland, data on SPLISS Pillar 5 was collected
9 by the first author with permission of the SPLISS group (De Bosscher et al., 2015). Finally,
10 together with published material, the home pages of the Olympic associations, educational
11 institutions, and career programs were used to describe the settings of the dual career programs
12 and retirement services in each country which will be presented in the following section.

13 **3. Results**

14 **3.1. Dual Career Environment in Switzerland**

15 Switzerland is located in central Europe and has a population of 8.2 million people.
16 Historically developed, the public sector (government and cantons) is responsible for the sport-
17 for-all movement and developing sport in school. Elite sport is organized by sports clubs and
18 federations (private sector) who are connected under the umbrella of the Swiss Olympic
19 Association (SOA). Strengthening its member federations is the first principle of the SOA which
20 indicates the bottom-up approach towards the sports federations that traditionally enjoy a strong
21 autonomy (Kempf et al., 2013). Elite athletes receive an SOA-card depending on their
22 performance level, which provides access to sport-friendly schools, financial support, and other
23 services such as career counseling or psychological assistance (Swiss Olympic, 2010).

1 Education in Switzerland is very diverse because the constitution of Switzerland delegates
2 the authority for the school system to the cantons. This might be a reason why Switzerland has
3 only recently set up programs for a (national) flexible approach to dual career of athletes. On the
4 secondary school level, the SOA has established four specialized sports schools and 49 SOA
5 partner schools that are spread over the whole country. Around one-third of the SOA carded
6 talents are enrolled in these sport-friendly schools where flexible solutions are provided.
7 Switzerland's dual career approach on the secondary level is decentralized and nationally
8 coordinated by the SOA. The vocational education is well-established in Switzerland and it is a
9 common education taken by athletes. A basic commercial apprenticeship called "KV"
10 (Kaufmännischer Verband) is a three-year education, typically taken between the ages of 16 to
11 19 years. It mixes practical work with one or two schooling days per week. Coordinated by a
12 cantonal office, there are between 350-400 SOA-certified apprenticeship places that provide
13 sport-friendly conditions for athletes.

14 On the tertiary level, the dual career support for combining sport and academic studies
15 (universities/colleges) is less institutionalized. The adopted laissez-faire approach in Switzerland
16 entails that athletes have to negotiate possible (individualized) solutions directly with the higher
17 educational institution and no financial support is provided for student-athletes. Concerning
18 career support during and after the career, the SOA appoints three counselors for athlete career
19 support. Carded elite athletes are annually invited for a career development conversation. The
20 SOA has been working closely together with the *Adecco Athlete Career Program (CAP)* since it
21 was launched in 2005. The CAPs helps athletes to find internship position during their sports
22 career and provides help for retiring athletes who need assistance in finding a job. An overview
23 of the dual career opportunities is presented in Table 1.

1 - Please insert Table 1 around here -

2 **3.1.1. Espoused Values About Dual Career in Switzerland**

3 The four interviewed persons (Swiss Olympic career counselor [SO], Ski Federation
4 athlete support [SF], Athlete Career Program counselor [AC], and University advisor [UA])
5 commonly assumed that an elite sports career shapes any person's character in a positive way
6 and thus is an education by itself. Focusing on education or work beside sport was acknowledged
7 to be beneficial for a balanced lifestyle and good mental health, which may have a positive effect
8 on athletic performance. Around 40% of Swiss athletes finish the gymnasium (Kuettel, Boyle, &
9 Schmid, 2017) which provides access to higher education. However, the interviewees agreed that
10 a university study might not to be the meaningful choice for every athlete, but mainly for those
11 who want to be academically challenged. Athletes who focused only on sport, as well as athletes
12 who followed a dual career path were mentioned as examples of possible trajectories how to
13 reach highest international sports success. Interviewees reported that most athletes are aware that
14 their sports career is of limited duration, and one of the main reasons of athletes to follow a dual
15 career is to increase their chances of finding a decent job after their sports career.

16 A common attitude was shared about how dual career should be organized. The
17 interviewees agreed that athletes should choose an adequate education alongside their sporting
18 activities. However, in certain disciplines where an early specialization takes place (Côté, Lidor,
19 & Hackfort, 2009), combining an education with elite sport can be very difficult.

20 *If you REALLY want to be successful, then it is hardly possible to take an education. Swiss*
21 *Olympic also supports such a decision. We would be the last ones forcing athletes into an*
22 *education. Our attitude is: Try to take an education, but we are aware that in certain sports*
23 *it is necessary to give everything you've got and go all in on the sport. Athletes can catch up*
24 *on education later on. (SO)*
25

1 In general, there was a common agreement among the interviewees that athletes tend to choose
2 educational pathways that are best combinable with their elite sports career.

3 *The KV is the absolute most compatible way for elite sport. I believe that this is why this*
4 *career path is most often chosen. It is not only the education itself but also the chances that*
5 *are connected with it. Having a KV and looking for a part-time job, it is possible to find a*
6 *50% job. (AC)*

7
8 A strong emphasis was placed upon the athletes' responsibility and their own decision-making
9 when choosing their educational pathways.

10 *Athletes always have the right to take their own choices, also to begin a university study, but*
11 *they have to bear the consequences. Athletes who say that they decided to prioritize their*
12 *study, that is ok. But one of the consequences could be that they are not qualified for the next*
13 *Olympics, which is also ok. But they cannot come afterwards and say: "if I only knew..." We*
14 *say: You decide, but then you take the consequences. (SO)*

15
16 The informants were aware that the solutions and flexibility in higher education were not optimal
17 for student-athletes and admitted that solutions are based on individual negotiations between
18 athletes and the educational institution. However, there was a general mistrust towards
19 standardized dual career solutions for elite athletes, because each athlete is seen as a unique case
20 with its preconditions, competencies, social circumstances, and educational aspirations.

21 *Still, individualized solutions are the standard. For one athlete the solution fits, for another*
22 *in the same discipline on the same level the solution would not be possible. Here the soft*
23 *factors play in, as for example where you live and train, how you are organized, etc. That is*
24 *why I am skeptical towards standard solutions. They do not really work because each single*
25 *athlete is different. (UA)*

26
27 Furthermore, besides the cantonal sovereignty about education, which makes national
28 coordination more difficult, the limited number of elite athletes was given as an argument why a
29 laissez-faire approach is adopted in Switzerland in higher education.

30 *We do not have institutionalized solutions because we are a small country with relatively few*
31 *elite athletes. Athletes without a card are not in our focus. On the other hand, only a few of*
32 *these 300 [carded elite] athletes are able or want to start a study, because the vocational*
33 *education is well established and popular among athletes. (SO)*

1
2 To sum up and displayed in Table 2, a clear liberal thinking about how dual career should be
3 organized was expressed. This is based on the belief that athletes are responsible for their own
4 career choices both in sport and in education. Bearing in mind that every athlete is a unique case,
5 tailored and individual dual-career solutions are considered to be the most sensible approach. To
6 put the education on “stand-by” while focusing exclusively on the sport during the late
7 development and mastery phase (Wylleman & Lavalée, 2004) is not considered a problem.
8 Thus, the belief that athletes need to prioritize the athletic career to reach international sporting
9 success can be considered a taken-for-granted assumption in the Swiss context.

10 - Please insert Table 2 around here -

11 **3.2. Dual Career Environment in Denmark**

12 Denmark is located in northern Europe with a population of 5.6 million inhabitants. The
13 strong idea of equality embodied in the Danish welfare system is also reflected in the world of
14 sport. Danish sport has struggled with the division of mass sports participation on one hand, and
15 the competitive sport carried out in an elite environment on the other (Ibsen, Hansen, & Storm,
16 2011). Following a heavily political debate about the state-funding of elite sport, it was not
17 before 1984 until a national organization of elite sport was established. The argument that elite
18 sport should be conducted in a socially responsible way finally convinced the political
19 opponents. The original act on elite sport (Act No. 643, 1984) stated that job and educational
20 opportunities should be available for elite athletes so that they are not put at a disadvantage for
21 their later job career. The Danish elite sports model has traditionally been characterized by
22 decentralization and cooperation within a formal hierarchy (Hansen, 2012). Private associations
23 and clubs make up national-level sports federations, which are part of *Team Denmark*, the
24 Danish state institution responsible for promoting elite sports.

1 Elite athletes integrated into Team Denmark's talent program can spend an additional year
2 at the gymnasium. A further initiative was the creation of special sports classes where morning
3 training is integrated into the school schedule. The municipalities play an important role both in
4 financing and coordinating supportive talent development environments (Henriksen &
5 Christensen, 2013). Within the last 10 years, three universities have established special offices
6 with appointed staff helping student-athletes coordinate their studies with elite sport. All students
7 in Denmark receive educational grants when taking a tertiary education and carded athletes can
8 request prolonged funding from Team Denmark. Since 2008, further initiatives were established
9 on behalf of the Player's union (*Spillerforening*) to provide help for dual career and transitional
10 issues. Team Denmark appoints one career counselor and several sports psychologists assist
11 athletes in their dual career efforts (Henriksen, Diment, & Hansen, 2011). There is a close
12 collaboration between Team Denmark, the Player's union, and the Adecco Career Program when
13 it comes to helping athletes in finding jobs both during and after their sports career.

14 ***3.2.1. Espoused Values About Dual Career in Denmark***

15 The four interviewees (Team Denmark career advisor [TD], Handball Federation athlete
16 support [HF], Player's union program coordinator [PU], and University athletes' counselor
17 [UC]) clearly expressed that the combination of education and sport is fundamental how Danish
18 elite sports should be organized.

19 *The attitude of the handball federation is that education is a duty if one would express it a bit*
20 *exaggerated. If a player does not want to take an education, he can actually not play in the*
21 *[junior] national team. For us, it is really important to create the whole person. To create*
22 *the whole person, one needs to be educated. (HF)*

23
24 Together with the deeply rooted belief in developing athletes as a whole person in a socially
25 responsible manner, a long-term developmental perspective of athletes was seen as the fruitful
26 way Danish athletes achieve international sporting success.

1 *We have a long tradition of rowing sport in Denmark. Compared to Germany, where they*
2 *have more training at a young age, maybe 18-19, and they go to the first Olympics when they*
3 *are around 20. Danish athletes are maybe 25 when they go to the Olympics. Danish have*
4 *less training lessons but keep on longer, because they are spending time on their dual*
5 *career. But in the end, their performance level is very high. (TD)*
6

7 Because the sports federations in Denmark are based on voluntary commitment, few positions
8 are available in the field of sports and thus, most athletes need to find a job in the regular labor
9 market after their sports career. Acknowledging that a sports career might be over anytime soon,
10 athletes are aware that it is difficult to get a job without a proper education in the future.

11 There was a strong and mutual agreement about how dual career should be organized in the
12 Danish context. Based on the revised elite sports law (Act No. 288, 2004), it is seen essential not
13 to limit the athletes to a narrow choice of study possibilities. Instead, all types of educations
14 should be combinable with elite sports.

15 *We have a quite flexible system, which sure can be better in some ways, but there are also*
16 *options in almost every education. So the athletes don't have to be limited to two or three*
17 *educations. (TD)*
18

19 Besides the provided flexibility, an institutionalized support for individual solutions was
20 considered to be the optimal dual-career approach. Reflecting the characteristics of the universal
21 welfare state, athletes are guided and supported in their decision-making processes concerning
22 the study options and with practical issues during their studies (e.g., Skype transmissions,
23 “buddy-concept”, and individual tutorials). This all-encompassing-support thinking is expressed
24 in the following examples.

25 *Then we help them with a lot of things, could be prolonging the program, could be changing*
26 *dates of exams, etc. [...] It is our task to help athletes with the education and the job*
27 *opportunities and the transition before they come to the actual exit. (PU)*
28

29 *I help all these students who a long time ago have made a plan for their studies saying this*
30 *semester I would like to study 20 ECTS [...] but then in individual cases, we could have one*
31 *student who comes here every second day while he is writing his master thesis providing*
32 *individual supervision. (UC)*

1
2 The interviewees agreed that the Danish dual career system is well established and the necessary
3 flexibility is in place. Given the relatively limited pool of sporting talents in a small country such
4 as Denmark, such considerations are also meant to prevent athletes from dropping out early (e.g.,
5 Baron-Thiene & Alfermann, 2015). The system that has been adapted for elite athletes is based
6 on certain regulations. However, given the low level of power distance (Hofstede et al., 2010) in
7 Denmark, there is always room for non-bureaucratic agreements when it comes to change the
8 date of exams or extra funding. Cases that lay outside the official rules could successfully be
9 negotiated with schools, as for example when players could take an exam during an abroad
10 training camp under the supervision of a coach.

11 *Somehow there is always a solution which works out and I think this is very great. That is*
12 *probably the strength of the Danish model: If we want to have elite sports classes, then the*
13 *flexibility has to be provided, too. (HF)*

14
15 In summary, the interviewees expressed the same values and attitudes that are formally
16 expressed as artifacts in the Danish elite sports law. While the lifespan perspective and the whole
17 person approach are relatively new trends in sports career research (Stambulova, Alfermann,
18 Statler, & Côté, 2009), the approach to promote elite sport in a socially responsible way has been
19 the standard over the last 30 years in Denmark and thus has become a taken-for-granted
20 assumption. In the interviews, dual-career athletes were used as success stories to highlight that
21 the Danish athletes are not only successfully winning medals at international events, but also
22 above-average students with degrees in medicine or engineering. The belief that athletes who
23 follow a dual career are more balanced and thus more successful in sport is argued to be deeply
24 rooted within the Danish elite sports context (see Table 2).

25 **3.3. Dual Career Environment in Poland**

1 Poland is located in Eastern Europe with a population of 38.5 million people. The Polish
2 elite sports system can be termed interventionist, centralized, bureaucratic, intensely formalized,
3 but unstable (Zysko, 2008). The current sports policy displays unmistakable features of the
4 interventionist model, with its field-specific normative acts and the dominant and intervening
5 role of the public sports administration, the Ministry of Sport and Tourism (MSiT). Up till the
6 collapse of communism in 1989, the Polish authorities regarded sport as a useful propaganda tool
7 for strengthening their ideology, regulating social mobility, and using elite sports success to
8 reinforce the national identity (Kucharska & Klopot, 2013). The changes observed in Polish
9 sports after 1989 were mostly due to economic transformations of the country and the central
10 financing of sports from the state budget became limited. However, despite developing to a more
11 liberal market orientation in the private economy, the sports system in Poland was more resistant
12 to the institutional change (Poupaux & Andreff, 2007). Thus, the dominance of MSiT has mainly
13 remained unchanged, especially towards less commercialized sports. Between 1990 and 2006,
14 the central administration body for sports experienced five major overhauls and frequent
15 unjustified management replacements, more often than not for political reasons (Zysko, 2008).
16 Applying a top-down approach, the MSiT supervises and controls power over the sports
17 organizations and is responsible for the elite sports funding on different levels.

18 There is traditionally a strong connection between schools and sports clubs, as club
19 coaches act as physical education teachers in schools and thus function as talent recruiters.
20 Special sport- profile classes at the primary school level are a relic of the former communist
21 system and serve still as the nurseries for future high-level performers. A relatively early
22 specialization takes place when young prospective athletes are collected in discipline-specific
23 “master classes” or relocated in sport boarding schools where funding for living and training is

1 provided and where athletes get a tailored and very flexible education. The dual-career approach
2 adopted at the secondary school level can be termed state-centered with a relatively high degree
3 of centralization. The state-centered approach continues during higher education, where athletes
4 included in the national elite sports programs have the possibility to enter directly into Physical
5 Education Academies (AWF) without passing an admission test. In these six AWFs, athletes get
6 financial support and individualized study plans which offer extensive flexibility and this is why
7 most athletes choose to be enrolled as student-athletes at AWF. Recently, athlete-friendly study
8 plans were also introduced in a few regular universities with the aim to broaden the range of
9 study topics for elite athletes. Regarding athlete career programs, there are no institutionalized
10 solutions in Poland. The MSiT does not have direct contact with the athletes and the SPLISS
11 survey on athletic (post-) career support revealed that only one out of 28 federations provided
12 career support. Poland is not included in the IOC Adecco career program. Recently, a few
13 (private) initiatives were started to provide internships for athletes (e.g., Opus Sport Foundation).
14 Quite unique, the Polish state rewards Olympic medal winners with a life-long pension.
15 Furthermore, the army provides a few jobs for retired athletes and plays a substantial role in
16 supporting approximately 100 athletes during their career.

17 ***3.3.1. Espoused Values About Dual Career in Poland***

18 The four interview partners (MSiT elite sports department [MS], Handball Federation
19 advisor [HA], Opus Sport program leader [OS], and Career Counselor at AWF [AW]) agreed
20 that education is helpful for the life after sport. However, there were divergent attitudes about
21 what type of education is most appropriate for athletes.

22 *I think AWF is still good for the athletes. Maybe not a waste of time. (AW)*

23

24 *Some athletes are good examples that you can combine your career in sport with getting, for*
25 *example, some education which allows you to find a job after the career. They graduated*

1 *from the management, economy, law, IT or such things. You shouldn't focus only on things*
2 *that allow you to work only in sport. (MS)*

3
4 The education was furthermore seen as a good way for mental health. However, the studies are
5 not supposed to be too demanding and as such not distracting athletes from their main activity,
6 which is the sporting performance. Flexibility and special regulations for athletes serve as the
7 fundament within the most common taken dual career pathway for elite athletes in Poland (first
8 master classes, then specialized sports schools, followed by AWF). Three out of four
9 interviewees in the Polish context had experienced the same dual career pathways.

10 *I was lucky because the teachers were helping me a lot when I was traveling and I had*
11 *already a lot of competitions. It was not difficult to get the book, topics, and material from*
12 *them. I could pass exams before or after the camp, that was quite flexible. (OS)*

13
14 Since most former athletes went through the same dual career curriculum and are now working
15 as coaches in clubs or federations, this pathway has also been proposed to current athletes as this
16 dual career trajectory has shown to be manageable.

17 *This is how it goes through generations. It is the same path [...] this is the pathway of an*
18 *athlete. If you are an athlete, the easiest way is to become a coach or a physical education*
19 *teacher, or someone still connected to the sport. (AW)*

20
21 The person working for the handball federation expressed a more critical attitude towards the
22 value of the degree received at AWF and mentioned that the enrolled athletes hardly physically
23 participate during their courses of study. Given the high professionalization in the Polish
24 handball league and the lack of other study options, attending a sport-specific education was still
25 considered a better option than not studying at all.

26 *With such a heavy training and competition load, players are not able to follow a decent*
27 *education. That is a problem. This is why they are looking for easy solutions – as for*
28 *example the AWF study – but this is the only solution for them. (HA)*

29
30 The tailored system and special privileges for elite athletes in education have been the standard
31 for many years. Even though it was proposed that athletes should take different education

1 choices over AWF, there was not a strong willpower or concrete action planned to change the
2 well-established dual career programs in the near future.

3 *As an athlete, you may have a totally different program of learning. They [lecturers] know*
4 *that you have training or championships and they switch your exam calendar. (MS)*

5
6 *The school supported us a lot so we did not have to pay for the daily living costs and the*
7 *material [...] When I was studying I got support from the AWF, plus the sports scholarship*
8 *and also the schooling stipend because I was a good student as well. (OS)*

9
10 Summarizing the espoused values (Table 2), it can be concluded that elite athletes are channeled
11 into a sport-specific education, which can be understood as an in-built feature of the Polish elite
12 sports system. Even though most athletes obtain a higher educational degree during their elite
13 sports career, it can be argued that their study options are rather limited. Rooted in the value of
14 strengthening the national identity, the main purpose of elite athletes is to increase Poland's
15 reputation as an internationally successful sporting nation. The interventionist role of the state in
16 dual career support providing special regulations for elite athletes has been the standard over
17 many years and thus has become a taken-for-granted assumption in Poland.

18 **4. Cross-Cultural Comparison of the Three Dual Career Environments**

19 The countries that were selected based on their different approaches towards higher
20 educational support for elite athletes (Aquilina & Henry, 2010) showed both similarities and
21 differences when artifacts, espoused values, and basic assumption about their dual career
22 environment were compared. The similarities between the three cultural contexts concerned the
23 settings on the secondary educational level, as well as the espoused values about the benefits and
24 the obstacle of dual career. As long as education is compulsory for athletes, the state and the
25 educational institutions are more or less obliged to provide solutions so that elite sport and
26 education are combinable (De Bosscher et al., 2015). Thus, specialized sports schools and/or
27 classes for talented athletes have been established in all three countries independent of their

1 welfare regime. Dual career stakeholders from all three countries expressed similar attitudes *why*
2 athletes should be educated during their sports career. Typical benefits of dual career (Aquilina,
3 2013; Wylleman & Lavallee, 2004) such as a more balanced lifestyle and better qualifications
4 for future employment were the prominent topics mentioned in all three contexts. All
5 interviewees agreed that a higher level of professionalization and thus a stronger influence of
6 professional clubs is a threat for a dual career (Christensen & Sørensen, 2009). Furthermore, the
7 transition from junior to elite (Stambulova et al., 2009) and the transition to higher education
8 institutes (Stambulova, Franck, & Weibull, 2012) were regarded as problematic periods within
9 the athletic career because the transition on the educational level occurs simultaneously with
10 transitions in other spheres of life (Wylleman & Lavallee, 2004).

11 Differences were found in the degree of institutionalized support for dual career athletes
12 and the availability of dual career programs (artifact level). Besides the differences in higher
13 educational support, the programs designed for the transition out of sport varied heavily among
14 the countries compared. Career counseling and CAPs (Reints & Wylleman, 2013) are an integral
15 part of the athletes' development during and after their career in Denmark and partly in
16 Switzerland; whereas, the institutionalized support in Poland diminishes when athletes retire. A
17 few initiatives were established in Poland, others have been turned down again due to lack of
18 financial support, which is a common threat for CAPs (Anderson & Morris, 2000).

19 Further differences between the three dual career environments concerned the proposed
20 ideal dual career trajectories, the beliefs and basic assumptions as to *how* dual career should be
21 organized, how much support needs to be provided for dual career athletes. These differences
22 will be discussed in the following two sections.

23 **4.1. Ideal Dual Career Trajectories Proposed to Athletes**

1 Based on the expressed values, we argue that the stakeholders involved in dual career in
2 the three countries proposed different ideal dual career pathways (Pallarés et al., 2011) to elite
3 athletes. In the Swiss context, a convergent dual career pathway is suggested. Elite athletes are
4 supposed to choose an education that is compatible with their elite sport but to prioritize their
5 sport to reach international success. In the Danish context, a parallel trajectory is suggested,
6 stressing that athletes should give almost the same emphasis to sport and education. In Poland, a
7 linear pathway can be considered the prevailing dual career trajectory, resulting in that athletes
8 focus mostly on their sporting careers developing a strong athletic identity. It has been shown
9 that athletes who follow a linear trajectory planned less for their future and experienced more
10 negative emotions when ending their sport's career (Torregrosa et al., 2015).

11 Despite these different proposed trajectories, there was a general agreement independent of
12 the context that dual career athletes most often chose the educational options that were easiest to
13 combine with elite sport. The most common dual career pathways in each context have been
14 developed over a long period and are characterized by the prevailing local culture in sport (Digel,
15 Burk, & Fahrner, 2006). This can be understood as a “path dependency” (Houlihan & Green,
16 2008), meaning that initial policy decisions can determine future policy choices. Thus, the way
17 dual career opportunities were established in the past has had an influence on future
18 developments of the programs, which in turn seems to strongly influence the (dual) career
19 choices of elite athletes in a given context.

20 **4.2. Different Contexts - Different Tools to Navigate Within the Dual Career Landscape**

21 We can apply the metaphor of a journey to describe the career of athletes (Stambulova,
22 2010). Accordingly, a map, a compass, or a GPS can be used as analogies for the institutional
23 support that athletes receive to orientate within the dual career landscape (Storm, Ronglan, &
24

1 Christensen, 2016). Based on the interviewees' espoused values and the typical dual-career
2 pathways taken in each country, we suggest that athletes are equipped with different navigation
3 tools during their career journey.

