
**Athletic Career Transition in Former Chinese Elite Athletes:
An Empirical Investigation and Cross-Cultural Comparison
with Findings from Germany**

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ABSTRACT

The effects of competitive sport participation on the life-span development of elite athletes are receiving increasing amounts of research interests. An action theory framework is proposed in the present study (a) to integrate various theoretical approaches that are applied in the studies in this field, (b) to interpret the influences of different cultural backgrounds and sport system on the athletic career development and career transition process in former athletes from Germany and China, (c) to provide a methodological background for the quantitative and qualitative measurements used in the present study.

An in-depth investigation was held in China in 1998. 350 covered questionnaires with simple introduction were delivered via post to former athletes in China. 149 (42.6%) valid answers are returned at the deadline. 28 individual interviews were carried out with the volunteers in the 149 final participants. All the quantitative and qualitative empirical results were analyzed and interpreted from an action theory perspective and compared with the empirical findings of a previous study conducted in Germany in 1997.

Interesting differences and commonalities were detected with regard to the quantitative and qualitative data. Other than isolated cases, most interviewed athletes reported that they were rather satisfied with athletic careers. Differences in educational and occupational aspects were found between the two country (cultural) groups. Due to a close relationship and co-operation between universities and the sport system, more former Chinese elite athletes achieved an academic degree, mostly with a strong

connection to sport. Further qualitative comparisons between the interviews provided a comprehensive description and understanding of the athletic career processes. Characteristics of the actors (elite athletes as intentional subjects developed in different social cultural backgrounds and sport systems), the task (athletic career transition, post-athletic career development in different value systems, norms etc.) and the environment (social-cultural and institutional characteristics of the competitive sport system) were considered.

The results of the present study provided a meaningful theoretical perspective for the elaboration of an action theory based sport specific transition concept including life development intervention aspects (career counselling and environmental management). The action theory perspective has been proved to have unique advantages in the study of life-span career development process, the interpretation of social cultural influences on actions, as well as the methodological issues in both fields. A comprehensive understanding of athletic career transition and post-athletic career development process in different sport systems will be useful in the development and implementation of future career assistance programs.

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1 FOREWORD

The effect of participation in high-level competitive sport on individual development is subjected to growing research interest from different approaches. More and more scholars in sport science and staff who are concerned with this domain notice the conflicts between sport career involvement and personal development. With regards to athletes' personal development as well as the institutional obligation of sport system on it (Thomas & Ermler, 1988), studies on the nature of athletic career development are needed.

Some terms which will be frequently used in the present study should be clarified first to achieve a common understanding of the following presentation and discussions. The concept of *competitive sport* and *career retirement* will be defined according to Coakley's work in 1983: "*Competitive sport refers to any organized sport activity in which training and participation are time-consuming and in which the level of performance meets relatively high standards of expectation*" and "*retirement refers to the process of transition from participation in competitive sport to another activity or set of activities... In any case, retirement is most accurately conceptualized as a role transition through which a person disengages from one set of activities and relationships to develop or expand other activities and relationships.*" (Coakley, 1983, p.1). Here, Coakley's definition of *retirement* is somehow different from popular notion about this term which mostly refers to a withdrawal from or an end to a certain involvement. According to Gordon, retirement should be more positively and more accurately understood "*as a series of graduations of withdrawal that lead to commencements or beginnings in other spheres of activity or other relationships*" (1995, p. 476).

It is argued that to retire from high-level competitive sport career is quite different from the other forms of retirement. Athletes usually retire from competitive sport at early middle age or even young ages. In most cases, they need to begin a new career and social relationships in life. Compared with normal retirement at older ages, career end

for athletes is most like a new beginning of post-athletic career rather than an end per se. Base on this rationale, it seems to be more appropriate to apply the term *transition* instead of retirement in the present work. Thus the term *athletic career transition* will be used to refer the whole process of ending the athletic career, adjusting to the end, beginning a new career and adjusting to the new career.

Any transition, whether smooth or rough, necessitates a degree of adjustment. Most athletes eventually adjust to their athletic career end, and many make this transition quickly and smoothly. However, there are also many athletes who find their athletic retirements stressful, experience tremendous anxiety, and have problems coping with difficulties they face in life after competitive sport. The present paper would like to contribute to the development of an in-depth understanding of this transition process by undertaking a cross-cultural study between former Chinese and German elite athletes. An integrative action approach would form the theoretical background and some suggestions for educational and psychological intervention in coping with athlete's career transition and development in post sport life would be made.

2 THEORETICAL AND EMPIRICAL BACKGROUND

The theories and/or models applied to athletic career transition studies vary according to the developmental stages in this domain. At the initial stage, the absence of an elaborated theoretical framework resulted in the application of research paradigms in related domains such as organizational psychology and sociology (Haerle, 1975; Hill & Lowe, 1974; Ingham, 1975; Lerch, 1982; McPerson, 1970; Reynolds, 1981; Rosenberg, 1981). However, criticisms on the application of these theories in athletic career studies are increasing. Empirical studies have demonstrated the incompatibility between some of these theories and athletic career researches (Ogilvie & Taylor, 1993a). The concepts of career transition which have been developed and used in career counseling (Heppner, 1998; Heppner, Fuller & Multon, 1998; McAuliffe, 1993) are getting increasingly interesting for athletic career studies (Crook & Robertson, 1991). Some consistent conclusions have been drawn by adopting this theoretical approach. These results are believed to be helpful in gaining a better understanding of the athletic career transition process (Ogilvie & Taylor, 1993b; Taylor & Ogilvie, 1998).

To study athletic career transition in isolation is not enough. According to the Life-span Development Intervention (LDI) perspective (Super, 1980), all stages in an individual life-span are hierarchically dependent. This means that the process of an athletic career transition should be studied from an integrated perspective, taking into consideration on its role in the entire life-span, instead of examining it as an independent process.

In the present study, both career transition concept and LDI perspective will be integrated with the action theory, which is a general theoretical approach applied in psychology, sociology and sport science (Hackfort, Munzert & Seiler, 2000; Nitsch, 1982). It is also assumed that studying athletic career transition processes across different cultures and sport systems from an integrative action-theory perspective is meaningful because it allows a better understanding of the process. In addition, it is helpful in developing an educational and counseling program in athletic career assistance and environment management practice.

2.1 Social Gerontology and Thanatology Approaches

At the initial stage of athletic career studies, theoretical perspectives from thanatology and social gerontology were often quoted. It was discussed that there are remarkable parallels between the chronological retirement in normal occupations and the process of athletic career termination. However, with increased knowledge in the latter, researchers have become aware of significant dissimilarities between the two processes. Usually, the athletic career termination needs to be succeeded by another occupational career which demands different skills, knowledge and competences. Some terminations that occur in sport are unexpected and unplanned for as in the cases of injury and health problems (Mihovilovic, 1968). Thus the applications of chronological approaches in athletic career studies have been heavily criticised.

2.1.1 Social Gerontology Theories

From the gerontological perspective, retirement is typically viewed as the result of an individual chronological process which is quite different from athletic retirement. However, there are still some parallels between of athletic and non-athletic retirement: *“For both, retirement can have positive or negative connotations (i.e., a well-earned rest or an end to one’s social usefulness). For both it is a major stress point in life, but in some ways for different reasons, and it is here that dissimilarities become manifest”* (Rosenberg, 1981, p. 118). Thus propositions to apply gerontology theories to chronological retirement in athletic career retirement study were developed. For instance, four social gerontology approaches are suggested by Greendorfer & Blinde (1985) to be most applicable in sports retirement. In Rosenberg’s (1981) work, six approaches (activity, disengagement, subculture, continuity, social breakdown and reconstruction, and exchange theories) were introduced and discussed in terms of their merits as well as shortcomings in sport circumstance (Gordon, 1995; Rosenberg, 1981).

Activity (or subsituation) theory (Burgess, 1960; Havighurst & Albrecht, 1953) proposes that the former role of an individual needs to be substituted by a new role in

order to maintain a comparable level of activity. It also proposes that role maintenance and high level of activity will positively influence the self-concept and life satisfaction. This theory fails to explore the issue of old people decreasing the amount of activity and not retaining patterns and levels of activity associated with middle age. However it is quite appropriate in explaining athletic retirement and post-retirement adjustment. It brings out the importance of finding a comparable activity to replace the lost sport role in post-retirement adjustment process. In fact, athletes who significantly decrease his/her amount of activities will usually experience an unsuccessful adjustment. Successful adjustment usually happens in those who find an activity that roughly substitutes his/her athletic role.

Disengagement theory (Cummings, Dean, Newell & McCaffrey, 1960) states that both the person and society acquire benefits and satisfaction from the individual retirement. Younger people can take over the work position and on the other hand, retired individuals can enjoy their remaining years in leisure. The disengagement theory was developed to attack the above-mentioned activity theory, but both of them do not provide mechanisms to predict whether activity or disengagement will result. Therefore, it is also limited in its application.

With regards to athletic retirement, disengagement theory suggests that retiring athletes would better accept the idea that “young athlete need chance”, accept the decrement of their sport ability and on the other hand, they can enjoy opportunities out of sport which also provided by other people’s disengagement. Thus, to accept the disengagement notion or not is the key to successful athletic career retirement. However, such an acceptance is hard to achieve because of either the involuntary disengagement from sport or the difficulty to engage in a new career environment. The reasons for reluctant retirement and post/athletic career adjustment difficulties are not examined in the disengagement theory. Some common reasons are cited in Table 1.

Table 1: Possible reasons that make acceptance of sport career disengagement difficult.

Involuntary disengagement from sport	Difficulty of engagement in new career
High athletic identity	Poor new occupational skill
Connection of self-esteem with sport performance	Poor social networks
Expectation of better performance	Health problem caused by sport career
Unfinished plan/goal etc.	Loss of social status and prestige
	Loss of popular interest

The *subculture theory* (Rose, 1965) is based on the activity theory. This theory approach incorporates the concept of subculture to explain the decrease of activity level of elderly people. It means, within a certain subculture, the elderly people may enjoy the decrease of activity level with well adjustment. Rosenberg (1981) found some forte in this approach, because competitive athletes have obvious and distinguishable subcultural characteristics. However, the retirement of an athlete makes the end of membership in the sport subculture. On the other hand, it nudges the individual back into the “normal” dominant culture. The influence of athletic subculture on post-athletic life in “normal” cultural should be further investigated.

Continuity theory (Atchley, 1981) states that the time and energy of the prior role will be either redistributed among remaining roles or redirected towards new roles. However, if the lost role is so important that the summation of the rest of the roles cannot provide the same basic activity level, it might lead to a dissatisfying outcome. The major implication of the continuity theory in athletic retirement explains why athletes do not voluntarily withdraw from sport position: It is really difficult for most of them to find a new social role that is as important and meaningful as the athletic role, in which they have committed so much of their time, energy, and emotion etc.

Social breakdown theory (Kuypers & Bengston, 1973) proposes that the loss of any role (e.g., retirement or widowhood) will make individuals susceptible to external evaluation. If the social evaluation of the status is unfavorable, it will lead to the tendency to withdraw or to reduce certain activities. To overcome this negative downward spiral,

counseling and engagement in alternative activities are suggested to improve and/or maintain a positive self-image. It is called “social reconstruction” (Gordon, 1995). According to Rosenberg (1981):

“Social reconstruction can play a large part here. Since the athlete depends largely on physical skills, s/he may need resocialization into a work world where jobs are increasingly in the tertiary (i.e., service) sector. ...” (p. 123)

Finally, the basic premise of *social exchange theory* (Dowd, 1975; Thibaut & Kelley, 1959) is that all behaviors are motivated by the desire to maximize positive experiences and minimize negative experiences through social interactions. These interactions elicit rewards and costs. *Rewards* are defined as positive reinforcements of behavior, such as money, awards, and feelings of self-satisfaction, self-esteem enhancement, and upward social mobility. *Costs* are defined as negative reinforcements that inhibit or deter motivated behavior. It includes the amount of time invested in the activity, feelings of anxiety, feelings of failure, and the inability to engage in other valued activities. As individuals tend to maximize positive and minimize negative experiences, a subjective assessment of the costs and benefits of every activity would be undertaken and finally result in a favorable or unfavorable conclusion. This assessment will influence the individual’s decision to continue with, reduce the level of, or withdraw from the current activity.

The relevance of the social exchange theory to the sport domain has been advocated in topics such as sport withdrawal among athletes and coaches and etc. (Petlichkoff & Linda, 1994; Smith, 1986; Weiss & Stevens, 1993), participation motivation and attrition among young athletes (Gould, 1987; Weiss & Chaumeton, 1992), and explanation of exercise behavior and satisfaction (Urger & Johnson, 1995). According to Rosenberg (1981), the exchange theory can help athletes understand how their relationship with sport unfolds over time and provides a perspective on how the relationship right process in the future. For example, the athlete’s cost – physical talent is exchanged for meaningful rewards from the sport system, but if the physical talent and the skill level were to deteriorate, the athlete will lose the degree of control over the

athlete/sport relationship, and finally drop out the competitive sport system. In athletic career researches, this theory has its merits in pre-retirement counseling program to help the athlete further understand the relationship between himself/herself and sport system.

Another framework which is helpful in understanding retirement processes in sport domain is provided by the *sport commitment model* (Scanlan, Ravizza & Stein, 1989; Scanlan, Stein & Ravizza, 1989). It is a theoretical model grounded in psychological and sociological research and is mostly applied in the research and documentation of the persistence in certain activities. In fact, the model of sport commitment was developed from Rusbult's (1980) investment model of commitment. It is proposed in this model that the satisfaction with an activity is a function of individuals' perceptions of rewards and costs associated with the involvement. If the rewards are perceived to exceed the cost, satisfaction with the activity and motivation to continue the involvement would ensue. Otherwise dissatisfied attitude and the desire to end the involvement would arise. In the model by Scanlan and her colleagues (1993) of sport commitment, the term "sport commitment" was defined as "a psychological construct representing the desire and resolve to continue sport participation" (Scanlan, Carpenter, Schmidt, Simons & Keeler, 1993, p. 6). Individual commitment to sport is a function of four factors: The athlete's enjoyment of sport participation, the perceived attractiveness of the best available alternative participation, the amount invested in playing and any constraints to remain involved.

This sport commitment model was then modified by other scholars according to the results of various researches (Carpenter, 1995; Carpenter & Coleman, 1998; Weiss & Petlichkoff, 1989) and has become a popular theoretical framework to explain the motivation in and attitudes to sport activity involvement. Up to the application in sport career transition studies, the sport commitment model was used to predict and explain the degree of satisfaction with former sport careers (Scanlan, Stein & Ravizza, 1991), and the responses to the end of involvement in the sport activity. The general trend suggests that the greater the perceived enjoyment and investment, the less attractive the alternatives, the more difficult it will be for an athlete to retire from sport. When the

constraints in sport become too great, the alternative is more attractive or the enjoyment/rewards of the sport participation is perceived as negligible, then retirement becomes easier. Greg and Gary (1991) further stated that the proposed model of commitment to sport is able to distinguish between athletes who continue their participation, those who drop out, and those who burn out. This may be useful to the understanding of the retirement process in different individuals.

2.1.2 Thanatology

Rosenberg (1982) suggested that social and psychological changes that happen in athletic retirement are very similar to the process of social death. The concept of social death is derived from the science of thanatology which studies death and dying. However, the concept of death is not only in physiological and intellectual terms but also refers to the social death. Social death, in this case, refers to the condition of being treated as if one was dead although one is still physiologically and intellectually alive. It focuses on how members of a group treat an individual who has recently left the group (Taylor & Ogilvie, 1994). Social death is characterized as social isolation and rejection by the former group mates. This concept is viewed as useful in the designing of career assistance and/or counseling progresses.

There are two main models in this approach named the *awareness context* (Glaser & Strauss, 1965) and the *stage of dying* (Kubler-Ross, 1969).

According to Glaser and Strauss' awareness context model (1965), there are four different types of awareness context: Close, suspicion, mutual pretence and open. In sport domain, *closed awareness* describes the situation in which the athlete is not aware of the plans to release him or her from the team, neither do the teammates notice the impending change. In *suspicion awareness*, athletes may suspect a forthcoming demotion by observing subtle changes in personal interactions with coaches and managers. For example, decrease in verbal and body-language communication might be perceived by athletes as an indication. The next context, *mutual pretence*, refers to a

scenario in which both sides (all people concerned with the athlete and the athlete himself/herself) know that no matter how well the athlete performs, his or her athletic career is nearing its conclusion. If there is no fortuity, this context will change to the final context, *open awareness*, in which means both the athlete and others face the fact with open acknowledgement.

The “stage of dying” model by Kubler-Ross (1969) was developed from interviews with terminal patients. According to this model, certain reactions or coping mechanisms surface in the adaptation to impending death. In her work, Kubler-Ross (1969) described a series of stages that patients typically go through: (1) Disbelief, isolation, and denial of the initial trauma, (2) anger with the perceived injustice and lack of control, (3) bargaining to delay the inevitable, (4) depression over acceptance of the loss, and (5) full acceptance and resignation (Heil, 1993). This model provides simple and meaningful guidelines for conceptualizing a complex set of emotional responses concurrently existing with the puzzling experience. It depicts a “logic of emotion” in response to significant loss. Kubler-Ross’s theoretical perspective has been applied to a wide variety of trauma situations which include surgery, chronic illness, spinal cord injury and sport injury (Gordon, Milios & Grove, 1991; Heil, 1993). This model was also adopted by Lerch (1982) to describe the process of athlete coping with social death. But in the final stage of the model (acceptance and resignation), social death is obviously different from real death: The athlete will continue to live. It was proposed by Rosenberg (1982) and Lerch (1981, 1982) that, with an analogy approach, Kubler-Ross’s model might be particularly relevant to involuntary rather than voluntary retirement of athlete.

The explanation of athletic retirement with concept of social death has received some imaginary and fictitious based support (Bouton, 1970; Deford, 1981; Kahn, 1972). However, this approach has also received considerable criticism. The most questionable aspect is the totally negative perspective to the athletic retirement. In fact, empirical evidences have suggested that trauma response is not a necessary phenomenon in the

athletic career termination process (Blinde & Greendorfer, 1985; Coakley, 1983; Lerch, 1981; Ogilvie & Taylor, 1993; Sinclair & Orlick, 1993).

2.1.3 Summary

Both thanatology and social gerontology were not originally developed in the sport field. Although some ideas from various approaches can be applied to explain certain aspects of athletic retirement related processes, all the attempts have been criticized from theoretical and/or empirical perspectives (Greendorfer & Blinde, 1985; Lerch, 1982; Rosenberg, 1981). The most significant criticism of these approaches came from McPerson (1984), Blinde and Greendorfer (1985) who stated that the problem oriented perspective in this field needs to be replaced by a process oriented approach. In other words, both thanatology and social gerontology consider retirement as a singular, abrupt event. Contrary to such a viewpoint, retirement should be viewed as a transition process which is embedded in life-span development, instead of a discrete event (Sinclair & Orlick, 1994; Taylor, 1972).

2.2 Contextual Development and Life-span Development Intervention

Since the 1970s the conceptual works about individual contextual development and life development intervention (LDI) has become the most popular and important stream in developmental psychology, sociology, and counseling practice. All these works are characterized by the emphasis on context and ecology issues of human development. These perspectives mostly came from philosophical thinking on the relationship between subject and object, or in other words, human beings and their physical and social environment.

2.2.1 Contextual development: Perspective from developmental psychology and sociology

In the evolution of theories about the relationship between individual (organism) and environment during human development, three basic paradigms have come about: The hereditary organismic paradigm, the mechanistic paradigm, and contextual paradigm separately (Lerner, 1985).

The Organismic Paradigm

From the organismic perspective, development of a certain process (e.g., cognition) is an idealized, normative, intraorganismic phenomenon. It emphasizes the holistic and hereditary characteristics of individual as an organism. It is believed that the context can inhibit (slow down) or facilitate (speed up) developmental progression, but it cannot alter the quality of the process or its sequential universality and the final consequence. The nature of developmental progression is controlled by a maturational timetable (Erikson, 1959) or other biological phenomena (Freud, 1954) that are taken to be impervious to environmental influence. That is to say, although the internal mechanism within organism is the key of the individual developmental progress, the organism itself is not an active agent in the interaction of this internal basis and the external

environment. Lerner etc. (Lerner, 1976, 1978; Overton, 1973) call this kind of interaction between organism and external environment as *weak* interaction. On the other hand, according to Gottlieb (1970), this version of organismic development was labeled as *predetermined epigenesis*.

The Mechanistic Paradigm

Mechanistic paradigm in human development studies can also be called *Behaviorism*. The stimulus-response formula and reinforcement history of previous behaviors are emphasized in this approach. The organism (individual) is seen as a host (Baer, 1976) of certain behavioral response procedures which exist congenitally. The presence of a certain behavior is caused by causal efficient law and the coordinate stimulus condition. From this perspective,

“Any current behavior or event can only be explained by, or reduced to an antecedent efficient cause, or a stimulus. This means that all of life must ultimately be explainable by the earliest experience of such antecedent-consequent relations, and so any portion of “late” life must be explained by efficiently causal prior events. Thus, nothing new or qualitatively distinct can in actuality emerge subsequent to these initial events” (Lerner, 1985, p.161).

From this perspective, the concept of development is somehow reduced with its importance and substituted with the norm of *change*. It reflects the belief that the organism plays a more passive role in stimulus conditions, rather than a self-determined intentional actor (positive role). Interaction between individual and environment is also weak and limited. On one hand, an individual has little influence on the environment in both objective and subjective means. On the other hand, the environment of the individual can be understood only as a stimulus environment or a stimulus condition that causes the presence of behaviors. Many features of the concept “context” (e.g. sociopolitical historical events or qualitative, emergent changes in social structure which cannot be translated or reduced into such paradigm would be lost or ignored in this approach (Lerner, 1985).

The Contextual Paradigm

The contextual paradigm of studies on human development has become to be popular since the 1970s. According to this perspective, the bidirectional relations between the developing individual and his/her living environment is emphasized: This “environment” refers to an individual’s developmental physical and social circumstances which include the family, the career circumstance, the physical/geographical environment, and social culture backgrounds. It is a multilevel, interrelated and historically inherited setting that impact individual’s development multidimensionally and interactively.

In recent years, the application of contextual development paradigm has appeared in the studies about various aspects such as cognition, personality etc. of human development (Goldhaber, 1986), as well as related domains like sociology and career counseling/assistance domain (Baillie, 1993; Vondracek, 1990; Wolff & Lester, 1989).

In this paradigm, the context of human development is conceptualized as:

“being made up of multiple, embedded levels (of being), with variables associated with each level changing as a consequence of the influences of variables at other contextual levels and as a consequence of the actions of the developing person on the context” (Lerner, 1985, p.156).

According to Lerner (1985), this concept should be further comprehended by three references: (a) The influence of a person’s organism (individual) characteristics on his or her personal development can only be explained by the relation between these organismic characteristics and the characteristics of the context. (b) The pressure and demands made by an organism context should be understood as a necessary part of individual development, and these demands vary across societies, cultures, and history. Thus, the multilevel influences on development come from: The person, the immediate context (situation), and the broader societal, cultural, and historical settings. (c) Although the context of organism is emphasized, *“any contextual-developmental theory, in attempting to understand the possibilities for change provided by the context, must*

not ignore the structural and functional nature and characteristics of the organism” (Lerner, 1985, p.157), because that it is right the characteristics of organism provide the possibility of thus multilevel interaction development.

These characteristics are perceived by developmental psychologist as a *potential for plasticity* and they believe that this potential exists over the life-span of an individual. This contextual paradigm leads to a life-span development perspective in career counseling field, which is different from the perspectives from the organismic and mechanistic paradigms.

The plasticity over the life-span is derived from the approach which stresses the influence of the changing context on individual development. This makes the trajectory of development less certain. Thus the contextual-developmental perspective emphasizes the probabilistic character of development and advocates more plasticity in individual development than the predetermined epigenetic conceptions. In some work on life-span development psychology, it is described as “probabilistic epigenetic organismic” (Gottlieb, 1970; Gottlieb, 1976; Brim & Kagan, 1980). The term *probabilistic epigenesis* is used by Gottlieb (1970) “*to designate the view that the behavioral development of individuals within a species does not follow an invariant or inevitable course, and, more specifically, that the sequence or outcome of individual behavioral development is probable (with respect to norms) rather than certain*” (p.123).

He also explained the cause of this *probable* and the *uncertain character* of individual development as

“probabilistic epigenesis necessitates a bidirectional structure-function hypothesis, The conventional version of the structure-function hypothesis is unidirectional in the sense that structure is supposed to determine function in an essentially nonreciprocal relationship. The unidirectionality of the structure-function relationship is one of the main assumptions of predetermined epigenesis. The bidirectional version of the structure-function relationship is a logical consequence of the view that the course and outcome of behavioral epigenesis is probabilistic: it entails the assumption of reciprocal

effects in the relationship between structure and function whereby function (exposure to stimulation and/or movement of musculoskeletal activity) can significantly modify the development of the peripheral and central structures that are involved in these events” (p.123).