4 The Polish sports and educational system support elite athletes with special regulations and
5 privileges in standardized programs on lower and higher education. Thus, we propose that Polish
6 athletes are equipped with a map where the path is clearly marked or flagged. When the sports
7 career ends, the road either leads to occupations in the field of sports, or athletes are left alone
8 with the map, but without additional tools to navigate around. In Denmark, the universal welfare-
9 state thinking is also reflected in the dual career and athletes receive institutionalized support
10 facilitating individual solutions on all levels. Accordingly, we suggest that athletes are equipped
11 with a map and a GPS. Athletes are relatively safely guided to their points of their (self-chosen)
12 destinations. Upon retirement, athletes might need to replace the GPS with a compass, as the
13 institutionalized support from the sports system gets weaker when athletes enter the labor
14 market. The relatively weak interference of the state in dual career in Switzerland provide
15 athletes with less standardized programs. This approach demands that athletes are actively
16 involved in the navigation process. Thus, athletes are used to orientating themselves with the
17 map and the compass throughout their career. A compass is not a plan, it is instead an instrument
18 that enables planning and guides the journey once it is under way. Athletes have to find out
19 which pathway is the most appropriate for reaching their intended destination.

20 Hackfort and Huang (2005) used action theory and the concepts of autonomy and
21 beneficence to explain how the organizational structure determines the design of (national)
22 career programs. The concept of autonomy emphasizes self-determination and self-governance,
23 and the concept of beneficence is an effort to help others realize their interests. Beneficence

1 includes both the provision of benefits and the prevention and removal of harm. Thus, dual
2 career support programs could be viewed as a paternalistic behavior on the part of the institution
3 or sports systems to provide beneficence to athletes (Hackfort & Huang, 2005). However, these
4 programs also have the potential to disturb athletes in their autonomy and personal development.
5 Relating the concepts of autonomy and beneficence to the welfare regimes and the navigation
6 tools described above, we argue that the stakeholders involved in dual career would most likely
7 equip athletes with the tools that are considered appropriate in their cultural contexts. Depending
8 upon the basic assumptions of athletes “as informed and autonomous decision makers whose
9 individual welfare comes before institutional outcomes” (Thomas & Ermler, 1988, p. 145), the
10 sports system of Switzerland provides tools that foster athletes’ autonomy and personal
11 development. In contrast, the Polish dual-career approach is characterized by a more paternalistic
12 behavior towards athletes, providing tools that make athletes more dependent on the sports
13 system and thus impairs their degree of autonomy. The different career opportunities and
14 provided tools seem also to be influential as to how elite athletes make their transition out of elite
15 sport. For example, Kuettel, Boyle, and Schmid (2017) found that, compared to Danish and
16 Swiss athletes, Polish athletes faced most adaptation difficulties in the period after leaving the
17 competitive sport, especially in the financial and vocational/educational domain.

18 **5. Limitations and Future Directions**

19
20 We recognize that we interviewed only a limited number of dual career stakeholders in
21 each country which limits the degree of generalization about a national opinion on how to
22 support dual career athletes. To get a more nuanced picture about the cultural influence on dual
23 career support, the opinions of the athletes’ entourage such as coaches, parents, or sports
24 psychologists could be included. The typologies and the presented ideal trajectories proposed to

1 athletes in each country should be understood as general tendencies that might not fit all sub-
2 cultures of athletes or type of sports. As mentioned by all interview partners, the level of
3 professionalization in elite sports works as a moderating factor on dual career decisions and
4 pathways. We are aware that Schein (1985) developed his framework to study organizational and
5 not national cultures. Nevertheless, we believe that his framework with the three levels of
6 cultures was helpful to analyze the stakeholders' interviews and thus to provide a cultural
7 sensitive overview of the dual career environments of Switzerland, Denmark, and Poland.

8 Considering the cultural praxis towards athletes' careers (Stambulova & Ryba, 2014), we
9 believe that the derived etic approach was a strength of this study. The role and the position of
10 the first author, being familiar with all three cultural contexts, supported the emic approach and
11 helped both during data collection and the cultural sensitive data analysis. As an example,
12 documents about athletes support and dual career programs in local languages could not have
13 been located and analyzed without the necessary language skills. For the cross-cultural
14 comparison, the discussion among the collaborating authors who have backgrounds in one of the
15 three countries studied was supportive of understanding and comparing the underlying basic
16 assumptions about dual career.

17 Arising from the results of the study, we propose some recommendations. Firstly,
18 generalized statements about dual career athletes across cultural contexts are to be avoided as
19 athletes receive different (institutionalized) support throughout their career. Secondly, when
20 studying the dual careers of athletes, it is important to consider the socio-cultural context
21 including the embedded values of the people working with athletes in all stages of their career.
22 Hence, when general recommendations such as the *EU Guidelines on Dual Career* (EU Expert
23 group, 2012) are implemented on national levels, policymakers need to be aware that the national

1 stakeholders base their actions on different basic assumptions about dual career which are most
2 often not explicitly expressed and thus difficult to change (Schein, 2010). Thirdly, the athletes'
3 entourage and the stakeholders involved in dual career are advised to reflect and challenge their
4 own values about how to support elite athletes. Finally, given that we applied a maximum
5 variation case sampling strategy, it would be interesting to find out if and how cultural values
6 differ between systems within the same welfare-type regime that adopted a similar approach
7 towards higher educational support for elite athletes.

8 **6. Conclusions**

9 Research on the cultural influence on dual career of athletes is sparse. This paper
10 responded to the call for a cultural-sensitive approach when studying athletes' careers from
11 different cultural contexts (Stambulova & Ryba, 2013). Our qualitative study demonstrated that
12 the dual career environments for elite athletes differed substantially across Switzerland,
13 Denmark, and Poland. The environments of Switzerland, Denmark, and Poland differed not only
14 on the artifact level (visible settings and programs) but also on the deeper levels of the dual
15 culture. The national dual career culture seems to be influential as to how athletes develop their
16 academic and vocational career alongside their sporting career (Wylleman & Lavallee, 2004)
17 which in turn influences athletes' preconditions for their transition out of elite sport.

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References

- 1
2 Andersen, S. S., & Ronglan, L. T. (2012). Same ambitions-different tracks: A comparative
3 perspective on Nordic elite sport. *Managing Leisure, 17*(2-3), 155–169.
- 4 Anderson, D., & Morris, T. (2000). Athlete lifestyle programs. In D. Lavallee & P. Wylleman
5 (Eds.), *Career transitions in sport: International perspectives* (pp. 59–80). Morgantown,
6 WV: Fitness Information Technology.
- 7 Aquilina, D. (2013). A study of the relationship between elite athletes' educational development
8 and sporting performance. *The International Journal of the History of Sport, 30*(4), 374–
9 392.
- 10 Aquilina, D., & Henry, I. (2010). Elite athletes and university education in Europe: A review of
11 policy and practice in higher education in the European Union Member States.
12 *International Journal of Sport Policy, 2*(1), 25–47.
- 13 Baron-Thiene, A., & Alfermann, D. (2015). Personal characteristics as predictors for dual career
14 dropout versus continuation – A prospective study of adolescent athletes from German
15 elite sport schools. *Psychology of Sport and Exercise, 21*, 42–49.
- 16 Bergsgard, N. A., Houlihan, B., Mangset, P., Nødland, S. I., & Rommetvedt, H. (2007). *Sport*
17 *policy: A comparative analysis of stability and change*. Oxford: Butterworth-Heinemann.
- 18 Christensen, M. K., & Sørensen, J. K. (2009). Sport or school? Dreams and dilemmas for
19 talented young Danish football players. *European Physical Education Review, 15*(1), 115–
20 133.
- 21 Côté, J., Lidor, R., & Hackfort, D. (2009). To sample or to specialize? Seven postulates about
22 youth sport activities that lead to continued participation and elite performance.
23 *International Journal of Sport and Exercise Psychology, 7*(1), 7–17.
- 24 De Bosscher, V., Shibli, S., Westerbeek, H., & van Bottenburg, M. (2015). *Successful elite sport*
25 *policies: An international comparison of the Sport Policy factors Leading to International*
26 *Sporting Success (SPLISS 2.0.) in 15 nations*. Maidenhead: Meyer & Meyer Sport.
- 27 De Knop, P., Wylleman, P., Van Hoecke, J., De Martalaer, K., & Bollaert, L. (1999). Sports
28 management – A European approach to the management of the combination of academics
29 and elite-level sport. In S. Bailey (Ed.), *Perspectives - The interdisciplinary series of*
30 *physical education and sport science: school sports and competition* (Vol. 1, pp. 49–62).
31 Oxford: Meyer & Meyer Sports.

- 1 Debois, N., Ledon, A., & Wylleman, P. (2015). A lifespan perspective on the dual career of elite
2 male athletes. *Psychology of Sport and Exercise, 21*, 15–26.
- 3 Digel, H. (2005). Comparison of successful sport systems. *New Studies in Athletics, 2*, 7–18.
- 4 Digel, H., Burk, V., & Fahrner, M. (2006). *High-performance sport. An international*
5 *comparison*. Weilheim/Teck, Tübingen: Bräuer.
- 6 Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Princeton, NJ: Princeton
7 University Press.
- 8 EU Expert group (2012). *Guidelines on dual careers of athletes - Recommended policy actions*
9 *in support of dual careers in high-performance sport*. Retrieved July 14, 2016, from
10 [http://www.ua.gov.tr/docs/default-source/gen%C3%A7lik-program%C4%B1/dual-career-](http://www.ua.gov.tr/docs/default-source/gen%C3%A7lik-program%C4%B1/dual-career-guidelines-(%C3%A7ift-kariyer-rehberi).pdf?sfvrsn=0)
11 [guidelines-\(%C3%A7ift-kariyer-rehberi\).pdf?sfvrsn=0](http://www.ua.gov.tr/docs/default-source/gen%C3%A7lik-program%C4%B1/dual-career-guidelines-(%C3%A7ift-kariyer-rehberi).pdf?sfvrsn=0)
- 12 Gläser, J., & Laudel, G. (2010). *Experteninterviews und qualitative Inhaltsanalyse* [Expert
13 interviews and qualitative content analysis]. Wiesbaden: VS Verlag.
- 14 Green, M., & Oakley, B. (2001). Elite sport development systems and playing to win:
15 Uniformity and diversity in international approaches. *Leisure Studies, 20*(4), 247–267.
- 16 Grove, J. R., Lavalley, D., & Gordon, S. (1997). Coping with retirement from sport: The
17 influence of athletic identity. *Journal of Applied Sport Psychology, 9*(2), 191–203.
- 18 Hackfort, D., & Huang, Z. (2005). Considerations for research on career counseling and career
19 transition. In D. Hackfort & J. Duda & R. Lidor (Eds.), *Handbook of research in applied*
20 *sport and exercise psychology: International perspectives* (pp. 245–255). Morgantown,
21 WV: Fitness Information Technology.
- 22 Hansen, J. (2012). The institutionalization of Team Denmark. In S.S. Andersen & L.T. Ronglan
23 (Eds.), *Nordic elite sport: Same ambitions-different tracks* (pp. 43–61). Oslo:
24 Universitetsforlaget.
- 25 Heinilä, K. (1984). The totalization process in international sport. In M. Ilmarinen (Ed.), *Sport*
26 *and international understanding* (pp. 20–30). Berlin: Springer.
- 27 Henriksen, K., & Christensen, M. K. (2013). Athletes' careers in Denmark. In N. B. Stambulova
28 & T. V. Ryba (Eds.), *Athletes' careers across cultures* (pp. 77–89). New York, NY:
29 Routledge.
- 30 Henriksen, K., Diment, G., & Hansen, J. (2011). Professional philosophy: Inside the delivery of
31 sport psychology service at Team Denmark. *Sport Science Review, 20*(1-2), 5–21.

- 1 Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the*
2 *mind. Intercultural cooperation and its importance for survival* (3rd ed.). New York, NY:
3 McGraw-Hill.
- 4 Houlihan, B., & Green, M. (2008). *Comparative elite sport development: Systems, structures and*
5 *public policy*. Oxford: Butterworth-Heinemann .
- 6 Ibsen, B., Hansen, J., & Storm, R. K. (2011). Elite sport development in Denmark. In B.
7 Houlihan & M. Green (Eds.), *Routledge handbook of sports development* (pp. 386–398).
8 New York, NY: Routledge.
- 9 Kempf, H., Weber, A. C., Renaud, A., & Stopper, M. (2013). *Der Leistungssport in der Schweiz:*
10 *Momentaufnahme SPLISS-CH 2011 [Elite sports in Switzerland: Snapshot SPLISS-CH*
11 *2011]*. Magglingen: Bundesamt für Sport.
- 12 Kucharska, A., & Klopot, S. W. (2013). Life after a sports career: The case of polish ex-fencers.
13 *Physical Culture and Sport. Studies and Research*, 58(1), 61–75.
- 14 Kuettel, A., Boyle, E., & Schmid, J. (2017). Factors contributing to the quality of the transition
15 out of elite sports in Swiss, Danish, and Polish Athletes. *Psychology of Sport and Exercise*,
16 29(3), 27-39.
- 17 Kvale, S. (2007). *Doing interviews*. London: Sage.
- 18 Lally, P. (2007). Identity and athletic retirement: A prospective study. *Psychology of Sport and*
19 *Exercise*, 8(1), 85–99.
- 20 Larsen, C. A., & Andersen, J. G. (2015). *Den universelle velfærdsstat: Funktionsmåde, folkelig*
21 *opbakning og forandring [The universal welfare state: Functioning, public support and*
22 *change]*. Fredericksberg: Frydenlund Academic.
- 23 Maitland, A., Hills, L. A., & Rhind, D. J. (2015). Organisational culture in sport – A systematic
24 review. *Sport Management Review*, 18(4), 501–516.
- 25 Pallarés, S., Azócar, F., Torregrosa, M., Selva, C., & Ramis, Y. (2011). Modelos de trayectoria
26 deportiva en waterpolo y su implicacion en la transicion hacia una carrera profesional
27 alternativa [Athletic Career Models in Water Polo and their Involvement in the Transition
28 to an Alternative Career]. *Cultura, Ciencia Y Deporte*, (6), 93–103.
- 29 Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). Thousand Oaks,
30 CA: Sage.
- 31 Pawson, R., & Tilley, N. (1997). *Realistic evaluation*. London: Sage.

- 1 Poupaux, S., & Andreff, W. (2007). The institutional dimension of the sport economy in
2 transition countries. In M. P. Parent & T. Slack (Eds.), *International perspectives on the*
3 *management of sport* (pp. 99–124). London: Elsevier.
- 4 Reints, A., & Wylleman, P. (2013). Managing athletes' post-athletic careers. In P. Sotiriadou &
5 V. De Bosscher (Eds.), *Managing high performance sport* (pp. 376–407). New York, NY:
6 Routledge.
- 7 Ronglan, L. T. (2015). Elite sport in Scandinavian welfare states: Legitimacy under pressure?
8 *International Journal of Sport Policy and Politics*, 7(3), 345–363.
- 9 Schein, E. H. (1985). *Organizational culture and leadership*. San Francisco, CA: Jossey-Bass
- 10 Schein, E. H. (2010). *Organizational culture and leadership* (4th ed.). San Francisco, CA: John
11 Wiley & Sons.
- 12 Si, G., & Lee, H. (2007). Cross-cultural issues in sport psychology research. In S. Jowett & D.
13 Lavalley (Eds.), *Social psychology in sport* (pp. 279–288). Champaign, IL: Human
14 Kinetics.
- 15 Sparkes, A. C., & Smith, B. (2014). *Qualitative research methods in sport, exercise and health:*
16 *From process to product*. New York, NY: Routledge.
- 17 Stambulova, N. (2010). Professional culture of career assistance to athletes: A look through
18 contrasting lenses of career metaphors. In T. V. Ryba & R. J. Schinke & G. Tenenbaum
19 (Eds.), *Cultural turn in sport psychology* (pp. 287–314). Morgantown, WV: Fitness
20 Information Technology.
- 21 Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). Career development and
22 transitions of athletes: The ISSP position stand. *International Journal of Sport and*
23 *Exercise Psychology*, 7(4), 395–412.
- 24 Stambulova, N., Franck, A., & Weibull, F. (2012). Assessment of the transition from junior-to-
25 senior sports in Swedish athletes. *International Journal of Sport and Exercise Psychology*,
26 10(2), 79–95.
- 27 Stambulova, N., & Ryba, T. V. (2013). *Athletes' careers across cultures*. London: Routledge.
- 28 Stambulova, N., & Ryba, T. V. (2014). A critical review of career research and assistance
29 through the cultural lens: Towards cultural praxis of athletes' careers. *International Review*
30 *of Sport and Exercise Psychology*, 7(1), 1–17.

- 1 Storm, L. K., Ronglan, L. T., & Christensen M. K. (2016). *Balancing between control and*
2 *autonomy-support. A comparative case study of organisational culture in successful talent*
3 *development environments in Scandinavian elite handball clubs*. Manuscript submitted for
4 publication.
- 5 Storm, R. K., & Tofft-Jørgensen, L. (2013). *Elitesportsmiljøet i Danmark 2012 [Elite sport*
6 *environment in Denmark 2012]*. Copenhagen: Idrættens Analyseinstitut.
- 7 Storm, R. K., Tofft-Jørgensen, L., Asserhøj, T. L., & Holskov, U. (2014). *Team Danmark bruger*
8 *undersøgelsen [Team Denmark consumer report]*. Retrieved November 22, 2016, from
9 <http://www.idan.dk/vidensbank/>
- 10 Swiss Olympic (2010). *Spitzensport Konzept Schweiz [Elite sport concept of Switzerland]*
11 Retrieved July 14, 2016, from
12 [http://www.swissolympic.ch/Portaldata/41/Resources/03_sport/verbaende/spitzensport_ko](http://www.swissolympic.ch/Portaldata/41/Resources/03_sport/verbaende/spitzensport_konzept/Spitzensport-Konzept_Schweiz_2010_05_01.pdf)
13 [nzept/Spitzensport-Konzept_Schweiz_2010_05_01.pdf](http://www.swissolympic.ch/Portaldata/41/Resources/03_sport/verbaende/spitzensport_konzept/Spitzensport-Konzept_Schweiz_2010_05_01.pdf)
- 14 Thomas, C. E., & Ermler, K. L. (1988). Institutional obligations in the athletic retirement
15 process. *Quest*, 40(2), 137–150. <http://dx.doi.org/10.1080/00336297.1988.10483895>
- 16 Thomas, D., & Inkson, K. (2007). Careers across cultures. In H. Gunz & M. Periperl (Eds.),
17 *Handbook of career studies* (pp. 451–470). London: Sage.
- 18 Torregrosa, M., Ramis, Y., Pallarés, S., Azócar, F., & Selva, C. (2015). Olympic athletes back to
19 retirement: A qualitative longitudinal study. *Psychology of Sport and Exercise*, 21, 50–56.
- 20 Wylleman, P., & Lavallee, D. (2004). A developmental perspective on transitions faced by
21 athletes. In M. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan*
22 *perspective* (pp. 507–527). Morgantown, WV: Fitness Information Technology.
- 23 Yin, R. K. (2014). *Case study research, design and methods* (5th ed.). Thousand Oaks, CA:
24 Sage.
- 25 Zysko, J. (2008). Poland. In B. Houlihan & M. Green (Eds.), *Comparative elite sport*
26 *development: systems, structures and public policy* (pp. 166–193). Oxford: Butterworth-
27 Heinemann.

Table 1

Overview of Available Dual Career Programs for Elite Athletes (Artifacts) and Their Typologies in Switzerland, Denmark, and Poland

Theme	Switzerland	Denmark	Poland
Welfare regime	Liberal	Social-democratic	Conservative
DC programs on secondary school level	4 SOA sports schools 49 SOA partner schools	Special sports classes 21 elite municipalities	Master classes, strong club-school connection
<i>Typology on secondary school level</i>	<i>State/NSA as facilitator</i>	<i>State/NSA as facilitator</i>	<i>State-centered</i>
DC Programs on HE	Little support in higher education institutes No financial support for athletes on HE	Well established support on HE institutes Grants for all students on HE	Individual study plans mainly at AWF studies Grants for top athletes on all educational levels
<i>Typology on HE</i>	<i>Laissez-faire</i>	<i>State/NSA as facilitator</i>	<i>State-centered</i>
Career Assistant Programs (CAP)	CAP for active and retiring athletes	CAP for active and retiring athletes	No CAP available, Pension for Olympic medal winners
<i>Typology of CAP</i>	<i>State/NSA as facilitator</i>	<i>State/NSA as facilitator</i>	<i>Laissez-faire</i>
Most common career trajectories of DC athletes	Business apprenticeship or gymnasium Part-time jobs University education Technical colleges	Gymnasium and talent classes University education Technical colleges Part-time jobs	Masterclasses and special sport schools Studies at AWF Army jobs

Note: CAP = Career Assistant Program; AWF = Physical Education Academy in Poland; DC = Dual Career; HE = Higher Education; NSA = National Sport Agencies; SOA = Swiss Olympic Association. The typologies refer to the research of Aquilina and Henry (2010).

CROSS-CULTURAL COMPARISON OF ATHLETES' DUAL CAREER

Table 2

Cross-Cultural Comparison of Espoused Values and Basic Assumptions about the Dual Career of Athletes Embedded in the Swiss, Danish, and Polish Elite Sports Contexts

Theme	Switzerland	Denmark	Poland
Benefits of DC (<i>Espoused values</i>)	Sport as an education itself	Education as a duty for all athletes	Sport as an education itself
	Mental health	Long-term development	Mental health
	Life after sport	Life after sport	Life after sport
	Education increases future job opportunities	No job in the future without education	Better having a sports diploma than nothing
DC obstacles (<i>Espoused values</i>)	Professionalization	Professionalization	Professionalization
	Some educations are not combinable with sport	Vocational education is underdeveloped	Flexibility only in Physical Edu. Study
	Lack of information	Missing classes	Sport-specific education
	Financial issues	Financial issues	Financial issues
	Transitional issues	Transitional issues	Transitional issues
	Limited support of sport environment/entourage	Gymnasium dominates over other solutions	Limited value of the achieved degree
How DC should be organized (<i>Espoused values</i>)	Individual matter, tailored approach	Develop athletes in a socially responsible way	In-built (sport)education for elite athletes
	DC has to make sense	Flexibility in DC	Flexibility in DC
	Take own choices and face the consequences	Choice for studying is interest driven	Choice of study is dictated by the system
	Prioritizing sport is ok, education can be put on stand-by	It should be possible to study all kind of topics	Studies should not be too demanding
	Athletes need to find own DC solutions in the given system	Financial support	Financial support/rules
		Institutional help for individual solutions	Special regulations and privileges for athletes
	Standard DC programs might not work	The system should be adapted for DC athletes	A tailored DC system is provided to elite athletes

CROSS-CULTURAL COMPARISON OF ATHLETES' DUAL CAREER

	Athletes are responsible for their own development and bear the consequences	The state/system is responsible for developing the whole athlete	Athlete as an instrument for the country to achieve international sport success
Underlying basic assumptions about DC	Education can improve <i>or</i> decrease athletic performance	Combining sport and education makes athletes more successful	Education should not distract athletes from the sporting performance
	Athletes need to prioritize the athletic career to reach the top	A balanced lifestyle brings the biggest success in the long run	Athletes should be able to focus mainly on their sport commitment
	Individualized and tailored solutions for each athlete are best	Institutionalized support for individual solutions is best	Standardized solutions and programs for all athletes work best
Proposed ideal DC trajectory	Convergent	Parallel	Linear

Note: DC = Dual career. A linear DC trajectory: The athlete is focused almost exclusively on his/her sporting career. A convergent DC trajectory: Sport is prioritized but is compatible with an alternative job or with education. A parallel DC trajectory: Sport and education or work are almost equally weighted.

Paper 3

Kuettel, A., Christensen, M. K., Boyle, E., & Schmid J. (manuscript). A cross-national comparison of the transition out of elite sport of Swiss, Danish, and Polish athletes. Manuscript submitted to the *Sport and Exercise Psychology Review*.

1 **A Cross-National Comparison of the Transition out of Elite Sport of Swiss, Danish, and**
2 **Polish Athletes**

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1 **Abstract**

2 The main purpose of the present study was to compare the transition out of elite sport of former
3 Swiss, Danish, and Polish athletes in terms of (a) pre-conditions of retirement, (b) transitional
4 and adaptation period, and (c) consequences of the transition. The sample consisting of 231
5 Swiss, 86 Danish, and 84 Polish athletes answered an online version of the *Athletic Career*
6 *Termination Questionnaire* which was adapted from the *Retirement from Sport Survey*
7 (Alfermann, Stambulova, & Zemaityte, 2004) in their respective language. Separate one-way
8 ANOVAs and chi-square tests revealed more differences than similarities between the
9 transitional processes of athletes from the three countries which were described as having rather
10 different settings both on the macro (e.g., welfare system) and meso level (e.g., sports system).
11 Athletes differed significantly in their educational level, their athletic identity, and their working
12 experience while active in the sport. Swiss athletes experienced the least distress during the
13 transition, while Polish athletes reported the highest difficulties in the adaptation period. Polish
14 athletes rated different reasons as most important to finding a job compared to Swiss and Danish
15 athletes and relocated mainly in a job connected to the sport. Our results provide support for the
16 findings of previous cross-national studies that the national context including the (dual) career
17 programs influence athletes' retirement process and the adaptation to the post-sport life. Thus, to
18 provide recommendations for career counseling and to improve career assistant programs for
19 athletes, it is important to consider the socio-cultural context.

20

21 **Keywords:** athletic retirement, transition, elite sport, cross-national study

22

23

1 **Introduction**

2 Retirement from elite sport is considered a major life-changing experience for athletes and
3 thus has attracted career researching since the late 1960s (Hill & Lowe, 1974; Lerch, 1982;
4 Mihovilovic, 1968; Svoboda & Vanek, 1982). Adopting theories from thanatology and
5 gerontology to the athletic context, early studies have described the end of an athletic career as a
6 traumatic event and have focused mostly on negative outcomes. Later studies have revealed an
7 alternative view where athletes feel relieved from the heavy burden of their athletic commitment
8 (e.g., Coakley, 1983; McPherson, 1984; Sinclair & Orlick, 1993). There have been four major
9 shifts that characterize the evolution of the topic about athletic retirement from elite sport. The
10 first shift was to consider athletic retirement not as a single event but as a process-orientated
11 transition with either a positive or a negative outcome. A transition was defined as “an event or
12 non-event, which results in a change in assumptions about oneself and the world and thus
13 requires a corresponding change in one’s behavior and relationships” (Schlossberg, 1981, p. 5).
14 A second major shift in career development and transition research was to move the focus away
15 from study almost exclusively athletic retirement to investigate on within-career transition,
16 which led to the so-called “whole career” approach. A third major shift was from focusing on
17 athletes’ transitions exclusively in the sport to more of a “whole person” lifespan perspective.
18 Accordingly, athletic career transitions should be understood in their relationship to
19 developmental challenges and transitions in other spheres of life (Wylleman & Lavallee, 2004).
20 Finally, the fourth major shift was examining the socio-cultural context and the contextual
21 factors related to the career development and transitions. Early studies investigated how coaches,
22 peers, and parents influence athletes’ careers and transitions (Bloom, 1985; Côté, 1999). More
23 recent studies also considered the role of the talent development environment (e.g., Henriksen,

1 Stambulova, & Roessler, 2010) and the macro-context (i.e., nation/culture and sports system) as
2 influential when studying career transitions and athletic retirement (Kuettel, Boyle, & Schmid,
3 2017; Park & Lavalley, 2015; Stambulova, Stephan, & Jäphag, 2007; Tshube & Feltz, 2015).
4 Hence, studies that apply a culturally-specific approach can help to increase the knowledge about
5 the influence of the context on the transition process of elite athletes (Si & Lee, 2007;
6 Stambulova & Ryba, 2013, 2014).

7 Cross-national differences in the reactions to sports career termination were examined in
8 the *European Perspectives on Athletic Retirement* (EPAR) project (Alfermann, Stambulova, &
9 Zemaityte, 2004; Wylleman, Alfermann, & Lavalley, 2004). When comparing athletic retirement
10 among German, Russian, and Lithuanian athletes, Alfermann et al. (2004) found that athletes
11 differed in their reasons for career termination, how they planned for retirement, their coping
12 skills, and the time it took for them to adapt. There were common (e.g., retirement planning) and
13 national-specific patterns (e.g., emotional reactions to the transition, athletic identity) discovered
14 when the transition of French and Swedish athletes was compared with each other (Stambulova
15 et al., 2007). The authors concluded that the transition out of elite sport is a multidimensional,
16 multilevel, and multifactor process in which nationality/culture plays an important role. In a
17 more recent study, Dimoula, Torregrosa, Psychountaki, and Fernandez (2013) discovered many
18 similarities when comparing athletic retirement between former elite Greek and Spanish athletes.
19 Thus, the authors proposed a Southern European perspective on the retirement topic due to the
20 shared macro-level characteristics of the two national contexts, that is the similar political
21 situation, the similar manifestation on several cultural dimensions (Hofstede, Hofstede &
22 Minkov, 2010), and the similar economical and welfare situation (OECD, 2014a).

23 **Athletic Career Termination and the Outcomes of the Transition**

1 The athletic career termination can be described as “the clearest example of a normative
2 and even inevitable transition, that mixes sport-related and unrelated contexts in the athletes’
3 retirement planning, reasons for termination, and adaptation to the post-career experiences
4 including studies, work, identity change, and renewing social networks” (Stambulova et al.,
5 2009, p. 398). The outcome of a well-succeeded transition may be evaluated along two criteria:
6 (a) successful coping with the career termination and thus a positive evaluation of the transition
7 itself, and (b) success in life after sport with regard to life satisfaction and success in job/family.
8 Regarding the first criterion, research (e.g., Alfermann et al., 2004; Cecić Erpič, Wylleman, &
9 Zupančič, 2004; Fernandez, Stephan, & Fouquereau, 2006; Grove, Lavalley, & Gordon, 1997)
10 has revealed many factors that positively influence the transitional process: retirement planning,
11 voluntary termination, balanced self-identities, available social support, and active coping
12 strategies. On the other hand, an exclusive or strong athletic identity, injuries, and involuntary
13 career end were identified as common factors that hinder a successful adaptation to the post-sport
14 life (Knights, Sherry, & Ruddock-Hudson, 2016; Park et al., 2013; Stambulova et al., 2009).
15 Regarding the second criterion that focuses more on the long-term adaptation and job/life
16 satisfaction in the post-sport career, results of studies have typically shown that former elite
17 athletes are no less successful in life than other comparable non-athletes (Conzelmann & Nagel,
18 2003; Dewenter & Giessing, 2014; Koukouris, 1991). Thus, a career in elite sport does not put
19 people at a disadvantage in this regard.

20 An elite sports career has been described through the metaphor of a resource for the post-
21 sport life (Stambulova, 2010). Following this line of thought, athletes have the chance to build up
22 different kinds of capital (Bourdieu, 1986) through their elite sports involvement. Successful
23 elite sports careers are then usually associated with economic capital (e.g., sponsoring contract,

1 prize money), cultural capital (e.g., high social recognition, strong physical body, well-developed
2 skills and competences, academic qualifications), and social capital (e.g., extensive network
3 inside and outside elite sport). Stambulova (2010, p. 307) emphasizes that helping athletes turn
4 their sports career into a resource for their life careers should be seen as the umbrella goal for
5 career assistance to athletes.

6 A need to help athletes in coordinating their sports participation with other activities (e.g.,
7 education or work), and in preparing for career transitions – especially for athletic retirement –
8 was recognized about 20 years ago and resulted in establishment of career assistance programs
9 (CAPs) in different parts of the world (Andersen & Morris, 2000; Gordon, Lavalley, & Grove,
10 2005; Reints & Wylleman, 2013). However, as shown in a recent review of athletes' careers
11 across 19 different cultural contexts (Stambulova & Ryba, 2013), not all countries have
12 established CAPs for elite athletes. Hence, athletes from different countries do not have equal
13 access to services that facilitate a dual career or services related to athletic retirement.
14 Nevertheless, it is less researched how different national sport and educational settings influence
15 athletes' transition out of elite sport. Therefore, the current study aims to enhance the
16 understanding of the relationship between the (national) context and athletes' transition by
17 investigating and compare athletic retirement of athletes from three countries (Switzerland,
18 Denmark, and Poland) that have adopted different strategies to support elite athletes in their
19 vocational and educational development.

20 **Framework for Studying the Transition out of Elite Sport Across Nations**

21 We deemed appropriate to place the present study within the theoretical framework
22 developed by Stambulova et al. (2007) for the cross-cultural comparison of athletic retirement
23 that was used in the EPAR project. This career transition framework is a combination of existing

1 transition models derived from different socio-cultural contexts; from North American
2 (Schlossberg, 1981; Taylor & Ogilvie, 1994), Central European (Wylleman & Lavalée, 2004),
3 and Eastern European cultures (Stambulova, 2003). Through this framework, athletic retirement
4 is seen as a transitional process involving the (a) *preconditions*, which are the factors related to
5 the elite sports career (e.g., duration, athletic identity, satisfaction with career); (b) the
6 *transitional period* which included planning for life after sport, degree of voluntariness to stop,
7 the perceived difficulties during the transition, and the duration and satisfaction of the transition;
8 and (c) *consequences*, which are the perceived professional success, strategies that helped
9 athletes finding a job after the sports career, and their current life satisfaction.

10 To be able to interpret the findings of the cross-national comparison about athletic
11 retirement, Bronfenbrenner's (1979) Bioecological model of human development was adapted to
12 the elite sports context and supplements the transitions models. The ecological perspective helps
13 to understand the individual transition is embedded within a specific context that is influenced by
14 a number of micro-level systems in which athletes are involved (e.g., family, friends, coaches,
15 and teachers; Côté, 1999), the meso-level (e.g., federations, clubs, and support systems for
16 athletes; Aquilina & Henry, 2010; De Bosscher, Bingham, & Shibli, 2008; Reints & Wylleman,
17 2013), and the macro-level (e.g., the socio-cultural context of a society, the country's economy,
18 political/welfare system; Esping-Andersen, 1990; Hofstede et al., 2010).

19 In order to increase the cultural sensitivity of this research and to investigate the impact
20 different sports systems have on athletic retirement, the countries for comparison were selected
21 based on the maximum variation sampling strategy proposed by Yin (2014). Switzerland,
22 Denmark, and Poland differ on several macro-level aspects (e.g., size of geographical area and
23 population, welfare system, socio-labor environment, cultural dimensions), have developed

1 different sports systems, adopted different dual-career policies on higher education, and vary in
2 the availability of athlete career/retirement services (see Table 1 for an overview). Switzerland,
3 Denmark, and Poland are all located in Europe and have ambitions to play a role in the
4 international elite sports “medal race” (De Bosscher et al., 2008; De Bosscher, Shibli,
5 Westerbeek, & van Bottenburg, 2015). The elite sports environment of each country is described
6 in more detail in the following section.

7 [Please insert Table 1 around here]

8 Elite athletes in *Switzerland* are carded by the Swiss Olympic Association (SOA) and get
9 financial support from the Swiss Sports Aid Foundation. Many top athletes from non-
10 commercialized sports need to work part-time to finance their elite sports career. The flexible job
11 market situation in Switzerland provides solutions for these athletes. Despite that the SOA offers
12 career planning and job placement opportunities for both active in retired athletes, athletes are
13 encouraged to make autonomous decisions during all stages of their career. Regarding dual
14 career, there is no organized support for student-athletes enrolled in higher education. After the
15 career end, most athletes need to find a job in the regular labor market as there are only a few
16 paid positions in the sports sector. In *Denmark*, Team Denmark (TD) is the national institution
17 that is responsible for the promotion and funding of elite sports. Rooted in the strong belief of
18 equality, the Danish Elite Sports Act (from 1984) states that elite sport should be promoted in a
19 socially responsible manner, ensuring athletes’ education and their further contribution to the
20 society. Thus, educational and career programs are offered at all levels of athletes’ career stages,
21 including financial support for student-athletes in higher education. TD and its partners provide
22 different job-related services for carded elite athletes at different stages of their career. There are
23 only a few jobs available within the Danish sports sector for former elite athletes as sports clubs

1 to a large extent are based on the voluntary commitment of coaches. In *Poland*, the Ministry of
2 Sport and Tourism acts as the principal organization for governing elite sports. The sports system
3 still has many relics of the communist era characterized by a strong centralization and
4 involvement of the state. Accordingly, the course of athletes' sports careers depends largely on
5 the decisions made by the sports authorities. Young athletes normally attend special talent
6 schools and most adult elite athletes continue to study at Physical Education Academies where
7 they receive substantial help in their learning needs, such as extra teaching, flexible courses, and
8 financial support. Career services for the transition out of elite sport are not available. Instead,
9 there is a lifelong pension for Olympic medal winners provided by the state. The professional
10 club system and the availability of paid jobs within the sports system provide possibilities for
11 former Polish athletes to relocate in the sports sector as coaches or sports teachers.

12 According to Stambulova and Ryba (2014), it is not only the cultural context of the athletes
13 that can influence their transition, it is also the cultural context of the researchers themselves that
14 may mediate when conducting research, through the application of theoretical models, the use of
15 research instruments, and the interpretation of results. Adopting a reflexive stance as proposed
16 by Sparkes & Smith (2014) we find it important to note that the first author is connected to all
17 three countries under study. Representing Switzerland at several Olympic Games and World
18 Championships, he followed a dual career pathway while active in elite sports. After he finished
19 his elite sports career, he moved to Denmark where he has been living with his Polish wife for
20 the last few years.

21 **Objectives and Hypotheses**

22 Recent review papers about career transitions and athletic retirement (Park, Lavalley, &
23 Tod, 2013; Stambulova, Alfermann, Statler, & Côté, 2009; Stambulova, 2012, 2016)

1 acknowledge the need for more cross-national comparison studies to enhance the understanding
2 of the national context on athletic retirement. In an attempt to fulfill this need, it was the goal of
3 this study to compare the transition out of elite sport of athletes from Switzerland, Denmark, and
4 Poland in terms of (a) preconditions, (b) transitional period, and (c) consequences of the
5 transition. Based on the countries' different approaches how to support dual career athletes, we
6 hypothesized that we will find differences in athletes' preconditions (a) concerning their
7 educational level and working experience gathered upon retirement. We hypothesized that Swiss,
8 Danish, and Polish athletes would differ concerning their professional athletes' status as a result
9 of the different amounts of athletes supported by the military in the three countries. Concerning
10 the transitional period (b), we hypothesized that Polish athletes would face more vocational
11 difficulties when relocation after their sports career due to the lack of retirement services and the
12 generally more difficult labor-market situation in Poland. Concerning the consequences of the
13 transition (c), we hypothesized that more Polish athletes would relocate in jobs connected to the
14 sport, both because of their sport-specific education and because there are more paid jobs
15 available in the sports sector.

16 **Method**

17 **Research Design**

18 We applied a retrospective cross-sectional research design and followed the
19 recommendations of Ryba, Stambulova, Si, and Schinke (2013) on culturally competent research
20 and practice in sport and exercise psychology: (a) the key concepts of the project, theoretical
21 frameworks, and the project objectives were negotiated among the co-authors from the different
22 contexts; (b) the instrument was translated and culturally adapted; (c) pilot studies were
23 conducted in all three countries; (d) data were collected in culturally relevant ways; (e) results

1 were interpreted keeping in mind the major characteristics of each cultural context involved; and
2 (f) contextualized conclusions and practical implications of the project were developed.

3 **Participants and Procedure**

4 The total sample of the study consisted of 401 former elite athletes from Switzerland ($n =$
5 231, of which 72 female athletes), Denmark ($n = 86$, of which 29 female athletes), and Poland (n
6 $= 84$, of which 31 female athletes) from 35 sports disciplines, both individual and team sports
7 (see Appendix). Criteria for athletes to be included in the study were (a) had participated in
8 competitions at international level, (b) had been carded by the national elite sport agency, and (c)
9 retired between one to five years before data collection. After receiving approval from the
10 regional ethics committees, names and e-mail addresses of retired athletes were obtained from
11 the Olympic association and the sports federations in each country. Athletes were first contacted
12 by their federation and pre-informed about the purpose of this study. The response rate of the
13 online questionnaire, which was sent by a personal link to each athlete by the first author, was
14 between 62% and 64% in all three countries. We consider the three samples as representative of
15 the elite athlete population in terms of gender distribution and representation of different sports
16 disciplines. Table 2 shows additional details of the participants' characteristics.

17 **Instrument**

18 The former athletes answered a web-based version of the *Athletic Career Termination*
19 *Questionnaire* (ACTQ: Kuettel, Boyle, & Schmid, 2017) that was developed from existing
20 English and German versions of the *Retirement from Sports Survey* (Alfermann et al., 2004)
21 administered in the previous EPAR projects. Supplementary questions that investigated the
22 reasons that helped athletes finding a job after their sports career were added to the
23 questionnaire. The instrument was translated from English into Danish by the first author and his

1 supervisor and cross-checked with the German version, as both are fluent in the three languages.
2 The Polish version was translated and independently back-translated by a professional agency.
3 To achieve content, conceptual, and semantic equivalence (Si & Lee, 2007), the translated
4 versions were discussed in each context with experts working with athletes in transitions and
5 pilot tested with three to five former athletes within each country. The ACTQ contains 56
6 questions that are organized into three sections: (a) life in elite sports, (b) sports career
7 termination and transitional period, and (c) life after sport and general biographical data.

8 *Life in elite sports.* First, we asked the athletes to provide general sport demographic data
9 such as the age of specialization, the age when biggest success occurred, duration of professional
10 career, and age when ending the sports career. Athletes reported the satisfaction with their results
11 obtained at major international events from 1 (*very unsatisfied*) to 5 (*very satisfied*). Athletic
12 identity during sports career was measured using the scale of Brewer, Van Raalte, and Linder
13 (1993) on a seven-point Likert-scale from 1 (*strongly disagree*) to 7 (*strongly agree*), with higher
14 values representing a higher athletic identity (α -coefficients between .82 and .84 in three samples
15 for the 10-items scale). Athletes rated their perceived domestic popularity from 1 (*publicly*
16 *unknown*) to 5 (*very well-known*). Athletes reported both the time in hours per week they were
17 working and the time they used for studying within the last three years of their elite sports career.
18 Athletes were also asked to report their educational level at the end of their elite sports career.
19 Finally, athletes rated the overall outcome of their sports career from 1 (*investments much bigger*
20 *than benefits*) to 5 (*benefits much bigger than investments*).

21 *Sports career termination and transitional period.* In the second part, athletes rated seven
22 reasons (e.g., performance-, job/educational-, financial-, family-, and health-related) that might
23 have influenced their decision to retire from elite sports (1 = *no influence at all* to 5 = *very strong*

1 *influence*). Athletes were subsequently asked when (month and year) they decided to end their
2 sports career and when (month and year) they actually terminated their sports career. Given two
3 contrasting pairs, participants described their career end with regard to pre-retirement planning
4 (1 = *no plans at all* to 5 = *very concrete long-term plans*), voluntariness (1 = *under strong*
5 *pressure from external circumstances* to 5 = *completely voluntary*), timing (1 = *much too early*
6 *over 3 = quite opportune* to 5 = *much too late*), and how they perceived their career end (1 = *big*
7 *loss* to 5 = *big relief*). Athletes rated their perceived adaptation difficulties in five areas
8 (Wylleman, De Knop, & Reints, 2011) following their career end: emotional (e.g., missing the
9 lifestyle of an athlete), social (e.g., difficulties in establishing social network, relationship
10 difficulties with partner), health/body (e.g., detraining difficulties, injuries, weight problems),
11 vocational (problems with finding a job, lack of professional knowledge), and financial (reduced
12 income, debts) from 1 (*no difficulties at all*) to 5 (*very big difficulties*) together with the months
13 they needed to adjust to their new life situation. Finally, athletes rated their overall satisfaction
14 with the transition process to the post-sport life from 1 (*not satisfied at all*) to 5 (*very satisfied*).

15 *Life after elite sport.* Athletes described their actual position(s) and title(s) on the job
16 market and listed the proportion of time spent in each position. Furthermore, athletes reported if
17 they had any unemployment periods after their elite sports career and if yes, the duration and the
18 situation were assessed. The satisfaction with the current occupational situation was measured on
19 a scale from 1 (*very unsatisfied*) to 5 (*very satisfied*). Athletes were given a list of 10 possible
20 reasons that may were relevant to obtain their current job(s) from 1 (*did not help at all*) to 5
21 (*helped a lot*). Additionally, the retired athletes stated their connection with the sport by
22 answering seven yes/no questions. To explore the general life satisfaction, athletes answered the
23 *Satisfaction with life scale* (Pavot & Diener, 1993) on a 7-point Likert scale (α -coefficients

1 between .84 and .86 for the 5 items) where higher values represented a higher life satisfaction.
2 Finally, athletes provided information about their marital status and family situation.

3 **Statistical Analyses**

4 To evaluate the cross-national differences between the Swiss, Danish, and Polish samples,
5 we calculated the mean differences by conducting separated one-way ANOVAs for scale
6 answers or chi-square comparisons for yes/no answers and frequencies. We performed
7 Hochberg's GT2 posthoc tests for the one-way ANOVAs due to rather large differences in
8 sample sizes (Field, 2013). All analyses were performed using SPSS version 22.

9 **Results**

10 We present our results in three tables that correspond to the three phases of the transition;
11 that is (a) preconditions (life in elite sport), (b) transitional and adaptation period, and (c)
12 consequences of the transition (life situation after elite sport).

13 **Preconditions: Life in Elite Sport**

14 Significant differences between the Swiss, Danish, and Polish athletes occurred in 15 out
15 of 17 variables in the characteristics related to the life in elite sport (Table 2), revealing small to
16 medium effect sizes (Cohen, 1988).

17 [Please insert Table 2 around here]

18 Polish athletes reported a longer duration of their total sports career $F(2,398) = 14.87, p <$
19 $.001, \eta^2 = .07$, as they started to specialize in their main sport about two years earlier and
20 terminated their elite sports career at a relatively older age ($M = 32.69, SD = 5.85$) compared to
21 Swiss ($M = 30.55, SD = 6.30$) and Danish ($M = 30.38, SD = 5.40$) athletes. More Polish athletes
22 (70%) had periods when they focused solely on their sporting career (i.e., were not studying or
23 working alongside) compared to 53% Swiss and 54% Danish athletes. The duration of this

1 professional period differed between countries $F(2,398) = 14.87, p < .001, \eta^2 = .10$, with Polish
2 athletes ($M = 12.27, SD = 5.11$) reporting a longer professional athletic career compared to Swiss
3 ($M = 7.55, SD = 6.10$) or Danish athletes ($M = 5.91, SD = 5.56$). Additionally, Polish athletes
4 reported both a significantly higher athletic identity while active in elite sport than Swiss and
5 Danish athletes, $F(2,398) = 12.94, p < .001, \eta^2 = .06$ and perceived themselves as more publicly
6 well-known in their country, $F(2,398) = 10.55, p < .001, \eta^2 = .05$. Swiss athletes reported
7 significantly more previous working experience compared to Polish athletes, while Danish
8 athletes spent significantly more time studying in the last three years before their career end
9 compared to Swiss and Polish athletes. We observed a relatively large difference ($\chi^2(2, N = 401)$
10 $= 53.27, p < .001, \text{Cramér's } V = .36$) in educational levels at the end of the sports career: 85% of
11 the Polish athletes had obtained a degree from a higher educational institute compared to 62%
12 Danish and 39% Swiss athletes. Finally, Danish athletes rated the gains/benefits (e.g., results,
13 money, experience, competencies, life quality) of their overall sports career significantly higher
14 than both Swiss and Polish athletes, $F(2,398) = 25.20, p < .001, \eta^2 = .12$. The three samples did
15 not differ in terms of the average age when they achieved their best sporting results, and a similar
16 proportion of athletes from all samples reached top 3 rankings at World Championships,
17 Olympic Games, or World Cup overall standings.

18 **Transitional and Adaptation Period**

19 **Reasons related to career termination.** When comparing the reasons that influenced the
20 athletes' decision to retire from elite sports (Table 3), a relatively similar pattern occurred
21 between the athletes from Switzerland, Denmark, and Poland.