Another important factor considered by the contextual developmental perspective is the content of *context*. It can be easily accepted that the number of factors operating conjointly in living systems (development environment) is very great. Hence the influence that subsystems have upon each other and upon the system as whole varies as a function of the varying states of the several concurrently operating subsystems. The living systems should be viewed as organized systems with internal coherence (Gollin, 1981). The properties of the parts are essentially dependent on relations between the parts and the whole. This point will be further discussed in the action theoretical perspective in the later section of the present work.

On the other hand, the individual in the development environment also has internal coherence as an organism. This implies that even though the interaction between the organism and context as well as the plasticity of human development are emphasized in the contextual developmental perspective, the organismic structure-function nature of the human being should not be ignored or negated.

“Rather, development is a probabilistic result of indeterminate combinations of genes and environments. ... Development, in this view, is guided primarily by the genetic program through its multilevel transactions with environments that range from cellular to social. The genetic program for the human species has both its overwhelming commonalities and its individual variability because each of us is both human and uniquely human” (Scarr, 1982, pp. 852-853).

The contextual developmental perspective can be better understood through a discussion on the interaction mechanism between organism and environment. The contextual developmentists name the various mechanisms as *strong interaction* (Lerner & Spanier, 1978, 1980; Overton, 1973), *transaction* (Sameroff, 1975), and *dynamic interaction* (Lerner, 1978, 1979). Compared with interaction forms in organismic and

mechanistic/behavioral paradigms, contextual interaction concept stresses the fact that the organism and context are always intertwined. It is not only the context that influences the organisms, the organisms also influence the context. A certain organismic attribute will have different developmental outcomes in different contextual conditions. Similarly, the same contextual condition will lead to alternative developmental processes in different organisms that interact with it. These principles lead to a basic conclusion in contextual perspective: *Any set of contextual conditions for psychosocial behavior and development can only be understood by specifying the context's relations to the specific, developmental features of the organisms within it* (Lerner, 1985, p. 169).

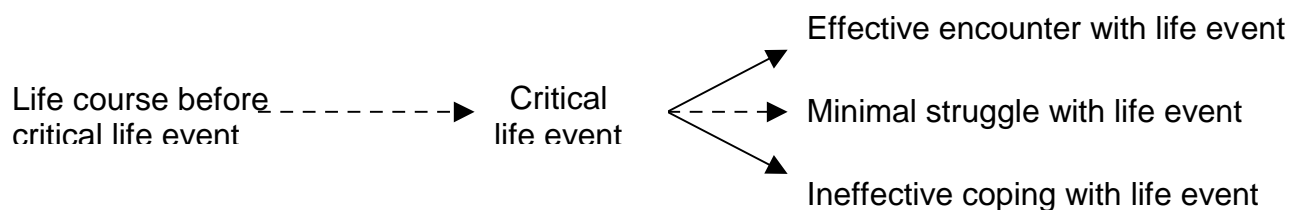
In this interactive relationship between organisms and their contexts, the contextual influence on organisms are actualized through the pressures and demands (stimulus) from the actual context, like the socioeconomic circumstance (e.g. family, career, law) and cultural background (e.g. ethnic habit and taboo, moral). On the other hand, the individual affects his/her living context through intentional, self-determined and goal-directed action in the environment/context. We will discuss this action concept later in the content of action theory. This kind of interaction is significantly different from those considered in organismic and mechanistic paradigms and provides the possibility of a relative, interdependent view on the life-span development process of individual.

2.2.2 Life-span development perspective and coordinate intervention

The life-span development intervention (LDI) is a practical approach that has close connection with the contextual development paradigm. It emphasizes the possibility of continuous development across the life-span of individual. Compared with the lateral perspective of contextual development theories, the LDI adopts a longitudinal paradigm in the human development studies.

2.2.2.1 Life-span development perspective and critical life event

The life-span development perspective is a set of psycho-educational-developmental theoretical works that emphasizes on the continuous growth and change of individual and the multilevel interaction process between person and environment across time (Danish, Petitpas & Hale, 1995). These developments and changes should be viewed from a multidisciplinary perspective encompassing biology, sociology, and psychology, and should be considered in relation to the prevailing norms and present situation. This continuous developmental perspective proposes that the life process is neither stale nor discontinuous. Everyone will experience many changes throughout life. Usually these changes will disrupt routines and relationships and result in stress. However, only change would finally lead to individual development in life. Thus change provides the challenge and chance to stimulate or provoke individual growth. Such change-inducing life situations are termed *critical life event*. (Danish & D' Augelli, 1983; Danish, Petitpas & Hale, 1995). Every one experiences many such events throughout the life span and they can result in debilitation or decreased functional abilities, little change in one's life, or increased opportunities for growth (Figure 1). The outcomes depend on (a) individual's resources before the event, (b) level of preparation for the event, and (c) previous experiences in dealing with similar events. A number of characteristics of critical life events will also affect its impact on the individual. The three most important three of them are (a) the timing of the event, (b) the duration of the event, and (c) the contextual purity of the event (Danish, Petitpas & Hale, 1993; Danish, Petitpas & Hale, 1995; Danish, Smyer & Nowak, 1980).



Timing of the life event

Figure 1: Three basic ways to cope with critical life events (Danish, Petitpas & Hale, 1995, p. 22).

The timing of a life event refers the match between the actual occurrence timing of event and individual and/or social supports' expectation of the timing that the event should happen. If the actual timing meets the expectation, the event is *on-time*; otherwise the event is *off-time*. In the case of an on-time event, individuals usually have both informal and formal support which will help them to overcome the change. They can also have preparation in psychological, sociological, and financial aspects for the event by themselves. In the case of an off-time event, such as an unexpected sport career end due to sport injury and health reasons, athletes will usually encounter more difficulties in coping because of the lack of coping resources.

It has been argued that sport retirement and athletic career transition are unavoidable to every elite sport athlete. It might happen either on-time voluntarily and well prepared for, or off-time for some unpredictable sudden reasons. This indefinite factor makes the Life-span Development Interventions necessary in athlete's career development assistance and education.

Duration of the life event

The duration of critical life event is the length perceived by the individual. An individual might view an event as temporary, permanent, or uncertain, and evaluate it as positive, negative, or mixed (Schlossberg, 1984). This subjective perception about the life event will affect the type and severity of individual's emotional and behavioral responses. For instance, a positive perception about the current life event will lead to positive emotion and acceptance, or an inspired response; a temporal negative perception may lead to a series of goal-directed behavior to overcome the trouble while, a perceived permanent negative life event usually causes processes like traumatic protracted grief reaction (Rotella & Heyman, 1986). Perceptions of duration are often colored by the value an individual places on an event (Danish, Petitpas & Hale, 1992).

Contextual purity of the life event

Contextual purity refers to the complex degree of a life event. Most life events are not experienced not in isolation, they occur simultaneously and interactively. An event can be analyzed in terms of its familial, occupational, biological, psychological and socioeconomic aspects. These components usually affect each other at same time. Any change in any one of them will most certainly to cause changes in others. For example, *when retirement from sports occurs, it may lead to increased time with family, decreased financial resources, significant changes in activity level, changes in one's perception of self-worth and esteem, changes in contact with colleagues and teammates, and changes in leisure time* (Danish, Petitpas & Hale, 1992). The more changes (sub-events) an individual experiences at a single point of time, the more difficult it will be to cope with critical life event.

According to the concepts of continuous growth and contextual development, events are commonly regarded to occur in a discrete moment of time (actual occurrence), but critical life events are in fact processes that start before (anticipation) and continue after the occurrence of the “event” (aftermath). It means that critical life events “*have histories, from the time we anticipate them, through their occurrence, and until their aftermath has been determined and assessed*” (Danish, Petitpas & Hale, 1993, p. 360). These perspectives are also the basic postulation of the life development intervention (LDI).

2.2.2.2 Life development interventions

The Life development intervention (LDI) model was developed based on the individual life-span development perspective. The focus of LDI strategies is to enhance or enrich the individual's competence to cope with life events using goal setting and other strategies. It emphasizes preparation and prevention instead of recovery and remedial strategies. In the LDI perspective, interventions occurring before an event are referred to as enhancement strategies, interventions during the actual occurrence of an event are considered supportive strategies and those happening after an event are counseling strategies (Danish, Petitpas & Hale, 1995).

Goal setting in LDI

Teaching goal setting is the central strategy of the LDI approach. Acquisition of goal setting skills is assumed to be a means which provides individuals tools to attain the goal of their intentional actions. Goal setting is also viewed as an approach to help individuals connect the present with their future. That means to bring meanings of present engagement with potential future based on the self-assessment of ability, understanding of necessary competence, skills, and also anticipation of possible roadblocks.

Goal setting in LDI approach is somehow different from others approaches in sport science domain (Boyce & King, 1993; Gould, 1983; Wraith & Biddle, 1989). Instead of the concentrative steps to achieve goal, the understanding of the meaning of goal itself is specifically focused.

The *goal* refers to *actions undertaken to reach some desired end, NOT the end itself*. (Danish, Petitpas & Hale, 1995, p. 363). It is quite different from *result*. The goals can be mostly controlled by the individual; however, only part of the results can be controlled. Three elements define effective goal setting: (a) The goals should be what athletes is motivated, (b) the goal should be stated in positive terms rather than in a negative way, and (c) the goal should also be clearly defined and able to be operated.

Goal setting should be clearly differentiated from goal attainment. During the process of (athletic, career, personal et al.) goal attainment, there would be roadblocks in most of the cases. Besides the lack of motivation, there are four major roadblocks which prevent goal achievement: A lack of knowledge, a lack of skill, the inability or fear to take calculated risks, and the lack of adequate social support (Danish & D' Augelli, 1983).

A lack of knowledge means that athletes have insufficient information to achieve the goals successfully such as natural laws of certain sport or the approach, procedure to apply an athletic scholarship during sport career. A lack of skill may refer to an inadequacy in physical skills, psychological skills and/or social skills. Inability or fear to take educated risks refers to athletes' desire to remain in a zone that they are familiar

with and competent in because of the fear of failing. This fear may develop from their aspiration to win in athletic competitions. Lastly, athletes may lack adequate social support during the processes of goal attainment. They need to know what support they need, and the approaches to get the support they need.

Enhancement strategies

Enhancement strategies are the most important components in the LDI. These interventions are designed to prepare people for future events by

- *helping them anticipate normative events,*
- *assisting them to recognize how the skills that they have acquired in one domain apply to other life areas, and*
- *teaching skills which enhance their abilities to cope with future events.*

(Danish, Petitpas & Hale, 1995, p.26)

To anticipate life events requires awareness in the relationship between the self and the developing context. Individuals should perceive future events as the results of ongoing behaviors and contexts so that he/she can be aware of the effect of current action on future events (e.g. sport retirement and athletic career transition). This awareness will increase the individual's self-esteem in future events as well as his/her perceived causal relation between current action and future events.

A second enhancement strategy is to help athletes recognize and use skills that they have acquired through competitive sport in other life areas. Although sport is believed by most sport organizations (e.g. IOC, NCAA) as good preparation for life, these benefits can only be realized if skills acquired through sport generalize to other areas in life. However, researches on generalizability of skills indicate that skills cannot automatically transfer among different domains (Auerbach, 1986; Meichenbaum & Turk, 1987) if the following factors are present:

- *A belief that the acquired skills and qualities are valued in other settings.*

- *Awareness of current skills, both physical and psychological.*
- *Knowledge of how and in what context the skills were learned.*
- *Confidence in the ability to apply skills in different settings.*
- *A willingness to explore nonsport roles.*
- *The desire and ability to seek out sources of social support.*
- *The ability to adjust to initial failures or setbacks. (Danish, Petitpas & Hale, 1995, p.28)*

To teach life skills that facilitate coping with future events is yet another enhancement strategy. The life skills (interpersonal and intrapersonal skills) are physical and mental skills that are valuable in various life domains and can help individuals manage present life situations and successfully overcome future critical life events (Danish, Patitpas & Hale, 1992). Vealey (1988) referred to them as psychological skills and classified them as arousal management, attention control, decision making, goal setting, positive self-talk, stress management, and time management. According to Danish and his colleagues (1992, 1995), valuable life skills to an athlete include:

To perform under pressure

To be organized

To meet challenges

To handle both success and failure

To accept others' values and beliefs

To be flexible to succeed

To be patient

To take risks

To make a commitment and stick to it

To know how to win and how to lose

To work with people you don't necessarily like

To respect others

To have self-control

- To push yourself to the limit*
- To recognize your limitations*
- To compete without hatred*
- To accept responsibility for your behavior*
- To be dedicated*
- To accept criticism and feedback as a part of learning*
- To evaluate yourself*
- To be flexible*
- To make good decisions*
- To set and attain goals*
- To communicate with others*
- To be able to learn*
- To work within a system*
- To be self-motivated*

These life skills may be acquired in the athletic domain and by LDI strategy. They are valuable to athletes not only in sports but also in life areas outside sports. Thus these skills are life long developmental skills.

Other athletic career development assistance and education programs, tend towards behavioral training and teaching of skills such as public speaking, effective vocal skills, maximizing the resume, interview skill etc. (Gordon, 1995). Of course, not only the skills themselves will be introduced; how and why a particular skill can improve performance and development will also be explained to help individuals apply the skills more effectively.

Supportive strategies

Supportive strategies are the interventions that accompany a life event. The *supportive* element here refers to the social support to help the individual experiencing life events (change or transition). The LDI mainly assists individuals in getting such support.

Usually people seek support firstly from family, friends and co-workers. However, these supportive systems might not meet the needs adequately especially in some special life domains. For example, studies on athletes who took part in a career development program CAPA (Petitpas, Danish, McKelvain & Murphy, 1992) indicated that support from individuals experiencing similar events are increasingly important. In sport career transition process, LDI specialist can also play a considerable role in supportive interventions. On one hand, they can provide personal support to transitional athletes and on the other hand, they are effective in helping athletes get and use other social supportive resources.

Counseling strategies

Counseling interventions occur after the life events. These strategies help individuals to cope with difficulties caused by life events and overcome the subsequent negative outcomes. The goal of counseling strategies is to help individual learn and develop through a life event so that the individual can better handle future challenges.

In the LDI framework, the counseling interventions are more educational than remedial. According to Danish et al. (1995), these strategies include five goals: (a) *To understand the problem from a person's perspective. This includes identifying the original intent of any maladaptive self-cure strategies,* (b) *to assess the coping resources, sources of support, and domain-specific variables,* (c) *to mobilize existing resources and teach new skills,* (d) *to give opportunities to practice the new skills in vivo with continual feedback, support, and follow-up* and (f) *to plan for future events and terminate the counseling relationship.*

2.2.2.3 Life-span perspective of a individual as an athlete

Now the LDI framework can be applied to understand the nature of sport retirement and the following career transition/adjustment process. To retire from competitive sport and

reintegrate back into a much different and more “normal” life situation is full means of a critical life event to the individual. What led to the retirement from competitive sport? What happened during the transition process? What influence does participation in competitive sport and the process of transition have on the following life/career? We can integrate all these aspects of a critical life event with the life-span perspective.

Some studies in the field of athletic retirement and career transition have been done in the past 20 years (Baillie & Danish, 1992; Coakley, 1983; Grove, Lavalley & Gordon, 1997; Taylor & Ogilvie, 1994). But most of them studied the reaction and coping style of athletes involved in this process instead of studying the retirement and transition process of both amateur and professional athletes from a life-span perspective. So how it at all, does a sport career of more than 10 years involvement in sport training and competition influence the whole life of an individual? The quotations below may give some insight.

What have sports given me? Everything! Health, a wonderful profession, self confidence, friends. (Russian Olympic Champion 1)

It is difficult for me to talk about sports. I got nothing from them but suffering with physical and emotional trauma. You ask about victories? Indeed, were there any? Fifteen years have passed. I no longer remember anything. I don't even want to remember. (Russian Olympic Champion 2)

2.3 Transition Models

Due to the shortcomings of the previous theoretical perspectives and the recently formulated concept of sport retirement being a continuation rather than cessation of individual life development, several theorists have proposed models of sport retirement based on the essence of the *transition model*. The original transition model came from Sussman's (1971) work on the analytic model in the sociological study of retirement. The earliest application of this model in athletic retirement was by Hill and Lowe (1974). Schlossberg (1981) offered a similar model with an emphasis on the perception of the individual involved in the transition process. This model which was later subjected to modifications by Sinclair (1990), Crook and Robertson (1991) is now a well-known framework in this field. The principles of transition models are also supported by Person and Petipas (1990) and Ogilvie and Taylor (1993), Sinclair and Orlick (1994), etc.

Schlossberg's (1981) model of athletic transition postulated three interacting factors that influence the transition process and thus the subsequent adaptation to the transition.

These factors are:

- (a) The characteristics of the transition, such as trigger, time, duration of the transition, and the current stress level, role changes etc.
- (b) The characteristics of the individual, such as age, gender, life stage, health situation, socioeconomic status, personal characteristics, previous experience with transition as well as coping skill.
- (c) The characteristics of the environment, such as social support networks, strategy of the sport system, and opportunities available for the retired athlete outside sport.

All these interacting factors will affect the process of transition/adaptation to varying degrees depending on the subjective perspective of the situation (the transition process), self, and personal environment. That is to say that any of these factors will differ in

level of importance and impact depending on the individual. The notion of *perception* is highlighted in this model. It is also an important concept if one were to understand various responses ranging from trauma (Harris & Eitzen, 1971; Hill & Lowe, 1974; Ogilvie & Howe, 1986) to relief (Blinde & Greendorfer, 1985; Coakley, 1983; Greendorfer & Blinde, 1985) and to the sport transition process. Figure 2 is a conceptual model adopted from Gordon (1995), in which the causal factors that initiate career transition, interacting factors that may differentiate responses to transition, and tertiary factors that might mediate the responses or outcomes associated with transition, as well as the possible intervention such as counseling and assistance program are illustrated.

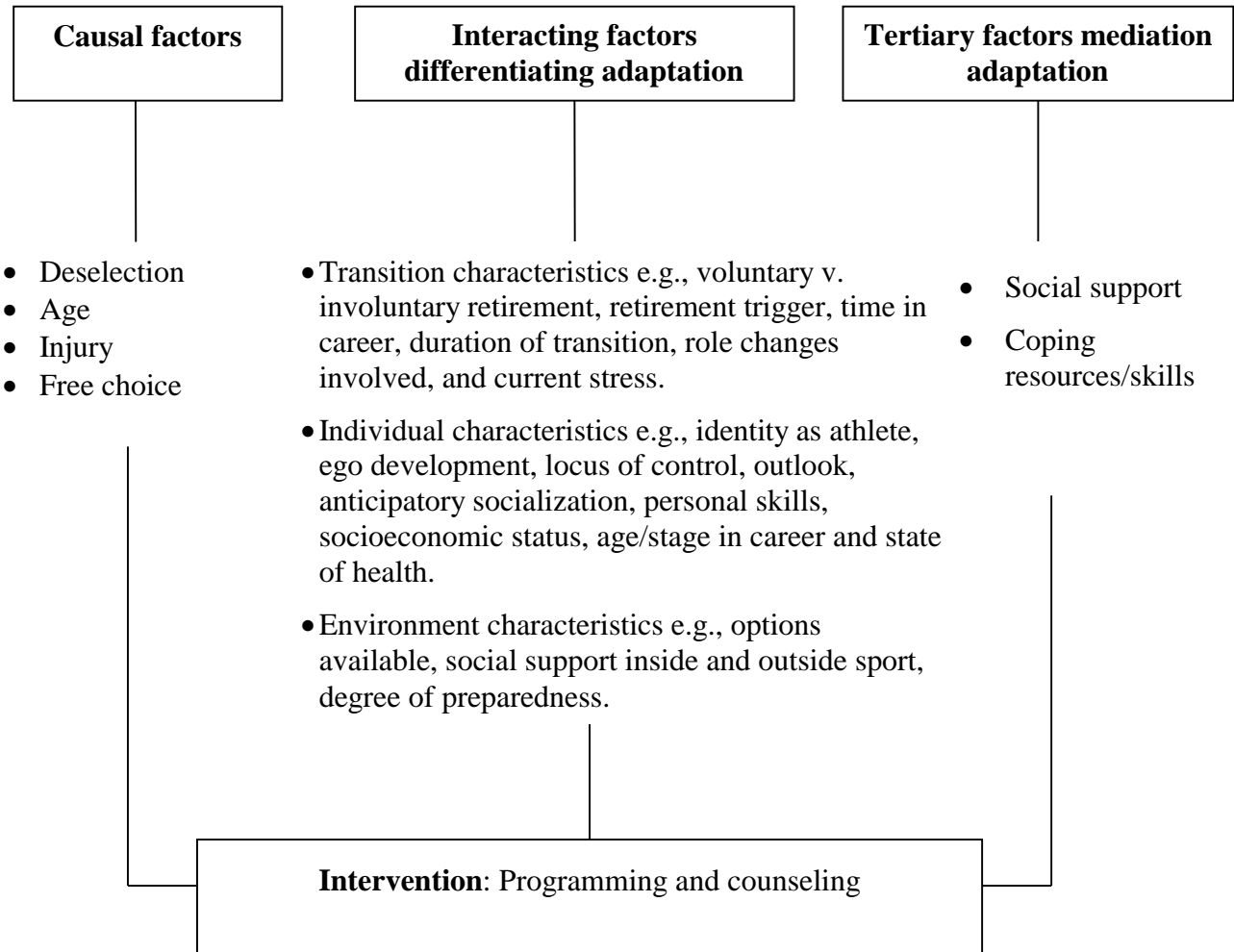


Figure 2: Conceptual model of the career transition process in competitive sport (Gordon, 1995, p. 480).

Another conceptual model of sport career transition was developed by Taylor and Ogilvie (1994, 1998). The time – process characteristic of the transition is more heavily emphasized in this model (Figure 3). A detailed description of the factors cited in the model is also provided in their works (Ogilvie & Taylor, 1993; Taylor & Ogilvie, 1994, 1998).

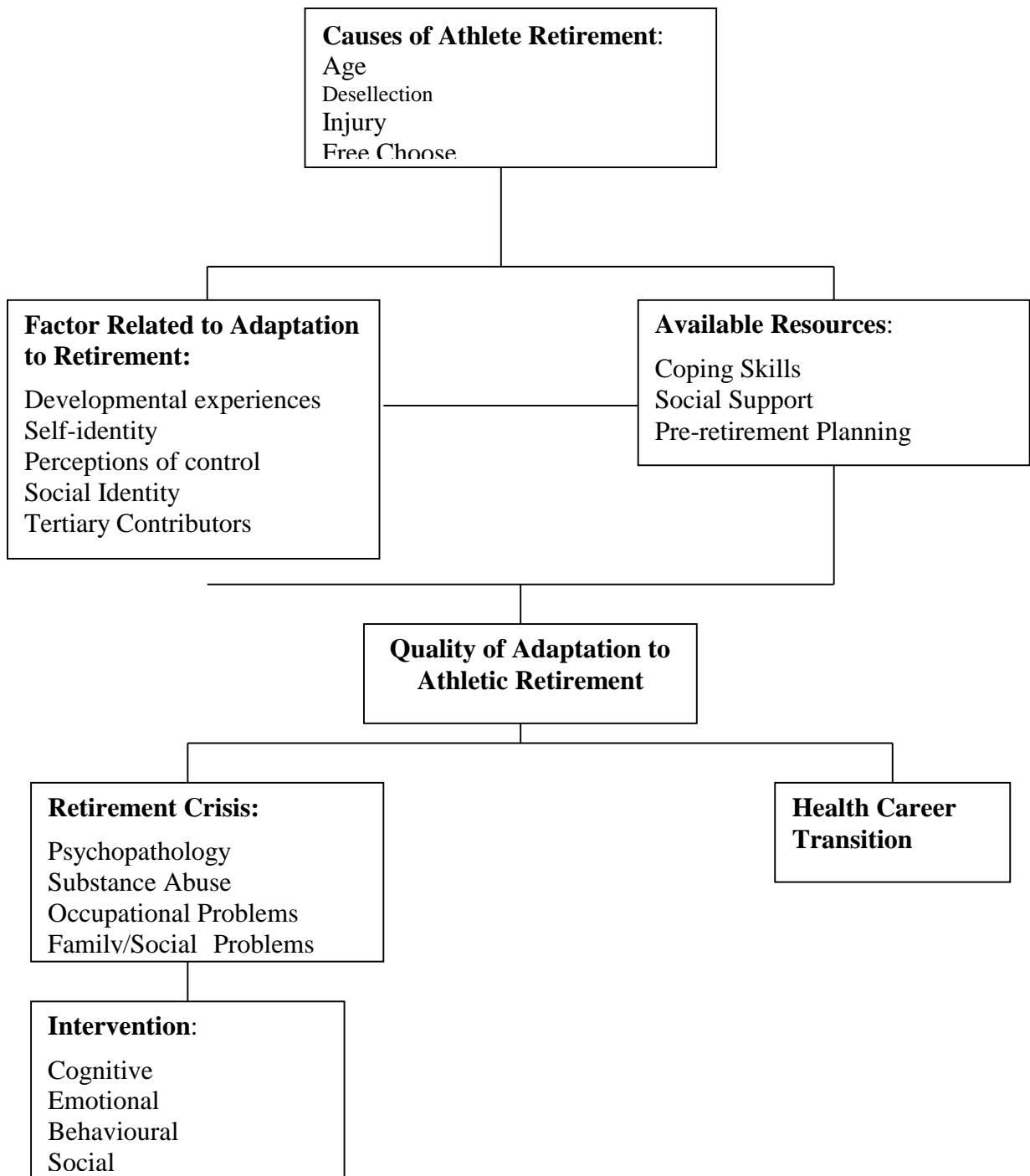


Figure 3: Conceptual model of adaptation to retirement among athletes. (Taylor & Ogilvie, 1994, p. 5).

2.4 The Action Theory Perspective

In addition to its application in psychology and sociology fields, action theory also provides a broad ground perspective in sport science (Hackfort, 1984; Hackfort, Munzert & Seiler, 2000; Nitsch, 1982, 1985; Tenenbaum & Bar-Eli, 1995) and career development studies (Young, 1995). In the present study, action theory is selected as the theoretical background to: (a) Integrate various existing athletic career transition theories and approaches to provide a comprehensive theoretical perspective, (b) provide empirical background in methodology which combines both quantitative and qualitative approaches, and (c) contribute to the understanding of the social cultural background of individual development in a cross-cultural comparisons between Germany and China.

2.4.1 Fundamental aspects of action theory

The notion of *action* has a long history in western society. Perceptions of this term include a distinction between the actions or movements of things and the purposive actions of human beings. It is believed that human beings have the capacity to make free choices about their action. This freedom makes people morally and legally responsible for their actions and for shaping their lives. This kind of human action is quite different from the actions of things, whose movements are not to accomplish some purpose but to comply with the pre-established natural order. It could best be understood as part of preordained natural pattern. This notion about action of things (i.e. movement) is one of the fundamental issues in modern natural science. That is, humans can uncover and describe the “natural order” of the actions of things by employing the formal logic of mathematics, thereby progressively attaining ability to understand, predict and even intervene in the movement of things. Due to this approach, contemporary industrial civilization got rapid development and improved the quality of life of human beings in their time.

The progress of natural science also resulted in its strong influence on the study of human actions. In the mid-nineteenth century, the notion of human beings being

different from things began to erode. Charles Darwin's *Origin of Species* (1859) provided strong support for the proposition that human beings and their actions might and should be investigated in the same way as other natural objects. Various disciplines examining the human actions began to "scientifically" according to the standards of natural science. Methods of natural science were deemed applicable to the study of human beings, and various human sciences began their process of modernization. (Sociology in 1834, anthropology in 1859, and psychology in 1879.)

As a result of such developments, human sciences had to abandon the popular belief that human beings are free to choose and are responsible for their actions. In psychology, the stream of Sigmund Freud's psycho-dynamics, the development of classical and operational behaviorism, and modern experimental psychology can all be seen as the results of this scientific attempt.

However, the philosophical tradition to distinguish between human actions and movement of things did not disappear in human science despite its influence being crippled for a long period. In psychology, humanistic psychology by A. H. Maslow and C. R. Rogers etc., Gestalt psychology by M. Wertheimer, K. Koffka and W. Kohler etc. and group dynamic in American social psychology study by K. Lewin, reflected an approach very different from the "scientific" streams. Thus, two philosophical bases, namely empirical-positivism and existential-phenomenology coexisted in modern psychology and human science. Briefly, the first approach tends to negate the qualitative differences between human beings and things (the mind and the matter), and applies empirical, experimental and analytic paradigms which are adopted in the study of natural science. The second approach highlights the difference between the freedom in choice of human actions and the predetermined nature of movement of things, and applies a phenomenological, narrative, contextual and holistic approach in research methods. However, due to increasing transfer and interaction between the supporters of the two approaches, continuous reciprocity has been done during the development of subjects in these two approaches. Up to early 1950s, the phenomenological-poststructural approach received increasing attention in the study of human science

(Dale, 1996; Polkinghorne, 1990; Sparkes, 1998). Thus the background of action theory became more important and popular in various human science disciplines.

Action theory can be simplified as a set of perceptions about the nature, characteristics, structure, and dynamic process of human action. These concepts of action have been applied in various human science domains such as sociology, psychology and anthropology. Thus action theory has become a general theoretical framework to investigate human action, i.e. action theory provides a set of common conceptions about human actions. Different disciplines have different purposes, may focus on different aspects of the action, and apply different methods. However, the various perspectives on one single issue – human action – can be integrated by using the action theory perspective. Therefore, difference disciplines of human actions study have a general starting point. It makes the communication and reference among outcomes of various disciplines possible and easier, because they are studies “same” object just from different angels and with different methods approaches. For instance, to study the career transition process of elite Chinese and German athletes, the transition model in counseling psychology, LDI concepts in career development studies, cross-cultural considerations, as well as various outcomes of sport psychology can be well integrated by an action theory framework to provide a comprehensive understanding of the nature of high-level competitive sport career transition process.

2.4.2 The concept of action

The term “action” in action theory refers to a special part of human behavior. According to Nitsch (1982, p.53), “ *if a **conscious** goal underlies the behavior and if the psychophysical activity is organized **intentionally** for the purpose of goal attainment*” then the behavior can be called “action”. This definition distinguishes action from behaviors like reflexes, instincts or conditioned reactions. In actions, the response of stimuli is neither pre-established nor occurring automatically. It totally depends on the subjective appraisal processes with personal regards to certain purposes and according to certain environmental background. In sum, action theory assumes that there is a part

of human behaviors are the results of the individual free choice. The choice of action depends on his/her perceptions of the environment and his/her Personal purpose. These actions are quite different from the movement of things which function according to pre-established laws or human behaviors without consciousness. This is also the reason why individuals should be responsible for the outcomes of what they have done.

However,

“this does not mean that the performance and the consequences of an action must be conscious in all details. On the contrary, an action includes a series of automatically (yet intended) performance sequences, and also always leads to consequences which were not intended. In this sense, a concrete action more or less always represents a compromise between internal or self-control and external control” (Nitsch, 1982, p.53).

The individual who carry out actions (the actors) should also be viewed as an organism that is motivated by the subjective expectation of the action results. It might be either to attain or to avoid a certain future state or event. Such an organism has his/her own social background, personality, value standards, action environment, as well as goal perspectives. Such idiosyncrasies can explain why different individuals might take very different action patterns in the same environment, and why an individual might select different action paths in various environments.

Previous discussions are generated from an individual-psychological perspective. An alternative argument about the concept of action is that the meaning of action is a function of the social context rather than any mental experience of the organism (Rubinstein, 1977; Warr, 1982). However, both the psychological and social element would be considered in the present study.

“In various ways, actions are related to the social context: They are performed in and related to an environment that has more or less been formed by man; they are regulated under the influence of the values, standards and rules acquired in the socialization process; as social actions they can immediately be oriented to other persons; they are considered as personal acts for which the

actor as origin is socially responsible; finally, they represent social acts which obtain their meaning out of the relation to the society and its values and standards” (Nitsch, 1982, p.53).

Actions can be classified according to different criteria. According to the regulation characteristics of actions, actions can be categorized as *reflected* or *disreflected*. Reflected actions refer to actions that are planned, intentional, voluntary or decision-based. Automated, habitual, impulsive, emotional, compulsive and persuasive actions that are not well controlled by actors are disreflected actions. Another classification criterion is the kind of problems that have to be overcome to achieve the goal of action. For example, the task can be an executive type (experience-dependent), a problem-solving type, or a creative one. According to this criterion, an action would fall under the *reproductive*, *productive* or *creative* category (Nitsch, 1982).

2.4.3 Action theory

The concept about action has not only been applied in various disciplines in human science; it has also been discussed and elucidated from different orientations and levels of various theoretical-scientific approaches such as action-philosophical, action-psychological, action-social/cultural approaches etc.

The original ideas that to introduce theories of human actions into psychological-social/cultural perspective may have come from the works of a host of different theorists like Max Weber, Talcott Parson, George, H. Mead and Alfred Schuetz, Pierre Janet, Kurt Lewin (Boesch, 1991; Nitsch, 1982; Parsons & Shils, 1967). Through the years, the category of both the action theory and the conception of action have been much enlarged. The application of the action theory is becoming popular in various areas of life: Education, science, social and political reform, art, morals, religions (Strauss, 1993), cross-cultural psychology (Boesch, 1991) and sport science (Hackfort, 1986; Hackfort, 1990; Hackfort, Munzert & Seiler, 2000; Nitsch, 1982; Nitsch, 1985; Nitsch & Hackfort, 1981).

2.4.3.1 The structure of action

The essential definition of *action* is its goal-directed and intentional characteristic. Four basic elements constitute an action unit: Intention (or goal formation), procedure (or instrumental action), goal-achievement (or goal perspective), and situative embeddedness (specific environment) (Boesch, 1991). Thus a key to understand action is understanding the term *goal*. A goal is formed by several sub-goals which are called *subordinate goals*, and actions driven by these subordinate goals are subactions, or instrumental actions. For example, the action to cook a meal can be separated into subactions like cleaning the materials, cutting, and cooking. Every step is directed by its own goal. However, all these are context-dependent actions, i.e. they derive their meanings from their common or main goal of cooking a meal. Action extends over time and is composed of subactions which mostly have instrumental values within the total act. By this mean, actions are therefore extended across the whole time and space of the actor with a systematic links. Some actions, however, are driven by permanent goals, such as happiness. In this case the pursuit of happiness is called a *superordinate actions*. In relation to a superordinate action, a single action becomes a subaction. “*Action, therefore, will always have to be considered both from the point of view of their inherent structure, and of their place within superordinate action systems.*” (Boesh, 1991, p.45).

Inherent structure of actions

With regards to the inherent structure of an action, two kinds of triadic structures of action should be considered. The first is dynamic-occurrence related (triadic phases structure) and the second is stable-content related (triadic components structure). With these two models, the structure and process of individual actions can be better understood.

Triadic phases structure of action

The *triadic phases structure* depicts a complete action process which consists three phases that unfold over time. Specifically they are the anticipation phase, the realization phase and the interpretation phase (Figure 4).

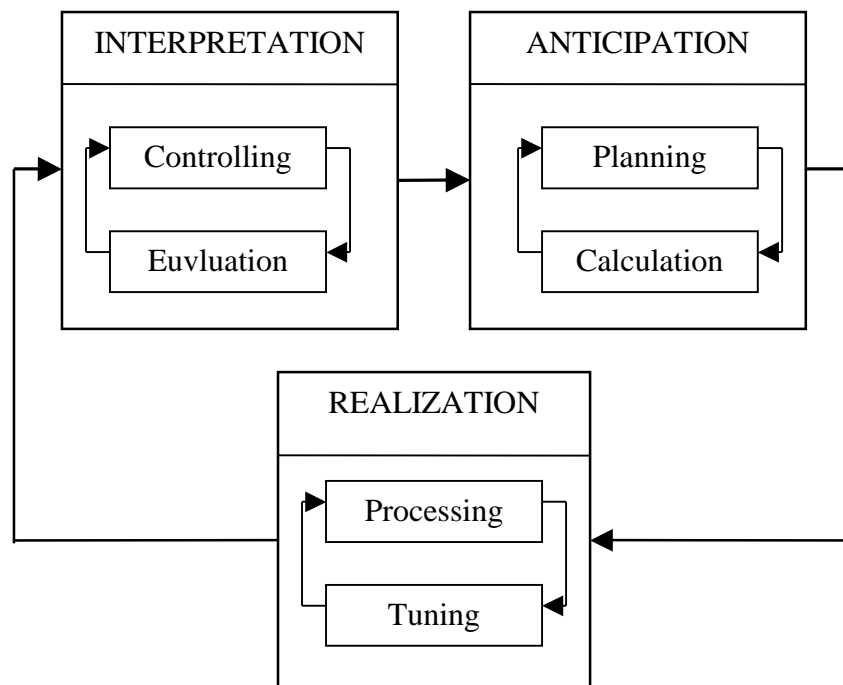


Figure 4: Triadic phases structure of action (Hackfort 1991, p. 67).

The anticipation phase takes place before the actual performance of the act. During this phase, the individual anticipates some future events. The content of this phase consists mainly of two processes: Subjective *calculation* and subjective *planning*.

Calculation processes are central features of in action regulation. They result in an expectation of the outcome of an action by calculating the subjective *effort* and *effect* related with the action. This is a cognitive comparison process determined by various individual factors such as motivation and competence as well as situational difficulties

and incentives. Finally, these cognitive processes lead up to a decision and an expectation of the next planning process. The expectation about the outcome of an action will always serve as a basis for the initiation (planning), regulation (realization) and evaluation (interpretation) of the action.

In the *planning process*, a set of procedures which correspond to the realization of an expected goal is designed. This is quite like the concept of *schema* in motor development and control. In the context of action goals, the final goal is decomposed into several levels of hierarchically organized subgoals. Every subgoal would be realized by a corresponding subplan (Figure 5).

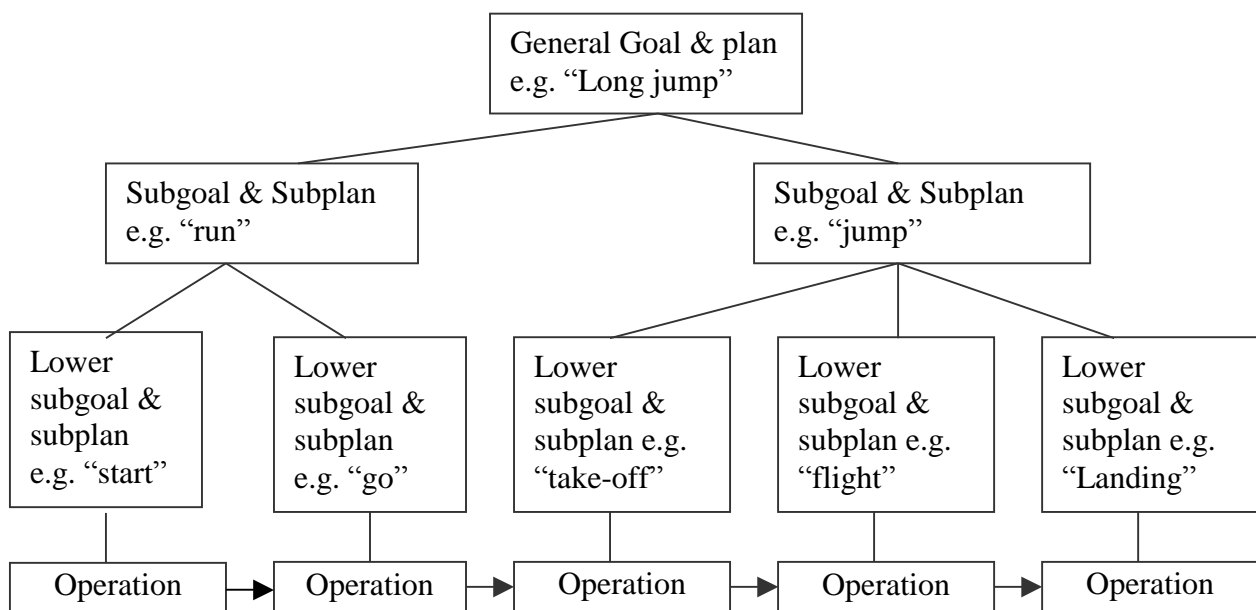


Figure 5: Hierarchical structure of goals and plans (example: "long jump") (Nitsch, 1982, p.69).

The realization phase consists of the transformation of the initial expectations into corresponding external behaviors. However, this transformation process is always under external influences and limitations because of the existence of an action environment. The realization phase depends on three major interacting factors: *Plan execution*, *confrontation with reality*, and *feedback effects* (Nitsch, 1982). *Plan execution* refers to

the implementation of plans which have been developed in the anticipation phase. The execution of the plans inevitably leads to confrontations with environmental reality. Some of them might be foreseen during the anticipation phase and have been factored into the action plans, while others might not. This also means that during the realization phase, some factors are under the control of actor, some are not. Therefore, the outcome of an action need not be completely consistent with the expected goal. Action plans developed in anticipation phase usually need to be adjusted according to a *feedback* process. This feedback process is a bi-directional process: Action is influenced by situational conditions encountered through a confrontation with reality. Examples of the situational conditions include learning, fatigue and satiation processes. At the same time, the realization of action will change the situational conditions. The whole action process is continuously modified by such bi-directional feedback effects and eventually results in an actualized action goal which might be quite different from the original expected one.

The ensuing interpretation phase, results in a subjective evaluation and interpretation of these goals and the actor draws a conclusion about whether the action was successfully undertaken and why it succeed or failed. Beside these subjective *control processes*, an interpretation usually also contains another kind of process named subjective *attribution*. In this process, the conclusion drawn from the subjective control processes will be further interpreted/evaluated by an attribution process during which the actor contemplates why he/she succeeded or failed in goal attainment. This process is termed causal attribution and has popularized through the works of Heider (1958), Weiner (1974) etc.

Triadic components structure of action

While the triadic phases structure of action describes the different stages of an action, the triadic components structure examines to the stable structure of an action (Figure 6).

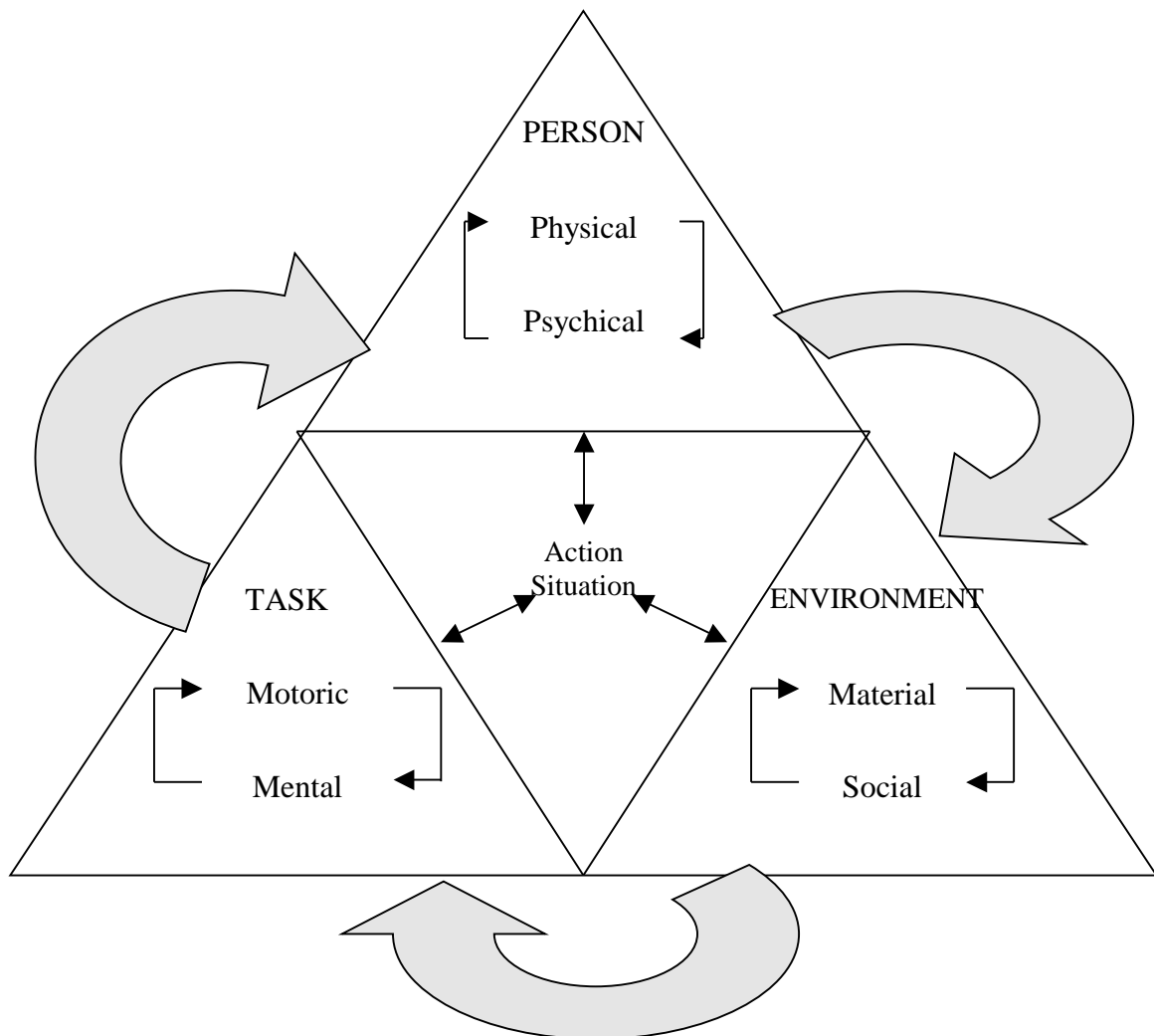


Figure 6: Triadic components structure of action (see Hackfort, 1986).

It is proposed that to gain a comprehensive understanding of action should always consider three components: The actor's subjective perceptions of the *person*, *task (goal)* and *environment* (Hackfort, 1984; Hackfort, Munzert & Seiler, 2000; Schmidt, Jera, Beyer & Hackfort, 1999).

Person refers to the actors and consist two aspects. One is the physical characteristics, while the other is psychical factors. It should be emphasized that these two aspects as well as components which would be discussed below should always be considered as

the subjective perception of an actor. Otherwise the understanding of action might become a subjective perception of observers /researchers, rather than an objective reflection of the observing /researching objects. The meaning of scientific acquirement will then lose.

Task is also termed expected goal of the action and contains two levels of “subsasks”: The mental level and the motoric level. The first kind of subtask mainly operates at cognitive level and the second kind of subtask is actualized through the engagement of skeletal movements. These two levels of subtasks always co-exist with each other.

Environment of action also consists of two levels: Subjective material environment and social surrounding. The material environment includes all the physical elements, including weather, instruments, opponent players at their physical means, etc. The social surrounding refers to various forms of relationships between the actor and all the other people, organizations and cultures that related with the action.

These three components namely the person, task and environment interact within process of an action. The interactions then influence the anticipation, realization, and interpretation phases of the action. Therefore, every phase of an action should be analyzed with reference to the interactions between the action components and the interaction between the action components and the phases.

Interactive structure of actions

Previously we discussed the inherent structure of a single action. However, the actions of an individual are not independent. Rather they are linked together like a chain, that means actions of individual are co-existed each other along the time continuity. Subsequent action would be influenced by the anticipation, performance and interpretation of former actions, and will certainly affect the actions that follow it. This characteristic of actions is called *overlapping action chaining* (Figure 7) (Nitsch, 1982). This structure also indicates the complexity of an action system which is simultaneously organized on various levels of the action space.

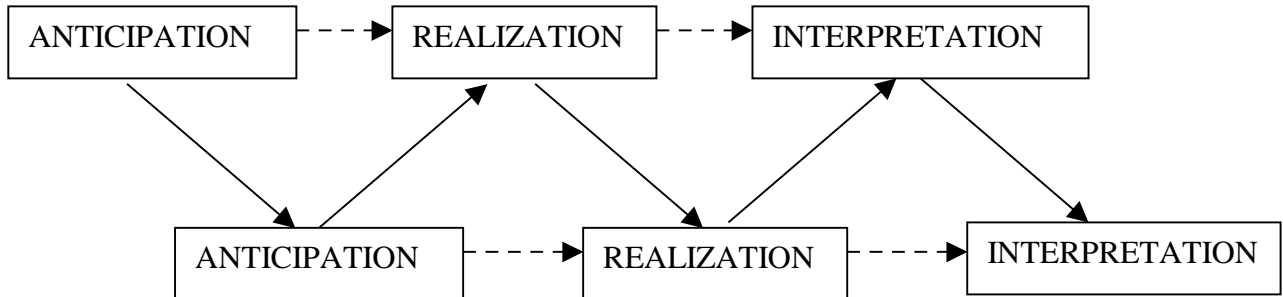


Figure 7: Overlapping action chaining (Nitsch, 1982, p. 65).

2.4.3.2 The process of actions

The concept of *goal* would be discussed in more details here. A goal (in its application in sport science, it is usually called a *task*) has two dimensions: An inward one and an outward one. The outward goal is the objective criteria while the inward goal is the subjective meaning of the action (see Figure 8.). The subjective goal is significantly influenced by the interaction process between the actor and his/her action environment. Also, this environment is a subjective perspective rather than the physical and socially objective one. This subjective goal is the meaning of the action and gives rise to the most important motivating properties in an action process. Furthermore, the overlapping chaining structure of action illustrates that every goal is a link in a sequence of other goals. Therefore the action processes that these goals initiate interact and have actual and potential effects on each other.