22 [Please insert Table 3 around here]

1 In general, personal and motivational reasons (e.g., lack of sporting goals, fed up with elite
2 sports lifestyle, need to have more time for oneself) were named as prominent motives why the
3 sports career was terminated. Other important reasons were family-related reasons (e.g., desire to
4 have a family, more time for family/friends) and health-related reasons (e.g., injury, illness,
5 burnout). Sport environment reasons (e.g., conflict with federation or coach) were the least
6 influential reasons for ending the sports career among athletes from all three countries.

7 **Characteristics related to the career end.** On average, athletes from all three countries
8 started to plan for their career end between seven and 11 months before they actually retired.
9 However, indicated by the large standard deviations, individual values ranged from 0 to 48
10 months in all three countries. Analyses showed that 62% of the Swiss, 63% of the Danish, and
11 68% of the Polish athletes had made long-term plans for their time after elite sport. Between 60-
12 67% of all athletes retired voluntarily, while 16% Swiss, 9% Danish, and 18% of the Polish
13 athletes perceived that their decision to end their sport career was strongly pressured by external
14 circumstances. Polish athletes perceived their career end significantly more negative than both
15 Swiss and Danish athletes, $F(2,398) = 31.81, p < .001, \eta^2 = .14$.

16 **Characteristics related to the adaptation period.** Our analyses revealed many
17 differences in the variables related to the adaptation period to post-sport life across the three
18 samples with small to medium effect sizes. Swiss athletes reported generally the lowest
19 adaptation difficulties. Polish athletes reported higher adaptation difficulties than Swiss and
20 Danish, especially concerning their financial and vocational adaptation. Danish athletes
21 perceived their emotional and social adaptation as more challenging than Swiss athletes. It
22 should be noted that the averages for the adaptation difficulties (between 1.71 and 3.20 on a 5-
23 point scale) were low to moderate. Despite these differences concerning the adaptation

1 difficulties, athletes from the three countries reported a similar amount of time they needed to
2 adjust to their new life situation. Finally, Polish athletes judged their satisfaction with the overall
3 transition process as much more negative than both Swiss and Danish athletes, $F(2,398) = 45.19$,
4 $p < .001$, $\eta^2 = .19$.

5 **Consequences of the Transition: Life Situation After the Elite Sports Career**

6 **Job situation.** We compared the job situation after the sports career between the three
7 samples (displayed in Table 4). Compared to the normal population in each country (OECD,
8 2013), a relatively large proportion of the athletes was self-employed after their sports career.
9 Furthermore, many athletes reported having not only one main occupation but holding up to four
10 jobs at the same time. Significantly more Polish athletes (74%) worked in a job connected to
11 sports (e.g., coach, sports teacher, sports club administrator) than Swiss (35%) and Danish
12 athletes (31%), $\chi^2(2, N = 401) = 42.70$, $p < .001$, Cramér's $V = .33$. In all three countries, every
13 fourth athlete had periods of unemployment following the athletic career end. However, for
14 many retired athletes, it was a deliberate choice as they were not looking for a job right after
15 their career end. Swiss athletes reported a higher satisfaction with their current occupational
16 situation compared to Danish and Polish athletes, $F(2,398) = 11.51$, $p < .001$, $\eta^2 = .06$. Several
17 differences were found regarding the reasons that athletes considered important for obtaining
18 their current job(s). Polish athletes rated their popularity and their professional network within
19 the field of sport significantly more influential than their Swiss and Danish counterparts. In
20 general, the former athletes considered their own personality, the skills learned through elite
21 sport, and their education as most helpful factors for obtaining their current professional job(s).

22 [Please insert Table 4 around here]

1 comparison between Swiss, Danish, and Polish athletes. Finally, based on the nationally specific
2 patterns of the three samples, we provide contextualized recommendations concerning career
3 assistance and support for retiring/retired athletes.

4 When comparing our results with the findings from the studies conducted with former
5 athletes in several European cultural contexts (EPAR project), we conclude that elite athletes
6 share some common characteristics concerning their transition out of elite sport. Regarding the
7 *preconditions*, athletes from France, Sweden, Switzerland, Denmark, and Poland achieved their
8 best results around the age of 25 years and retired around 30 years. This fits well to the phases
9 described in Wylleman and Lavallee's developmental model (2004). The athletes included in our
10 study reported a similar high athletic identity as the Greek, Spanish, French, Swedish, and
11 Lithuanian athletes. Regarding *the transitional period*, the majority of athletes included in our
12 study and the EPAR project decided to retire voluntarily and had made plans for their future.
13 Furthermore, most athletes perceived the timing of their career end as opportune. A combination
14 of different reasons was influential in the decision-making process for athletic retirement
15 independent of the cultural context. However, athletes in our study rated personal and/or
16 motivational reasons (e.g., fed up with elite sport lifestyle, reached personal goals, time ripe for a
17 change) as most influential, in contrast to the athletes in the previous EPAR studies who named
18 either professional reasons (e.g., job or education) or sport-related reasons (e.g., stagnation, age,
19 deselection) as the main causes for retirement (Alfermann et al., 2004; Stambulova et al., 2007).
20 Most athletes perceived their adaptation difficulties as moderate during the transition process.
21 However, the mean values of difficulties reported by the athletes in our samples were higher than
22 the values in the other EPAR studies. One reason could be that we included only athletes that
23 retired between one and five years before questioning, whereas athletes in the previous studies

1 stopped up to ten years before. The elapsed time since retirement might have caused some recall
2 bias and have mitigated the athletes' perception of difficulties during their adaptation period
3 (Côté, Ericsson, & Law, 2005). In contrast to Swedish athletes for whom it took nearly 20
4 months to adjust to new life circumstances, the average adaptation period for the athletes in our
5 study took around nine months which is in line with the duration reported by athletes in the other
6 European countries. Concerning the *life situation after elite sport*, the vast majority of athletes
7 keep their relation to sport in a multitude of ways, such as training and competing in different
8 sports, staying in touch with former coaches and friends from the sport, and working
9 professionally or voluntarily in the sport. Athletes in our study, as well as those included in the
10 previous EPAR projects, reported a rather high satisfaction with their job and general life
11 situation after their elite sports career.

12 To summarize, the results of our study provided evidence that some common patterns (e.g.,
13 voluntary retirement, multi-causality and timeliness of retirement, duration of the adaptation
14 period, and connection to sport after ending elite sports career) can be found when comparing the
15 transition out of sport of former elite athletes from different European cultural contexts
16 (Alfermann & Stambulova, 2007; Stambulova & Alfermann, 2009).

17 On the other hand and as hypothesized, the comparison between former Swiss, Danish, and
18 Polish athletes revealed many differences concerning their life in elite sport, their transitional
19 period, and their life after elite sport. Regarding the *life in elite sport*, our results showed that
20 when compared to Swiss and Danish athletes, the Polish athletes differed in many variables
21 related to the preconditions for the transition. Polish athletes started to specialize (Côté &
22 Vierimaa, 2014) earlier in their main sports disciplines than Swiss and Danish athletes. Many
23 Polish athletes had a relatively long professional career (i.e., did not work or study

1 simultaneously), which most likely influenced the way Polish athletes identified with their
2 athletic identity and role. The athletic role can be described as a social role (Brewer et al., 1993),
3 one that is heavily socialized by the influences of family, friends, coaches, teachers, sports
4 administrators, and the media. It seems that all these actors play their role, which enables Polish
5 athletes to develop a strong and exclusive athletic role/identity. Interestingly, Polish athletes
6 reached a very high educational level while active in elite sports despite their strong focus on
7 their athletic career. This was possible because Polish athletes received substantial help when
8 studying at the Physical Educational Academies, including tailor-made study plans and flexible
9 exams dates (Zysko, 2008). Swiss athletes earned a smaller proportion of their income through
10 their elite sports involvement (e.g., salary from club/federation, sponsoring, prize money) and
11 thus had to support themselves with working part-time alongside their sporting career. Our
12 results revealed that around half of the athletes in all three countries invested in education during
13 the last three of their elite sports career. However, Danish athletes were more intensively
14 involved in their educational development at the end of their sports career compared to the
15 athletes from Switzerland and Poland. In Denmark, all students enrolled in higher education
16 receive study grants from the state and this might have influenced the motivation of elite athletes
17 to pursue education throughout their athletic career.

18 Summarizing the national patterns concerning the preconditions for the transition out of
19 elite sport, we found that Polish athletes had a longer and more professional career, identified
20 themselves strongly with their athletic identity, and received a high educational degree in
21 physical education. Swiss athletes had a lower educational level, but more previous working
22 experience, while most Danish athletes had been investing in education throughout their athletic
23 career and acquired degrees in many different fields. These differences in the variables related to

1 the pre-conditions among Swiss, Danish, and Polish athletes indicate that athletes' sports careers
2 are influenced by the national context and especially by the (financial) support athletes receive
3 from their federations or the national sport governing body (De Bosscher et al., 2008, 2015) as
4 well as the institutionalized support that is provided at the secondary and tertiary levels of
5 education for elite athletes (Aquilina & Henry, 2010, 2014; Stambulova & Ryba, 2013).

6 When comparing *the transitional period* of Swiss, Danish, and Polish athletes, more
7 similarities existed than differences. There was a common pattern for the reasons that influenced
8 athletes' decision to retire, the degree of voluntariness, and the pre-retirement planning for the
9 life after elite sport. Differences were found in their perception of their career end, with Polish
10 athletes describing their career end as much more as a loss compared to the athletes from the
11 other two countries. The negative perception of their career end may be related to the high
12 athletic identity that the Polish athletes expressed, as athletic identity foreclosure has been shown
13 to be related to higher adaptation difficulties during the transition out of sport (Grove et al.,
14 1997; Webb, Nasco, Riley, & Headrick, 1998). Another reason might be that the privileges
15 connected with the elite athlete status (special regulations for studying, salary from the
16 federation, public recognition, etc.) suddenly come to an end when athletes leave the high-
17 performance sport in Poland. Similar reactions to retirement distress have been described for
18 Russian and Lithuanian athletes (Alfermann et al., 2004) where both developed their sports
19 careers in more autocratic sports systems that are common in former Eastern Bloc countries.
20 Swiss, Danish, and Polish athletes differed in their coping reactions when adapting to their post-
21 sport life. Swiss athletes reported very low financial and vocational difficulties, while Polish
22 athletes faced more problems in these two areas. As mentioned earlier, many Swiss athletes were
23 already integrated into the domestic job market during their sports career and thus, their pre- and

1 post-retirement situations were not much different from each other. For many former
2 professional Polish athletes, the transition caused more drastic changes in many spheres of life
3 (Wylleman & Lavallee, 2004), and this may be a reason why Polish athletes reported higher
4 distress and lower satisfaction with their overall transition process. The emotional and social
5 adaptation caused in general most difficulties for the athletes included in our study, but it was
6 especially difficult for the Danish athletes. Missing the lifestyle of an athlete, lack of self-
7 confidence, lack of motivation for new tasks, and relationship difficulties with family or partner
8 were dominant topics that the Danish athletes had to cope with during their adaptation period to
9 their post-sport life.

10 Regarding the *consequences of the transition out of elite sport*, several differences in the
11 life situation after the elite sports career were discovered when comparing Swiss, Danish, and
12 Polish athletes. As hypothesized, many more Polish athletes (74%) obtained an occupation
13 related to the field of sport, compared to around one-third of Swiss and Danish athletes. Thus, as
14 proposed by Torregrosa, Boixadós, Valiente, & Cruz (2004), the transition after top-level sports
15 in the Polish context should be conceptualized as a “relocation in sport” instead of a “retirement
16 from sport”, as many Polish athletes follow a professional career in sport as physical education
17 teachers, coaches, physiotherapists, directors of sport clubs, or media commentators.

18 When interpreting an elite sport career as different forms of accumulated social capital
19 (Bourdieu, 1986) or as a resource for athletes’ life careers (Stambulova, 2010), previous research
20 has shown that financial status (economic capital), educational status, competencies, and
21 working experience (cultural capital), and top sport success/popularity (symbolic capital) all
22 have a positive effect on the adaptation to the post-sport life (e.g., Cecić Erpič et al., 2004;
23 Conzelmann & Nagel, 2003; Dewenter & Giessing, 2014; Koukouris, 1991; Werthner & Orlick,

1 1986). However, our results suggest that the socio-cultural context influences the importance or
2 usefulness of these different forms of social capital related to the previous sports career when
3 athletes try to set a foothold in the job market. Accordingly, since most Polish athletes relocate in
4 jobs related to the sports sector, former athletes rated their professional network from sport, their
5 own popularity, and their connections to federations/clubs as more influential for obtaining their
6 current employment than athletes that were looking for work in the Swiss and Danish contexts.

7 The low unemployment rates of athletes in our three samples indicate that the former elite
8 athletes were successful in finding a job after their sports career, despite that every fourth athlete
9 faced periods of unemployment and even though many athletes reported vocational difficulties
10 during their adaptation process. Athlete career services were generally not considered helpful for
11 finding a job. However, it should be noted that 10 Swiss, five Danish, and one Polish athlete(s)
12 rated career service as very helpful for finding a job, whereas most other athletes reported that
13 they did not use or need these services. Athletes expressed a high satisfaction with their current
14 life situation. Nevertheless, the life satisfaction scores (Pavot & Diener, 1993) of the Swiss and
15 the Danish athletes were higher than the ones of the Polish athletes. This is, however, not
16 surprising or especially specific for athletes, as Switzerland and Denmark constantly rank among
17 the countries with the highest life quality and the highest subjective well-being (OECD, 2016). A
18 substantial difference was found when comparing the family situation of retired Swiss, Danish,
19 and Polish athletes. Relatively more Polish athletes were married and have children compared to
20 Swiss athletes, indicating that it was more difficult for Swiss athletes to combine their athletic
21 career with becoming a parent. Thus, Swiss athletes seem to postpone the family-related
22 transition on the psychosocial level (Wylleman & Lavallee, 2004) and wait with starting a family
23 until they terminate their elite sports career.

1 To sum up, when comparing athletic retirement between Swiss, Danish, and Polish
2 athletes, our results showed that Polish athletes differed in their preconditions for the transition
3 (e.g., longer professional career, higher athletic identity, higher educational level but less
4 working experience), their adaptation difficulties (more vocational and financial difficulties), and
5 also the job situation after their elite sports career compared to Swiss and Danish athletes. More
6 similarities between the athletes from the three countries were found among the career-end
7 characteristics, as most athletes reported similar reasons for retirement, had made plans for their
8 post-sport life, and perceived that their decision to end their sports career was voluntarily chosen.

9 By taking into consideration the limitations of the present study, future research attempts in
10 studying athletic retirement across cultures could be improved upon. To begin with, our samples
11 consisted of athletes that had participated in a variety of sports disciplines that differed
12 substantially in their level of professionalization. Although we made generalizable statements
13 about ‘Swiss’, ‘Danish’, and ‘Polish’ athletes, these may not be true for different sub-sport
14 cultures. However, as the term ‘elite’ implies, sample size issues are common when studying
15 (retired) international top athletes. Accordingly, there were several disciplines where only a
16 handful of athletes fulfilled the inclusion criteria for our study. What is more, in order to make
17 our results comparable to those of the other EPAR studies, we used a similar theoretical
18 framework, design, and methodology. This might have narrowed our perspective on athletic
19 retirement as a complex and multifaceted topic. More precisely, the retrospective cross-sectional
20 design might have caused a recall bias (Côté et al., 2005) and may fail to capture the transition as
21 a dynamic process (Schlossberg, 1981). As proposed by Stambulova et al. (2009), a possible way
22 to face these limitations could be by using a longitudinal research design, questioning athletes in
23 the different stages of the transition process. Despite our efforts to achieve semantic and

1 conceptual equivalence in the different language versions of the questionnaire, differences in
2 means values could have simply occurred because of different wording and understanding,
3 which is a common issue in cross-cultural research (Ember & Ember, 2009; Si & Lee, 2007).
4 Conceptualizing culture as an external entity of the athletes and treating nationality as an
5 independent variable, we ran the risk of objectifying culture (Ryba et al., 2010), a criticism
6 already made by the researchers discussing their EPAR project (Stambulova et al., 2007).
7 Applying a cultural-sensitive approach towards the transition out of elite sport (Stambulova &
8 Alfermann, 2009), we intended to compensate for this shortcoming by describing each cultural
9 context and thus to enable the understanding of the constitutive dynamic between athletes'
10 psychological processes and the socio-cultural contexts. The personal connection and knowledge
11 of the first author about the sports systems and cultural contexts of the three countries studied
12 was certainly of vital importance both when selecting the countries to compare, but also helpful
13 in analyzing and describing the retirement process of elite athletes in these different contexts.

14 Through the detection of national specific patterns, we may provide some practical
15 implications for each context. On the meso-level, Polish athletes could profit from alternative
16 study programs that broaden their career choices for the life after sport. As there are hardly any
17 sports career assistance programs in Poland, developing programs that help athletes to deal with
18 retirement issues and assisting them with the job-seeking process should be considered, as such
19 programs were shown to be effective for other athletes in need (Lavalley, 2005; Mateos,
20 Torregrosa, & Cruz, 2010; North & Lavalley, 2004; Reints & Wylleman, 2013). In Switzerland,
21 a more institutionalized support to combine elite sports and higher educational studies including
22 financial grants could help Swiss athletes to reach an educational level that is equal to the
23 population average of their age-peers. Career counselors working in established career programs

1 in Denmark should also consider athletes' private/social environment, as their difficulties are
2 mostly social- and emotional-related. These recommendations may also apply to other countries
3 that adopt similar approaches to support their elite (dual) career athletes as the ones described in
4 this study. On the micro-level, applied psychologists that work with retiring/retired athletes in all
5 three contexts should bear in mind that athletes who made plans for their future and retired
6 voluntarily may also need assistance to successfully cope with the changes in the different
7 spheres of their life. Applying a whole career and whole person perspective using an
8 empowerment approach when assisting athletes could help athletes to be more successful in their
9 emotional and social adaptation during the transition out of elite sport, regardless of their
10 national identity.

11 This study corroborated previous findings that the national context including features from
12 the both the macro- and meso-context have an influence on athletes' transition out of elite sport.
13 By enriching our understanding of athletes' careers in specific socio-cultural contexts, we can
14 improve the quality of the career transition research and also enhance the effectiveness of career
15 assistant programs. Acknowledging and considering cultural patterns is important when
16 conducting research on sports career development issues and to culturally adapt athlete career
17 programs for active and retiring/retired athletes. However, further research is needed to provide a
18 better link between different national sports systems and athletes' reaction to sports career
19 termination and their adaptation to the post-sport life.

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References

- 1
2 Alfermann, D., & Stambulova, N. (2007). Career transitions and career termination. In G.
3 Tenenbaum & R. C. Eklund (Eds.), *Handbook of Sport Psychology* (3rd ed., pp. 712–733).
4 Hoboken, NJ: John Wiley & Sons.
- 5 Alfermann, D., Stambulova, N., & Zemaityte, A. (2004). Reactions to sport career termination:
6 A cross-national comparison of German, Lithuanian, and Russian athletes. *Psychology of*
7 *Sport and Exercise*, 5(1), 61–75. doi:[http://dx.doi.org/10.1016/s1469-0292\(02\)00050-x](http://dx.doi.org/10.1016/s1469-0292(02)00050-x)
- 8 Andersen, D., & Morris, T. (2000). Athlete lifestyle programs. In D. Lavalley & P. Wylleman
9 (Eds.), *Career transitions in sport: International perspectives* (pp. 59–80). Morgantown,
10 WV: Fitness Information Technology.
- 11 Aquilina, D., & Henry, I. (2010). Elite athletes and university education in Europe: A review of
12 policy and practice in higher education in the European Union Member States.
13 *International Journal of Sport Policy*, 2(1), 25–47.
14 doi:<http://dx.doi.org/10.1080/19406941003634024>
- 15 Aquilina, D., & Henry, I. (2014). Promoting student-athletes interests in European elite sport
16 systems. In I. Henry & L.M. Ko (Eds.), *Routledge Handbook of Sport Policy* (pp. 225–
17 240). Oxon: Routledge.
- 18 Bloom, B. (1985). *Developing talent in young people*. New York, NY: Ballentine.
- 19 Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.), *Handbook of Theory and*
20 *Research for the Sociology of Education* (pp. 46–58). New York, NY: Greenwood.
- 21 Brewer, B. W., Van Raalte, J. L., & Linder, D. E. (1993). Athletic identity: Hercules' muscles or
22 Achilles heel? *International Journal of Sport Psychology*, 24, 237–254.
- 23 Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge: Harvard University
24 Press.
- 25 Cecić Erpič, S., Wylleman, P., & Zupančič, M. (2004). The effect of athletic and non-athletic
26 factors on the sports career termination process. *Psychology of Sport and Exercise*, 5(1),
27 45–59. doi:[http://dx.doi.org/10.1016/s1469-0292\(02\)00046-8](http://dx.doi.org/10.1016/s1469-0292(02)00046-8)
- 28 Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence
29 Earlbaum.
- 30 Coakley, J. J. (1983). Leaving competitive sport: Retirement or rebirth? *Quest*, 35(1), 1–11.
31 doi:<http://dx.doi.org/10.1080/00336297.1983.10483777>

- 1 Conzelmann, A., & Nagel, S. (2003). Professional careers of the German Olympic athletes.
2 *International Review for the Sociology of Sport*, 38(3), 259–280.
3 doi:<http://dx.doi.org/10.1177/10126902030383001>
- 4 Côté, J. (1999). The influence of the family in the development of talent in sport. *The Sport*
5 *Psychologist*, 13(4), 395–417.
- 6 Côté, J., Ericsson, K. A., & Law, M. P. (2005). Tracing the development of athletes using
7 retrospective interview methods: A proposed interview and validation procedure for
8 reported information. *Journal of Applied Sport Psychology*, 17(1), 1–19.
9 doi:<http://dx.doi.org/10.1080/10413200590907531>
- 10 Côté, J., & Vierimaa, M. (2014). The developmental model of sport participation: 15 years after
11 its first conceptualization. *Science & Sports*, 29, 63-69.
12 <http://dx.doi.org/10.1016/j.scispo.2014.08.133>
- 13 De Bosscher, V., Bingham, J., & Shibli, S. (2008). *The global sporting arms race: An*
14 *international comparative study on sports policy factors leading to international sporting*
15 *success*. Aachen: Meyer & Meyer.
- 16 De Bosscher, V., Shibli, S., Westerbeek, H., & van Bottenburg, M. (2015). *Successful elite sport*
17 *policies: An international comparison of the Sport Policy factors Leading to International*
18 *Sporting Success (SPLISS 2.0.) in 15 nations*. Maidenhead: Meyer & Meyer Sport.
- 19 Dewenter, R., & Giessing, L. (2014). *The effects of elite sports on later job success*. DICE
20 Discussion Paper 172, Düsseldorf Institute for Competition Economics (DICE), University
21 of Düsseldorf. Retrieved from [https://www.deutsche-](https://www.deutsche-digitalebibliothek.de/binary/DR7LRZ2XL2SWLXEUU7M7WCCYTGXL2SKF/full/1.pdf)
22 [digitalebibliothek.de/binary/DR7LRZ2XL2SWLXEUU7M7WCCYTGXL2SKF/full/1.pdf](https://www.deutsche-digitalebibliothek.de/binary/DR7LRZ2XL2SWLXEUU7M7WCCYTGXL2SKF/full/1.pdf)
- 23 Dimoula, F., Torregrosa, M., Psychountaki, M., & Fernandez, M. D. G. (2013). Retiring from
24 elite sports in Greece and Spain. *The Spanish Journal of Psychology*, 16, 1–11.
- 25 Ember, C. R., & Ember, M. (2009). *Cross-cultural research methods* (2nd ed.). Plymouth:
26 AltaMira Press.
- 27 Esping-Andersen, G. (1990). *The three worlds of welfare capitalism*. Princeton, NJ: Princeton
28 University Press.
- 29 Fernandez, A., Stephan, Y., & Fouquereau, E. (2006). Assessing reasons for sports career
30 termination: Development of the Athletes' Retirement Decision Inventory (ARDI).