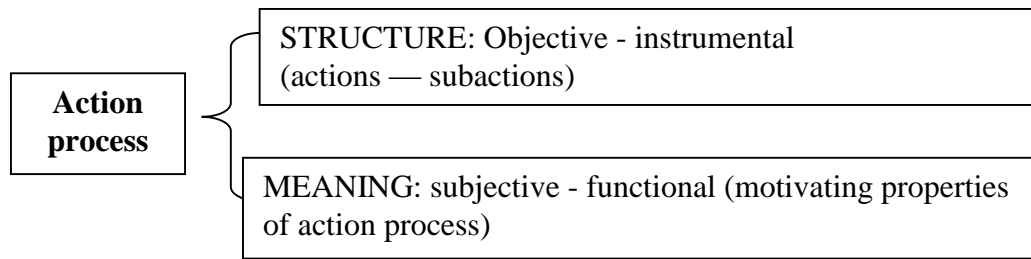


Figure 8: Two phases of action process.

2.4.3.3 Contents of action theory

The basic conception of action has various applications in different disciplines in human science. The various versions of action theories such as Max Weber’s (1968) “social actions”, Parsons’ (Parsons & Shils, 1967) “general action theory”, G. H. Mead and A. Schuetz’s (see among others Boesch, 1991) “symbolic interactionsism” etc., have been proposed and they have different perspectives, purposes and interests. However, some basic commonalities can still be observed across various action theories. A summary of four postulates of the action theory (Nitsch, 1985) will be introduced and serve as the basic principle of action theory in present study. The four postulates are the system, intentionality, regulation, and development postulates.

The system postulate

It is proposed that to understand a particular action, a subjective and objective analysis of the actor, environment and goal (task) should be carried out simultaneously. The action can be viewed as an interaction process between a person with a goal and his/her (objective and perceived) active environment. Therefore, action theory provides a system and integrative perspective of the individual action in various active circumstance.

The intentionality postulate

The intentionality postulate assumes that every action is goal directed. This is the difference between an action and a behavior. The concept of action is that it is always intentional and goal-directed. It is the motivation in goal achievement and its corresponded satisfaction that triggers and maintains the action. The goal has a unique meaning to the actor, because an individual's subjective expectations and purposes are based on his/her perception of the potential in the action environment. This perception is a result of an interaction process between individual and his/her action environment. Actions have explorative, constructive and presentational functions, i.e. the individual evaluates and forms a perception of the goal (task) through a subjective construction of the relationship between the environment and himself/herself.

The regulation postulate

Action is view as a regulated human behavior reflecting the simultaneous influences of psychological and somatic process. The regulation postulate emphasizes the macro, integrative nature of action. As we have discussed in section 2.4.3.1, every action can be separated into several subactions in lower level, at the same meaning, this action itself is an instrumental means of up-level action. This is called "hierarchic-sequential" structuring of action sturcture. To realize a particular action, subactions should be realized step by step in a fixed sequence of operations dominated by respective general goals and plans according to the actor's experience. In addition, a comparison of perceived action outcome and the expected outcome of this action is very important in action regulation. In fact, this comparison process is a natural phase of action to provide the "feedback effect" (Nitsch, 1982).

The development postulate

Action theory provides a theoretical approach to understand the process of how a person flexibly adapts to his/her environmental conditions from a micro and macro as well as a

transverse and longitudinal perspective. Furthermore, action should be considered not only with reference to the development of the individual, but also with reference to the personal social context, to factors in the interaction between the individual and the environment.

In summary, action theory provides an integrative approach to study the interaction process between person and environment. The ideas which are based on the original action theoretical framework have been developed from different directions in various scientific disciplines. The application of action theory framework can be classified into three main levels of complexity:

- (1) as a model to describe, explain, predict and regulate psycho-action process,
- (2) as a model to describe, explain, predict and intervene cultural/social-action process,
- (3) and as an integrative general theory to re-organize the concepts, theories and findings from various disciplines such as psychology, sociology, and sport science to form a systematic whole.

2.4.4 The action theory perspective in sport psychology

From the beginning of the 1970s the concept of action has been adopted in sport psychology fields. A brief review of these attempts and practices can be obtained from Nitsch's work in 1982, as well as from a presentation of Weinberg (1978). Since then, the action theory approach has become more and more popular in sport science especially in sport psychology and sport sociology (Hackfort, 1990). It has been applied to study various issues like strain, stress, anxiety and crisis, as well as the interaction between cognition, emotion and motivation, and also the organization of motor behavior (Tenenbaum & Bar-Eli, 1995). An action psychology based Physical Education teaching concept was also developed (Hackfort, 2001; Schmidt, 1999). In the social-educational aspects of competitive sport, Hackfort and his colleagues (Hackfort & Schlattmann, 1994; Hackfort, Emrich & Papathanassiou, 1997) have also studied the

athletic career transition process and developed a respected counseling/educational assistance program with an action theory perspective.

An action theory definition of sport psychology by Nitsch (1982, p.61) characterizes sport psychology as:

“An empirical science which analyzes the conditions, processes and consequences of the psychic regulation of sport-related actions and derives from it possibilities of their modification. Sport-related actions mean all those actions which are directly sports orientated (among other things spectator behavior) or which organize and regulate them intentionally (e.g. behavior of coaches, referees, sport teachers and sport therapists) or perform it actively (activity in the competitive-, school-, leisure time or rehabilitative sports).”

According to the action theory perspective, the subject matter of sport science, that is, the sport activity can be characterized in three phases (Nitsch & Hackfort, 1981; Nitsch, 1982). Firstly, the sport action is a *movement activity*, with regard to the action regulation process at a psycho-motor level, focuses on the interactive relationship between psycho-somatic processes, and the person-physical environment feedback loop. The basic concerns in this phase are motor control and consequence of movements. Secondly, sport activity is a kind of *achievement activity*, which drives the individual to achieve his/her subjective purposes. The individual purposes of sport activity are not only the outcome of action, but also the satisfaction and enjoyment desired from the sport activity, i.e. the *proceSSIONAL purpose*. The main issues in this phase are to improve the individual appraisal styles, success standard, and intrinsic motivation process.

Finally, sport activity is a *standards-oriented activity*, standards refer to social criteria or social value. This is also a goal of sport activity in addition to an individualized intrinsic goal. A same action structure has different meanings, this phenomenon is called *polyvalence of goals* (Boesch, 1991). These extrinsic purposes are subjective results of an interaction between person and social environment. The key problems in

this phase are the effect of social criteria on personal activity in sports and the effect of extrinsic motivation process.

The development and application of the above mentioned action theory-psychology perspective on sport activity could be outlined in the following points:

- (1) *“the structure analysis of sport disciplines and their classification on an action-psychological basis.*
- (2) *The reformulation of the old problem “personality and sport” with special regard to styles of cognitive processing and acting, which are determined or favored by certain sport disciplines.*
- (3) *The analysis of social interactions in sport as intentional acts of mutual adaptation and disturbances.*
- (4) *The study of the development of sporting action competence in the sense of a “theory of movement socialization”. Initial considerations concerning this, but which unfortunately have not been developed further on, were made by Volpert in the context of social class-dependent ‘sensori-motor learning barriers’ studies (see Volpert, 1974b; Westphalen & Volpert, 1974).*
- (5) *The development of an action-oriented psycho-diagnostic, whereby not ‘individual traits’ should be stressed but the ‘individual action control structures’.*
- (6) *The development of sport-therapeutic techniques, whereby an important aspect could be to achieve cognitive structure modifications by modifying the movement structure.”(Nitsch, 1982).*

2.4.5 Action theory approach to adult career research

Since the development of modern industrial civilization, the high degree of job specialized has become one of the most important characteristics of the society. Career

life, thus plays an increasingly important role in both the individual behavior space, as well as in organizations/institutions. However, contemporary social values are shifting away from viewing work as the most important thing in life towards a balanced view of self-development, family development and career development. A corresponding research approach is developed.

The action theory, as a representation of an integration of “*constructionist, contextual, and narrative*” perspectives, is a meaningful approach that is rapidly progressing in career research fields (Young, 1995). It is believed that the “*action theory offers a conceptual framework and language for understanding career development and career counseling that is close to human experience.*” (Young, 1995).

2.4.5.1 Perception of career in action theory perspective

Career is a widely used conception in sociology and psychology fields. Schein (1978) defined two basic categories of career conception. One is *external career* and another is *internal career*. The external career refers to “*the objective categories used by society and organizations to describe the progression of steps through a given occupation*” (p. 10). The internal career refers to “*the set of steps or stages that make up the individual’s own concept of his own progression within an occupation*” (p. 11). According to this definition, the objective/organizational, management science related perspectives can be distinguished from the subjective/personal, more psychological science related perspectives. With the action theory, the concept of career can be approached from several perspectives. “*The career can be considered as a naïve biographical concept. Similarly, we have used several concepts, such as manifest career, cognitive steering, and social meaning, to describe career*”. (Valach, 1990, p. 119).

2.4.5.2 An action theory perspective on career transition and personal development

Three main existing approaches to adult career research have been described in previous sections. They are social gerontology, transition models and life-span development (LSD) and life development intervention (LDI). Each of these theoretical frameworks

has unique merits as well as shortcomings in the description and understanding of adult career transition process and personal development.

Various kinds of social gerontology emphasize the influence of the social and individual environment on the whole career end/transition event, as well as the relationship between the individual and his/her environment. Transition models, on the other hand, are highly applicable to a detailed description and analysis of the factors of career transition process (causal, interacting, tertiary etc.). While a career transition is viewed as a upcoming action goal (task), such detailed analysis of various factors is quite useful to the operation of sub-goals setting. Lastly, other than highlighting the interaction process between the individual and environment during career transition process, the most significant characteristic of the LSD and LDI approaches is the emphasis on continuous development of the individual as an intentional, conscious organism. In other words, the major contribution of this approach is its attention on personal benefits and individual subjective activity.

Through an analysis of three above mentioned approaches, the complexity of career transition as a social-individual interaction process can be discovered. The essential ideas of social gerontology, transition models as well as LSD and LDI correspond with the *environment*, *task*, and *person* components of career transition as described in the action theory. Based on such awareness, action theory may provide a general theoretical background to well integrate existing relevant theoretical approaches: The interactive perspective with three action components and the three above-mentioned theoretical approaches can be integrated (Figure 9). It provides researches in career transition and personal development process an effective and comprehensive framework. Therefore the current study, thus would apply the action theory as its theoretical background to integrate the various perspectives.

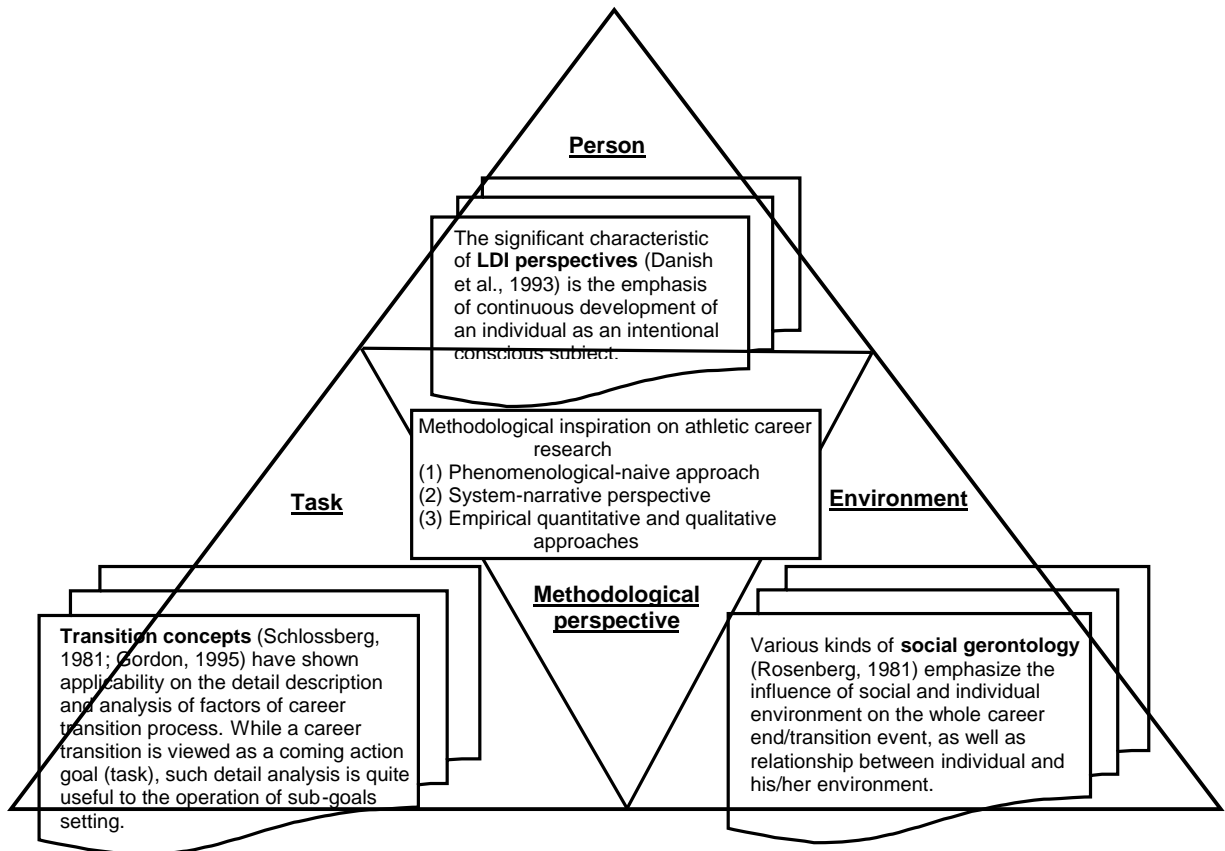


Figure 9: Action theory perspective on athletic career transition.

2.4.5.3 Methodological influence of action theory on career research

The methodological influences the action theory had on career research stem mainly from three aspects: Phenomenological-naive approach, system-narrative perspective and concept of social control.

Phenomenological-naive approach

In all theories of action, the phenomenological approaches (Edmund Husserl, Fritz Heider, and others) played a significant role in determining the frameworks (Valach, 1990). This phenomenological approach also had important influences on

methodological issues of the action theory. With regards to career research, it is proposed that *“in the study of career phenomena we can learn from naïve as well as scientific reports on careers. As we cannot analyze psychological and social phenomena without relying on their meaning, we must include these concepts in our analysis”* (Valach, 1990). Traditional empirical/classical psychometric approaches to personality and other trait-state explanation of career process have been heavily criticized by the phenomenological perspective of action theory. Naive observation of the meaning of a certain action as a part of career process as well as its interactive relation with life out of career become necessary and meaningful against such a theoretical background.

System-narrative perspective

Concepts of general system theory have been touched on the earlier discussions about action structures and action theory.

“System theoretical thinking not only exercised its influence through its general view, it also supplied a number of concepts, for example, processes of steering and regulation, information processing, hierarchical organization, hierarchical organization, three dimensional organization, active systems, goal directedness, plan, strategy, execution, operation, evaluation, resolution, and feedback. Some other concepts were influential through the special treatment they received in system theoretical thinking (for example, intention, will, consciousness, and values)” (Valach, 1990, p. 109).

This system perspective is also valid when the career process is viewed as a long term action collection within individual development process. Consequently, a single action in a career should be considered within the system in which it occurs in an interactive, dynamic way. Combined with the phenomenological-naïve approach, a narrative approach is then carried out in both theoretic and methodological works in career research. Instead of seeing events as isolated, they are believed to be experienced as units of a meaningful episode. To illustrate with an analogy, understanding actions in

career space is just like understanding a group of words in a meaningful sentence (Polkinghorne, 1990). Events that look superficially like serial, independent happenings are then transformed into meaningful happenings that contribute to the whole episode, the duration of which is variable, e.g. it may be a certain stage of career life, or stretch from birth to death or even across several generations.

Therefore it is inadequate to analyze an action in career life only with reference to previous and actual actions; the implications of upcoming actions and future individual development have to be considered. These historical and future-orientated perspectives of action theory are commonly applied in ecological socio-psychology concepts (Carroll, Haveman & Swaminathan, 1992) It also provides a theoretical background to analyze the life development intervention (LDI, Danish, Petitpas & Hale, 1992, 1995).

A typical example is the study of career transition. The transition process is referred to as a critical event in a life-span, because an individual in transition will set his/her transition goals with respect to his/her subjective understanding of the potential that the environment provides, as well as the social stands and value he/she realized. All these subjective perspectives are results of previous interactions between the individual and the action environment. Such perceptions will influence action directions and intentions in the following life period. The transition goals will motivate the individual in the transition process and serve as evaluative criteria of the transition results. The subjective evaluation of these results will further influence the individual emotional response (e.g., satisfaction or disappointment) and following actions. According to this, the career transition process should not be viewed as a single event in individual life development, but as a process connecting past, present and future events. Similar ideas have also been suggested by the career transition models. Therefore the action theory, can be applied as a fundamental theoretical background to integrate LDI perspective and career transition models in the present study.

Concept of social control

Social surrounding is a basic component of actions. Although career are usually considered as a personal experience, it should be emphasized that every action is based on psychological processes that are determined by social process including rules, conventions, norms, and social representations. Thus, actions in career development have not only their meanings with regard of longitudinal, time across clue, but also the meanings across categories. Social environment include the categories like family, team/group, organization, culture etc. The interaction between actor and his subjective perspective of the social environment in which the action takes place should be considered as a key issue in career research.

2.4.6 Action theory perspective in cultural and cross-cultural psychology

Besides the large impacts on sport science and human development studies, the action theory also has deep influences on cultural and cross-cultural studies of human actions. Other than investigating the of characteristics of athletic career developmental and transition, this study would also conduct a cross-cultural comparison between German and Chinese former elite athletes from the action theory perspective.

2.4.6.1 Definition of culture from an action theory perspective

There is no single definition of culture which is accepted in sociology, anthropology and psychology. Back in 1963, Kroeber and Kluckhohn collected some 160 definitions of culture in sociological fields. It is understandable because a definition always corresponds with the theoretical and methodological framework applied in a study. Different perspectives of theories, methods, and purposes would be reflected in their definition of the research objectives. Therefore, definition of culture from an action theory approach is also necessary. In the review work by Kroeber and Kluckhohn on the history of the concept of culture, significant support for the action theory tendency can

be found in their conclusion on the “central idea” of culture common to “most social scientists”. Based on this point, Boesch (1991) indicated that,

*“culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups. Including their embodiments in artifacts; the essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their attached values; **culture systems may, on the one hand, be considered as products of action, on the other as conditioning elements of further action.**”*(p. 29).

Besides this conclusion, Boesch also proposed a more action theory based definition of culture:

“Culture is a field of action, whose contents range from objects made and used by human beings to institutions, ideas and myths. Being an action field, culture offers possibilities of, but by the same token stipulates conditions for, action; it circumscribes goals which can be reached by certain means, but establishes limits, too, for correct, possible and also deviant action. The relationship between the different material as well as ideational contents of the cultural field of action is a systemic one; i.e. transformations in one part of the system can have an impact in any other part. As an action field, culture not only induces and controls action, but is also continuously transformed by it; therefore, culture is as much a process as a structure.”(Boesch, 1991, p. 29).

To analyze this action theory based concept of culture, the *environment* of action should firstly be further explained. In action theory, the concept of *environment* refers not only to an “objective” surrounding including physical and nature and social constellations, but also the subjective perception of the individual of this objective environment. The subjective perception is decided from a continuous evaluation and reconstruction during the action experience. The environment is at the same time objective, perceived and these three dimensions affect each other. To understand actions, one has to be acquainted with these naturally-influencing environmental factors (Brandtstädter, 1985).

This conceptualization of environment has already been applied in cultural and cross-cultural psychology to understand and analyze the influence of an active environment on the group and individual psychology, sociology and even biology. In an action theorist's view,

“Environment, thus, not only becomes an individually structured action field, but leads to cultural conceptualizations, elaborations and evaluations. The environment will be culturally represented as a man-environment-structure implying opportunities, rights and obligations, which may be rationally formulated or symbolized and personified. In one culture, nature will consist of technically and legally defined objects and spaces, in others it will house spirits and magical forces. In both, environment will become a mythical as much as an objective structure.” (Boesch, 1991, p. 11).

This explanation further implies that an environment includes not only actual but also potential action goals. These potential goals come from the individual's perception of his/her actual environment, i.e., the individual development will be progressively built up by a field of real and *possible* actions. Potentiality is thus an important dimension of action environment that allows the individual to form a hypothetical dimension of alternatives to his actual intentions. Culture defines possibilities and conditions for action (Boesch, 1991).

Another term concerned with relations between individual actions and their cultural surrounding is *action space* or *action field*. The culture can be considered to be made up of a complex web of individual and group action space. In sociology and psychology, the action space of groups may also be understood as a sub-culture. Competitive sport, for instance, is such a sub-culture. Individuals involved in it will be assimilated with its special institutional characters, relationships and value system etc. through interaction with his/her perception of the action environments.

2.4.6.2 Attitude towards cultural variation in psychological and sociological research

The influence of different cultures on action processes have been commonly recognized in various disciplines. In fact, according to above discussions, a cultural dependent perspective is exactly an action theory perspective. By examining contemporary psychological and sociological researches Berry, Dasen and Sartorius (1988) identified three different attitudes toward cultural factors. A brief review of these attitudes would be helpful in understanding the propositions and status of cross-cultural studies.

The first attitude is *absolutism* which is to entirely ignore the influence cultural factors have on research objects. All psychological and social phenomena are viewed as outcomes of fixed positions, and are studied, evaluated and considered with reference to fixed standards. Usually such standards are based on the cultural background that the researchers themselves come from.

The second one is *relativism*. It is an approach that examines phenomena in view of their cultural variables. Sociological and psychological phenomena are explained in the context of the cultural background in where they occur. Such an attitude makes it possible to get insight into the nature and range of human variation. However, absolute relativism usually neglects comparability among different cultures; with this approach, it is hard to pool data together to draw general conclusions about human beings.

Instead of recognizing individuality in social and psychological phenomena, *universalism* assumes that there are basic psychological processes and functions that are shared by all people although these processes and functions are developed, deployed, and displayed differently in different cultures. It is believed that different cultures play a set of variations on a same psychic unity of human beings.

Based on these three attitudes toward cultural variation in social/psychological phenomena, different perspectives and approaches to cross-cultural researches were developed. With a consideration of *universalism*, cross-cultural approach rather like a comparison method or instrument than the study aim itself. Particularly in theory researches, cross-cultural have been applied as a necessary method to examine the

generality of certain theory like goal orientation (Kim & Gill, 1997; Li, Harmer & Chi, 1996; Pan, Zhang & Si, 1999), emotion display and control (Si & Hackfort, 1998) etc. cross different cultures.

On the other hands, approaches with *relativism* perspective tend to describe difference of research objects in different cultures and further to discover the source of such difference with cross-cultural comparisons. Such relativism approach was highly appreciated in most practice-oriented studies (Hartmann-Tews, 1994; Scraton, Fasting, Pfister & Bunel, 1993). It might because of the practice interventions have to take situation of concrete cultural surrounding into consideration to facilitate the effects.

Another trend in development of psychology in the Third World Countries is the increasing attention on indigenization (Si, 2000a; Yang, 1993, 1997; Yang, 1999). From an indigenization psychological perspective, not only the research content but also research materials (concept, equipment, evaluation standard etc.) that were developed in the western world, an very different cultural background, are necessary to be modified according to the cultural awareness. The influence of *relativism* attitude can be clearly noted in this trend, even if the *universalism* position is also respected in this perspective, on which research system, cultural perspective etc. the universal lies on should be carefully discussed.

It is proposed here, in the very essence of the cross-cultural outlook, it stresses an action theory based contextual nature of any finding. No matter how the cross-cultural perspective and approach varied, the theoretical fundament of their seasonabilty as will as possibility lie on the perception of the nature of actions of human beings. On the other hand, a comparison between different cultural and social systems, is also helpful to understand the influencing factors of the individual action difference. Therefore, the cross-cultural comparison between China and Germany elite athlete's competitive sport career transition processes will also carried out with an action theory background in the present study.

2.5 Empirical Background

Companied by a grounded theoretical background in the study of athletic career development and transition, empirical researches have managed to achieve remarkable success in this field. Some practical programs developed to provide assistance and/or education in athletic career development have also been carried out in some countries. Various kinds of theoretical frameworks, research methods and instruments are applied. Different types of groups have been targeted. With a conclusive review of these studies, some meaningful findings and experiences can be drawn to form an empirical background of the present study. This review is categorized into three parts: (a) The personal investment of athletes in the competitive sport, (b) empirical findings of the studies in athletic career termination and transition process, and (c) practical formulation and experience of athletic career assistance programs in different countries.

2.5.1 Personal investment of athletes in the competitive sport

Athletic career transition of elite athletes received little attention in most countries 20 years ago (Ogilvie & Taylor, 1993a). By the appearing of some tendencies such as the commercialization of sport and the professionalization of the amateur athletes in contemporary competitive sport (Coakley, 1986), the effect of sport participation on life-span development of athlete is growing and persists even after the end of a competitive sport career. Therefore it is necessary to take a brief view on what happens to an individual participating in high-level competitive sport.

To become an elite athlete in competitive sport, one's commitments in terms of time and energy etc. are necessary. The characteristic of high levels of competition in contemporary competitive sport makes an early beginning and specialization of sport training very necessary a prerequisite of meaningful achievement. As an elite athlete, the individual usually starts his/her sport activity and systemic sport training during childhood or early stages of adolescence. Their investment of time and energy varies proportionally with their involvement progress (in sport). When they obtain more success in sport, they get more reinforcement in the identification with the athletic role,

and would usually invest more into sport training and competition instead of things out of sport such as academic achievement, social network, and occupational preparation for the following life stages.

2.5.1.1 Development of the athletic identity

Both sociologists and psychologists view the athletic identity as an important issue correlate with athletes' (Brewer, 1993; Curry, 1993; Grove, Lavalley, Gordon & Harvey, 1997; Hale, 1995; Hughes & Coakley, 1991). Elite athletes usually have an extensive socialization experience to internalize their sport role (Ames, 1984). During competitive sport careers, most of them strongly identify themselves with the role of an athlete. The generation of an athletic identity is initiated very early on the individual's development and usually with good intentions. It might be due to various impacts of sport participation on social, physical and psychological personal developmental process, especially in the periods of childhood and adolescence (Danish, Petitpas & Hale, 1990). Sport participation and success can provide individual opportunities to develop a sense of autonomy, achievement and initiative (Newman & Newman, 1979), contributes to the development of physical abilities and results in more effective peer and family interaction (Nelson, 1983), higher positive self-concept (Kay, Felker & Varoz, 1972; McPherson, 1980) as well as self-esteem (Duke, Johnson & Nowicki, 1977; Sonestrom, 1982). These benefits encourage an individual who is good at sport activities to develop his/her identity as an athletic person (Baillie & Danish, 1992).

The athletic identity is considered to be an important factor in the motivation of elite athletes (Murphy, 1995). It is one of the most important variables which influence athletes to devote much of their personal resources to achieve excellence in sport. It also encourages athletes to participate in elite competitive sports. In 1989 Kesend and Murphy (also Kesend, Perna & Murphy, 1993) studied in USA the major sources of motivation behind athletes' training for the Olympic Games with interview/qualitative analysis methods. The results indicated some main motives that encouraged these athletes to participate in sport during their athletic careers. A study by Scanlan, Stein

and Ravizza (1989) also yielded similar results. The main reasons for the participation in competitive sport include:

- Perceived competence
 - Measurement of skill
 - Improvement of skill
- Intrinsic motivation
 - Fun
 - Drive of achieve
- Recognition
- The sport it self
- Self-development
- Affiliation and life opportunities
- Health, fitness, and activity
- Overcoming adversity
- Turning points in life
- Altruism or idealism

Base on these reasons, the central place of sport in the life of an elite athlete can be derived: Sport enables them to develop and demonstrate competence, provides a high level of intrinsic motivation, offers the athlete opportunities for social recognition, brings fun to athletes who are involved in it, and provides many opportunities to develop satisfying social relationships, etc. With these considerations, elite athletes usually view sport as the core of their life rather than as a temporary job, and narrow their definition of personal development and self-concept to encompass only on the athletic achievement. They commit most of their time, energy, emotions as well as social resources into sport training and competitions. Athletic identity becomes one of the important motivational factors of their sport participation.

In addition, these meanings and functions that sport fulfils also account for the difficulties to leave away from sport. Athletic identity is also highlighted because of its relationship with retirement behavior in relevant life spaces (Baillie & Danish, 1992;

Brewer, Van Raalte & Linder, 1993; Messner, 1992). The structure of athletic identity has been hypothesized to be particularly important in athletic career transition and post-athletic career adjustment process:

“...Individuals with a strong and exclusive athletic identity may be prone to experience a variety of emotional and social adjustment difficulties upon career termination (Baillie & Danish, 1992; Brewer, et al. 1993). Furthermore, those who strongly commit themselves to the athlete role may be less likely to plan for post-athletic career opportunities prior to their retirement from sport (Gordon, 1995; Person & Petitpas, 1990; Thomas & Ermler, 1988). It follows, then, that anxiety about career exploration and decision-making (zeteophobia; Krumboltz, 1992) may also be present among individuals with a strong and exclusive athletic identity” (Grove, Lavalley & Gordon, 1997, p. 193).

2.5.1.2 Contradiction with school or/and occupational education

A further consequence of high levels of athletic commitment is the reduction of opportunities to receive necessary school and /or occupational education/training. In educational science, the shortcomings of early “specialized development” in some special professional areas like competitive sports have been discussed. However, the main negative outcome of this early specialized development is not immediate. On the contrary, one can be easily intoxicated and encouraged by the moment of “talent” success of these young athletes. When they get positive feedback from their athletic participation, the identity as an athlete gets developed and reinforced. When one’s self-worth is closely tied with performance of a certain sport, such a narrow definition naturally leads to more specialized involvement. The priority of other spheres such as academic education, vocational skill training are usually reduced, or even neglected because of the limitation of time, energy or the absence of interest and motivation. This tendency is termed “*selective optimization*” by Baltes and Baltes (1980) which depicts the behavior of putting their interests, engagement and personal resources in the area of focus when time and energy are limited.

Marcia (1966, 1978) also observed that the prevention of personal developmental opportunity occurs when a commitment (in an activity) is made prematurely and without sufficient exploration of one's need or values. In other words, adolescents rewarded for their athletic experiences may give up the commitment in seeking success in academic activities and other career opportunities. In a longitudinal study with 38 Division I male basketball players in American colleges, Adler and Adler (1985) found that academic success became less salient as the athletes moved through the university, apparently as a result of the system rather than of individual tendencies.

These contradictions between athletic involvement and other aspects of life might result in the athletes' lack in necessary competences and skills to achieve success in fields out of sport in their post-athletic career.

“The pampered treatment he has long received may have left him without basic skills for coping with life, skills like reading and writing, looking for a sale or balancing a checkbook, and now he suddenly confronts a mystifying world that is normal to most. The countless people who have long stroked his ego may have left him with an unrealistic appraisal of himself and his value to the world, and now he suddenly confronts a society that is indifferent to his physical skills and is asking if he has any others. ... He has long felt himself invincible ... but now he must confront his own wretched mortality.” (Myslenski, 1986, p. 20).

The elite athletic career usually begins in the early stages of adolescence or even earlier in childhood. Athletes are socialized in the specialized environment of competitive sport, in which everything is geared towards training and competition (Grove, Lavalley & Gordon, 1997; Nixon, 1981).

When the sport career comes to end, most athletes encounter negative responses from various aspects. After the long period of involvement in competitive sports, athletes transfer into a very different “normal” career life, in which they face new circumstances that have a very different value system, demanding characteristics, skills and abilities that do not coincide with what they have developed during their athletic careers. Some of them may adjust to the new life easily and quickly; however, there are also a number

of them who experience serious crisis in their adjustment process. These problems experienced by athletes during their career transition process have been brought to attention by psychological and sociological researches.

“In addition to the specific consequences of involvement, it is the salience that sports involvement has across a significant proportion of the life span of the athlete that makes retirement from competition potentially so difficult for many elite and professional athletes. ...” (Baillie, 1993, p. 401).

2.5.2 Career termination and transition in athletes: Study findings

Over the past two decades, remarkable interest from both sociological and psychological approaches has been directed toward the issue of life-span development of athletes. Some results and conclusions have been derived from on various theoretical perspectives and methodological approaches. However, there are also some conflicts and disagreements in these findings which led confusion in this domain.

2.5.2.1 Athletic career termination: Possible responses

It is inevitable to retire from the elite sport and make a transition from it to an entirely different career and life circumstance. What will happen to individuals during this athletic career transition process?

A number of studies focused on the emotional traumatic response and adjustment difficulties experienced by retiring athletes. Significant problems have been reported by world-class amateur and professional athletes (Arviko, 1976; Harris & Eitzen, 1971; Mihovilovic, 1968; Weinberg & Around, 1956). Negative reactions include identity crisis (Ball, 1976; Pollack, 1956), attempted suicide (Beisser, 1967; Hare, 1971), and behavioral problem like alcohol and drug abuse (Arviko, 1976; McPherson, 1980; Newman, 1991; Ogievie & Howe, 1986). In Werthner and Orlick's study (1986) on high performance amateur athletes, it was found that two thirds of the subjects encountered some degree of difficulty in leaving their sport careers while the remaining one third of

had a relatively smooth transition. Greendorfer and Kleiber (1982) described three potential outcomes of retirement from sports: (a) Downward mobility, perception of failure, or loss of social status, (b) alcohol or drug dependency, (c) emotional and psychosocial difficulties.

On the other hand, some studies (Blinde & Greendorfer, 1985; Coakley, 1983; Greendorfer & Blinde, 1985) found evidence demonstrating that leaving high-level competitive sport might be a rather positive experience. Retirement from competitive sport may actually provide athletes an experience of relief from the pressure and heavy time commitment in sport, allow them to pursue new opportunities for personal growth and development. In a study of Allison and Meyer (1988), 50% of twenty female tennis professionals expressed relief upon retirement, while another 30% reported initial adjustment problems (e.g., loss of identity, isolation) immediately following retirement. Grove, Lavalley, Gordon and Harvey (1998) conducted a review of 11 studies to specifically examine reactions to the retirement from elite sports. Altogether, 2116 athletes from a wide range of sports and ability levels were reviewed (Table 2), The study indicated that more than 19% (410) of the participants experienced considerable emotional disturbance attributable to their sport retirement processes. Based on the distinct and sometimes contradicting results, researchers concluded that the process of athletic retirement will not definitely lead to a certain response or outcome. The nature of the retirement/adjustment process will be influenced and predicted mainly by factors of the retirement event, individual characteristics and the social environment.

Table 2: Overviews of studies measuring distressed reactions to retirement from sport (Grove, Lavallee, Gordon & Harvey, 1998, p. 54).

Investigation	Sample		Number and type of distressful reactions		
	N	Level	n	%	Description
Svoboda & Vanek (1982)	163	Olympic	29	17,7	Had yet to recover psychologically (p. 171)
Greendorfer & Blinde (1985)	1124	Collegiate	191	17,0	Indicated some/extreme dissatisfaction with self (p. 107)
Werthner & Orlick (1986)	28	Olympic	9	32,1	Had a very difficult time in the transition (p. 344)
Allison & Meyer (1988)	20	Professional	6	30,0	Had feelings of isolation and loss of identity (p. 218)
Curtis & Ennis (1988)	96	Amateur	14	14,6	Experienced quite a feeling of loss (p. 95)
Blinde & Stratta (1991)	20	Collegiate	16	80,0	Indicated the feelings often paralleled death and dying (p. 8)
McInally et al. (1992)	367	Professional	96	26,2	Experienced moderate to severe emotional adjustment (p. 4)
Sinclair & Orlick (1993)	199	Amateur	22	11,1	Felt generally dissatisfied about life (p. 143)
Wylleman et al. (1993)	44	Olympic	3	6,8	Were confronted with severe emotional problems (p. 904)
Parker (1994)	7	Collegiate	6	85,7	Reflected negative expressions and experiences (P. 299)
Lavallee et al. (1997)	48	Amateur	18	37,5	Experienced highly distressful reactions to retirement (p. 7)
Total	2116		410	19,4	

2.5.2.2 Athletic career termination: Reasons and the effects

Chronological age, deselection, the consequences of injury and health problems, and free choice are the main factors causing the termination of individual athletic career. Different kinds of causes have different influences on psychological, social and developmental issues related to career transition and adaptation process.

Age

A significant difference between athletic career termination and retirement processes in “normal” career is that most individuals in competitive sport have to end their athletic career in adolescence or early/middle adulthood, and must adapt to a very different

career and lifestyle in their post sport life. The chronological age is considered to be a primary cause of career termination. Empirical results have also demonstrated a corresponding relationship between chronological age and elite athletes' retirement (Allison & Meyer, 1988; Mihovilovic, 1968; Svoboda & Vanek, 1982).

The influence of age on athletic career termination usually is the result of an interaction between physiological, psychological, and social factors (Taylor & Ogilvie, 1998). With the advancement of age, some physical capabilities such as physical composition, strength, endurance, flexibility and coordination will slowly deteriorate (Fisher & Conlee, 1979). Athletes in sport like gymnastics and Figure skating usually have to terminate their competitive career during adolescence due to the height and weight increase accompanying puberty. In other sports like football, rowing, wrestling, and track and field, athletes may remain in elite competitive level by maintaining their physical capabilities till their 30's or later. However, as a result of nature aging, their athletic performance will eventually decrease and squeeze them out of this career. On the other hand, the age of termination is also a factor that influences adaptation to post sport career. The later one gets out of a competitive sport career, the less social mobility and educational chances they will have (Coakley, 1986); they also tend to have a stronger athletic identity (Baillie, 1993; Grove, Lavalley & Gordon, 1997).

The effect of age on psychology is usually related with motivational processes. As athletes get older, they lose their motivation in competitive sport because they either think that they have reached their athletic goals (Werthner & Orlick, 1986), or will not reach their competitive goals regardless of what they do. Their personal values may also change from winning in sport competition to focus on other aspects such as family, friends and social connection (Svoboda & Vanek, 1982).

Age also influences the social aspects of competitive sport. On the one hand, age implies more extensive social connections and experience which provide "old" athletes more opportunities out of sport and scatter their energy; on the other hand, they may receive pressure to disengage (from elite sport) from the manager, coach and younger

team mates, fans and media, especially when their performance begin to reduce. This loss of status may also lead to difficulties in the career transition process (Sinclair & Orlick, 1993).

Deselection

It is well known that, athletes in competitive sport must face competition and challenge not only from their opponents but also their teammates. There is a harsh deselection mechanism at every level. No matter what and how much has one committed, the possibility of deselection exists. Especially if one wants to participate in certain important games (e.g. the Olympic Games) or to get into a higher competitive sport level (e.g. change from local team into national team). A study in America (Ogilvie & Howe, 1986) indicated that 5% of high school football players received university scholarships and only 1% of the 5% had an opportunity to play in the National Football League (professional level). The situation in China is similar: The talent pool for competitive sport in China is huge. In the talent selection system, a very high elimination rate is believed to be necessary to provide who are of a good enough quality athletes. This phenomenon is called “Pyramid” in China.

Those who are deselected usually receive less attention both in and out of sport system, compared with individuals who “survived” (Ogilvie & Howe, 1982). Recent research in sport career continue to focus on the transition process of top level elite athletes (Conzelmann & Nagel, 2000) and disregard the deselected group.

Injury/ Health Problems

Another cause of athletic career end is serious sport injury and health problems. In competitive sport, sport injury is a common problem (Kraus & Conroy, 1984; Ford, Eklund & Gordon, 2000; Sperryn, 1994). Individuals in competitive sport commonly experience serious sport injuries more than once during their sport career. Most of them can overcome and recover, but some of them will lose the physical or psychological

abilities to continue their competitive sport career. Related research indicates that 14%-32% of the study participants were forced to retire from competitive sport prematurely because of injury (Taylor & Ogilvie, 1998). With these physical disabilities, athletes usually retire maladaptively as depicted in the Grieving Model of Kübler-Ross (Baillie, 1993).

Free Choice

Athletes' freely choosing to leave competitive sport is another important cause of career termination which used to be neglected in previous studies. A study by Sinclair and Orlick (1993) with 199 retired high-performance athletes suggested that the four most common reasons promoting athletes to select retirement were: (a) They were tired of the circuit or lifestyle and it is time to move on, (b) they had achieved their goals, (c) they had difficulties with coaching staff, (d) they wanted more time for a personal relationship. The first, second and fourth reasons for retirement can be viewed as free choice factors. Other studies like those by Werthner and Orlick (1986), Greendorfer and Blinder (1985), and Svoboda and Vanek (1982) have also reported several of these free choice causes.

2.5.2.3 Athletic career transition: Influencing factors of adaptation

In a study by Sinclair and Orlick (1993), time taken to adjust to retirement varied from 1 or 2 months to more than 2 years. Another study by Baillie (1992) with 260 elite and professional athletes indicated that the process of adjustment took an average of 2 years. Some athletes, however, were still struggling 10 years after their athletic retirement. During the retirement process, athletes may face different changes in social, psychological, financial and occupational aspects. According to Schlossberg's transition model, the athlete's subjective perception of these changes may be the key determinant of the time and quality of the career transition adaptation. Taylor and Ogilvie (1998) proposed some factors that influence the adaptation process of retired athletes based on a wide review of related existing studies. These factors include (a) Developmental

contributors, (b) self-identity, (c) perceptions of control, (d) social identity, and (e) some tertiary contributing factors like socioeconomic status, minority status, gender and the health of athletes at the time of retirement etc.

2.5.2.4 Adaptation to the athletic career transition: Intervention resources

Sport psychologists, sociologists and counselors believe that athletes experiencing career transition can utilize some intervention resources to make their adaptation process easier. Studies based on the transition model have led to some conclusions. Effective coping strategies (Carver, Scheier & Weintraub, 1989; Lazarus & Folkman, 1984; Sinclair & Orlick, 1993), social support networks (Cohen & Wills, 1985; Sarason & Sarason, 1986; Smith, 1985), and pre-retirement planning (Coakley, 1983; Gordon, 1995; Pearson & Petitpas, 1990) are the approaches which received most attention in recent studies. All of them are proposed to be useful as intervention resources in individual adaptation process and career assistance program to athletic career transition.

Sinclair and Orlick (1993) reported that the most popular and effective coping strategies adopted by retired athletes during their adaptation process were: (a) Find another focus of interest, (b) keep busy, (c) training/exercise, (d) talk with someone who listens; and (e) stay in touch with sport and /or friends in sport. Some other coping strategies including cognitive method like cognitive restructuring, mental imagery, positive self-talking, time-out, relaxation training etc. have also been suggested to facilitate the transition process (Taylor & Ogilvie, 1998).

Due to the great level of commitment of time and energy invented into sport training and competitions, the majority of the friends, acquaintances and other associates that athletes have are usually sport related, and their social activities are often limited in their athletic lives (Botterill, 1990; Svoboda & Vanek, 1982). When they leave their sport careers, they are usually no longer viewed as an integral part of the team or organization and lose the main part of their social networks, similar to the experience of “social death”. In a study by Sinclair and Orlick (1993) with 199 high-performance

athletes who have international competitive experience, “missing social aspects of sport” was a most frequently reported difficulty during transition process. Other studies also reported responses like isolation, loneliness and distress due to the lose of social identity and social support system during their transition process (Blinde & Greendorfer, 1985; Remer, Tongate & Watson, 1978). Therefore, alternative social support networks and the continuity of sport relationship are important resources of adaptation to athletic career transition.

Pre-retirement planning is another intervention resource that is highlighted, particularly in recent athletic career assistance/education program (Gordon, 1995; Hawkins & Blann, 1993; Petitpas, Danish, McKelvain & Murphy, 1990; Sinclair & Orlick, 1993; USOC, 1988). This resource contains broad means in practice. It may include a variety of activities such as further education, occupational and investment endeavors, social networking, financial preparation, as well as résum preparation, and so on. Schlossberg (1981) proposed that pre-retirement planning has significant influence on the quality of the career transition process through its effects on most of factors related to the adaptation process.

2.5.3 Practical experiences of athletic career assistance programs

Guided by researches in this field, some assistance programs for athletic career transition and post-athletic career development have been put into practice as a result of awareness in the personal benefits of life-span development of elite competitive athletes who invested much of their time and energy into the sport training and competition. Table 3 illustrates briefly the details of some of the programs provided in Canada, the USA, the United Kingdom and Australia (Gordon, 1995), in which the target group is high-level amateur athletes. The primary structure and contents of these programs are briefly introduced below.

There are two basic directions could be drawn out from these programs. The first is therapeutic-coping-overcoming oriented (Baillie, 1993; Baillie & Danish, 1992; Grove, Lavalley & Gordon, 1997; Grove, Lavalley, Gordon & Harvey, 1998); the other

consideration is developmental-educational-preventive oriented (Danish, Petitpas & Hale, 1992, 1995; Murphy, 1995; Pearson & Petitpas, 1990; Petitpas & Champagne, 1988; Petitpas, Danish, McKelvain & Murphy, 1992).

Table 3: Brief summary of athlete career programs, goals and services.

Program	Country	Year	Administration	Target Group	Goal	Services
Making the Jump Program (MJP)	USA	1989	Advisory Resource Centre for Athletes (Springfield College, Massachusetts)	High School	Assist in making transition from high school to college athletics.	Seminars/information/counseling; academic study/injuries colleges
Woolle - istic (W-istic)	USA	1990	American college Athletic Association	Elite college	Life development for meaningful planning of Olympic athletes.	Career counseling, academic support, GS
Olympic Job Opportunity Program (OJOP)	USA	1977	United States Olympic Committee	Olympic	“Resolving conflict” for Olympic athletes.	Career guidance, goal setting, job skills
Career Assistance Program for Athletes (CAPA; not operating, 1993)	USA	1988	Grants from Olympic Job Opportunity Program	1992Olympians Transition athletes	Assist elite athletes in transition out of sport.	Enhancement, support, counseling
Women’s Sports Foundation New York (WSF)	USA	mid-1994	WSF Athlete Services	All girls/ women particularly African-American athletes	Education opportunity, advocacy recognition	Travel funding, media training, public speaking, player/agent selection programs
Olympic Athletic Career Centre (OACC)	Canada	1985	Canadian Olympic Association	Olympic	Career services that ease transition to life after sport for Olympic and elite athletes.	Career plan, aptitude testing, resume, preparation, etc.
Goldstat	UK	1989	British Olympic Association	Olympic	Non-sporting as a result of sporting commitment faced by Olympic athletes.	Job finding, employer lobby, resume, preparation, etc.
Lifeskills for Elite Athletes Program (SportsLEAP)	Australia	1989	Australian Institute of sport (with State-based Institute of Sport)	Elite criteria	Balanced lifestyle: <ul style="list-style-type: none"> • Career, sport, PD of elite athletes • Top 20 individual; top 10 team member • National representative • State representative, special other. 	Career advice, PD seminars, education network, job skilling, employer contact
Athlete Career and Education Program (ACE)	Australia	1990	Victorian Institute of Sport (VIS)	Elite criteria	“Athlete driven” long-term developmental perspective; to enhance PD of athletes.	Presentation skills, career planning, PD, education
Olympic Job Opportunity Program (OJOP)	Australia	1992	Australian Olympic Committee	Olympic	“Resolving conflict” for Olympic athletes.	Career guidance, goal setting, job skills

2.5.3.1 Therapeutic-coping approach

According to the first approach, athletic career transition and new career adjustment are viewed by a significant numbers of athletes as stressful events, which may cause trauma, isolation, loss, stress and other negative responses, should the transition and adjustment be difficult or incomplete. Thus, some athletes might have difficulties in overcoming the “stressful and traumatic event” within themselves (Baillie, 1993). Therefore the provision of counseling/therapeutic assistance during and after sport career end is proposed to be necessary. This approach emphasizes the emotional difficulties experienced during sport career transition; therefore it is believed that more attention should be directed toward methods and practices that help athletes work through such emotional distress that sometimes accompanies athletic career end. However, with the growth of interest and attention in the life-span developmental perspectives, the therapeutic-coping approach is increasingly criticized for portraying athletic career end as an isolated event. Compared with the therapeutic-coping strategy, the developmental-educational-preventive approach is believed to be practically more effective and to have more benefits to the individual’s life-span development. This approach is now merely limited to individual therapy by adopting methods adapted from clinical psychotherapy. The account-making model by Grove, Lavallee and their colleagues (1998) in career transition is an example of this approach.

The account-making model in career transition counseling is based on the work of Harvey, Weber, and Orbuch (1990; also Harvey, Orbuch & Weber, 1990), as well as Horowitz’s (1986) model of coping with loss. It is an attempt to produce a general framework for understanding how people cope with extremely stressful experiences. The *account* here refers to the person’s understanding of the situation at a particular point in time. It is a key element of the *work-through* process:

“An important mechanism by which refinement takes place is confiding activity, wherein portions of the account are revealed to close others. If these confidants react to the account in a helpful manner (i.e., with empathy, compassion, understanding, and timely feedback), then the individual is encouraged to acknowledge the stressor and

deal with it rationally and constructively. If the confidants do not react in a helpful manner (e.g., by denying the pain, being judgmental, and /or not offering feedback), then the individual is much less likely to acknowledge the reality of the situation, and psychological distress will persist and grow (Harvey, Orbuch, Chwalisz & Garwood, 1991)” (in Grove, Lavalley, Gordon & Harvey, 1998, p. 55).

The experiences in athletic career end and transition process are proposed as a series of traumatic steps comparable to Kubler-Ross’ (1969) *stages of dying*: “*In the early stages of a distressful reaction, the retired athlete is likely to feel shocked or overwhelmed, exhibit signs of panic, and/or cry out for help. This outcry phase may survival may be at risk. Next, during a period of simply ‘getting by a day-at-a-time,’ the athlete is likely to employ denial, withdrawal, fantasy, and obsessive rumination as coping mechanisms.*” (Grove, Lavalley, Gordon & Harvey, 1998, p.55). From this point, the rudimentary account-making counseling activity can be conducted (Figure 10).