- 1 *Psychology of Sport and Exercise*, 7(4), 407–421.
2 doi:<http://dx.doi.org/10.1016/j.psychsport.2005.11.001>
- 3 Field, A. (2013). *Discovering statistics using IBM SPSS statistics* (4th ed.). Thousand Oaks, CA:
4 Sage.
- 5 Gordon, S., Lavalley, D., & Grove, J. (2005). Career assistance program interventions in sport. In
6 D. Hackfort & J. Duda, & R. Lidor (Eds.), *Handbook of research in applied sport and*
7 *exercise psychology: International perspectives* (pp. 233–244). Morgantown, WV: Fitness
8 Information Technology .
- 9 Grove, J. R., Lavalley, D., & Gordon, S. (1997). Coping with retirement from sport: The
10 influence of athletic identity. *Journal of Applied Sport Psychology*, 9(2), 191–203.
11 doi:<http://dx.doi.org/10.1080/10413209708406481>
- 12 Henriksen, K., Stambulova, N., & Roessler, K. K. (2010). Holistic approach to athletic talent
13 development environments: A successful sailing milieu. *Psychology of Sport and Exercise*,
14 11(3), 212–222. <http://dx.doi.org/10.1016/j.psychsport.2009.10.005>
- 15 Hill, P., & Lowe, B. (1974). The inevitable metathesis of the retiring athlete. *International*
16 *Review for the Sociology of Sport*, 9(3), 5–32.
17 doi:<http://dx.doi.org/10.1177/101269027400900301>
- 18 Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: Software of the*
19 *mind. Intercultural cooperation and its importance for survival* (3rd ed.). New York, NY:
20 McGraw-Hill.
- 21 Knights, S., Sherry, E., & Ruddock-Hudson, M. (2016). Investigating elite end-of-athletic-career
22 transition: A systematic review. *Journal of Applied Sport Psychology*, 1–18.
23 <http://dx.doi.org/10.1080/10413200.2015.1128992>
- 24 Koukouris, K. (1991). Quantitative aspects of the disengagement process of advanced and elite
25 Greek male athletes from organized competitive sport. *Journal of Sport Behavior*, 14(4),
26 227-246. <http://dx.doi.org/10.1177/101269029102600405>
- 27 Kuettel, A., Boyle, E., & Schmid, J. (2017). Factors contributing to the quality of the transition
28 out of elite sports in Swiss, Danish, and Polish athletes. *Psychology of Sport and Exercise*,
29 29(3), 27-39. <http://dx.doi.org/10.1016/j.psychsport.2016.11.008>
- 30 Lavalley, D. (2005). The effect of a life development intervention on sports career transition
31 adjustment. *The Sport Psychologist*, 19(2), 193–202. <http://dx.doi.org/10.1123/tsp.19.2.193>

- 1 Lerch, S. H. (1982). Athletic retirement as social death: An overview. In N. Therberge & P.
2 Donnelly (Eds.), *Sport and the sociological imagination* (pp. 259–272). Fort Worth, TX:
3 Christian University Press.
- 4 Mateos, M., Torregrosa, M., & Cruz, J. (2010). Evaluation of a career assistance programme for
5 elite athletes: Satisfaction levels and exploration of career decision making and athletic-
6 identity . *Kinesiologia Slovenica*, *16*(1-2), 30–43.
- 7 McPherson, B. D. (1984). Sport participation across the life cycle: A review of the literature and
8 suggestions for future research. *Sociology of Sport Journal*, *1*(3), 213–230.
9 <http://dx.doi.org/10.1123/ssj.1.3.213>
- 10 Mihovilovic, M. A. (1968). The status of former sportsmen. *International Review for the*
11 *Sociology of Sport*, *3*(1), 73–96. <http://dx.doi.org/10.1177/101269026800300105>
- 12 North, J., & Lavalley, D. (2004). An investigation of potential users of career transition services
13 in the United Kingdom. *Psychology of Sport and Exercise*, *5*(1), 77–84.
14 [http://dx.doi.org/10.1016/s1469-0292\(02\)00051-1](http://dx.doi.org/10.1016/s1469-0292(02)00051-1)
- 15 OECD (2013). *Self-employment rate 2013*. <https://data.oecd.org/emp/self-employment-rate.htm>
16 doi: 10.1787/fb58715e-en (Accessed on 13 September 2016)
- 17 OECD (2014a). *Gross domestic product (GDP) 2014*. [https://data.oecd.org/gdp/gross-domestic-](https://data.oecd.org/gdp/gross-domestic-product-gdp.htm)
18 [product-gdp.htm](https://data.oecd.org/gdp/gross-domestic-product-gdp.htm) doi: 10.1787/dc2f7aec-en (Accessed on 13 September 2016)
- 19 OECD (2014b). *Unemployment rate 2014*. <https://data.oecd.org/unemp/unemployment-rate.htm>
20 doi: 10.1787/997c8750-en (Accessed on 7 September 2016)
- 21 OECD (2016). *Better life index*. <http://www.oecdbetterlifeindex.org/topics/life-satisfaction/>
22 (Accessed on 13 September 2016)
- 23 Park, S., & Lavalley, D. (2015). Roles and influences of Olympic athletes' entourages in
24 athletes' preparation for career transition out of sport. *Sport and Exercise Psychology*
25 *Review*, *11*(1), 3–19.
- 26 Park, S., Lavalley, D., & Tod, D. (2013). Athletes' career transition out of sport: a systematic
27 review. *International Review of Sport and Exercise Psychology*, *6*(1), 22–53.
- 28 Pavot, W., & Diener, E. (1993). Review of the satisfaction with life scale. *Psychological*
29 *Assessment*, *(5)*, 164–172. <http://dx.doi.org/10.1037/1040-3590.5.2.164>

- 1 Reints, A., & Wylleman, P. (2013). Managing athletes' post-athletic careers. In P. Sotiriadou &
2 V. De Bosscher (Eds.), *Managing high performance sport* (pp. 376–407). New York, NY:
3 Routledge.
- 4 Ryba, T. V., Stambulova, N., Si, G., & Schinke, R. J. (2013). ISSP Position Stand: Culturally
5 competent research and practice in sport and exercise psychology. *International Journal of*
6 *Sport and Exercise Psychology*, *11*(2), 123–142.
7 doi:<http://dx.doi.org/10.1080/1612197x.2013.779812>
- 8 Schlossberg, N. K. (1981). A model for analyzing human adaptation to transition. *The*
9 *Counseling Psychologist*, *9*(2), 2–15. doi:<http://dx.doi.org/10.1177/001100008100900202>
- 10 Si, G., & Lee, H. (2007). Cross-cultural issues in sport psychology research. In S. Jowett & D.
11 Lavalley (Eds.), *Social psychology in sport* (pp. 279–288). Champaign, IL: Human
12 Kinetics.
- 13 Sinclair, D. A., & Orlick, T. (1993). Positive transitions from high-performance sport. *Sport*
14 *Psychologist*, *7*, 138–150. <http://dx.doi.org/10.1123/tsp.7.2.138>
- 15 Sparkes, A. C., & Smith, B. (2014). *Qualitative research methods in sport, exercise and health:*
16 *From process to product*. New York, NY: Routledge.
- 17 Stambulova, N. (2003). Symptoms of a crisis-transition: A grounded theory study. In N.
18 Hassmén (Ed.), *SIPF Yearbook 2003* (pp. 97–109). Örebro: Örebro University Press.
- 19 Stambulova, N. (2010). Professional culture of career assistance to athletes: A look through
20 contrasting lenses of career metaphors. In T. V. Ryba & R. J. Schinke & G. Tenenbaum
21 (Eds.), *The cultural turn in sport psychology* (pp. 285–314). Morgantown, WV: Fitness
22 Information Technology.
- 23 Stambulova, N. (2012). Working with athletes in career transitions. In Hanton, S. & Mellalieu,
24 D. (Eds.), *Professional Practice in Sport Psychology* (pp. 165–194). New York: Routledge.
- 25 Stambulova, N. (2016). Theoretical developments in the career transition topic: Contribution of
26 European sport psychology. In M. Raab & P. Wylleman & R. Seiler, & A-M. Elbe, & A.
27 Hatzigeorgiadis (Eds.), *Sport and exercise psychology research: From theory to practice*
28 (pp. 251–268). London, UK: Elsevier.
- 29 Stambulova, N., & Alfermann, D. (2009). Putting culture into context: Cultural and cross-
30 cultural perspectives in career development and transition research and practice.

- 1 *International Journal of Sport and Exercise Psychology*, 7(3), 292–308.
2 doi:<http://dx.doi.org/10.1080/1612197x.2009.9671911>
- 3 Stambulova, N., Alfermann, D., Statler, T., & Côté, J. (2009). Career development and
4 transitions of athletes: The ISSP position stand. *International Journal of Sport and*
5 *Exercise Psychology*, 7(4), 395–412.
6 doi:<http://dx.doi.org/10.1080/1612197x.2009.9671916>
- 7 Stambulova, N., & Ryba, T. V. (2013). *Athletes' careers across cultures*. London: Routledge.
- 8 Stambulova, N., & Ryba, T. V. (2014). A critical review of career research and assistance
9 through the cultural lens: Towards cultural praxis of athletes' careers. *International Review*
10 *of Sport and Exercise Psychology*, 7(1), 1–17.
11 doi:<http://dx.doi.org/10.1080/1750984x.2013.851727>
- 12 Stambulova, N., Stephan, Y., & Jäphag, U. (2007). Athletic retirement: A cross-national
13 comparison of elite French and Swedish athletes. *Psychology of Sport and Exercise*, 8(1),
14 101–118. doi:<http://dx.doi.org/10.1016/j.psychsport.2006.05.002>
- 15 Svoboda, B., & Vanek, M. (1982). Retirement from high level competition. In T. Orlick, J. T.
16 Partington, & J. H. Salmela (Eds.), *Proceedings of the fifth world congress of sport*
17 *psychology* (pp. 166–175). Ottawa: Coaching Association of Canada.
- 18 Taylor, J., & Ogilvie, B. C. (1994). A conceptual model of adaptation to retirement among
19 athletes. *Journal of Applied Sport Psychology*, 6(1), 1–20.
20 doi:<http://dx.doi.org/10.1080/10413209408406462>
- 21 Torregrosa, M., Boixadós, M., Valiente, L., & Cruz, J. (2004). Elite athletes' image of
22 retirement: The way to relocation in sport. *Psychology of Sport and Exercise*, 5(1), 35–43.
23 [http://dx.doi.org/10.1016/s1469-0292\(02\)00052-3](http://dx.doi.org/10.1016/s1469-0292(02)00052-3)
- 24 Tshube, T., & Feltz, D. L. (2015). The relationship between dual-career and post-sport career
25 transition among elite athletes in South Africa, Botswana, Namibia and Zimbabwe.
26 *Psychology of Sport and Exercise*, 21, 109–114.
27 doi:<http://dx.doi.org/10.1016/j.psychsport.2015.05.005>
- 28 Webb, W. M., Nasco, S. A., Riley, S., & Headrick, B. (1998). Athlete identity and reactions to
29 retirement from sports. *Journal of Sport Behavior*, 21(3), 338–362.
- 30 Werthner, P., & Orlick, T. (1986). Retirement experiences of successful Olympic athletes.
31 *International Journal of Sport Psychology*, 17(5), 337–363.

CROSS-NATIONAL COMPARISON OF ELITE SPORT RETIREMENT

- 1 Wylleman, P., Alfermann, D., & Lavallee, D. (2004). Career transitions in sport: European
2 perspectives. *Psychology of Sport and Exercise*, 5(1), 7–20.
- 3 Wylleman, P., De Knop, P., & Reints, A. (2011). Transitions in competitive sports. In N. L. Holt
4 & M. Talbot (Eds.), *Lifelong Engagement in Sport and Physical Activity* (pp. 63–76). New
5 York, NY: Routledge.
- 6 Wylleman, P., & Lavallee, D. (2004). A developmental perspective on transitions faced by
7 athletes. In M. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan*
8 *perspective* (pp. 507–527). Morgantown, WV: Fitness Information Technology.
- 9 Yin, R. K. (2014). *Case study research, design and methods* (5th ed.). Thousand Oaks, CA:
10 Sage.
- 11 Zysko, J. (2008). Poland. In B. Houlihan & M. Green (Eds.), *Comparative elite sport*
12 *development: Systems, structures and public policy* (pp. 166–193). Oxford: Butterworth-
13 Heinemann.

CROSS-NATIONAL COMPARISON OF ELITE SPORT RETIREMENT

Table 1

Overview of macro-, meso-, and cultural aspects of Switzerland, Denmark, and Poland

<i>Aspect</i>	<i>Switzerland</i>	<i>Denmark</i>	<i>Poland</i>
<i>Population size (2014)</i>	8.2 million	5.6 million	38.5 million
<i>GDP/capita (2014)</i>	US \$ 59,536	US \$ 46,000	US \$ 24,952
<i>Unemployment rate (2014)</i>	4.5%	6.6%	9.0%
<i>Welfare system</i>	Liberal	Social-democratic	Conservative
<i>Power distance</i>	Low-medium (34)	Very low (18)	High (68)
<i>Individualism</i>	High (68)	High (74)	Medium-high (60)
<i>Masculinity</i>	Medium-high (70)	Very low (16)	Medium-high (64)
<i>Uncertainty avoidance</i>	Medium (58)	Low (23)	Very high (93)
<i>Long-term orientation</i>	High (74)	Low (34)	Low (38)
<i>Indulgence</i>	High (66)	High (70)	Low (29)
<i>Rankings Olympic Games medal table</i>	33 (Beijing 2008) 6 (Vancouver 2010) 32 (London 2012) 7 (Sochi 2014) 24 (Rio 2016)	30 (Beijing 2008) - (Vancouver 2010) 29 (London 2012) - (Sochi 2014) 28 (Rio 2016)	20 (Beijing 2008) 15 (Vancouver 2010) 30 (London 2012) 11 (Sochi 2014) 33 (Rio 2016)
<i>Organization of sport system</i>	Bottom-up	Mixed-complementary	Top-down
<i>Dual career typology on higher education</i>	Laissez-faire: no formal structure	State/NSA as facilitators	State-centered approach
<i>Athlete career program</i>	Both during and after career	Both during and after career	Only during career
<i>Athletes supported by the military (2014)</i>	18 Athletes (50% jobs)	None, but under discussion	Over 100 full-time positions

Note: GDP/capita and unemployment rates were derived from the OECD (2014) database. The welfare state classification relates to the terminology of Esping-Andersen (1999). The measurements with a scale from 0 – 100 on the cultural dimensions (power distance – indulgence) relate to the work of Hofstede, Hofstede, and Minkov (2010). Dual career typologies were described by Aquilina and Henry (2010). NSA = National Sport Association

CROSS-NATIONAL COMPARISON OF ELITE SPORT RETIREMENT

Table 2

Means (standard deviations) or frequencies, F or χ^2 values, and effect sizes for athletes' preconditions for the transition (life in elite sport)

Variables	Switzerland ($n = 231$)		Denmark ($n = 86$)		Poland ($n = 84$)		F/χ^2	Effect size
Age at sport specialization for main discipline	10.71 _a	(4.96)	10.79 _a	(3.28)	8.55 _b	(3.87)	8.08***	.04
Age at the time of best performance	26.31	(5.47)	26.00	(4.96)	25.87	(4.84)	0.54	.00
Age at the end of elite sports career	30.55 _a	(6.30)	30.38 _a	(5.40)	32.69 _b	(5.85)	4.39*	.02
Age at the time of the study (2014)	33.62 _a	(6.54)	33.14 _a	(5.99)	36.32 _b	(5.90)	6.88**	.03
Sports career duration	19.84 _a	(7.11)	19.53 _a	(4.73)	24.14 _b	(6.59)	14.87***	.07
Years between biggest success and retirement	4.18 _a	(3.36)	3.59 _a	(2.76)	6.58 _b	(4.19)	18.90***	.09
Professional athlete status (no work or study)	53%		54%		70%		8.05**	.14
Years as a professional athlete	7.55 _a	(6.10)	5.91 _a	(5.56)	12.27 _b	(5.11)	22.76***	.10
Medal at Olympics or World Championships	34%		44%		33%		3.08	.09
Satisfied with their obtained results (1-5)	4.09 _a	(0.85)	3.73 _b	(1.17)	4.00 _a	(0.82)	4.59**	.02
Athletic identity during sports career (1-7)	5.28 _a	(0.84)	5.54	(0.81)	5.81 _b	(0.88)	12.94***	.06
Perceived popularity (1-5)	2.47 _a	(1.12)	2.26 _a	(1.22)	3.02 _b	(1.13)	10.55***	.05
Worked outside of elite sport (hours/week)	13.35 _a	(14.12)	11.88	(13.07)	8.50 _b	(11.71)	4.03**	.02
Time spent in academic studies (hours/week)	6.73 _a	(10.08)	11.02 _b	(12.82)	7.43 _a	(8.97)	5.29**	.03
Completed vocational education at career end	44%		11%		8%		57.02***	.38
Completed tertiary education at career end	39%		62%		85%		53.27***	.36
Sports career investment/benefit ratio (1-5)	3.18 _a	(1.45)	4.22 _b	(1.05)	2.86 _a	(1.34)	25.20***	.12

Note: Test statistics are F values for continuous variables ($df = 2, 398$) and chi-square (χ^2) values for categorical variables/frequencies. Means with different subscripts in a row are significantly different from each other. Effect sizes are η^2 for F values and Cramér's V for χ^2 values.

* $p < .05$. ** $p < .01$. *** $p < .001$.

CROSS-NATIONAL COMPARISON OF ELITE SPORT RETIREMENT

Table 3

Means (standard deviations), F values, and effect sizes for the variables related to the career end and transitional period

Variables	Switzerland (n = 231)		Denmark (n = 86)		Poland (n = 84)		F	Effect size
Reasons related to career termination								
Personal/motivational reasons (1-5)	2.71 _a	(1.22)	3.19 _b	(1.19)	2.58 _a	(1.21)	6.44**	.03
Family-related reasons (1-5)	2.47 _a	(1.54)	3.30 _b	(1.51)	2.82	(1.61)	9.36***	.05
Health-related reasons (1-5)	2.63	(1.64)	2.59	(1.52)	2.81	(1.54)	0.48	.00
Financial-related reasons (1-5)	2.38	(1.49)	2.66	(1.44)	2.81	(1.67)	2.86	.01
Job/educational reasons (1-5)	2.44	(1.24)	2.49	(1.07)	2.18	(1.08)	1.88	.01
Performance-related reasons (1-5)	2.40	(1.43)	2.58	(1.40)	2.42	(1.50)	0.50	.00
Sport-environmental reasons (1-5)	1.90	(1.34)	2.09	(1.31)	2.24	(1.65)	1.96	.01
Characteristics related to the career end								
Voluntariness to stop sports career (1-5)	3.60	(1.57)	3.98	(1.41)	3.83	(1.41)	1.96	.01
Plans for life after elite sport (1-5)	3.57	(1.32)	3.71	(1.12)	3.83	(1.41)	1.39	.01
Differences planning/ending sports career (months)	8.47	(11.07)	7.34	(8.55)	10.94	(14.49)	2.28	.01
Timeliness of retirement (1-5)	2.66	(0.76)	2.64	(0.87)	2.62	(0.87)	0.94	.00
Career end perceived as loss vs. relief (1-5)	3.12 _a	(0.87)	3.31 _a	(1.09)	2.25 _b	(1.07)	31.81***	.14
Characteristics related to the adaptation period								
Emotional difficulties (1-5)	2.76 _a	(1.33)	3.20 _b	(1.32)	3.01	(1.34)	3.69*	.02
Social difficulties (1-5)	2.43 _a	(1.19)	2.92 _b	(1.34)	2.79	(1.30)	5.91**	.03
Health/body difficulties (1-5)	2.00 _a	(1.17)	2.41 _b	(1.22)	2.38 _b	(1.31)	5.19**	.03
Vocational difficulties (1-5)	1.81 _a	(1.14)	2.01	(1.09)	2.40 _b	(1.20)	8.30***	.04
Financial difficulties (1-5)	1.71 _a	(1.01)	1.88 _a	(0.98)	2.75 _b	(1.38)	26.91***	.12
Duration of adaptation to new life situation (months)	9.23	(8.95)	10.44	(8.33)	9.05	(9.05)	0.70	.00
Overall satisfaction with the transition (1-5)	4.45 _a	(0.65)	4.45 _a	(0.62)	3.61 _b	(0.97)	45.19***	.19

Note: Test statistics are *F* values (*df* = 2, 398). Means with different subscripts in a row are significantly different from each other. Effect sizes are η^2 for *F* values.

p* < .05. *p* < .01. ****p* < .001.

CROSS-NATIONAL COMPARISON OF ELITE SPORT RETIREMENT

Table 4

Frequencies or means (standard deviations), F or χ^2 values, and effect sizes for variables related to the life situation after the elite sports career

Variables	Switzerland (n = 231)	Denmark (n = 86)	Poland (n = 84)	<i>F</i> / χ^2	<i>Effect size</i>
Current employment status					
Self-employed	21%	21%	32%	4.49	.11
Employed	70%	65%	64%	1.13	.06
Under education/attending school	22%	22%	8%	7.81*	.14
Family worker	5%	0%	1%	6.81*	.13
Unemployment at the time of questioning	3%	4%	1%	1.01	.05
Job situation after sports career					
Had periods of unemployment since retiring	21%	26%	32%	4.29	.11
Considered unemployment to be voluntary	46%	43%	33%	1.13	.02
Duration of unemployment (months)	6.45 (5.82)	7.62 (7.24)	8.33 (6.97)	0.78	.02
Current job(s) connected to sport	35%	31%	74%	42.70***	.33
Satisfaction with current job situation (1-5)	4.37 _a (0.89)	3.87 _b (1.36)	3.88 _b (0.96)	11.51***	.06
Importance of reasons for obtaining current job(s)					
Own personality/character (1-5)	4.31 (0.79)	4.42 (0.86)	4.13 (0.97)	2.51	.01
Skills and knowledge learnt in sports (1-5)	3.96 _a (1.16)	4.09 (1.13)	4.35 _b (0.89)	3.82*	.02
Former education (1-5)	3.96 (1.25)	4.07 (1.21)	4.01 (1.16)	0.27	.00
Private environment or network (1-5)	3.53 (1.23)	3.74 (1.03)	3.54 (1.26)	0.95	.00
Former working experience (1-5)	3.39 (1.52)	2.99 (1.49)	3.48 (1.26)	2.78	.02
Connections and network from elite sport (1-5)	2.72 _a (1.59)	3.00 _a (1.61)	3.54 _b (1.48)	8.55***	.04
Own popularity (1-5)	2.47 _a (1.41)	2.44 _a (1.39)	3.51 _b (1.36)	18.46***	.09
Connections with sport club and/or federation (1-5)	2.39 _a (1.50)	2.25 _a (2.32)	3.04 _b (1.59)	7.21***	.04
Contact with sponsors and/or media (1-5)	2.10 (1.31)	2.10 (1.29)	2.33 (1.32)	1.01	.01
Athlete Career Services (1-5)	1.47 (0.91)	1.59 (1.04)	1.60 (0.84)	0.83	.00

CROSS-NATIONAL COMPARISON OF ELITE SPORT RETIREMENT

Table 4 (continued)

Variables	Switzerland (n = 231)		Denmark (n = 86)		Poland (n = 84)		<i>F</i> / χ^2	<i>Effect size</i>
Life connected with sport								
Competition in the same discipline	38%		40%		23%		6.09*	.13
Competition different discipline	26%		32%		20%		2.81	.09
Considering a comeback	10%		39%		30%		35.30***	.31
Contact with former coach	64%		51%		86%		23.01***	.25
Contact with former teammates	87%		93%		96%		6.66*	.13
Work voluntarily in sport	46%		37%		39%		2.29	.08
Exercise for oneself (training hours per week)	5.82	(3.86)	5.10	(2.80)	5.87	(3.06)	1.08	.01
General life situation								
Life satisfaction (1-7)	5.52 _a	(0.87)	5.53 _a	(1.04)	4.84 _b	(1.06)	17.21***	.08
Married or living in registered partnership	46%		77%		85%		49.35***	.35
Having children	42%		55%		71%		24.59***	.18

Note: Test statistics are *F* values for continuous variables (*df* = 2, 398) and chi-square (χ^2) values for categorical variables and frequencies. Means with different subscripts in a row are significantly different from each other. Effect sizes are η^2 for *F* values and Cramér's V for χ^2 values.

p* < .05. *p* < .01. ****p* < .001.