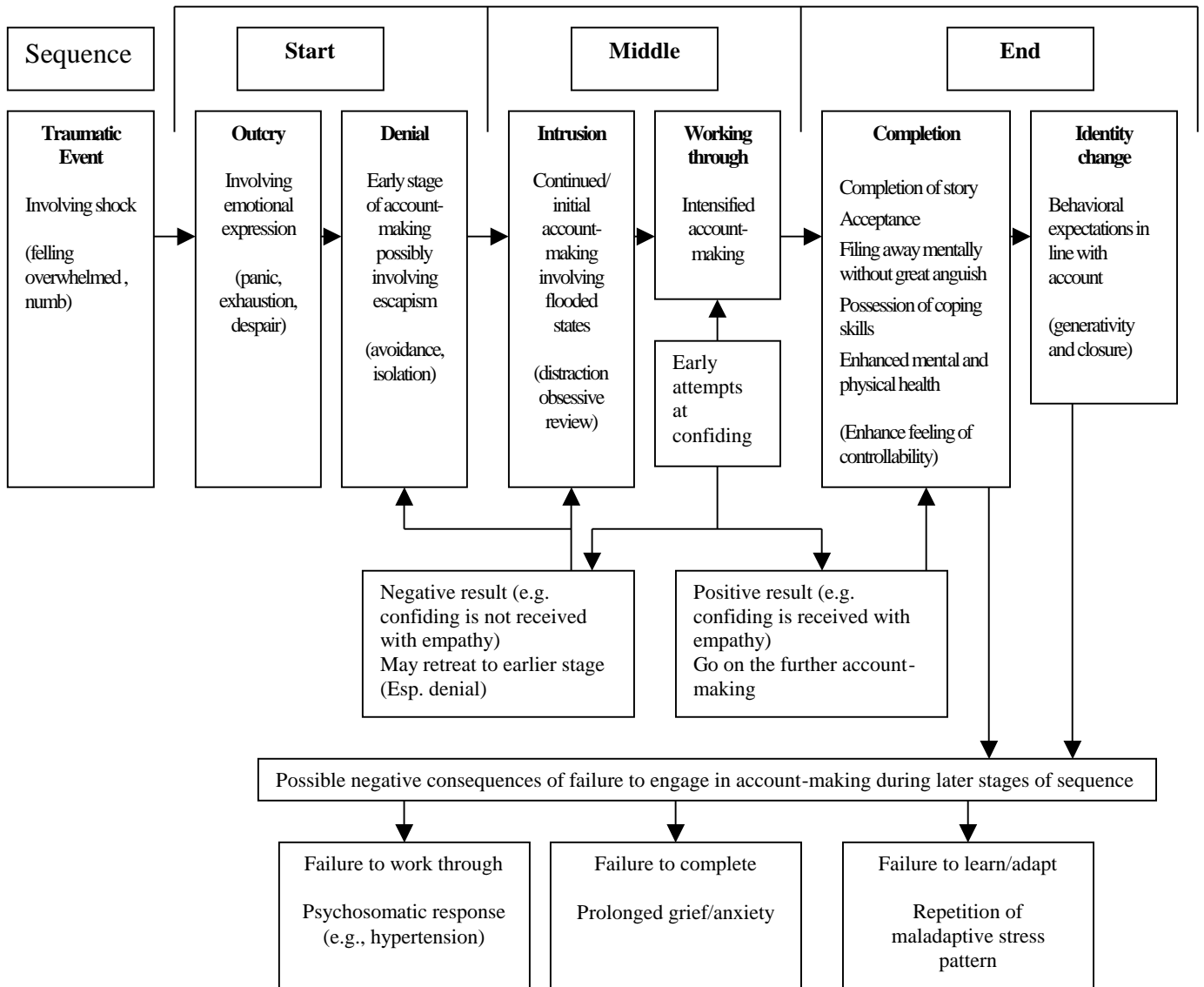


Figure 10: The account-making model (Grove, Lavalley, Gordon & Harvey, 1998, p. 56).

The account-making model is supposed to be applicable as an individual counseling practice to athletic career end and new career/identity adjustment process. For example, Grove, Lavalley, Gordon & Harvey (1998) provided an illustration of its application in the case of Shane Gould Innes (former Australian swimming player). Detailed

comments on the application of this model, as well as its operationalization in counseling can be found in their paper.

2.5.3.2 Developmental-educational approach: Career planning

Compared with the therapeutic-coping approach of psychological intervention in athletic career assistance programs, developmental-educational approach is mostly based on the theoretical background of contextual life-span development. Athletic career end is viewed not as an isolated event; it connects with former life experiences, environment and will also affect the following life development. Psychological interventions therefore should not only intervene during the career end, but also before and even after the process. Accordingly, the developmental-educational approach places the emphasis on individual's acquisition of coping skills, occupational training and career planning in the career transition process rather than the matters of acute emotional adjustment. These interventions were usually carried out before the occurrence of the athletic career termination so that athletes can effectively deal with the career transition process when it happens. Due to its intervention prior to the occurrence, this approach is also termed *preventive* (Pearson & Petitpas, 1990).

Another significant characteristic of this approach is its proposition of *career planning*.

According to Petitpas, Champagne, Chartrand, Danish and Murphy (1997), career planning refers the activity aimed at finding the appropriate career. The phases of career planning can be seen in Figure 11.

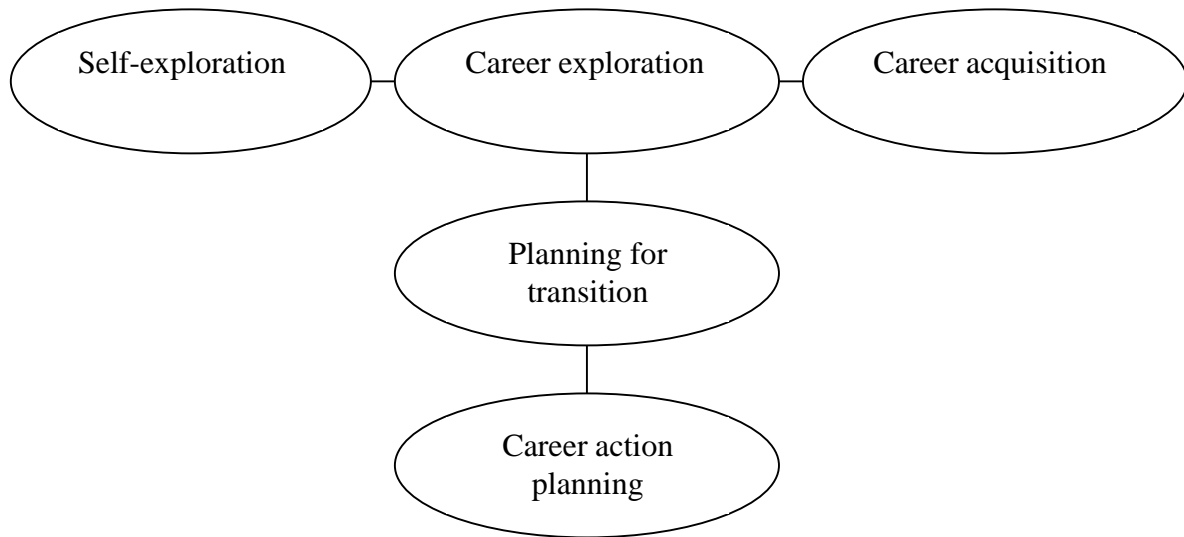


Figure 11: Career-planning process (Petitpas et al., 1997, p. XI).

In the first *self-exploration* phase, athletes are guided to get aware with their needs, interests, values, skills and personality characteristics. The next step, *career exploration* is to discover the possible options, i.e. to explore careers that best fit the individual's values, skills, interests, needs, and personality. In addition, the opportunities and the necessary competences (training or education) for such jobs would also be researched on *planning for transition* and *career action planning* are also necessary. The former refers not only to the planning for normal sport transitions but also to the awareness of and preparation for unexpected transitions from a competitive sport career. Athletic career end caused by injury, for instance, is usually unexpected. These transition plans further demand for the mapping out of goal-setting actions and schedule to achieve one's career goal. Due to the series of purposeful actions, the individual may develop a sense of direction and control, and effectively cope with any blocks that he/she might encounter while planning for his/her career. This is the step of *career action planning*. Combined with previous two phases, these three steps (career exploration, planning for transition and career action planning) are the most important components of career planning, and therefore the foci of psychological/educational career assistance programs.

The task in the final phase is *career acquisition*. Athletes would acquire knowledge and skills to find and acquire a job in the fields that they have chosen.

The above mentioned issues are general procedure of career planning in most athletic career education/assistance programs. Two good examples programs from the USA and Australia would be described below.

Career assistance program for athletes of USOC

The Career Assistance program for Athletes (CAPA) is a unique program initiated by the United States Olympic Committee (USOC) in 1988. It is supported by the Olympic Job Opportunities Program of the United States Olympic Foundation (Gordon, 1995; Petitpas, Danish, McKelvain & Murphy, 1992). The main task of the program is to assist Olympic athletes in making the transition from active sport competition to normal life space.

To make the program meet the necessary of athletes in transition better, a needs survey was conducted with about 1,800 Olympic and Pan-American Games players from 1980 to 1988. Among returned valid answers (a total of 531 at a return rate of 29%), 75% (399) respondents indicated interest in attending a career assistance workshop. Furthermore, the returned answers also indicated favorites on self-exploration related items in 20 possible workshop topics. Themes such as identifying transferable skills and preparing for the transition out of active sport competition et al. were included.

The results of needs assessment were discussed by a group of counselors, sport psychologists, sociologists, elite athletes, Olympic Training Center personnel, and career development specialists to finally develop up the form and content of CAPA:

“A life-span development model (Danish & D’Augelli, 1980) focusing on enhancement of personal skills was selected as the framework for the CAPA program. This model is closely tied to the idea that athletes can increase their sense of personal competence through understanding and identifying the transferable skills that they acquire through sports participation (Danish, Petitpas & Hale, 1990). ... It was hoped that CAPA would enhance the confidence of elite athletes by helping them recognize the life skills they

developed through their sport experiences that would aid them in coping with the transition out of active sport competition and into a new career.” (Petitpas, Danish, McKelvain & Murphy, 1992. p. 383).

Up to the actualization of the program, a total of 142 athletes participated in one of eight 1-day workshops held in different cities in USA. The participants ranged in age from 18 to 47 years, with a mean of 28 years. The staff of each workshop included two sport psychologists who served as workshop facilitators, one athlete spokesperson, a former elite amateur athlete who had successful career transition experience, and two staff members from the USOC who handled administrative responsibilities. Most of them were selected from the planning group of the program.

The main purposes of the CAPA were focused on “preparation for transition” and “enhancement of personal skills”. According to these purposes, three main topics were focused in workshop: “(a) *managing the emotional and social impact of transitions*, (b) *increasing understanding and awareness of personal qualities relevant to coping with transition and career development*, and (c) *introducing information about the world of work*” (Petitpas et al., 1992, pp. 383-384).

After the workshop, participants were asked to provide feedback about the program with an informal, eight-item evaluation survey. The results indicated that 72% of the answers indicated that they were very satisfied with the workshop, 26% were satisfied, and 2% were undecided. 84% of the participants believed the workshop met or exceeded their expectations, and 98% participants indicated they would like to recommend the workshop to other athletes.

Now CAPA has developed some further resources. The materials and document have been organized and modified to be specific to sport and to meet the special needs of elite athletes. A *CAPA Workshop Presenter’s Guide* and a *Group Facilitator’s Guide* have also been developed to standardize following program based on the concept of CAPA.

Athlete career and education (ACE) program in Australia

The Athlete Career and Education (ACE) program was developed in 1990 with cooperation of Victorian Institute of Sport (VIS). It is now under consideration for accreditation by the Department of Education, Employment and Training (DEEF) of Australia. But the content of the program is mostly carried out by National and State Institutes of Sport/ Physical Education and the Australian Olympic Committee.

The main form of this educational program is the workshop. There are over 25 workshops in four modules (Figure 12) offered in the program. Each workshop lasts about two hours and can be provided in one of two different ranks. The first rank is designed to meet needs of athletes at all ages and educational backgrounds, the second rank is specialized to provide assistance to senior athletes.

<p>Module 1: Presentation Public speaking Television training Understanding the print media Radio training Effective vocal skills Deportment and grooming Effective listening skills</p>	<p>Module 2: Career Planning Maximizing the resume Making the right career choice Getting the job you want “The interview”</p>
<p>Module 3: Personal development Effective time management Goal setting, “the key to success” Financial planning Leisure: How to balance your time Increasing your confidence through assertiveness Self-confidence through relaxation Overseas travel: What’s the problem? Injury prevention Being an elite athlete</p>	<p>Module 4: Education VCE study skills Tertiary study skills Effective listening Returning to study Selecting courses Career planning for graduates English as a second language</p>

Figure 12: Sport Athlete Career and Education (ACE) program of Victorian Institute (Gordon, 1995, p. 492).

Additionally, ACE program also provides other career assistance/education services such as individual career counseling, vocational assessment programs, computerized programs of information on all tertiary, community courses in Victoria, information about education opportunities etc. Some teaching resources like tapes, videos, and books on different personal and professional skills are also offered.

The concept of prevention and education can be easily found in the ACE program by the emphasis of the development of career awareness and the enhancement of career-related skills in its content. The ACE program has become one of the most important approaches in athletic career assistance work in Australia. The future developments of

the program “*must ensure that the sole motive for introducing and support program is the athlete, and that they are constantly involved in the process. Just as importantly, such programs must be integrated into the main objectives of an athlete’s (athletic development)*” (Gordon, 1995, p. 491).

The developmental-educational approach in athletic career assistance programs has become more and more popular. However, the term “career planning” has been criticized based on experiences in Germany. “*The term ‘career planning’ ...doesn’t seem to be appropriate. At first it doesn’t consider the pedagogic-educational demands of such an occupation and secondly, the overtones contained in the term mentioned wrongly imply that all professional and social developments of athletes could be completely planned and controlled from the outside*”. (Emrich, Altmeyer & Papathanassiou, 1994, p. 204). In addition, athletes in some sports finish their athletic career so early that the most appropriate task is to help these individuals with their educational/pedagogic matters rather than career assessment and acquisition. Thus the term “career counseling” and “environment/field management” which emphasizes the social dimension of career assistance are preferred. Accordingly, the athletic career assistance program in Germany has some unique characteristics which are different from the programs conducted in other countries (e.g. USA, Australia).

2.5.3.3 Career counseling and environment management in Olympic Training Centers: A German experience

In Germany, the practice of athletic career assistance is mainly offered by the German Olympic Training Centers (OTCs). After the Olympic Games in 1984, the idea to found OTCs was developed in Federal Republic of Germany to provide the junior and top athletes as well as their coaches with an all-round service. Presently, there are 22 OTCs in Germany.

These OTCs do not only provide effective and optimal high-level sport training and comprehensive service of natural science (biomechanics, sport medicines, nutriology etc.), but also educational, psychological and social support/counseling (Emrich, Altmeyer & Papathanassiou, 1994; Hackfort & Schlattmann, 1994). The educational

psychological and sociological elements of these services, which is named “career counseling and environmental management” is getting more and more attention by the development of OTCs. According to Hackfort and Schlattmann (1994), “*environment management summarizes all those systematic activities appropriate for developing and coordinating the internal and external sports environment of the athletes by taking into account individual and social aims.*” (p. 140). With regards to the distinction between career counseling and environment management, “*the functional orientation of the counseling aims toward influencing the attitude of the counselee (development of action alternatives, support in decision-making, emotional/motivational support), while environment mental management mainly concentrates on influencing the socioeconomic situation (change of the structure of demands and challenges; establishment, change and selection of fields of action; organization of resources)*”. Therefore, athletes in OTCs can get career assistance in psychological and pedagogical as well as sociological aspects from the relevant service sectors (Figure 13).

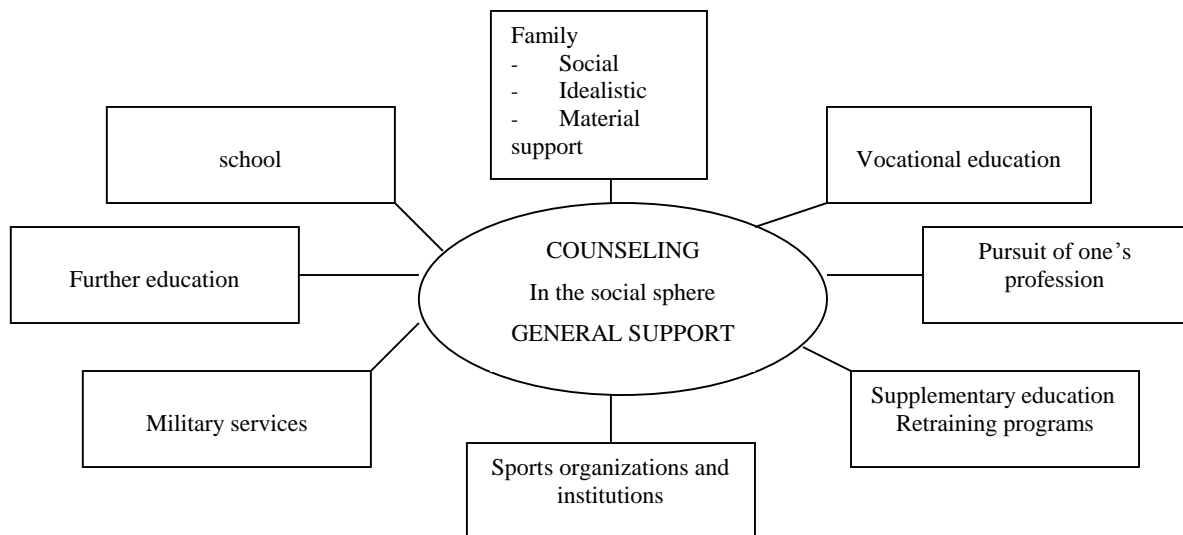


Figure 13: Service-sectors of the OTCs (Hackfort & Schlattmann, 1994, p. 134).

Form and tasks of career counseling and environment management in the OTCs

The functions of the Olympic Training Centers are fulfilled by full and part-time experts as well as cooperative institutions such as university hospitals, institutes for sports medicines, institutes for sports science in universities etc. The upholders of OTCs are Germany Federal sports associations and voluntary associations. Their charges include (a) employment and supervision of staff, (b) budget control, and (c) providing offices, means of communication, etc. (Emrich, Altmeyer & Papathanassiou, 1994).

With regards to the career counseling and environment management, these services usually take place at the individual form between assistance staff and the athlete involved in the center. Therefore, the career counselor's idiosyncrasies like personality, competence and ethical qualification are important considerations (Emrich, Altmeyer & Papathanassiou, 1994; Hackfort & Schlattmann, 1994).

The perceived tasks of career assistance activities of counselors, experts, coaches and athletes in OTCs were also studied by a series of questionnaires and interviews. Detailed results can be obtained in the works of Hackfort and Schlattmann (1994). Generally, the core tasks of career counseling and environment management should include at least:

- *“Development of a solid relationship of personal trust towards the athletes and other important people in his environment as well as officials.*
- *Instructions on an independent and efficient solution of occurring problems (help to self-help).*
- *To work towards an intact and achievement-promoting environment.*
- *Support with personal problems.*
- *Relief of coaches in the field of social tasks (i.e. Gahai & Holz, 1986; Bette, 1984; Bette & Neidhardt, 1985; Kurz et al., 1988).*
- *Development of a social network of contacts and relationships towards relevant institutions and organizations.*

- *Acceptance of general coordination tasks within and outside the sport system.*
- *Evaluation of the measures carried out.*
- *Further development of the concept.”* (Emrich, Altmeyer & Papathanassiou, 1994, pp. 207-208)

Evaluation of career counseling and environment management in OTCs: From the athletes' viewpoint

To get feedback from athletes in the OTCs, an investigation with 96 squad athletes was carried out with the help of career counselors in the OTCs in Frankfurt, Saarbrücken, Stuttgart and Hamburg. The standardized survey mainly covered subjects about: (a) Expectations of athletes towards career counseling and social attendance, (b) the athletes' preferred fields of attendance by career counselor, (c) the evaluation of career counselors' activities and personal features. A positive feedback has been received in both evaluations and expectations toward career counseling interventions and counselors (Emrich, Altmeyer & Papathanassiou, 1994).

2.5.3.4 Athletic career transition of athletes in china

Due to political and historical reasons, sport -especially the international competitive sport- is viewed as a stage to display the power of the Chinese people and society as well as to demonstrate the superiority of the new government. Competitive sport, especially the high-level international competitive sport, is highlighted by both the government and average citizen. A highly centralized official sport system was set up in China at the national and different local levels. Mass sport and competitive sport were organized, promoted, supported and also in charged by the government. As an important part of competitive sport, the athletes in China were also selected, trained, educated and supported by the government in different levels according to their performance levels. Both the athletes and government believed that they are working (training, winning) for their province/country instead of themselves.

China has a wide range of selection and development system for sport talent which is different from the sport club systems practiced in most other western countries. Spare time sport school, youngsters sport school and city/province sport team are the three components of the Chinese talent selection and development system. The admission to a spare time sport school is somehow easy depending on their own opinions as well as those of their coach and parents, children, primary school students as well as middle school students who are good at sports could participate in or drop out of the spare time sport school.

These spare time young athletes make up the basic pool of sport talent. In spare time sport schools in cities all over China, young participants get primary training in sport in their spare time. Their “normal” life (social and academic) will not be encroached upon and these spare time activities just make their lifestyle more active.

Given the parents’ comment, the children who shine during the training will be selected by the coach to enter a youngsters sport school. When these selected children or teenagers get into youngsters sport school, they undergo systemic training in a certain sport event, i.e., a considerable amount of time and energy has to be involved into sport training and competition. Most of these sport schools are boarding schools. The athletic training is viewed as being as important as or even more important than academic studies in this kind of education setting. Most of the academic contents is the same as a normal senior school, but the range of topics and degree of difficulty are usually watered down. Both the people in the social surrounding and the youngsters view themselves as “young” athletes. The environment is different from peers of the same age. In most cases the main purpose is to achieve good performance in sport training and competition in order to be selected for a higher level team, the provincial team.

Most of the national teams in China are temporally assembled for a certain competition. Therefore, the athletes in provincial teams play the most important role in competitive sport within China. They are mainly selected by their coaches and provincial sport science department from youngsters sport schools. In these teams, they will get full financial and educational support and their main task is sport training and achievement of better performance in competitions. Academic education becomes subordinate and

the aim of education in this stage is to better understand sport training and sport science. Other issues may be also introduced to complement sport science education. These athletes usually live together with their teammates and therefore, their social connections and universe become more “sport-centralized”.

The sport system and the government are responsible for providing jobs for these athletes when their athletic careers end. The sport performance level plays an important role in this process. Zhong (1998) conducted a study on sport and social mobility among Chinese elite athletes and coined the term *performance capital* (Zhong, 1998) to describe the different status in athletic and post-athletic careers attributable to different performance levels. His study with 274 current (1995) and 270 former (before 1990) elite athletes concluded that:

- (1) The effect of family social background on the category of sport the athlete took part in is significant;
- (2) During the period of active, performances or sport successes become a kind of potential capital which has strong influence on his/her life;
- (3) Athletes subjectively perceive themselves as possessing an upper-middle professional social status in China;
- (4) A relatively long involvement in high-level competitive sport career is likely to diminish the range of occupational choices/possibilities when the sport career end;
- (5) In the post-athletic career, athletes need to adjust to another occupational way of life. Upon encountering the new beginning, they usually do not have enough skills or academic training to meet the requirements of the out-of-sport education or occupation. Besides, the rank of the post-athletic job is highly dependent on the degree of success he/she has achieved in sport.

Elite athletes in China usually do not have difficulty in the acquisition of a post-athletic career but neither do they have a choice in their post-sport job arrangement. The sport system provides support in every aspect as long as the athletes are active in high level sport: athletes receive comprehensive support in exchange for their performance in

sport competitions. The *performance capital* of athletes is relevant not only during their athletic careers, but also in post-athletic job arrangements, education opportunities and so on. However, this kind of arrangement can not guarantee that athletes with better sport performance will have better post-athletic careers. Athletes who have been not “well” arranged (usually it means a job out of sport) might also have a good career in post-athletic life. Although the sport system makes an arrangement for every retired high-level athlete, the aspirations, capacities, and interests of the individual athlete were hard to be cared to (Si & Huang, 1998). Beside the studies mentioned above, researches aimed at developing a deeper understanding of the athletic career transition process are rare in China. For a long time, it was believed that assistance to athletes in their athletic career transition and post-sport career is not necessary at all because that whatever the athletes desired would be arranged for.

Due to the reforms in China which began in the early 1980's, the sport system in China has undergone dramatic changes. The structure and function of sport organizations are being passed from the government to the social and commercial affairs (Fan, 1997). These changes were reflected in the speech by Angang Hu in the “sport business and economic development” symposium 2000 in China:

“...The sport reform is to switch from non-market directed form to a market directed form. It means, on the management aspect, to change from government direct management to a social management, from the management with administrative decree to a management with legal through various social sport groups and organizations.” (Hu, 2000, p. 2)

Up to the present situation, it is impossible for the sport organizations to systematically arrange post-sport careers for retiring athletes.

“The post-athletic job arrangement strategy of retired athletes should be completely changed. It should be changed from governmental arrangement to a job-market faced one. There are more than 4000 athletes retired every year, all of them need to find their new job. The sport (official) organization have considerable difficulty to arrange all the new jobs within sport system,

therefore traditional job arrangement strategy should be reformed to a more market-faced and social-faced approach.” (Hu, 2000, p. 2).

During this dramatic period of change, both the organization and individual involved in competitive sport are becoming aware of the serious problems surfacing during the athletic career transition process. Research interest has been growing in this field in recent years, but little has been done in both psychology and sociology approaches.

Compared with German experiences, the athletic career assistance and intervention programs in China sport system are much different. According to the action theory perspective, different developmental environments (social-cultural background and sport administration system, etc.) may lead to different characteristics in the athletic career development and transition process that elite athletes go through in the two countries. To make an all-round cross-cultural comparison from action theory perspective between German and Chinese sport systems would be helpful in (a) To get a deeper understanding of the factors influencing athletic career development and transition, and (b) To develop culturally appropriate psychological athletic career assistance programs for the different sport systems.

The purpose of the present study is to achieve the above two goals by conducting an empirical comparison between the German and Chinese sport systems. The German data comes from the study by Hackfort, Emrich and Papathanassion (1994) with former elite athletes in Germany. The Chinese data are collected in the present study with quantitative and qualitative methods/investigations mentioned after.

3 METHODS AND STRATEGIES

The research methods in the present study are also based on the action theory perspective. The core of the research considerations is located to execute a multidimensional investigation of the post-sport career in retired elite athletes.

In the first part of this section, a brief introduction of the methodological approaches in action theory and contextual life-span developmental studies and how they relate to competitive sport would be discussed. Next, the methodological perspective of cross-cultural studies will be discussed, followed by a detailed description of research methods, instruments, samples and procedure of the present study.

3.1 Methodological Perspectives in Contextual Life-span Development and Action Theory

The methodology developed in modern natural science assumes that all research objects move/change according to certain laws and a particular movement can best be understood as part of a preordained natural pattern. All things move not to accomplish some purpose but to comply with the pre-established natural order. The basic principle of science is to describe, understand, predict and finally to intervene in the movement of objects. The possibility of prediction and intervention is entirely based on the notion of causal laws. Thus the methodology of positive approach in natural science emphasizes characteristics like causal logic, repeatable and quantitatively measurable operations. Scientific and unscientific studies are simply distinguished by whether they fulfil the empirical and rational criteria. The scientific inquiry system is based on the following principles:

“1. Knowledge, as opposed to opinion, is contained only in descriptive statements based on direct observation.

2. The goal of science is to form a network of knowledge statements linked together by deductive logic derived from a few axiom statements and grounded in observation statements.

3. The only kinds of statements free from metaphysical overtones and personal bias – that is, the only kinds of statements ensuring certainty – are those based on observation and belonging to the axiomatic system. All sciences must limit their assertion to these kinds of statements. Statements about human ‘intention,’ ‘reasons,’ and ‘actions,’ which are not so limited, cannot be included in the body of true knowledge. ” (Polkinghorne, 1990).

In an action theoretical perspective, the movement of human beings which is termed as “action” is quite different from the movement of physical objects because of its intentional, goal-directed and self-conscious characteristics. Actions of human beings are not governed by laws as are the movements of nature since the very beginning of philosophy. Aristotle, for example, differentiated human action as what a person does (poiesis) from what merely happens to him (pathos). A distinction was made at that time between people’s conduct when they “couldn’t help” what they did and their conduct when they “could have helped” by choosing to do something else. However, the development of empirical and causal laws in modern natural science led to the domination of positivism. Methods developed from the revelation of the laws of movements of things were applied to the study of humans and their actions. It was deemed that research of humans, their actions and their societies should also be “scientificized” by using methods and criteria from empirical and natural science.

Eventually, the development of contemporary science and philosophy prompted researchers to adopt more flexible and relative criteria in scientific studies. It was argued that science is not only a set of knowledge construction, but also a kind of social action and intentional and conscientious practice in a social environment. To be a whole set of knowledge construction, it has to observe the standard of empirical logic, viz. the true-false criteria; to be a social action, science should also evaluate with the standard that if the activities of scientific research attains its predetermined goal and fulfills the intentioned task, i.e., if it is useful in practice. Thus science should also fulfil utilitarian needs. Since then, an awareness of qualitative (or interpretive, naturalistic, constructivist, phenomenological, ethnographic, or hermeneutic) (Sparkes, 1998) approaches is growing in various scientific disciplines, especially in the individual and social action

related domains such as sociology (Snizek, Fuhrman & Miller, 1979) and psychology (Sparkes, 1998; Stean, 1998), as well as sport psychology (Martens, 1987; Krane, Anderson & Streat, 1997; Streat, 1992).

It has been proposed that in the social sciences, the unique application of positivism inquiry and analytical procedures is not sufficient because individuals have free intentions in their actions (Hackfort, 1997). Therefore two implications on the methodological approaches in social sciences are: Firstly, the objects of social inquiry should be human actions and secondly, to be aware that the process of the inquiry itself is also an action. The subjects of the inquiry, i.e. the researchers themselves unavoidably remain their personal inclinations in the research process.

According to the first point, although objectivity can be observed in methods such as biography, documentation and observation of behaviors (excluding the researcher's subjective factors here) (May, 1997), it is not enough to the understanding of human actions in an action theoretical and contextual development perspective. To obtain a comprehensive understanding about a certain action process, the subjective perceptions of the actors on their actions, and their action environments are thought to be the most important aspects because the action was planned and carried out based on the actor's subjective perception of his/her action environment and how he/she can attain a intend goal. The outcomes of this action will be evaluated by the actor him/herself and further influence the following actions. Indeed, in an action theoretical perspective, the object of action depends on the subjective comprehension of the individual, rather than the objective measurements of the action goal (task), the environment and the actor him/herself. Therefore, research participants should be viewed as experts of researching themes (actor's experience) rather than passive objects moulded to meet the researchers' needs and interests (Dale, 1996). According to an empirical approach, the subjective information would not be viewed as a "scientific" research object and would be ignored. Hence a qualitative approach which is different from of the empirical and positivism methodology is needed in psychology and sociology studies.

The second implication of the subjectivity of social science inquiry methods is to consider the subjective potential of the researcher as an actor.

In positivistic approaches, there is a set of criteria to ensure the “scientificity” of methods. It includes various kinds of validity and reliability indexes and objectivity, so that the objectivity and repeatability of the inquiry result are believed to be guaranteed. Even then, the subjective potential of the researcher can not be entirely removed. Real-life practices in science show that there are not only different perspectives on a given phenomenon, but also alternative methods of gathering information and of analyzing the result and data. (May, 1997).

The situation in qualitative/phenomenological approaches is similar; in fact it may be more complex than the positivistic approach because of the subjective characteristics that the participants possess. The traditional criteria for qualitative research, which was transplanted from quantitative approach, has been called into question and “treated with suspicion under the influence of postmodernism and poststructuralism” (Sparkes, 1998). Some social scientists who engaged in so called “inquiry-guided research” in sociological studies have long been aware of the limitation of the standard validity indication approach in their study concerns and problems (Mishler, 1990). Due to these limitations, various ways to evaluate the qualitative methods applied in the study of human action (both individual and group) were developed (Dale, 1996; Sparkes, 1998).

Two basic approaches in different kinds of qualitative methods can be drawn out; these different thoughts also reflect two levels of “qualitativeness”. The first qualitative approach can be termed “semi-qualitative”. Oral analysis, content analysis, code method and some of the observation methods belong to this approach. The common theme in these methods is “qualitative inquiry and quantified analysis”, i.e., the information is acquired through qualitative procedures (compared with traditional positivistic experimental ones, as well as the traditional quantitative methods such as structured questionnaires and scales which are commonly used in social science and psychology studies), and the acquired qualitative information will be quantified and subjected to statistical analysis.

Research with this methodological approach usually applies a criteria perspective parallel with positivistic paradigm which evaluates and proves the “scientific quality” of the study. For example, Lincoln and Guba (1985) developed a set of criteria named

“trustworthiness” which included components like “credibility” (internal validity), “transferability” (external validity), “dependability” (reliability), and “confirmability” (objectivity) etc. Various techniques for achieving the trustworthiness criteria were also suggested. From then on, this term has been well accepted within the qualitative methodology domain (Sparkes, 1998). However, it has also been received with much suspicion due to its middlebrow characteristic and confusions with the techniques to achieve trustworthiness (Lincoln, 1995; Sparkes, 1998).

The second qualitative approach is a “pure qualitative” one; both information acquisition and analysis are operationalized in a phenomenological, qualitative way. Methods like ordinary language analysis, narrative investigations of experience (Polkinghorne, 1990), phenomenological interview (Dale, 1996), and life story interview (Atkinson, 1998) can be categorized under this approach.

A parallel criterion to evaluate research in this approach has received more and more criticisms. The distinction between philosophical and epistemological bases of quantitative and qualitative paradigms, i.e., the difference between positive and phenomenological perspectives should not only appear in the research paradigms/methods, but also in the evaluation of researches in corresponding approaches. Thoughts and attempts to develop new evaluative criteria of qualitative researches are getting more and more attention in both social science and sport psychology fields (Krane, Andersen & Streaan, 1997; Polkinghorne, 1990; Sparkes, 1998).

The narrative perspective is currently a well respected approach in the evaluation of qualitative studies. The narration is an important notion in action theory, which represents the time series and hierarchical structure of human actions (Ricoeur, 1984, 1985). According to this perspective, the narrative characteristic of human actions is that a basic difference from the movement of things, i.e., actions are experienced not as isolated events but as events unified into meaningful episodes. This process of connecting of single acts into episodes occurs by a conscious operation to achieve practical understanding. This competence to develop a narrative understanding of actions, according to Ricoeur, can be decomposed into six components:

- a. *Actions imply goals; they are carried out to achieve results or to accomplish an end.*
- b. *Actions refer to motives that explain why someone does something, an explanation that clearly differs from the one that shows the causative effect of one physical event on another.*
- c. *Actions are carried out by agents, that is, by persons who can be held responsible. The question “who did it?” can be answered within the competence of practical understanding.*
- d. *As actions take place in closed physical systems (Wright, 1971, pp. 63-64), agents recognize that the circumstances in which actions occur place limits on what can be done and set the favorable or unfavorable conditions affecting the outcome of actions.*
- e. *Actions take place as cooperation, competition, or struggle in interaction with other persons, who can either help or hinder the accomplishment of an act.*
- f. *The outcome of an action may bring out a change in one’s fortunes or feelings. In short, we recognize that it is appropriate to ask the questions “what?”, “why?”, “who?”, “how?”, “with whom?” and “against whom?” in regard to human actions but not in regard to ordinary physical movements.” (Polkinghorne, 1990, p. 93).*

The notion of a narrative in action theory is similar to the concept of “Gestalt” psychology, which emphasizes that psychological phenomenon should only be understood and studied within its Gestalt nature; otherwise the meaning of the research target (the psychology process) would be damaged. Thus in qualitative research, the narrative of results is an important element to make the research object – the actions of individual or group understandable to the readers who did not have the same experience as the actors. On the other hand, it should be highlighted that not only the research object but the research activity itself is also an action process. Therefore, the narrative of a research process is also important to make the research understandable and the results generalizable. To ensure that the narrative natures of a research object, the

research should provide enough explanation and description about the actors, the goal of the action and the situation in which the researched actions happened. To ensure the narrative truth of research process, a detailed introduction of the purpose and the “environment” of the research is needed. Here the environment can be understood as the theoretical, empirical and practical background of the presented research.

By providing such detailed information of both the research object action and the research action itself, the narrative of the whole research can be evaluated by readers based on their own practical understanding competence and personal experience of the same action environment. It should be reiterated that the increase of the connotation (qualifications, definitions, concepts, descriptions etc.) and the extension (generalities, popularity, ecological effects) of a research will be naturally damaged. This is a limitation of current contemporary methodology.

3.2 Methodological Issues on Cross-Cultural Psychology Study in Sport Career Transition

Besides its contextual means with human actions, cross-cultural study is more like a methodological approach to comparative studies rather than a theoretical proposition by the natural comparative characteristics. Therefore, the core of cross-cultural methods concentrates on comparison techniques. Traditionally, to reach a more “scientific” realm, cross-cultural comparisons also tended towards empirical, quantitative, statistical approaches like other fields of psychology. Thus requirements like comparability, consistency, etc. in the statistical comparison between two or more cultural groups were necessary. A series of measurements and statistical analysis were considered carefully (Ember, Ross, Burton & Bradley, 1991; Dow, 1991).

On the other hand, the qualitative, phenomenological trend still had its influence, especially in interpretive sociology, anthropology and psychological studies. Now it is becoming more important to combine the phenomenological approaches with the action theoretical perspective in human science (Barry, Dasen & Sartorius, 1988; Duda & Allison, 1990). Till today, researchers tend to apply multidimensional approaches in

their cross-cultural studies to obtain a more comprehensive understanding about human action experience across cultural backgrounds.

“In sum, a variety of methodologies are available to the sport psychology investigator interested in comparative work. It has been suggested that qualitative methods such as interviews, the use of key informants, and contextual analyses would provide insight into ethnic/racial differences in perceptions and behavioral patterns. Once the researcher has demonstrated cultural equivalence in the stimuli presented, quantitative techniques can also be employed in cross-cultural analyses in exercise and sport psychology.”(Duda & Allison, 1990, p.126).

In the present study, such a multidimensional approach will be applied by using both quantitative questionnaire and qualitative semi-structured interview methods to obtain an in-depth perception of the career transition processes that Chinese and German former elite athletes experienced. The research would be interpreted with reference to their cultural backgrounds.

3.3 The Cross-Cultural Approach

The present study contains two investigations. They were carried out separately in China and Germany with same approaches. The research instruments of both studies were a standardized written questionnaire and a qualitatively oriented interview. The standardized questionnaire was done by post and has the advantage of increasing the chances of honesty in the answer, because the effects of social desirability and interviewer bias are omitted. On the other hand, some meaningful spontaneous responses of participants cannot be detected in either quantitative questions or individual interview. The use of a combination of standardized quantitative questions and open-end qualitative questions has been long adopted in studies in sociology. So-called manual discussions (Scheuch, 1973) therefore encompasses the advantages of standardized procedures and those of an open response in a qualitative interview, and thus to reflect more completely the entire social context.

Usually qualitative interview serves the exploration of an issue of interest and the analysis and generation of investigation hypotheses within target groups. In sport psychology studies, semi-structured interviews and subsequent inductive content analysis have been popularized by works of Scanlan and others (Scanlan, Stein & Ravizza, 1991). However, narrative interview have been rarely applied and existing researches adopting such approaches are also limited in sport career related fields (Fortunato & Morris, 1995; Hackfort, Emrich & Papathanassiou, 1997).

In summary, all the "major task of the qualitative interview exists... in the representation of the non-standard case regarding the problem " (Bureau of Applied Social Research, 1974, P. 143) which can be examined. Qualitative procedures are suitable in the sense of the "interpretive" paradigm to make it understandable to the researcher about the social concerning, intentions, as well as contextual and long-term institutional influences that affecting the object actions of the study. This is also the central mechanism behind understanding, according to the practices in qualitative research in the sociology and psychology. (Hackfort, Emrich & Papathanassiou, 1997, pp. 26-27).

Comparison between different sample groups based on the interpretive qualitative results is different from comparison based on quantitative data. The results are analyzed not systematically in the first approach, but serve as the required material for an illustrative comparison of the different and/or common effects occurring in the Chinese and German groups. Besides this, a quantitative comparison was also carried out as an aid to obtain a clearer understanding. Thus the comparability between two groups depends mostly on the representative and coherence of the sample groups rather than the requirement of the same inquiring instruments.

3.3.1 The investigation in Germany

In the present study, a multidimensional comparison between Germany and China will be carried out. The quantitative and qualitative results of Germany came from the study by Hackfort and his colleagues in 1997 (Hackfort, Emrich & Papathanassiou, 1997).

The study in Germany in 1997 was based on Hackfort and Schlattmann’s study in 1994 which described and analyzed the various perspectives on the task spectrums of career counseling and environment management in Germany Olympic Training Centers (OTCs).

3.3.1.1 Participants

The participants in the German investigation were those who competed at the top level in Germany (BA-L) from early to middle 1980’s. To give all athletes sufficient time to reintegrate back into a “normal” life, all athletes were surveyed at least five years after their retirement from elite sports. Finally there were 62 of 153 former German athletes returned a valid investigation questionnaires, and 55 of these valid participants indicated their willingness to take part in an individual interview. The information about the participants in the German investigation is in Table 4 and Table 5.

Table 4: Overview of the sample in the German investigation.

Sport Item	Posted			Returned			Agreed to be interviewed		
	Sum	Male	Female	Sum	Male	Female	Sum	Male	Female
Gymnastics	10	0	10	2	-	2	2	-	2
Rowing	21	10	11	8	2	6	8	2	6
Swimming	24	13	11	11	8	3	10	7	3
Track	23	17	3	8	5	3	8	5	3
Shooting	25	18	7	12	10	2	10	9	1
Ski	10	5	5	7	2	5	4	1	3
Tennis	20	14	6	8	3	5	7	3	4
Wrestling	15	15	-	5	5	-	5	5	-
Judo	5	5	0	1	1	-	1	1	-
Sum	153	97	56	62	36	26	55	33	22

The average age of the 62 participants was 31.52 (SD = 6.44), whereby the men were 33.61 years old on average and the average age for females was 28.62. The youngest among them was 21 and the oldest is 55. The age distribution of German participants at the end of their competitive sport career is in Table 5.

Table 5: Age distribution at the end of competitive sport career in German participants.

Sport Item	Age at the end of competitive sport career				
	Mean	Min.	Max.	SD	n
Gymnastics	17.00	16	18	1.41	2
Rowing	24.38	21	28	2.20	8
Swimming	23.36	19	28	2.98	11
Track	29.75	25	35	3.45	8
Shoot	31.33	21	48	8.76	12
Ski	22.86	21	26	1.77	7
Tennis	24.71	19	29	4.03	7
Wrestle	25.00	22	28	2.45	5
Judo	29.00	29	29	-	1
Sum.	26.02	16	48	5.75	61

The athletes who were ready for a intensive verbal interview was selected with of participated athletes in 5 kinds:

1. vocationally very successful athletes;
2. vocationally rather successful athletes with relatively smooth post sport career;
3. vocationally rather successful athletes with relatively difficult post sport career;
4. vocationally rather successful athletes;
5. vocationally not successful athletes.

The vocational position including the education status required for the position form the most important basis of the status allocated in society. According to the construction of the prestige scale of vocational activities in the Federal Republic of Germany (Wegener, 1985), the meanings to vocational successes include:

1. Attainment of desired educational level and occupational aspiration.
2. Satisfaction with the vocational position.
3. Adequateness between qualification and the occupational requirement.
4. End of the role transition from the prime 'sport' role to the prime 'occupation' role, indicated by whether high-level sport play is a central part of life.

Social success includes the following dimensions:

1. Higher social status compared with that of the parents' (intergeneration mobility).
2. The estimate of its social success of the athletes can be operated as the quality of the investigation top-class athletes inside the FRG from the years 1986/7, and the social prestige evaluation system.
3. Marriage. Associated with upward social mobility.

Based on the above mentioned selection criteria, the interviewees of German investigation were selected and interviewed by some experienced interviewers in person or through telephone.

3.3.1.2 Instruments and procedure of the German study

A simple standardized questionnaire to collect data about personal biography and athletic career as well as post-athletic career life (in Appendix III) were sent to 153 former German elite athletes. The standardized section contains questions in the following areas:

- General personal data
- Social status (prestige) of the individual and their families
- Characteristics of various phases during vocational and athletic career
- Personal evaluation of vocational and athletic development
- Effect and influence of existing athletic career on personal development and relations with sport system

The open part of the investigation is a combination of manual and narrative interview. During the execution of the interviews, after an introductory discussion thread, the interview was expanded following with interview manual and corresponding responses. It resulted in an analysis and comparison pattern, so that completing interview manual could be inquired at given time. Information was raised from various points and then transcribed into text for further analysis (The interview menus are in Appendix IV) .

Following the qualitative interview phase, relevant personality characteristics were measured with a personality questionnaire, which was designed on the basis of the Freiburger Personality Inventory (Freiburger Persönlichkeitsinventars, FPI, Fahrenberg, Selg & Hampel, 1978). In the present investigation, interest was not only on the development of personality characteristics, but also whether, in the interviewees' point of view, these had been influenced by sport. Additionally the interviewees should also indicate whether the characteristics in turn affected their athletic or vocational career positively or negatively. In order to not make excessive demands to the interviewees, only the FPI subscales covering the personality characteristics "exciting bareness", "sociability", "leaving", "open-endedness" and "extra version" were adopted. The selection of these subscales was based on the assumption that through these variables a large proportion of the personality characteristics that have been found to vary through sport careers could be reflected (Sack, 1982).

3.3.2 The investigation in China

The investigation in China was designed to attain an all-round general understanding of athletic career transition and post-athletic career development processes in the Chinese culture and competitive sport system. The theoretical perspectives and methodological approaches of the Chinese investigation were based on existing studies in Germany (Hackfort, Emrich & Papathanassiou, 1997). In addition, one of the purposes of the present study is to compare results of investigations in Germany and China. Thus, on the one hand the equality and comparability and on the other hand the social-cultural and institutional sensitivity of the two investigations should be considered.

3.3.2.1 Methodological considerations of the Chinese investigation

It is argued that in investigations using narrative qualitative approaches, especially with those from an action theory perspective, the influence of objective and subjective environments on the process and the perception of action is important. Considering the complexity of object actions and the emphasis of the social-cultural environment of the actions, the quantitative, variable-oriented and causal approach might to be inapplicable.

Therefore, the qualitative, case-oriented and historical approach commonly used in comparative social science (Ragin, 1987) is believed to be more appropriate in the present study.

In the variable-oriented approach, the characteristics of cases are usually categorized and quantitated under several variables determined by the research purpose. Quantitative tools (various statistical methods) are adopted to establish causal relationships. However, “*sometimes quantitative cross-national studies have an unreal quality to them – countries become organisms with systemic distress, for example – and the data examined have little meaningful connection to actual empirical processes*” (Ragin, 1987, p. IX). Besides, the social bases and origins of research objects, i.e., the certain actions in different countries and/or regions do not receive the attention they deserve.

The aim of case-oriented studies is to interpret common historical outcomes based on a limited range of cases. By its very nature, this approach is sensitive to targets’ complexity and historical characteristics. In fact, “*cases are examined as wholes, which means that the causal significance of an event or structure depends on the context (that is, on other features of the case). This strategy highlights complexity, diversity and uniqueness, and it provides a powerful basis for interpreting cases historically*” (Ragin, 1987, XIII). Based on these points, they are well suited for addressing developmental outcomes and connecting social and cultural meanings to outcomes because “*they are more concerned with actual events, with human agency and process*” (Ragin, 1987, IX). However, it is difficult to operate with a large number of cases in this approach. The outcomes of case-oriented studies are also case-sensitive; therefore generalizability of the results is limited.

In the present study, both quantitative and qualitative approach will be applied to get an all-round general understanding of athletic career transition in China elite athletes, and simultaneously obtain an in-depth perception of the processes. To achieve the first purpose, a quantitative questionnaire will be applied. To achieve the second, a qualitative narrative interview and a case-oriented qualitative comparison between German and Chinese samples will be carried out.

The comparability of the study outcomes of Germany and China should be further discussed here. The investigation instruments and selection of samples are not exactly the same in the two investigations. It is because (a) the social-cultural, economical and institutional environment are different and such differences should be considered during the development of instruments, (b) the popularity, social receptivity and performance level of various sports items are different across two countries; this difference should be considered during the selection of samples. The main part of comparison in the present study would be conducted from an integrated action theory perspective and qualitative case-oriented comparison approach. The results would be analyzed to serve as an illustrative comparison of the subjective experiences of former elite athletes. According to these two points, the investigation in China is designed and carried out.

3.3.2.2 Participants in the investigation in China

A total of 149 Chinese former top class athletes took part in the study. Among them, 68 were male and 81 were female and all of them finished their sport career before the end of 1995. This implies that, there was at least a 3 years interval between the sport career end and the data collection, and it is assumed that all these athletes have had enough time to reintegrate into their new “normal” career life, contemplate about their former sport career experiences and the effect of career transition on the following career, and make a comparison between two stages of career life. The participants from Germany (n = 62) were selected with same criteria, and most of them finished their sport career in the mid-1980’s; 36 were male and 26 were female. All participants from two countries had participated in at least national competitions. The sport they took part varied (e.g. gymnastics, judo, basketball, rowing, shooting, ski, swimming, tennis, track & field and wrestling etc.) in aim to get a good representation.