CROSS-NATIONAL COMPARISON OF ELITE SPORT RETIREMENT

Appendix: Overview of the former athletes that participated in the study by sport and country

Sport	Switzerland			Denmark			Poland			Total
	<i>n</i>	%	Response rate [%]	<i>n</i>	%	Response rate [%]	<i>n</i>	%	Response rate [%]	<i>n</i>
Athletics	4	1.7	28.6	0	0	0.0	5	5.9	71.4	9
Badminton	7	3.0	77.8	5	5.8	50.0	2	2.4	100.0	14
Basketball	3	1.3	42.9	3	3.5	100.0	-	-	-	6
Curling	9	3.9	90.0	0	0	0.0	-	-	-	9
Cycling	8	3.5	42.1	3	3.5	60.0	1	1.2	20.0	12
Soccer	10	4.3	90.9	0	0	0.0	-	-	-	10
Floorball	10	4.3	77.0	1	1.2	100.0	1	1.2	100.0	12
Golf	2	0.9	100.0	5	5.8	100.0	-	-	-	7
Gymnastic	10	4.3	58.8	1	1.2	100.0	6	7.1	40.0	17
Handball	6	2.6	75.0	7	8.1	53.8	16	19.0	84.2	29
Ice hockey	17	7.4	56.7	3	3.5	37.5	1	1.2	33.3	21
Judo	3	1.3	100.0	1	1.2	100.0	-	-	-	4
Canoe	4	1.7	57.1	6	7.0	75.0	1	1.2	33.3	11
Wrestling	7	3.0	70.0	1	1.2	50.0	1	1.2	100.0	9
Horse riding	2	0.9	100.0	1	1.2	100.0	-	-	-	3
Rowing	10	4.3	55.6	11	12.8	68.8	3	3.6	60.0	24
Sailing	1	0.4	33.3	7	8.1	58.3	4	4.8	100.0	12
Shooting	6	2.6	60.0	3	3.5	50.0	0	0.0	0.0	9
Swimming	13	5.6	68.4	4	4.7	66.7	2	2.4	40.0	19
Ski	23	10.0	88.5	1	1.2	50.0	8	9.5	80.0	32
Squash	2	0.9	33.3	2	2.3	100.0	-	-	-	4
Table tennis	5	2.2	62.5	2	2.3	40.0	2	2.4	66.6	8
Tennis	3	1.3	60.0	3	3.5	75.0	-	-	-	6
Triathlon	5	2.2	41.7	2	2.3	100.0	1	1.2	50.0	8
Volley	17	7.4	81.0	8	9.3	61.5	3	3.6	60.0	28
Orienteering	17	7.4	73.9	2	2.3	100.0	5	5.9	100.0	24
Bob/Skeleton	17	7.4	73.9	-	-	-	4	4.8	100.0	21
Figure skating	3	1.3	50.0	-	-	-	5	5.9	38.5	8
Fencing	2	0.9	25.0	-	-	-	4	4.8	57.1	6
Field hockey	5	2.2	83.3	-	-	-	-	-	-	5
Automobile	-	-	-	-	-	-	0	0.0	0.0	0
Archery	-	-	-	0	0	0.0	3	3.6	42.8	3
Bowling	-	-	-	3	3.5	100.0	-	-	-	3
Sports dance	-	-	-	1	1.2	33.3	1	1.2	50.0	2
Motorsport	-	-	-	0	0	0.0	3	3.6	100.0	3
Weightlifting	-	-	-	-	-	-	2	2.4	100.0	2
Total	231	100	64.9	86	100	62.3	84	100	62.2	401

Note: Sport federations with which no collaboration could be established are marked with “-”.

Appendices A - J

Appendices

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Appendix A: Athletic Career Termination Questionnaire (ACTQ)

Part 1: Your life and success in elite sport

In the first part we would like to know more about how your sport's career developed, what success you achieved and what competences you developed through sport

1. In what **type of sport** and **discipline** did you achieve your biggest success at the elite sport level?

Type of sport: (e.g. Cycling, Athletics, Swimming) _____
Discipline: (e.g. Mountain bike, 400m hurdles, 100/200m butterfly) _____

2. When did you achieve your **biggest personal success** in your sport's career? ____ (year)

3. At what **age** did you start your main **sport specialization** (start to train performance-orientated on this discipline)?
When I was about _____ years old

4. Did you participate at **the following events**?

- () Olympic Games
- () World Championships
- () Overall World Cup/ World Ranking List
- () European Championships
- () Junior World Championships
- () National Championships
- () National Cup (Pokal)

- 1 didn't exist
- 2 never
- 3 once
- 4 twice
- 5 3 times
- 6 4 times
- 7 5 times
- 8 6-8 times
- 9 more than 8 times

5. *If yes*, what was your best **result**?

- 1 1. place
- 2 2. place
- 3 3. place
- 4 4.- 6. place
- 5 7.-10. place
- 6 11.- ... place

6. How satisfied are you with the **success (rankings)** you achieved **at major sport events/ tournaments/ games** during your elite sport's career?

- 1 very unsatisfied
- 2 unsatisfied
- 3 neither nor
- 4 satisfied
- 5 very satisfied
- 6 don't know

7. During your elite sport's career, how **popular/ famous** were you to the general public in your country?

- 1 not known at all
- 2 not very well known
- 3 neither nor
- 4 well known
- 5 very well known
- 6 don't know

The following questions concern your financial situation during your elite sport's career. The information will be treated strictly confidential and the results will not reveal any individual answers

8. When you performed elite sport **at your highest level**, approximately how much did the following **components contribute to your annual income?** *Add up to a total of 100 %*

- 1) Income from the **sport context** (Price money, salary from sports club, sponsors, financial support from the sport federation etc.)____%
- 2) Income from **work besides elite** sport (part-time job, regular job etc.)____%
- 3) Financial **support from your family**, parents and/or partner____%
- 4) **Other sources** of income (e.g. Donations, Foundations, Scholarships)_____%

9. **What was your yearly income before taxes** (summing up all the incomes from sport/ work besides sport, support from family and others) **during the peak of your sport's career?** (in PLN)

8 categories according to the currency and mean population income depending on the country

In the next section, we would like to know more about your trainings expenditure and the additional efforts besides elite sport

10. Approximately how many **hours per week** did you **train during the** preparation season in the last three years of your elite sport's career? (hours per week)
11. How many **additional hours** per week (Massage, travels to training, material development etc.) did you invest in sport during this period?
12. **Approximately** how many hours per week was spent **working (full- or part-time job) the last three years** of your elite sport's career besides the expenditures for your sport?
13. How many hours per week was spent **for education** (university, further education) in the same time besides you elite sport engagement?
14. Would you have considered yourself a **sport professional** (i.e. did not have any other form of occupation and were not studying) during your elite sport's career?

1 yes, I was a professional during my elite sport career

2 no, I was never a professional sport athlete

If Yes: When have you been a sport professional? From (year):_____ until (year):_____

Your skills and abilities

15. Which **competences** (abilities and skills) did you develop **along your sport's career?**

- 1) **Communicative skills** (e.g. public speaking, dealing with other people, presentations, media, self-marketing)
- 2) **Language skills** (e.g. spoken and written knowledge, foreign languages, certificates)
- 3) **Adaptability and Flexibility** (to new environments, tasks or working partners)
- 4) **Perseverance** and ability to overcome adversities
- 5) Ability to **perform under pressure**
- 6) Ability of **self-awareness** (knowing your strengths and weaknesses)
- 7) **Problem- solving skills**
- 8) **Leadership skills** (e.g. coaching, give instructions, competitive analysis)
- 9) **Planning-/ Organizing skills** (e.g. planning projects, time management)
- 10) **Administrative skills** (e.g. marketing, sponsoring, finances, computer)
- 11) **Technical skills** (e.g. handicraft skills, through development of your sport equipment)
- 12) Others:_____

1. Yes
2. No
3. Don't know

16. *And if Yes: How confident are you in applying these competences?*

- | | |
|---|----------------------|
| 1 | not confident at all |
| 2 | not confident |
| 3 | neither nor |
| 4 | confident |
| 5 | very confident |
| 6 | don't know |

17. **How helpful/ supportive were the following environments in developing these competences during your sports career?**

- 1) Sport environment (e.g. Coach, Club, Teammates, Physiotherapist)
- 2) Sponsoring/ Management environment (e.g. Manager, Agent, Sponsoring partners)
- 3) Educational environment (e.g. School, Gymnasium, High school, university)
- 4) Vocational environment (e.g. apprenticeship place, employer, colleagues at work)
- 5) Personal environment (e.g. family, partner, friends)
- 6) Additional Courses/ Career Programs (advanced training courses, Adecco Career Program)
- 7) Other: _____

- | | |
|---|--------------------|
| 1 | not helpful at all |
| 2 | not helpful |
| 3 | neither nor |
| 4 | helpful |
| 5 | very helpful |
| 6 | don't know |

18. From whom did you **expect more support** in developing your skills while you were active in elite sport?
Yes/ No/ don't know

- 1) Sport environment (e.g. Coach, Club, Teammates, Physiotherapist)
- 2) Sponsoring/ Management environment (e.g. Manager, Agent, Sponsoring partners)
- 3) Educational environment (e.g. School, Gymnasium, High school, university)
- 4) Vocational environment (e.g. apprenticeship place, employer, colleagues at work)
- 5) Personal environment (e.g. family, partner, friends)
- 6) Additional Courses/ Career Programs (advanced training courses, Adecco Career Program)
- 7) Other: _____

19. When you look back to your elite sport's career **comparing investments** (e.g. training, sacrifice) **and gains/benefits** (e.g. results, money, experiences, competences, life quality), which of the following statements fits best to you? (*tick one only*)

- | | |
|---|---|
| 1 | investments were much bigger than gains |
| 2 | investments were a little bigger than gains |
| 3 | equal investments and gains (balanced) |
| 4 | gains were a little bigger than investments |
| 5 | gains were much bigger than investment |

20. Rate the extent to which you agree or disagree with each of the following statements concerning your situation **when you were still active in elite sport**

- 1) I considered myself an athlete.
- 2) I had many goals related to sport.
- 3) Most of my friends were athletes.
- 4) Sport was the most important part of my life.
- 5) I spent more time thinking about sport than anything else.
- 6) I needed to participate in sport to feel good about myself.
- 7) Other people saw me mainly as an athlete.
- 8) I felt bad about myself when I did poorly in sport.
- 9) Sport was the only important thing in my life.
- 10) I was quite depressed when I was injured and could not compete in sport.

- 1 strongly disagree
- 2 disagree
- 3 slightly disagree
- 4 neither nor
- 5 slightly agree
- 6 agree
- 7 strongly agree

Part 2: Sports career termination and following transitional period

In this part are we interested about the reasons why you stopped your elite sport's career and how you were dealing with the changes in the transitional period out of elite sport

21. When did you first **start to take concrete action(s) to end your elite sport's career?**

(Month___/___Year)

22. **When did you terminate** your active elite sport's career

(Month___/___Year)

23. Please rate how much the following **reasons influenced your decision to retire from elite sport:**

- 1) **Job-related reasons** (e.g. interesting job possibility; wish to work full-time)
- 2) **Education-related reasons** (e.g. proceed with education; more time for studying was needed)
- 3) **Performance-related reasons** (e.g. unsatisfactory performance; reached most sporting-goals; de-selection; not qualified for major event)
- 4) **Sport environmental-related reasons** (e.g. conflicts with federation, coach or team mates, doping)
- 5) **Health-related reasons** (e.g. injury; illness; burnout)
- 6) **Family-related reasons** (e.g. desire to have a family; more time for family or friends)
- 7) **Financial-related reasons** (e.g. lack of financial support; need to earn more money)
- 8) **Personal reasons** (e.g. fed up with elite sport lifestyle; time rip for a change; more time for yourself)
- 9) **Motivational-related reasons** (e.g. lack of goals; too hard training; too many deprivations)
- 10) **Other reasons:**_____

- 1 no influence at all
- 2 minor influence
- 3 neither nor
- 4 strong influence
- 5 very strong influence

24. Below are some **questions concerning your elite sport's career termination**. Please try to describe your situation **during your retirement process** from elite sport using the given contrasting pairs:

1) Did you end your elite sports career abruptly or gradually?

- 1 stopped very abruptly
- 2 abruptly
- 3 neither nor
- 4 gradually
- 5 very gradually

2) Did you have long-term plans for the time after elite sport?

- 1 no long-term plans at all
- 2 no long-term plans
- 3 neither nor
- 4 long-term plans
- 5 very concrete long-term plans

3) Was your decision to end your elite sport's career voluntary taken or decided under pressure from external circumstances (e.g. injury)?

- 1 under strong pressure from external circumstances
- 2 under pressure from external circumstances
- 3 neither nor
- 4 voluntary
- 5 completely voluntary

4) Was it easy or difficult to end your elite sport's career?

- 1 very difficult
- 2 difficult
- 3 neither nor
- 4 easy
- 5 very easy

- 5) Was ending your elite sport's career more a relief or a loss for you?
- 1 a big loss
 - 2 a loss
 - 3 neither nor
 - 4 a relief
 - 5 a big relief
- 6) According to you, did the end of your elite sport's career come too early or too late?
- 1 much too early
 - 2 too early
 - 3 just about right
 - 4 too late
 - 5 much too late

25. **Did you talk with persons in the following environments about your plans to retire** from elite sport?

- 1) Close (narrow) sport environment (coach, team-members, physiotherapist, sport club administrator etc.)
- 2) Wider sport environment (manager, career counselor, tax counselor, sponsors, doctor etc.)
- 3) Private/ personal environment (family, partner and friends etc.)
- 4) Other: _____

Yes () No () Don't know ()

26. *If yes:* How long before your career end did you talk with other people about your plans to retire from elite sport? (Please state amount in month, e.g. 7)

27. *If Yes:* How **important** were those conversations with following persons in the...

Close sport environment?

- 1) Sport psychologist
- 2) Coach
- 3) Physiotherapist, Masseur
- 4) Team mates
- 5) Sport club/ federations administrators
- 6) Already retired athletes
- 7) Others: _____

Wider sport environment?

- 1) Team doctor
- 2) Manager/ Agent
- 3) Career counselor
- 4) Tax/Financial advisor
- 5) Journalists
- 6) Person within the Polish Olympic Committee
- 7) Sponsors
- 8) Others: _____

Private/ personal environment?

- 1) Parent
- 2) Partner
- 3) Siblings
- 4) Friends
- 5) Other relatives
- 6) Other:

- 1 not important at all
- 2 not important
- 3 neither nor
- 4 important
- 5 very important
- 6 don't know
- 7 not applicable

28. Below you find some statements which might have influenced your **career decisions** concerning your life after elite sport. (Please rate the degree to which each statement applied to you when you were about to **end your elite sport's career including the following 6 month**)

I found it difficult to make a job- or educational- decision, because:

- 1) I did not have the motivation to decide then ("I didn't feel like")
- 2) It is usually difficult for me to make decisions
- 3) I believed that entering the career I choose is a one-time choice and a life-long commitment
- 4) I did not know what steps I have to take
- 5) I did not know about my job preferences
- 6) I did not have enough information about the variety of occupations or training programs that existed
- 7) I did not know how to obtain additional information about myself (about my competences and/or characteristics)
- 8) I had contradictory information about the existence or the characteristics of a particular occupation or training program
- 9) I was equally attracted by a number of careers and it was difficult for me to choose among them
- 10) People who are/were important to me did not agree with the career options I was considering

- | | |
|---|---------------------------|
| 1 | didn't describe me at all |
| 2 | didn't describe me |
| 3 | rather didn't describe me |
| 4 | neither nor |
| 5 | rather described me |
| 6 | described me |
| 7 | described me very well |

29. The transitional period out of elite sport is often connected with an **adaptation** in different areas. **How difficult was the adaptation** in the following areas in the first week and month after you ended your elite sport's career?

- | | |
|---|----------------------|
| 1 | not difficult at all |
| 2 | not difficult |
| 3 | neither nor |
| 4 | difficult |
| 5 | very difficult |
| 6 | don't know |

- 1) **Vocational and educational adaptation** (problems with finding a job, lack of professional knowledge, difficulties with adjustment to the requirements of my new occupation etc.)
- 2) **Health and body- related adaptation** (detraining difficulties, injuries, weight problems, alcohol/drug problems etc.)
- 3) **Financial adaptation** (reduced income, debts etc.)
- 4) **Social adaptation** (missing friends from the sport environment, relationship difficulties with family or partner, former coach, difficulties in establishing a social network etc.)
- 5) **Emotional adaptation** (missing the lifestyle of an athlete, lack of self-confidence, difficulties with planning my future, lack of motivation for new tasks, problems with the loss of status of a public figure)

30. Is the **adaptation/adjustment to the new life situation** after your elite sport's career completed for you?

yes rather yes rather no no don't know

31. Yes/ rather yes -> **how long did the adjustment period take for you?** Ca. _____Month

32. In a retrospective view, **how satisfied are you with the adaptation process to your new life situation** after your elite sport's career has ended?

- | | |
|---|----------------------|
| 1 | not satisfied at all |
| 2 | not satisfied |
| 3 | neither nor |
| 4 | satisfied |
| 5 | very satisfied |
| 6 | don't know |

Part 3: Life after elite sport

This part is about your educations, your actual position on the job market and your general life situation

33. Which educational level did you complete **during your elite sport's career**? (please mark all you completed)

34. What is the highest educational level you completed **until now**? (tick only one)

all completed during
the elite sport's career

highest completed until
now (tick **one** only)

- 1) Primary school (obligatory years)
- 2) Additional year of schooling (10. Year)
- 3) Vocational education
- 4) Higher vocational education
- 5) Secondary school (Gymnasium, apprenticeship)
- 6) Short further education (1-2 years)
- 7) Bachelor (3-4 years)
- 8) Master/ Licentiate (5-6 years)
- 9) Post-graduate (PhD)

35. Could you profit from any of the listed **special educational** support when you were combining elite sport and education?

- 1) Individual counselling for combining academic and athletic career
- 2) Flexible study schedule
- 3) Reduced attendance requirements
- 4) Flexible exam schedule
- 5) Distance learning (e.g. e-learning)
- 6) Possibilities to interrupt the study and restart later on
- 7) Grants/ financial support (by the educational institution)
- 8) Other: _____

Yes / No/ Don't know

36. *And if yes: How helpful* was that **for combing** elite sport and studies?

- 1 not helpful at all
- 2 not helpful
- 3 neither nor
- 4 helpful
- 5 very helpful
- 6 don't know

37. What were the **barriers in balancing elite sport and education**?

- 1) study- related reason (requirement level, exams, non – flexible educational structure)
- 2) limited time available for studying
- 3) sport-related reasons (coach, club, sport organizations)
- 4) personal- related reasons (lack of motivation, family- related reasons)
- 5) geographical distance between education and training facilities
- 6) other: _____

- 1 no barrier at all
- 2 rather no barrier
- 3 neither nor
- 4 rather major barrier
- 5 major barrier
- 6 don't know

Your current situation on the job market

38. What is your actual **position on the job market**?

- 1) Self-employed without other hired employees
- 2) Self-employed with one or more hired employee
- 3) Employee
- 4) Unpaid family worker
- 5) In education (student, vocational courses): _____(please state)
- 6) Unemployed
- 7) Other:_____

39. Please state your current job title (please as specific as possible) and in the second row the level of employment (in percentage) of each job:

Main employment: _____ level of employment %
Further employments: _____

40. Did you have any **unemployment periods** after your elite sport's career ended?

- 1 Yes
- 2 No
- 3 don't know

If yes: How many months were you without a job? (Write number, e.g. 5)

If yes: How was your situation during this period?

- 1) I was looking for a job
- 2) It was my free choice not to work
- 3) Other:_____

41. In your opinion, **which of the following reasons did help you to obtain the professional position(s) you have at the moment?**

- 1) My former working experience
- 2) My education
- 3) Professional connections/ network I established during my sport career
- 4) Athlete Career Services (e.g. Adecco Career Service, Job4Players)
- 5) Connections with my Sport Club /Federation
- 6) Contact with my sponsors and the media
- 7) My popularity
- 8) My personality/ character
- 9) Skills and knowledge I learnt in sports
- 10) My social/ private environment
- 11) Other:_____

- 1 did not help at all
- 2 did not help
- 3 neither nor
- 4 helped
- 5 helped a lot
- 6 don't know

42. Are you **satisfied or unsatisfied with your current professional situation?**

- 1 very unsatisfied
- 2 unsatisfied
- 3 neither nor
- 4 satisfied
- 5 very satisfied
- 6 don't know

43. What was your total income before taxes in the year 2013 (summing up all sources of income)? *Your information will be categorized and handled strictly confidential*

8 categories according to the currency and mean population income depending on the country

44. **How relevant are these competences** you developed during your sport's career in your **present life situation after elite sport?**

- 1) **Communicative skills** (e.g. public speaking, dealing with other people, presentations, media, self-marketing)
- 2) **Language skills** (e.g. spoken and written knowledge, foreign languages, certificates)
- 3) **Adaptability and Flexibility** (to new environments, tasks or working partners)
- 4) **Perseverance** and ability to handle adversities
- 5) Ability to **perform under pressure**
- 6) Ability of **self-awareness** (knowing your strengths and weaknesses)
- 7) **Problem-solving skills**
- 8) **Leadership skills** (e.g. coaching, give instructions, competitive analysis)
- 9) **Planning-/ Organizing skills** (e.g. planning projects, time management)
- 10) **Administrative skills** (e.g. marketing, sponsoring, finances, computer)
- 11) **Technical skills** (e.g. handicraft skills, through development of your sport equipment)
- 12) Others: _____

- 1 not relevant at all
- 2 not relevant
- 3 neither nor
- 4 relevant
- 5 very relevant
- 6 don't know

45. How well does your **job position (s) match your competences** (skills/ abilities)?

- 1 matches not well at all
- 2 matches not well
- 3 neither nor
- 4 matches well
- 5 matches very well
- 6 don't know

46. **How is your current life connected with sport?**

Yes () No ()

- 1) I exercise for myself
- 2) I take part in competitions for „veterans“ in the same discipline I was on elite level
- 3) I take part in competitions in a different discipline than the one I was on elite level
- 4) Sometimes I am thinking about giving a comeback
- 5) I keep contact with my former coach(es)
- 6) I keep contact with my sport friends/ teammates
- 7) I serve as a volunteer in sport
- 8) Other: _____

47. *If yes in 46.1:* Approximately how many hours per week do you exercise? _____

48. What is your **opinion about your life in general in your current situation?**

- 1) In most areas, my life is close to my ideals
 - 2) My life conditions are excellent
 - 3) I am satisfied with my life
 - 4) I have gotten pretty much what I expected out of life
 - 5) If I could live my life again, I would hardly change anything
- 1 strongly disagree
2 disagree
3 tend to disagree
4 neither nor
5 tend to agree
6 agree
7 strongly agree

And finally: General biographical data

49. Your **year of birth** (drop down) _____

50. Your **sex** Female () Male ()

51. In which **country** do you **live now**? _____

52. What is your **Nationality**? Polish/Swiss/Danish Other: _____

53. Have you participated in international competitions/ tournaments for a different country than Poland/Switzerland/Denmark? Yes /No

54. Your current **marital status**:

- 1 Single/never been married
- 2 Married
- 3 Living with permanent partner
- 4 Divorced/ separated
- 5 Widowed
- 6 other

55. Do you have any **children**? () yes () no

56. *If yes*, please state their year of birth:

First child
eventually second child/third/fourth/fifth/sixth

We would like to conduct **personal interviews** with retired elite athletes about their life during and after elite sport. Would you be interested to participate?

() yes, you can contact me (write email below) () no, thank you

Are you **interested in the results** of this study?

() yes -> write email below () no, thank you

Your E-mail address: _____

If you have any comments, feel free to write them here:

.....
.....

Thank you very much for your participation!

Appendix B: Information Mail to Swiss Athletes



Liebe(r)

Jede Karriere im Spitzensport geht einmal zu Ende. So ist es mir ergangen, als ich im Jahre 2011 als Skispringer zurückgetreten bin und so erging es Dir, als Du Deine Spitzensportkarriere beendet hast.

In meiner Doktorarbeit erforsche ich diese Thematik etwas genauer und befrage dazu ehemalige Athleten/-innen in drei verschiedenen Ländern (Schweiz, Dänemark und Polen), um den Einfluss des nationalen Sportsystems auf den Karriereübergang von Athleten/-innen zu untersuchen. Die Befragung soll weiterhin das Verständnis erhöhen, wie ehemalige Sportler/-innen ihre erworbenen Kompetenzen im Leben nach der Sportkarriere anwenden.

In Zusammenarbeit mit Swiss Olympic und Deinem ehemaligen Sportverband bin ich an Deine Kontaktdaten gelangt.

Es wäre eine grosse Hilfe, wenn Du an der Online-Befragung teilnimmst, welche ca. 30-40 Minuten in Anspruch nimmt. Bitte beantworte die Umfrage möglichst rasch, spätestens jedoch bis Mitte August 2014. Als Anreiz werden unter den Teilnehmenden zwei VIP-Tickets für den Super-10-Kampf verlost (31. Oktober 2014 im Zürcher Hallenstadion).

Hier der Link zur Befragung: <http://www.survey-xact.dk/answer?key=XYZ>

(Das Ausfüllen funktioniert am einfachsten per Computer und Maus, die Software ist jedoch auch mit Smartphones und Tablets kompatibel. Die Befragung kann ausserdem unterbrochen und zu einem späteren Zeitpunkt fortgesetzt werden)

Deine Angaben werden streng vertraulich behandelt und die Ergebnisse werden keinerlei Rückschlüsse auf einzelne Athleten/-innen zulassen.

Ich hoffe, dass ich auf Deine Unterstützung zählen darf, und bedanke mich bereits im Voraus rechtherzlich!

Andreas Küttel

Für allfällige Rückfragen und weitere Informationen stehe ich gerne zur Verfügung:

Andreas Küttel

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Appendix C: Information Mail to Danish Athletes



Kære.....

Hver karriere i elitesport slutter på et eller andet tidspunkt. Sådan gik det mig, da jeg selv stoppede som ski hopper i 2011 (jeg deltog tre gange ved vinter OL for Schweiz). Og det skete for dig, da du stoppede din elitesportskarriere.

Jeg er nu i gang med et phd- projekt ved Syddansk Universitet, hvor jeg vil gerne belyse karriereovergangen fra elitesport til "livet bagefter" mere præcist. Det undersøger jeg med tidligere eliteatleter fra Danmark, Schweiz og Polen for at finde ud af, hvor stor støtten var fra det nationale sport-system og hvordan dette påvirker overgangsprocessen. Desuden skal undersøgelsen bidrage til en bedre forståelse af, hvordan tidligere eliteatleter anvender deres færdigheder og kompetencer i livet efter sportskarrieren.

Dine kontaktoplysninger fik jeg i samarbejde med Team Danmark og dit tidligere specialforbund.

Det ville være en stor hjælp hvis du deltager i undersøgelsen, som tager omkring 30-40 minutter. Svar venligst så hurtigt som muligt, men senest i slutningen af september.

Ved at deltage i undersøgelsen og bidrage med ny viden er du med til at forbedre situation for kommende atleter i overgangsfasen. Således bidrager undersøgelsen med bedre informationer til forbundene og de konsulenter, som samarbejder med eliteatleter inden, under og efter deres karrierestop.

Her er linket til online undersøgelsen: <http://www.survey-xact.dk/answer?key=XJK>

(Det er nemmest at besvare spørgeskemaet med en almindelig computer. Skemaet fungerer dog også med smartphones eller tablets. Desuden kan man afbryde spørgeskemaet undervejs og fortsætte på et senere tidspunkt, ved at benytte ovenstående link igen)

Dine personlige oplysninger bruges kun til undersøgelsen og bliver håndteret fortroligt. Det bliver ikke muligt at identificere enkelte atleter ud fra resultaterne.

Jeg håber at du er villig til at deltage og jeg siger mange tak på forhånd!

Du må gerne kontakte mig vedrørende spørgsmål og yderlige informationer:

Andreas Küttel

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Appendix D: Information Mail to Polish Athletes



Szanowni Państwo....

Nazywam się Andreas Küttel. Jako były skoczek narciarski szwajcarskiej drużyny narodowej miałem przyjemność uczestniczyć w wielu ekscytujących zawodach Pucharu Świata w Zakopanem, wspieranych przez tłumy wspaniałych kibiców z całej Polski.

Swoją karierę zawodową zakończyłem w sezonie 2011. W chwili obecnej piszę pracę doktorską na uniwersytecie Syddansk Universitet w Odense (Dania), we współpracy z Polskim Ministerstwem Sportu i Turystyki, Polskim Komitetem Olimpijskim i Federacjami Sportowymi. W swoim projekcie pragnę dokładniej omówić temat zakończenia kariery sportowej przez zawodników z Danii, Polski i Szwajcarii.

Będę bardzo wdzięczny, jeśli poświęcą Państwo czas na wypełnienie ankiety, a tym samym wezmą udział w badaniu, co zajmie nie dłużej niż 30-40 minut. Z góry dziękuję za szybką odpowiedź i odesłanie wypełnionych ankiet do 12. grudnia 2014.

Poniżej link do ankiety: <http://www.survey-xact.dk/answer?key=XZY>

(Najłatwiej jest odpowiedzieć na pytania używając komputera stacjonarnego / laptopa. Aplikacja działa również na "smartphon'ach" i tabletach. Ponadto, możliwe jest przerwanie ankiety i powrót do ankiety w dowolnym czasie, używając linka wskazanego wcześniej)

Państwa dane będą użyte tylko do celów badania. Nie będzie możliwe zidentyfikowanie czy skojarzenie konkretnych sportowców z wynikami ankiety.

Mam nadzieję, że zgodzicie się Państwo wziąć udział w badaniu, za co raz jeszcze bardzo dziękuję! Spośród osób, które wezmą udział w badaniu zostaną rozlosowane dwie kurtki zimowe firmy 4F.

Pozdrawiam, Andreas

W przypadku jakichkolwiek pytań, bardzo proszę o kontakt:

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Appendix E: Classifications of Sport Associations According to Support and Popularity Category for Each Country

Sport Association	Switzerland		Denmark		Poland	
	Support category	Popularity category	Support category	Popularity category	Support category	Popularity category
Archery	/	/	2	3	3	3
Athletics	1	2	3	2	1	1
Badminton	3	3	1	2	3	3
Basketball	4	3	4	3	1	2
Bowling	/	/	2	3	/	/
Canoe	4	3	2	3	1	3
Curling	1	2	3	3	/	/
Cycling	1	2	1	1	1	2
Fencing	2	3	/	/	2	3
Figure skating	3	3	/	/	2	2
Golf	3	3	2	2	/	/
Gymnastics	2	3	3	3	3	3
Handball	3	3	1	1	1	1
Horse-riding	4	3	4	3	3	3
Ice-Hockey	1	1	2	2	2	3
Judo	2	3	4	3	2	3
Land-Hockey	4	3	/	/	/	/
Motorsport	/	/	2	2	1	2
Orienteering	2	3	1	3	2	3
Rowing	2	3	1	3	1	3
Sailing	2	3	1	3	1	3
Shooting	2	3	2	3	2	3
Ski	mix	mix	4	3	mix	mix
Bob/Skeleton	mix	3	/	/	4	3
Soccer	1	1	1	1	1	1
Sports-dance	/	/	2	2	3	3
Squash	3	3	4	3	/	/
Swimming	1	3	1	3	1	2
Table Tennis	4	3	2	3	3	3
Tennis	1	1	3	1	2	2
Triathlon	1	3	3	3	4	3
Unihockey	2	3	4	3	3	3
Volleyball	2	3	4	3	1	1
Weightlifting	/	/	/	/	1	3
Wrestling	3	3	3	3	1	3

Notes: Support category according to the classifications of the National Sport Governing Body (Swiss Olympic, Team Denmark, Ministry of Sport and Tourism) in 2014 where 1 means highest support category and 4 means lowest. Popularity Category according to the received mass media attention (Hedal, 2006; Lamprecht, Fischer, & Stamm, 2014; Pentagon Research, 2014) where 1 means very popular and 3 not popular. Sport associations marked with “/” were not included in the study in the respective country. Sport Association that include more than one discipline (e.g. alpine skiing, cross-country, ski jumping) are labelled with “mix”.



Evaluation of career-support programs for elite athletes: A cross-cultural comparison of the transition out of sport of former elite athletes

The aim of this study is to compare the transition out of elite sport of former athletes from Denmark, Switzerland and Poland with a focus on how this process is influenced by the national sport system.

The project is supported by a grant of Team Denmark and the Danish Ministry of Culture. Approval from the ethical commission of the Region of Southern Denmark has been received.

After over 400 former athletes from a variety of sports have completed a questionnaire, interviews with experts from the three sport systems will be conducted. The aim of the interviews is to get a deeper insight into each national sport system and to find out more about the support for elite athletes. Furthermore it is of interest how athletes combine their sporting career with education and/or job.

The participation for the interviews is voluntary and can be withdrawn at any time. The interview will take approximately one hour. Your name will not be published and will not be disclosed to anyone outside the study group. The names of all individuals mentioned in the discussion will be kept confidential.

I hereby state that I have read and understood the above mentioned information:

Name

Signature

Date

Contact information:

Andreas Küttel

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Appendix G: Interview Guide for the Dual Career Experts Interviews

Topics	Literature/ framework
<ul style="list-style-type: none"> - Description of possibilities for elite athletes, development over the past years - Available services on secondary/ tertiary level - Partners involved (Responsibilities) - Benefits/Obstacles - How to organize it - Aims/ Goals for the future 	<p>Dual Career / Education (Aquilina & Henry, SPLISS, EU guidelines on Dual Career)</p> <p>Own data from athletes about dual career support</p> <ul style="list-style-type: none"> - Flexible schedule/ exams/ tutoring - Scholarships (study grants) - Support service (e.g., Syddansk Elite)
<ul style="list-style-type: none"> - Description of possibilities for elite athletes - Available Services during and after the career - Business partners - Stakeholders (Responsibilities) - Benefits/Obstacles - Development over the last years - Effect? 	<p>Flexible job opportunities (CAPs literature, Athletes2Business)</p> <ul style="list-style-type: none"> - Internship while active - Part- time jobs - Collaboration with employers - Job placement after the sport career
<ul style="list-style-type: none"> - Description of possibilities for elite athletes - How many athletes are involved - Most popular/ most used - Eligibility - Stakeholders (Responsibilities) - Emphasis - Benefits/Obstacles - Effect? 	<p>Lifes Skills/ Special Courses (Mayocchi, Gould, Adecco ACP, Team Denmark Rapport)</p> <p>Own data from athletes about skills development</p> <ul style="list-style-type: none"> - Lifestyle management services - Workshops/ individual/ groups - Transferability of skills for future work/life
<ul style="list-style-type: none"> - Planning of career end - Are there any services available if athletes have a very difficult transition? - Responsibilities 	<p>Athletic retirement/ Crisis-transition (Stambulova , Taylor & Ogilvie)</p>

- Focus on the developmental perspective on athletes careers (Wylleman& Lavallee, 2004) and the transition out of elite sport (before, during, and after the career end)
- Focus on what is special about each national sport system, cultural aspects from the emic perspective (Schein, 2010). How do interviewees comment on external adaptation (international medal race in elite sport) and internal integration (what is socially acceptable, how should athletes be supported?)

Appendix H: Sample of Interview Questions for Dual Career Experts

Introduction

- May I ask you about yourself? Age, Education, Experience with elite sport...
- How would you describe your role and function within the program/organization?
- What tasks take most of your time?
- How does a regular day at work look like for you?

Dual Career/ Education

- **Gymnasium**
 - o How would you judge the possibilities for young athletes to combine elite sport and education in Denmark?
 - o Which partners are involved? How does the collaboration work?
 - o Role of the Federation, Kommuner, Team Danmark (TD) and you?
 - o How was the development in this area (since you were in gymnasium)?
 - o Strength of Danish system?
 - o Possible areas of improvement? Who should take the lead?
- **Higher education**
 - o What are the main reasons elite athletes choose to study?
 - o Let's say I am an elite rower and I want to start studying in university, who would I get in contact with?
 - o Do you see a trend in a particular study direction (topic) that athletes choose most often?
 - o Sport- discipline specific?
 - o Are there differences about the available services depending on the higher education institution? Examples? SDU, Aarhus, Aalborg, Copenhagen
 - o Which are the most popular services athletes make use of?
 - o With what problems do athletes most often approach you?
 - o How do you assess if the program(s) is successful?
 - o What are the obstacles/ barriers for the services/programs on the higher education?
 - o What is the strength of the Danish educational system on higher education?
 - o What is the future direction in the educational area? Short- and long-term goals

Flexible job opportunities/ internships / job placement

- **Vocational education/ erhvervsuddannelse**
 - o How is it for young athletes to combine elite sport with a vocational education in DK?
 - o What is the general attitude of the federations? Of Team Danmark?
 - o Are there any guidelines for athletes/ employers on that topic?
 - o In Switzerland there is a list/ network about sport friendly working places, what do you think about such an idea? Who would be responsible to set it up?
 - o Ways for improvement?
- **Flexible jobs during the sport career**
 - o What is the attitude from the federation/ TD towards full-time athletes/ professionals?
 - o Many athletes need to work besides sport, what is your experience with those athletes?
 - o Advantages/ Disadvantages with working besides elite sport

- How did this field develop over the last few years?
- Job4 players (how was it established, how is it funded, how many athletes involved)
- Which business partners are involved? Is there a connection between the clubs and the business partners?
- What is the role of the employer? Who is responsible for the coordination?
- Some best practices from your experience with job4players...
- What are the obstacles/ barriers in terms of implementation of these services?
- How do you assess if the program(s) is successful?
- What is the strength of the Danish in this area?
- **Job placement at the end of the sports career/ after the sports career**
 - What services are available for elite athletes?
 - Cooperation with federations? Experiences? Responsibilities?
 - How often are you contacted by athletes in transition out of elite sport?
 - Evaluation?
 - Improvement...

Life skills/ Special courses

- What is the role of the institutional support (TD, federations and educational environment) in developing life skills for elite athletes?
- Besides the athletes himself, who is responsible for the career planning and the long- term development?
- Which concrete action(s) are undertaken to provide athletes with the necessary skills for the transition to the post-sport-life? *Mentoring/ Exit-seminar*
- I want to get help for the transition out of sport, who would be my contact person outside the private environment?
- Which services are available? Which ones are most used? How many athletes involved?
- How do you assess if the services are successful?

Crisis intervention

- What happens if an athlete struggles with the adaptation to the post-sport life and ends up in a crisis?
- What kind of support is available outside the personal environment?
- Is there any safety net? Financially? Psychologically? Socially?
- How often do athletes look for institutional help at the end of their career/ after they have stopped?
- Areas of improvement?

Conclusion

- Anything else there needs to be discussed?
- Send text to re-read, additional questions for understanding
- Additional documents about the programs/ courses?

Thank you very much for your time!

Appendix I: Emerged Categories About Dual Career Benefits/Obstacles and how to Support Dual Career Athletes in the Three Contexts Studied

Theme	Switzerland	Denmark	Poland
Dual career benefits <i>(Espoused values)</i>	Sport as an education itself	Education as a duty for all athletes	Sport as an education itself
	Mental health	Long-term development	Mental health
	Life after sport	Life after sport	Life after sport
	Education increases future job opportunities	No job in the future without education	Better having a sports diploma than nothing
Dual career obstacles <i>(Espoused values)</i>	Professionalization	Professionalization	Professionalization
	Some educations are not combinable with sport	Vocational education is underdeveloped	Flexibility only in Physical Edu. Study
	Lack of information	Missing classes	Sport-specific education
	Financial issues	Financial issues	Financial issues
	Transitional issues	Transitional issues	Transitional issues
	Limited support of sport environment/entourage	Gymnasium dominates over other solutions	Limited value of the achieved degree
How dual career should be organized <i>(Espoused values)</i>	Individual matter, tailored approach	Develop athletes in a socially responsible way	In-built (sport)education for elite athletes
	Dual career has to make sense	Flexibility	Flexibility
	Take own choices and face the consequences	Choice for studying is interest driven	Choice of study is dictated by the system
	Prioritizing sport is ok, education can be put on stand-by	It should be possible to study all kind of topics	Studies should not be too demanding
		Financial support	Financial support/rules
	Athletes have to adapt to the given system	Institutional help for individual solutions	Special regulations and privileges for athletes
	Standard programs might not work	The system should be adapted for DC athletes	A tailored system is provided to elite athletes



An International comparative study
Sports Policy factors
Leading to
International
Sporting Success

PILLAR 5
Athletic career and post career support

POLAND

SPLISS



Vrije Universiteit Brussel



Universiteit Utrecht



A NEW
SCHOOL OF
THOUGHT.

OVERALL SPORT POLICY INVENTORY

General information

Country: **Poland**

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Terminology

- National Governing Body (NGB): in general, we use the term “National Governing Body” to describe the governing body for a specific sport (similar to: federations and National Sport Organisations (NSOs). The NGBs manage eligibility, rules and championships for their sport. Each NGB sanctions competitions in its country and those competitions follow NGB rules. Typical examples of NGBs include Athletics Canada, the Flemish Gymnastics Federation, and the Lawn Tennis Association (also known as British Tennis).
- Performance director: In the elite sport climate survey, the performance director is the head of the elite sport department of a National Governing Body (or National Sport Organisation/federation, see definition above), who manages elite sport development for a particular sport. Sometimes, when no such person is available (especially in smaller nations or smaller NGBs), it means the person responsible for sport development and elite sport development (e.g. development of the nine pillars) in general within that sport, or a sport technical director. In the overall sport policy inventory, a performance director can also be the head of the national sports agency (see below) that is responsible for elite sport. For example, Peter Keen is the Performance Director at UKSport, Peter Fricker is the Performance director at the Australian Institute of Sport.
- National Olympic Committee (NOC): the NOC for any given nation is the body recognised by the International Olympic Committee (IOC) to promote Olympism and to ensure that athletes from their nation attend the Olympic Games. Examples could be the Belgium Olympic and Interfederal Committee (BOIC) and the British Olympic Association (BOA).
- National sport agencies (NSA): the national sport agencies act as a leading organisation working in partnership with others to promote sport generally or elite sport in particular. They can be governmental, quasi-governmental or non-governmental. For example, in the UK, UKSport is the lead body for the development of elite sport. In some nations, for example the Netherlands, the National Olympic Committee and the umbrella organisation for sport have merged to form a single body: NOC*NSF (National Olympic Committee*National Sport Federation)
- Organisation: or the administration, which can be defined as the people (or committees or departments etc.) who constitute a body for the purpose of administering something, in this case the elite sport policy and development
- Elite athlete:
 - (1) *“An elite athlete should be regarded as an (able bodied) athlete who, whether as an individual, or as part of a team, is ranked in the world top 16 for his or her discipline, or in the top 12 of any equivalent Continental ranking system.”*
 - (2) *“An athlete who receives direct or indirect funding and/or other services via a support programme funded and/or organised on a national (or regional) basis for the purpose of achieving success at least one of the following levels: the Olympic Games; the senior World Championships; and the senior Continental Championships in his or her sport (European, Asian, Pan American etc).” Countries which have such programs should survey these athletes, and advise the SPLISS group about the standard of the athletes concerned. As a minimum, all athletes identified via definition (1) above should be included in the survey. (N.B.: Paralympic/disability sports are not included in this study. SPLISS aims to set up a separate but similar study at the Paralympic level soon in the near future).*

- An 'elite coach' is defined as 'a coach who trains elite athletes (as defined above) or talented youths in a national/regional trainings centre. Sub-elite coaches training talented youths will be included in the study as a separate category.
- The SPLISS study focuses only on Olympic summer and Winter sports. A list of Olympic sports and disciplines is provided in appendix with the research manual.

How to complete this pillar?

- Please read the research manual and protocol carefully
- Carefully note the [sources](#) of your information.
- Try to use [different colours](#) when completing the policy inventory. For example, use **red** for the information we gathered from interviews and **green** for the information from documents and reports **(!!)**

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PILLAR 5: ATHLETIC CAREER AND POST CAREER SUPPORT

After the stage of “talent development”, some young talents may develop into “elite athletes”. This is the stage of excellence: attainment of publicly recognised excellence and, in particular, representing a club or country at national or international level. This is also a transition in which a number of athletes do not progress to the next age category (Wylleman & Lavallee, 2003). As a transition creates “a developmental conflict between ‘what the athlete is’ and ‘what he or she wants or ought to be’” (p. 717) (Alfermann & Stambulova, 2007), athletes will need to be able to cope effectively with each transition separately as well as with the effects of their interaction in order to progress developmentally in all domains. Consequently, various support systems have been set up by nations in order to increase their number of elite athletes, and to provide an optimal elite sport climate. An elite sport climate is defined by Van Bottenburg (2000) as ‘the social and organizational environment that provides the circumstances in which athletes can develop into elite sports athletes and can continue to achieve at the highest levels in their branch of sport’ (2000, p.24). Particular attention is paid to the transition from junior athlete to senior level. The life span model from Wylleman & Lavallee (2004) allows for the combination of a developmental (i.e., chronological from junior into senior level) perspective and a holistic perspective on how challenges occur at different levels of development (i.e. athletic, psychological, psychosocial, academic/vocational) during athletes’ progress from junior level/league into senior level, league or (semi-) professional sports.

In many nations, athletes pursuing their sport are recognized as and treated as employees who receive funding for living and sporting costs, which is sometimes linked to a minimum wage. To develop our understanding of athletic career support we will look at: individual lifestyle support available to athletes and the coaching provided to them. Finally career termination is considered as a significant experience in sport (Murphy, 1995). Having had the opportunity to be provided with a sense of personal competence and mastery, social recognition, personal enjoyment, and numerous satisfying social relationships as a result of competing at the international sport level (Scanlan, Stein, & Ravizza, 1989; Taylor & Ogilvie, 2001), it is not surprising that the transition out of elite sport may be a difficult time for retiring athletes (Reints & Wylleman, in press). Athletic retirement has become a well-delineated topic of study and several nations have set up programs to support the transition out of sport (Reints & Wylleman, in press). As a starting point for pillar 5, we will also look at the number of world ranked athletes in each nation as an evaluation of the output of an elite sport system rather than the throughput of this pillar.

Athletic career support

There is a nationally agreed definition of an elite athlete for all sports

<i>Sub-factor (O: overall questionnaire; A: athletes; C: coaches; PD: performance directors)</i>		<i>overlaps</i>			
CSF5.1	There is a standardised definition across all sports to define which athletes are eligible for support and perhaps direct funding	O			

What sources did you use to collect the data on this CSF (in the next part)?

- *Forms of the Ministry of Sport and Tourism (MSiT)*
- <https://bip.msit.gov.pl/bip/finansowanie-zadan/sport-wyczynowy/2015-rok/1696.Nabor-ofert-o-dofinansowanie-ze-srodkow-budzetu-panstwa-zadan-zwiazanych-z-przyg.html>
- *Algorithm about how money is divided among the federations (Stopień zależności przekazywanych środków od wyników sportowych oraz spełnienia innych warunków przez polski związki sportowe, 2014)*

Decyzja Nr. 13 (2013: <https://bip.msit.gov.pl/bip/finansowanie-zadan/sport-wyczynowy/2015-rok/1437.Nabor-wnioskow-o-dofinansowanie-zadan-ze-srodkow-budzetu-panstwa-zwiazanych-z-pr.html>)

Czas na zmiany w sporcie wyczynowym! (2013)

<https://www.premier.gov.pl/blog/joanna-mucha/czas-na-zmiany-w-sporcie-wyczynowym.html>

Defining elite sports

- 1) **Is there a standardised definition across all Olympic and non-Olympic sports (at an overall sports level) to define which athletes are eligible for support and perhaps direct funding?**

Polish Sport Act doesn't include literal definition of elite athlete. Article 14 mentioned one obligation of Member of National Team but in previous article is information that each federation is legitimised to decide who is/may be a member of national team by itself.

In our programme we also use definition "member of national team" but we are based on information/juxtaposition from sport federations.

<http://isap.sejm.gov.pl>

Olympic sports (37 Federations)	X Yes	<input type="checkbox"/> No
Not-Olympic sports (32 Federations)	X Yes	<input type="checkbox"/> No

a. If yes, what criteria are used in this definition (which level)?

First of all I need to explain one thing, our Ministry co-financed statutory activity of sport unions. They of course may have their own money from sponsors, members, people who want become a coach etc. Every year Ministry announces programme which main aim is support sport unions in process of preparing member of national team to the main sport events in the year for example World Championship, European Championship or Olympic Games, it depends on the year or discipline. In the application they pointed which part of preparation process/training process be supported by public money. They list/enumerate athletes covered by the programme, equipment which are going to buy, or people who are going to be hired in the process.

Annual amount of money which they get from us depends on their results achieved in main sport events in the last year/past years. It is one from many other indicators, however the most important. Other, I've pointed, in the part about the algorithm.

Of course Ministry of Sport and Tourism is responsible for deciding which organisation might be Polish Sport Union in particular discipline, nevertheless sport union are independent in inner organisation, so they decide about rules, national team squad etc. Of course they must act in compliance with Polish law and regulation of international federation

b. How many athletes in your country meet these criteria?

lp.	pzs	A1	A2	B1	B2	In Total
1	Boks (boxing)		3	12	1	16
2	badminton				8	8
3	Gimnastyka (gymnastics)			1	1	2
4	Jeździectwo (horse riding)				6	6
5	judo		1	3	6	10
6	Kajakarstwo (canoe)	8	6	13	2	29
7	Kolarstwo (cycling)		7	14	11	32
8	Lekkoatletyka (athletics)	9	4	30	42	85
9	Łuczniectwo (bow)				8	8
10	pięciobój now (modern pentathlon)			1	7	8
11	Pływanie (swimming)	2	12	5	12	31
12	podnoszenie cięż (weightlifting)	2	2	6	7	17
13	Strzelectwo (shooting)			1	8	9
14	Szermierka (fencing)		4	8	9	21
15	taekwondo		2	2	4	8
16	tenis	1	1		4	6
17	tenis stołowy (table tennis)				10	10
18	triathlon				2	2
19	Wioślarstwo (rowing)	2	21	7		30
20	Zapasy (wrestling)		3	9	4	16
21	Żeglarstwo (sailing)		6	5	5	16
		24	72	117	157	370

In non-Olympic sports we didn't set such criteria. Polish unions decide who is going to be in the programme and who will represent us in the main events.

Olympic sports

No hard data available. Best athletes who are going to participate in the Olympic Games in Rio are in "individual path (ścieżki indywidualne)" – 58 people or "individual programme (program ind.)" – 34 people.

<http://www.klubpolska.com.pl/players/index/program:-3>

(Numbers below are from the PD survey and must be taken with care)

Level	(a) Criteria used	(b) Number of athletes that meet these criteria
1	World class athletes (top 8)	Women 170/ Men 196
2	Elite athletes	Woman 95/ Men 189
3	Other category?	
...	Juniors	Women 204/ Men 219

Non-Olympic sports

Unfortunately MSiT doesn't collect such data.

Level	(a) Criteria used	(b) Number of athletes that meet these criteria
1	World class athletes (top 8)	?
2	Elite athletes	?
3	Other category?	?
...		

c. Who determines these criteria?

Proposition of the criteria which are mentioned above are provided by our unit. However Minister may always say that he change importance of particular indicators. It is rarely but possible situation. More often they accept our proposition.

If sport units have some remarks to our method during the year they may inform us about them, and in the next year we take them under consideration or not.

Number of elite athletes

2) If you have not been able to answer the previous question precisely, how many elite athletes in your country performed the following levels (in 2014-2015)?

Level 1: Elite athletes performing at the world top three = athletes who won medals or are ranked in the top three official ranking lists	
Total number of athletes, of which	Total:
(a) number in Olympic disciplines	?
(b) number in team sports	?

Level 2: Elite athletes performing at the world top eight = athletes who reached finals in the most recent Olympic Games / World Championships or a comparable event if a WC does not exist	
Total number of athletes, of which	Total:
(a) number in Olympic disciplines	?
(b) number in team sports	?

Level 3: Elite athletes performing at the World top 16 (or top 12 in continental rankings)	
Total number of athletes, of which	Total:
(a) number in Olympic disciplines	
(b) number in team sports	

If other criteria are used in the country (e.g. top 20 instead of top 16), please specify

National elite athletes support programme: financial support

The individual living circumstances of athletes are sufficient so that they can concentrate on their sport full time

Sub-factor (O: overall questionnaire; A: athletes; C: coaches; PD: performance directors)					overlaps
CSF 5.2	Athletes' monthly income (total gross annual income) in general and income from their sport activities is sufficient	O	A		P1
CSF 5.3	Employers are supportive towards athletes' careers	O	A		
CSF 5.4	Elite sport is a full time primary activity for elite athletes	O	A		
CSF 5.5	Athletes can receive financial support that allows them to dedicate themselves sufficiently to their sport (sustain a living whilst preparing for and competing in elite sport)	O	A		P1

What sources did you use to collect the data on these CSFs (in the next part)?

- Survey data with 84 former elite athletes which retired between 2008- 2013
- Interview with representative of the elite sport department of the MSiT
- MSiT own information

3) Does the national sport agency and/or National Olympic Committee in your country run a coordinated programme of support for elite athletes at the different levels specified above? Please explain your answer in detail.

Yes

No

Explain

Polish Act on Sport – fundamental act for all programmes, however doesn't describe any minimum requirements for programmes.

Programme mentioned above is for athletes from senior age group. We have other programme for juniors and youth who also are members of national team but they are not on the professional level because they very often are still learning/study.

Special Regulations:

- Scholarship: (<http://isip.sejm.gov.pl/DetailsServlet?id=WDU20120001130>)
- Award for outstanding achievements in sport:
(<http://isip.sejm.gov.pl/DetailsServlet?id=WDU20120001107>)
- Minimum requirements for program and for unit offer:
(<http://isip.sejm.gov.pl/DetailsServlet?id=WDU20150002252>). Based on Gambling act
- Homepage of MSiT: <http://www.msport.gov.pl/>

a. What kind of support services do athletes receive? Eventually specify by the different levels recognised in the country. (Including financial support (see also further), sport-specific services, sports medicine support, coaching support, lifestyle support,...)

Level 1	Participation in main sport events
Level 2	Training camps
Level 3	Equipment
Level 4	Medical support/coach support
Level 5	Scholarship

Everything depends on amount of money which federation get. First two are common in all federation. Equipment for trainings and for championship etc. Large federation also co-finance salary of coach. Scholarship is for the best and more common along Olympic sports than non-olympic, because non-olympic has lower grant. Last year we have 820 people who get scholarship for sport results.

b. How many athletes receive this direct financial support? (Specify the number of athletes that receive financial support, according to the different categories (levels) used in your country)

Level 1	Our programmes in 2015 covered 9727 athletes all disciplines (not juniors)and they would receive all support services mentioned above(Level 1-4)
Level 2	All 9272 athletes get this support
Level 3	Decision is taken by the federation
Level 4	Decision is taken by the federation
Level 5	820 people received an individual scholarships for good results in 2015

4) Can elite athletes receive direct financial support to support for their training activities and individual living circumstances?

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
---	-----------------------------

a. What are the criteria for elite athletes to be eligible for this financial support?

Explain

Federation should plan money for this (they decide about it in the application form) and apply to the Ministry. Very often small federation prefer to spend money on training camps instead scholarships.

According to the regulation they have 30 day from the Championship to apply for the scholarship.

In administrative proceedings we provide individual decision for each athlete. Decision said what amount and for how long scholarship is adjudicate.

Regulation said that in Olympic sport/senior level you can get scholarship if you were in first 8.

For junior and non-olympic it is first 3.

Maximum period for result achieved on Olympic Games is 12 months with possibility to prolong it for another 12 months.

Maximum period for result achieved on WC/EC is 12 months with possibility to prolong it till the end of calendar year.

Maximum period for result achieved on junior category or in non-olympic sport championships is 12 months.

Athlete are employed be the army (how many?)

It turned out that I don't have hard data. Federation of Soldier Sport provide only information about total number of athletes in programme – in 2015 it was 90 people.

Athletes can receive grants from the university

It is possible, but inner regulation of each university decides in this case.

b. Do elite athletes receive this direct financial support in order to commit full-time to their sport as a professional elite athlete?

<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Explain</p> <p><i>They signed obligation that they will keep preparing to the next Championship/main event. If they not fulfil obligation, federation inform us and we cancel scholarship decision.</i></p>	

c. Is this direct financial support for elite athletes meant to be a monthly wage that is sufficient to pay for living costs and to enable athletes to train on a full time basis?

<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<p>Explain</p> <p><i>Survey data from former athletes revealed that the average income while active was between 70`000- 80`000 PLZ which responds to 16`000 -18`500 Euro (Exchange rate December 2015). 42% of athletes reported that their income at the top of their sports career was below 10`000 Euro per year. Even though that looks like very little, it is still more compared to the average salary in Poland of 7`680 Euro per year (OECD stats 2014). But there were also 30% of athletes which earned less than 30`000 PLZ (less than 7`000 Euro) per year which makes it difficult to keep a certain life standard. Half of the athletes earned more than 65% of their income through activities connected with sport (contract, price money, sponsors etc.)</i></p>	

d. Are there specific tax regulations with regard to direct financial support for elite athletes?

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
<p>According to the law this kind of scholarship is exempt from the tax.</p>	

e. How much direct funding do athletes receive on average per year to support their living costs?

Monthly average wage / funding for living costs (€)	Euros per athlete per year
From 153 Euro to 1686 Euro, depending on results	Base amount 511 Euro which is then divided or multiplied by factor according to result

f. What kind of financial reimbursements are provided for elite athletes (and if applicable, to what amount)?

-

- g. Apart from direct financial support, what other statutory regulations have been made to specifically support elite athletes and how many athletes can make use of them? If necessary, please specify by level.**

Other indirect (financial) support services, e.g.		Number of athletes
Car	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Medical support	X	All athletes in the program
Grants and prizes for excellent coaches	x	Only the best: World champions, Olympic champions
Equipment	x	Is provided for athletes in the program

- 5) To what extent are athletes allowed to have earnings or rewards in addition to the financial support they receive (e.g. through sponsorships)?**

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Explain; are there limitations in order not to lose their direct funding? <i>No limitations.</i>	

- 6) Do athletes receive additional rewards for Olympic medals? If yes, how much is this award?**

			Amount
Olympic gold medal	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		32'000 PLZ ≈ 7400 Euros
Olympic silver medal	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		23 000 PLN ~ 5 111Euros
Olympic bronze medal	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		18 400 PLN ~ 4 088 Euros

Source: Regulation 1107 from 2012: <http://isip.sejm.gov.pl/DetailsServlet?id=WDU20120001107>

Depends on the disciplines. There is a base which is multiplied with a factor depending on the ranking of the disciplines and team/individual. So there is a kind of algorithm which decides over the amount of the awards

- 7) Is there an agreement (“code of behaviour”) between athletes and their national funders (government, national sport agencies and/or National Olympic Committees) that specifies the return athletes need to give for the support they receive (e.g. social responsibility)? If yes, what are athletes contractually obliged to do for the funding agency in return for resources received?**

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

Explain, what does this agreement/behaviour code include? <i>Maybe regulated in the Act in Sport. No. There is only information, that they must be aware of possible punishment if they are caught on doping.</i>
--

8) **Is there a coordinated strategy to involve athletes as role models to inspire youth or young talents or for wider societal functions (exposure)?**

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
------------------------------	--

Explain, what does this strategy include?
*Many former athletes are working in federations and for the Olympic movements (Olympic picnic).
 New Minister has such plan but for now there isn't any official document in this area.*

National elite athletes support programme: support services

There is a coordinated support programme for elite athletes

Sub-factor	(O: overall questionnaire; A: athletes; C: coaches; PD: performance directors)	overlaps				
CSF 5.6	There is a coordinated support programme for elite athletes (apart from financial support) including career coaching, legal advice, media training, coaching support (specialist coaches), training and competition support (training facilities, training camps), sports science support (strength & conditioning, nutrition, mental coaching), sports medicine support (medical specialists, physiotherapists, etc)	O	A			
CSF 5.7	Specific personnel are appointed to guide and help athletes during their career	O	A			

What sources did you use to collect the data on these CSFs (in the next part)?

- Survey with performance directors of 28 sport associations
- Interview with MSiT

9) **What other support services, if any, are included in the nationally coordinated programme of support for elite athletes at the different levels outlined above? Explain in detail.**

Explain

a. Do athletes receive national coordinated support services listed in the table below, provided by the NSA (see terminology above) or facilitated to the NGBs (through funding) to provide them?

Other (than financial) support services for athletes, e.g.	NSA	NGB
Courses on career coaching and training skills: e.g. legal advice, skills in public speaking, media presentation, job interviews, career planning, time management	X Yes	<input type="checkbox"/> No
Coaching support (specialist coaches)	X Yes	<input type="checkbox"/> No
Training and competition support (training facilities, training camps)	X Yes	<input type="checkbox"/> No
Specialist equipment	X Yes	<input type="checkbox"/> No

<p>Sports science support, including:</p> <ul style="list-style-type: none"> - strength & conditioning - video analysis - laboratory tests on physiology (e.g. production & control of aerobic and anaerobic energy, physiological condition, body composition, etc) - biomechanics services: quantitative and qualitative evaluation of human movement - others, such as: 	<p>x Yes X Yes X Yes</p> <p>X Yes</p>	<p><input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No</p> <p><input type="checkbox"/> No</p>
<p>Sports medicine & paramedical support , including:</p> <ul style="list-style-type: none"> - sport physicians (team doctors) and <i>medical specialists</i> - <i>physiotherapists</i> - masseurs - <i>mental coaching / psychological support</i> - <i>nutrition</i> - others, such as: 	<p>X Yes x Yes x Yes x Yes x Yes</p>	<p><input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No <input type="checkbox"/> No</p>
<p>Social status of athletes: <i>pension, disablement, absenteeism</i></p>	<p>x Yes</p>	<p><input type="checkbox"/> No</p>
<p>Insurances, like health, third party, accident insurance</p> <p><i>Ministry of Sport does not have detailed information about these issues</i></p>	<p>x Yes</p>	<p><input type="checkbox"/> No</p>
<p>Others, such as: ?</p> <p><i>Olympic medal winners get e lifelong pension after the age of 40</i></p>		

b. If yes on any of the above, how frequently can athletes make use of these services?

Explain

This is up to the federations to decide.

10) Are there staff appointed within the NSA, government or NOC specifically for career coaching and the management of elite athletes' lifestyles?

Yes

X No

Explain

The MSiT has no direct contact with the athletes, only over the federation

Only one federation reported to have a life-style coach

There are however many staff appointed with clubs and academies where young athlete train and live (Sport training centers)

a. Who is responsible for the organisation of career coaching (NOC, government, NSA, or others)?

Explain

Not really clear. MSiT suggest advisors in Sport schools or in federations

b. How many people are appointed with specific responsibility for career coaching and the management of elite athletes' lifestyles?

Explain
 According to the PD service, only one federation has an appointed life-style coach. The Ministry of Sport and the Polish Olympic Committee have no such positions

11) What (other) incentives, if any, are provided for athletes in order to motivate them as an elite athlete?

Explain
 Being famous, chance for new sponsors.

Junior-Senior transition

Sub-factor (O: overall questionnaire; A: athletes; C: coaches; PD: performance directors)					overlaps
CSF 5.8	There is a coordinated support programme to support the transition from junior to senior athlete	O			P4

What sources did you use to collect the data on these CSFs (in the next part)?

- Interview with MSiT elite sport department, Handball federation, Sport psychologist working at sport university and a representative from the athlete's commission of the Polish Olympic committee

* The transition from junior to senior athlete, refers to the specific chronological stage in at athletic level, where the athlete starts competing at the senior level. Research has shown that often a developmental conflict is created for athletes during this stage, and athletes often don't cope with this transition effectively (Reints & Wylleman, n.d.).

12) Does the national sport agency and/or National Olympic Committee in your country run a coordinated programme to support the transition from junior to senior athlete*? Please explain your answer in detail.

Yes, please explain No, please explain why not (and skip questions 2-6)

Explain ?
 Very often, there are A and B teams and so the best juniors have the chance to move forth and back between these levels.
 In some federation they provide programme from junior to senior (volleyball, handball, basketball). The have special school which specialised in particular discipline.

13) ***If yes, how many athletes can make use of and how many athletes are in fact making use of services provided by this coordinated programme to support the junior-senior transition?***

Can make use of:	Are making use of:
<input type="checkbox"/> 1-100	<input type="checkbox"/> 1-100
<input type="checkbox"/> 101-400	<input type="checkbox"/> 101-400
<input type="checkbox"/> 401-1000	<input type="checkbox"/> 401-1000
<input type="checkbox"/> >1000	<input type="checkbox"/> >1000

I haven't heard about such programme. Probably it is inner solution provide by federation. I have global data about number of young athletes covered by our programmes. It was 44 309 people in 2015.

14) ***If yes, when can athletes make use of services provided by this coordinated programme to support the junior-senior transition?***

From (Start)	Until (End)
<input type="checkbox"/> Two years before the junior-senior transition	<input type="checkbox"/> Up until six months after the junior-senior transition
<input type="checkbox"/> One year before the junior-senior transition	<input type="checkbox"/> Up until one year after the junior-senior transition
<input type="checkbox"/> Six months before the junior-senior transition	<input type="checkbox"/> Up until two years after the junior-senior transition
<input type="checkbox"/> Not	<input type="checkbox"/> Not
X Other, please explain below	X Other, please explain below
Explain <i>Athletes often go from primary school to sports classes and then to Sport Master classes or national training centres. This is often in line with the club or federation, meaning that there are professional coaches already from the junior and high school level</i>	Explain

15) ***If yes, who can make use of services provided by this coordinated programme to support the transition from junior to senior athlete?***

Athletes	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Coaches	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Managers	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Athletic trainers	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Parents	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Explain

Coaches, because they could check the progress from young years till now.

16) *If yes, what kind of support services do athletes receive, specifically during the transition from junior to senior athlete?*

a. Life skills

Media training	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Transition skills	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Nutrition training	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Communication skills	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Prevention of drugs in sport	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Relationship skills	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Problem solving skills	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Networking skills	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Goal setting skills	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Time management skills	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Self-motivation skills	<input type="checkbox"/> Yes	<input type="checkbox"/> No	Stress management	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Organization skills	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Language seminars	<input type="checkbox"/> Yes	<input type="checkbox"/> No

Other, please explain

As seen in the data provided by the PD, there are big differences among the federation. In general, bigger and more popular sports have more staff and provide therefore more services.

Skills development is an integrated part of the programs in sport schools, even when they are not explicitly stated.

b. Educational management

Distance learning	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flexible exam schedule	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Flexible study schedule	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Tutor	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Elite sport schools	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Other, please explain

Special Sports Schools and Classes (Champion Schools) at Junior high school level for many different sports with tailored courses for athletes

Very flexible courses (which are very popular among elite athletes) at Sport Universities (AWF)

a. Health management

Medical support	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Sport psychological support	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Clinical psychological support	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Nutritionist	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

Other, please explain

According to the performance directors survey, 75% of the questioned associations provide medical support, 75% provided physio or masseur. About half of the federations have collaboration with a sport psychologist, most of which were part-time agreements. The same situation was reported for nutritionists.

b. Financial support and management

Financial management	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Minimum wage of income	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Financial support for visiting schools	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reimbursement of traveling costs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reimbursement of medical costs	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reimbursement of psychological support	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Reimbursement of costs concerning education	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

17) Has this coordinated programme to support the transition from junior to senior athlete been evaluated?

<input checked="" type="checkbox"/> No
<input type="checkbox"/> Yes, one time only
<input type="checkbox"/> Yes, every year
<input type="checkbox"/> Yes, every two years
<input checked="" type="checkbox"/> Other, please explain below

Explain

The Volleyball federation did evaluate their programme.

Please describe the way in which this project is evaluated:

Federation programmes don't require evaluation. The MSIT has no data on such programs and thinks that this area needs to be improved...

Please describe the outcomes and consequences of this evaluation

Post athletic career support

Athletes can receive post career support and are adequately prepared for life after their sports career

<i>Sub-factor (O: overall questionnaire; A: athletes; C: coaches; PD: performance directors)</i>		<i>overlaps</i>				
CSF 5.9	Government / national sports bodies offer a post career support programme to prepare and assist athletes for life after sports, such as: financial support (in the early stages) after their sports career, study support (for athletes who want to start studying or to finish their studies), job offers, advice and personal assistance (in the early stages) to find a suitable job after their sports career, lifestyle coaching, psychological support.	O				

What sources did you use to collect the data on this CSF (in the next part)?

- Survey wit former elite athletes
- Interview with stakeholders from NGB, Higher Education, Federation and Athletes` commission

18) Does the government/NSA/NOC provide services DURING the athletes' athletic career that are specifically meant to prepare athletes for their post-athletic career?

Yes

No

Explain

The Polish Olympic Committee (POK) has an athlete's commission who has Dual Career issues on their agenda, but plays otherwise not such an important role in the Polish sport system except sending athletes to the Olympic Games and develop and promote the Olympic movement.

<http://www.olimpijski.pl/>

19) Does the government/NSA/NOC offer a POST career support programme to assist athletes for life after their careers as elite athletes?

<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
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Explain
 A few initiatives are implemented on the basis of individual sponsor bases (e.g. OPUS sport) which tries to help athletes to find internships while active and after the career end
<http://opussport.eu/>

a. Does this post career support programme include any of the following services?

Financial support (e.g. until the athlete has found a job)	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Study support (for athletes who want to start new studies/finish studies)	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Job offers	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Career advice and personal assistance (in the early stages) to find a suitable job after their sports career	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Lifestyle coaching	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Mental coaching	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Other relevant support services		
<i>Pension for Olympic medalist over the age of 40, paid by the government</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

b. Who provides these support services?

Pension comes from the Government
Job offers within the army, but not on the private labour market
AWF (Physical education institutes) are very popular study places for elite athletes. This leads to job as teachers and coaches in professional clubs after the active career.

c. Are there any staff appointed or guidance available specifically for the post career support of athletes, and if yes, how many people are appointed and in which organisation are they based?

No

20) Are there any particular initiatives to recruit retired athletes into employment in the sports sector (so that their experience can be used in practice)?

<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
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Explain
 20 out of 27 Federations report that former athletes are involved in the federations. In total 202 athletes are working as former coaches in these 28 federations. Half of these federations provide a coaching certificate for athletes while active.
 Many athletes receive a master degree in the field of sport. 75% of athletes are employed in the sport sector after their career, either as coaches, sport teachers or managers.

CSF 5.10

The NSA has created specific partnerships (recruitment agency, employment agency, ...) to guide and help athletes during and after their career

21) **Does the NSA have specific agreements and partnerships with agencies that can guide and help elite athletes during and after their career?**

Yes

No

Explain

Some private stakeholders and athletes have started up on own initiatives to provide athletes with a business network with sponsors. It is not systematically steered by the NSA. The Adecco ACP was once started in 2008 in Poland but stopped soon after (lack of money and initiative) before it could show an effect. At the moment there is no coordinated program.

The questionnaire was completed by Andreas Küttel in collaboration with the specialists from the elite sport department within the Polish Ministry of Sport and Tourism in January 2016.

This PhD thesis investigates the transition out of elite sport from a holistic and ecological perspective. The framework that guided this project was developed based on sport developmental and transition models and focus on the influence of the macro-level (e.g., culture, welfare system) and the meso-level (e.g., sports system, dual career possibilities) on athletes' transition and the consequences of athletic retirement.

In this project, the transition of former elite athletes from Switzerland, Denmark, and Poland was compared in terms of preconditions, adaptation quality, and life situation after finishing the elite sport career. Furthermore, interviews with experts in athletic dual career were conducted in all three countries to describe the national dual career environments and to better understand the embedded underlying assumptions how to support athletes in their efforts to combine elite sport with education or work.

Applying a cultural praxis, this thesis emphasizes the importance to consider the socio-cultural context when studying athletes' careers and transitions.



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