3.3.2.3 Athletic and Post Athletic Questionnaire

In order to acquire a more holistic impression of the athletes, “Athletic and Post Athletic Questionnaire” (APAQ) which was developed by Schmidt and Si was applied in the present study. The questionnaire taps on personal career development-related

information, experience and perception on athletic career experiences in educational and vocational activity space, conflicts and some important events at the time before, during and after the high performance period. The APAQ (Appendix I) integrates most of the quantitative questions of the study done by Hackfort et al. (1997). Qualitative perceptions on participants' experience in various phases were also included with questions in open-end form. The whole investigation is divided into the five different sections: Basic questions, before top level, during top level, career end/transition and post-athletic career (Table 6).

Table 6: The structure of APAQ.

Life phase / Content	before top level	during top level	career end/transition	post-athletic career
<i>Sport experience</i>	<ul style="list-style-type: none"> attended sport event(s) 	<ul style="list-style-type: none"> performance level training load training location mobility health renouncement 	<ul style="list-style-type: none"> function of high performance sport health 	<ul style="list-style-type: none"> remainder sport activity
<i>Inter-sport/social status, public relationship</i>		<ul style="list-style-type: none"> prestige relationship with media popularity level 	<ul style="list-style-type: none"> status loss? relationship with media? popularity level? 	<ul style="list-style-type: none"> new status vocational prestige limit time?
<i>Affective life, relationship</i>	<ul style="list-style-type: none"> relationship with family influence from parents on sport and school/vocational outlook 	<ul style="list-style-type: none"> proximity between the training place and the family integration of close acquaintance/related into the sport practice friend networks other influential persons 	<ul style="list-style-type: none"> family life social handling in occupation change or continuity in social handling friends networks effects of sport on family life 	<ul style="list-style-type: none"> family life social handling in occupation social handling outside of the occupation friend networks "retirement shock" and its accomplishment
<i>Professional education/training, vocational career, future plans</i>	<ul style="list-style-type: none"> school education career management? future plan 	<ul style="list-style-type: none"> possibilities to make choice education priority conflicts vocational activity intermediate assistance 	<ul style="list-style-type: none"> occupational experience change of profession social mobility switch focus to the new profession sport as assistance or obstacle of new profession future plans intermediate assistance 	<ul style="list-style-type: none"> occupational experience change of profession social mobility adjustment of the new profession satisfaction success or failure feeling counseling/assistance future plans intermediate assistance
<i>Conflicts and resolution</i>	<ul style="list-style-type: none"> conflicts between competitive sport involvement and various aspects in and out of sport career, and the resolution degree, assistance received in conflicts resolution process etc. 			
<i>Basic information</i>	<ul style="list-style-type: none"> basic biographic data information about final education status information about highest sport performance 			

The first part of the questionnaire focuses on basic biographical data (16 items). The remainder emphasizes the psychological, pedagogical and sociological areas of life as a

top class athlete at different times (before top level [9 items], during top level [37 items], career end [20 items] and post-athletic career [18 items]). It also focuses on the experience and the management of conflicts or critical and important life-events as well as transitions from one phase to the next and the influence of top-level competitive sport participation on the following developmental process. In this context the athlete was asked about support from and satisfaction with the sport system with respect to the transition. Athletes were also asked whether they expected assistance from or employment by the society or by the government because they sacrificed and worked hard for the honor of the country. Finally, athletes were asked questions such as whether they had acquired some key-characteristics such as team spirit or high achievement motivation during their active time which could be used to their advantage in post-athletic life. At the end of the questionnaire, the consent to take part in a face to face individual interview about related information was sought. Participants who wanted to attend the interview were also asked to provide their addresses and telephone numbers.

The concept of critical life events was touched on in both the questionnaire and interview. This corresponds with the theoretical concept of the social limitation of life and career process. According to that whether the problem was solved within socially acceptable time and with definable means, the critical life events can be decomposed into two categories: the *situations* and the *phases*. A phase develops from a situational basic problem where the solution is absent for certain time duration. Then it becomes chronic. It likes the distinction between acute and chronic illnesses (Hackfort, 1997). Through this distinction, it can be indicated that an event/conflict experienced by athletes is just a temporal/ situational one caused by random reasons or a chronic/systematic one caused by institutional reasons.

For the classification of the inquired events, it was assumed that the critical situations might occur in every transitions process or conflicts during athletic career. Sometimes it may also change over to into critical phases. This assumption was analyzed in the interviews. The definition of a life event thus depend on its reported critical levels from the participants. With the consistent standards about classification of the situation or phase, these career event will be classified as critical situation or critical phase. The

interviewees was not aware with these classification standards of the events. If a certain event (situation or phase) was argued as being unique to the temporal limitation or permanent reduction of the participation chances in any vocational, social and economic aspects, this event was classified as critical. The term critical phase is similar to the classification of life events which is explained above, i.e. the pending problems were not solved in the relevant period of life. It was assumed in the interviews that:

1. Critical situations and phases, independent of their extent and intensity, are concerned with problems within the individual such as the intra-roles conflict, problems caused by the incompatibility of different positions, the inter-roles conflicts as well as the difficulties with the transitions between the positions within social structures like school, sport team/organization, occupation and so on. During the transition between different positions, it is not necessary to take every aspect of individual and institutional status into account.
2. Internal and external environments of the critical situations and phases: The information of relevant athletic environment, family, friend network. Request and structures of the sport system, the training formation and occupation system.... Conflicts with people in relevant institutions.
3. Social coping resources available in the critical situation or phase. As an investigation strategy, the availability of coping resources were rated as:
 - (1) without any other assistance
 - (2) with assistance/support of the family
 - (3) with assistance/support of out family groups
 - (4) with institutional inter-sport assistance/support
 - (5) with institutional outside sport assistance/support
 - (6) with non-institutional inter-sport assistance/support
 - (7) with non-institutional outside sport assistance/support

The solution of the problem can end in successful accomplishment, circumnavigation of personal and structural conflicts as well as in a successful delegation of conflict resolutions within persons and/or institutions. An unsuccessful solution expresses itself in the adjournment of the conflict delivery, as well as the displacement or neutralization of the conflict.

With regards to the evaluation of the problem solution, whether the consequences (of a critical life events) is the one had been anticipated and prepared for by individual is always important to the accomplishment of critical life events, i.e. if they are the individual's intended outcomes of the certain life event.

3.3.2.4 Interview guidelines

Based on the preliminary statistical analysis work and the interview guidelines adopted in the German investigation (Hackfort, Emrich & Papathanassiou, 1997), guidelines for the Chinese interview were set up (see Appendix II). To make the interviews more focused on the subjective perceptions of the interviewees who are viewed as experts of their own experiences, a semi-structured interview method (May, 1997) was applied. In such kind of interview, questions are normally specified to a certain degree, but the interviewer is free to probe answers in an unpredictable style. Interviewees are allowed to answer in their own terms more than the standardized interview permits. However, structured, themes focused information can still obtained through the pre-established interview guideline or manual. The structure of the guideline used in the present study is an extension of the APAQ questionnaire. It was organized according to time thread of athletic career process and focused on personal career development content in different phases (before, during, end and post) of individual athletic career life from an action theoretical perspective. The whole process usually took 40-60 minutes in different cases.

3.3.2.5 Procedure of the investigation in China

Sine the beginning of the 1990's, a series of studies on athletic career transition and post-athletic career adjustment process were carried out based on the practice in career

counseling and athletes environment management of the Olympic Training Centers (OTCs) in Germany (Hackfort & Schlattmann, 1994). Further more, a comparative study in this field was done in Germany, France and Switzerland (Schmidt & Hackfort, 2001). From these studies, a better understanding of German top-level athletes' sport career transition process has come about. In 1997, the idea of a cross-cultural study on the different competitive sport systems in China and Germany was developed. It was proposed that, a well designed cross-cultural comparative study is needed to examine the cultural and organizational/institutional influence on career transition as an action process(Lawallee & Wylleman, 2000).

Development of the questionnaire

The “Athletic and Post-athletic Questionnaire” (APAQ) was designed by Schmidt and Si based on the results of existing German studies. The questionnaire was originally developed in German. Later it was translated into followed with a two-direction translation procedure (Berry, 1969; Brislin, Lonner & Thorndike, 1973). The disagreements between the original and re-translated German versions were then discussed and the Chinese version was modified accordingly. The questions in the Chinese version of APAQ have two main types. The first one require participants to select one or multiple answer(s) from the options. The multiple selection questions are labeled out in the questionnaire. An optional remark section is also provided at the end of some questions. The second form is to respond to an open question without offered options (Table 7).

Table 7: Question example of the Chinese version APAQ.

Question Types	Examples in APAQ
I: Single selection questions	You highest school education level is: <ul style="list-style-type: none"> • No school education • Primary school • Junior middle school • Senior middle school • 2 years college • 3 years college and above
I: Multiple selection questions	Which conflicts did you face, when you wanted to become a competitive sport athlete? (multiple answers possible) <ul style="list-style-type: none"> • Conflicts between sport and academic • Conflicts between sport and occupation • Conflicts between sport and family • Conflicts between sport and other, i.e. with _____ • No conflict • Simple remarks _____
II: Open questions	What is the most important success in your sport career?

Investigation process in China

Various institutions in the Chinese sport system were asked to help with the selection and contact with the participants. Finally 350 questionnaires with simple a introduction to the study were sent to these former athletes in more than 10 provinces and cities in China the March 1998. At the end of May in the same year (the announced deadline), 150 of them were collected, 149 of which were are valid.

The biography and selected contents (the answers to type I questions) were entered into SPSS. The reported contents (the remarks of selective questions and the answers to type II questions) were collected and sorted. An experience staff and the researcher then conducted independently content analysis : The remarks of selective questions were subjected to frequency tests, the answer to each open question was qualitatively described and summarized, yielding two detailed analysis. Differences between the two results were discussed and finally a common result was achieved. The quantitative part

of this result was merged to the database and subjected to further statistic processing; the qualitative part served as the first step to provide meaningful information to guide the development of an interview guideline in next phase.

Based on the preliminary statistical work and qualitative results, as well as the interview guideline used in the German investigation, a Chinese interview guideline was drawn up. From February to March 1999, 23 participants who indicated their willingness to participate in further interviews in the returned questionnaires were interviewed individually by trained interview staff using the guideline. Most of these interviewees came from Beijing, Shanghai and Guangzhou, the three big cities in China, which also have the highest level of competitive sport development and high representation to former and current sport institutional characteristics in Chinese competitive sport system. The interview content were recorded on paper and cassette. The cassette recordings were transcribed to provide in-depth information for the following analysis and discussion.

4 RESULTS

The empirical results in the present study include both quantitative and qualitative data from the German and Chinese investigations. The original quantitative data from two countries are collected and merged in a united database with SPSS. With the qualitative data, transcriptions of German interviews were obtained from the German study in 1997 (Hackfort, Emrich & Papathanassiou, 1997). With the Chinese interviews, the cassette-recorded contents were transcribed into a Chinese text by 3 trained staff.

In the present section, both the quantitative and qualitative data from the investigations in two countries will be analyzed and compared from an action theory perspective. The characteristics of an elite athletic career of former Chinese athletes and the differences and commonalities compared with the German findings will be examined and discussed to lead to a further understanding of the nature of athletic career development process in the two different social-cultural backgrounds and sport systems.

The quantitative results obtained from the APAQ implemented in the two countries will be presented in two parts (Table 8): (a) Biographical information and (b) characteristics of the athletic career development. Information from the intensive interviews will be analyzed and interpreted from a naive contextual developmental and cross-cultural comparative perspective based on the analysis of the quantitative data.

Table 8: The structure of the quantitative results of Chinese investigation.

Part I: Biographical data			
Sex; time and age related information; educational information; location; competition level; ect.			
Part II: Characteristics of athletic career development			
Before the elite athletic career	During the elite athletic career	Athletic career termination and transition	Post-athletic career
<u>Education level</u>	<u>Entrance:</u> <ul style="list-style-type: none"> • planning degree • social attitude • reference people 	<u>Reasons of career end</u>	<u>New job:</u> <ul style="list-style-type: none"> • relationship with sport; • benefit from sport; • assistance sources • social prestige; • satisfaction
<u>Social environment:</u> <ul style="list-style-type: none"> • reference people; • social attitude 	<u>Personal space:</u> <ul style="list-style-type: none"> • conflicts • limitations 	<u>Response during transition:</u> <ul style="list-style-type: none"> • emotional; • social; • occupational; • loss of popularity 	<u>Personal life:</u> <ul style="list-style-type: none"> • family life; • health: related with sport? • friends network
<u>Conflicts:</u> <ul style="list-style-type: none"> • resources; • solving of conflicts; • assistance 	<u>Perception with the athletic career:</u> <ul style="list-style-type: none"> • satisfaction • effect on health • effect on social life • effect of success & loss 	<u>Preparation of career end:</u> <ul style="list-style-type: none"> • planning degree; • preparation degree • occupational preparation 	<u>Review about sport:</u> <ul style="list-style-type: none"> • evaluation & attitude; • effects on personal development; • relationship with former sports;
	<u>Social environment:</u> <ul style="list-style-type: none"> • friends network; • popularity 	<u>Adjustment:</u> <ul style="list-style-type: none"> • time • sex difference 	<u>Future plan</u>
	<u>Further development:</u> <ul style="list-style-type: none"> • planning; • actualization 		

4.1 Biographical Data

The biographical data of the Chinese participants will be reported in the present section. All the information was gathered by the APAQ in the Chinese investigation. It includes regional information (where the participants come from), personal data, performance levels and time-related information of their athletic career developments. Some basic information about the participants in the German investigation has been introduced in the section of “methods and strategies”. Comparisons between two set of data was carried out.

4.1.1 Regional information of participants

Totally 150 (42.9% of 350) questionnaires were collected by the deadline of the present investigation, 149 of them were valid. All the missing data will be reported in the following analysis.

The participants of the Chinese investigation come from different cities in China. Most of these cities are highly developed in competitive sport in China and play important role in the Chinese sport system. The regional composition of these participants is revealed in Table 9.

Table 9: Regional information of Chinese participants (options above 5 reported frequency are enumerated).

Province/City	n	Valid Percent *
Shanghai	33	23.4
Beijing	20	14.2
Sichuan	13	9.2
Shandong	11	7.8
Guangdong	9	6.4
Jiangsu	9	6.4
Heilongjiang	8	5.7
Zhejiang	7	5.0
Hebei	7	5.0
Jiangxi	6	4.3
Others	18	12.8
Total	141	100
Missing	8	5.4**

Note:

* *Valid Percent is the percentage of the valid cases (i.e. excluding cases with missing value in actual variable; here, the variable is the province/city the participants came from.*

** *This value is the percent of cases with missing value in the sample group (including cases with missing value).*

All these term are used in the following part.

4.1.2 Age distribution of participants

Table 10 and Table 11 illustrate the age distribution of participants at the time of the data acquisition. Most of these participants fell within range of 20-29 and 30-39. The mode is 33 (n = 15) and the lowest frequency were at 45, 44, 41 (n = 1). The average age (142 of them provided valid information about their age; the average age was calculated with these valid case.) is 30.16.

Table10: Age distribution.

Age range (year)	n	Valid Percent (%)
20~29	72	50.7
30~39	57	40.1
40~45	13	9.2
Total	142	100
Missing	7	4.7

The average age of the different gender groups are provided in Table 12.

Table 11: Age of the sex groups at the time of investigation.

	M	SD	N
Male	31.6	6.1	67
Female	28.9	6.2	75
Total	30.16	6.26	142

Compared with the German investigation, the German participants at time of data collection were older than Chinese athletes but not at a significant level. On the other hand, within each country, the male participants from both countries were significantly older than former female athletes from the same country (Table 12).

Table 12: Age of participants from two countries at the time of data collection.

	Germany		China		Significance		
	M	SD	M	SD	t	p	
Male	33.6	5.9	31.6	6.1	1.63	0.05	
Female	28.6	6.2	28.9	6.2	-0.21	0.58	
Significance	t	3.20		2.67			
	p	0.00		0.00			

4.1.3 Gender distribution of participants

The sex distribution of the Chinese participants is depicted in Table 13. There were in total 68 (45.6%) males and 81 (54.4%) females participants who took part in the questionnaire investigation.

Table 13: Gender distribution of Chinese participants.

Sex	N	Valid Percent (%)
Male	68	45.6
Female	81	54.4
Total	149	100

A z-test* indicated that there is no significant difference on ratio between gender groups. No significant differences are observed between both country groups (China-Germany) and sex groups (male-female) (Table 14).

Table 14: Gender difference between German and Chinese participants.

	Germany		China		Significance		
	n	%	n	%	z	p	
Male	36	58.1	68	45.6	1.22	0.11	
Female	26	41.9	81	54.4	1.12	0.13	
Significance	z	1.28		1.07			
	p	0.10		0.14			

4.1.4 Educational degree of participants

Table 15 reflects the educational degree of participants in China. Significant differences appear in the education status of the former athletes (Table 16). About 90% of all former Chinese top-class athletes had an academic degree and college level (or were in process of acquiring it). Among the former German top-class athletes, most of them have no corresponded academic degree.

* z-test is a statistical method to test difference between two population proportions (Iversen & Gergen, 1997). It is proposed that, with a proportion from sample group, we can change the observed difference (of proportions) into a statistical variable “z” with formula $z = (p_1 - p_2) / \sqrt{p_1(1-p_1)/n_1 + p_2(1-p_2)/n_2}$. A corresponding p-value can be obtained with a table of the z-distribution or statistic software. If the p-value is small enough (less than 0.05), we would reject the null hypothesis that two population proportions are equal ($H_0: p_1 - p_2 = 0$).

Table 15: Educational level of the Chinese participants.

Academic Degree	N	Valid Percent (%)
Nine-years Basic Education	3	2.1
Senior School	6	4.1
3 years College	19	13.0
4 years Bachelor	115	78.8
Total	143	100
Missing	6	4.1

Table 16: Educational level of the participants.

	Germany		China		Significance	
	n	%	n	%	z	p
No academic	32	55.2	9	6.2	6.48	0.00
Studying in college or university	6	10.3	19	12.8	0.52	0.30
Academic degree at college level	20	34.5	115	77.2	5.99	0.00

Since the middle of 1980's the Chinese sport system has been providing education for competitive sport athletes through an internal education system. This system is different from the normal school system. At the beginning of the athletes' competitive sport careers, they are usually very young and train as reserve player in second/third line teams. These young athletes will receive basic education similar (or somehow easier) to what is provided in a mainstream school. When they grow up and are selected to enter the first line teams, they can also begin with a three- or four- year college education. The contents are geared toward sport science, sport training and physical education. In fact, this kind of education is more like an occupational education rather than academic one. Because of the variable time schedule for training and competitions, the system is based on credit points; athletes can obtain all the necessary credit points during or after their sport career. Although this kind of education is mainly carried out within the sport system, it is recognized by Chinese education system and labor system, so that retired athletes can receive the same treatment in their post-athletic occupations even out of sport fields. Those who are not selected into the first-line teams will then drop out from competitive sport and look for other possibilities.

4.1.5 Item distribution of participants

The Chinese participants in this study are from 25 different sport items. Items in which frequency is not less than five are listed in Table 17. The distribution of the German participants is documented in Table 4.

Table 17: Item distribution of Chinese participants.

Item	N	Valid Percent (%)
Track & Field	28	19.3
gymnastics	22	15.2
Basketball	12	8.3
Swimming	12	8.3
Handball	8	5.5
Wrestling	8	5.5
Skating	7	4.8
Boxing	5	3.4
Sailing	5	3.4
Weight lifting	5	3.4
Others	33	22.8
Total	145	100
Missing	4	2.7

4.1.6 Performance and competitive level

The highest sport competition level that the participants took part in during their competitive sport career was investigated in this study (Table 18). The China National Games listed in the Table is a general sport competition (similar the Olympic Games in its organizational form) which represents the highest competitive level in various sports and is also one of the most important competitions in the elite sport system in China. For example, in the 8th China National Games in 1997, 7600 athletes from 46 delegations competed for a total of 327 gold medals in Shanghai. Forty one world records, 55 Asian records and 66 national records were either achieved or broken.

Table 18: The highest competition levels that the participants took part in.

Competition	Number of Participation	Valid Percent (%)
Olympic Games	22	15.1
World Championship/World Cup	21	14.4
Asian Games	8	5.5
Asian Championship	10	6.8
Other international Championship	16	11.0
China National Games	57	39.0
China National Championship	12	8.2
Total	146	100
Missing	3	2.0

4.1.7 Time distribution of retirement

The time distribution of the participants' athletic career termination is illustrated in Table 19. It was observed that the retirement/career transition processes investigated in the present study occurred mainly between 1985 and 1994, the period during which China promoted reform processes in every aspect including sport. Problems with sport retirement and the subsequent career development became remarkably difficult. Not only athletes but also the whole sport system was affected (Tian, Li, Zhang & Wang, 1994), because that the government are subsidizing their intervention and responsibility in the arrangement of retirement athletes.

The time interval between the occurrence of the retirement and the investigation is assumed to be sufficient for the participants to review their sport careers and career transition process combining with their experience in reintegration into a very different environment and career life. They are also assumed to have evaluated the effects of sport participation and sport careers transition processes on their current job and life development. At the same time, a time interval ensures that the possible influences of temporary factors like interpersonal relationship, and emotion etc. on the review with the transition process could be removed .

Table 19: Time distribution of the career terminations.

Retirement Time	Frequency	Valid Percent (%)
1980~1984	14	9.8
1985~1989	37	25.9
1990~1994	72	50.3
1995~1997	20	14.0
Total	143	100
Missing	6	4.0

4.1.8 Age distribution of athletic career entrance and termination

The distribution of age at the time when the sport careers began and ended is provided in Tables 20 and 21 respectively. In the present study, the entry into an athletic career is defined as the entry at the province level. Athletes in these teams get financial and educational support from the sport system, and before the reform of the Chinese sport system, they could get jobs through government arrangement when they retire from elite sport. The duration of the top-class sport career (from beginning to retirement) varied from 1 to 20 years ($M = 8.36$, $SD = 3.76$). It has been observed that most (89.1%) of these Chinese athletes began their top-level competitive (“professional”) sport career between the age of 10 to 19. This is also an important stage for youths in the “normal” educational system.

Table 20: Distribution of beginning of the sport careers.

Age at the Beginning of the Sport Careers	Frequency	Valid Percent (%)
6~9	11	8.0
10~14	30	21.7
15~19	93	67.4
20~22	4	2.9
Total	138	100
Missing	11	7.4

Table 21: Distribution of age at end of sport careers.

Retirement Age	Frequency	Valid Percent (%)
<20	29	21.2
20~24	60	43.8
25~29	35	28.4
30~34	7	5.1
35~36	2	1.5
Total	137	100
Missing	12	8.1

With regards to gender and country differences, the ages at the end of the athletic career were significantly different (Table 22). In both German and Chinese investigations, former male elite athletes tend to end their sport careers later than their female counterparts. German elite athletes ended their athletic careers later than Chinese athletes.

Table 22: Age at the end of the athletic career.

		Germany		China		Significance	
		M	SD	M	SD	t	p
Male		28.2	6.2	24.1	4.1	3.58	0.00
Female		23.1	3.5	22.5	4.3	0.72	0.23
Significance	t	4.11		2.32			
	p	0.00		0.01			

In Table 23, more details about age and duration of Chinese athletes' competitive sport career in different sport items are provided. An one-way ANOVA test indicated a that sport items has a significant effect on the three dependent variables age the entrance of high-level sport ($F = 7.224, p = 0.00$), age at the end of high-level sport career ($F = 2.278, p = 0.017$) and years in high-level sport career ($F = 2.844, p = 0.003$).

Table 23: Age and duration in the different sport items.

Sport items	Age at the entrance of high-level sport career					Age at the end of high-level sport career					Years in high-level sport career				
	M	SD	Min.	Max.	N*	M	SD	Min.	Max.	N*	M	SD	Min.	Max.	N*
Track and field	16.3	3.44	6	22	26	25.5	4.12	17	33	26	9.4	3.90	3	17	26
Gymnastics	10.7	2.75	7	19	19	20.6	3.80	17	30	19	10.0	3.03	7	16	19
Basketball	15.5	1.19	13	17	13	21.4	3.66	16	28	13	5.8	3.78	1	15	13
Swimming	14.6	2.06	11	17	6	23.0	0.89	22	24	6	8.33	2.42	6	13	6
Handball	15.3	1.38	13	17	7	21.7	4.03	17	28	7	7.0	3.50	4	12	7
Wrestle	17.0	1.19	16	19	8	22.5	2.13	18	25	8	5.5	2.00	1	8	8
Skating	16.3	1.60	15	18	7	24.1	2.41	21	28	7	7.8	1.95	5	10	7
Boat	16.0	0.71	15	17	5	25.4	2.41	23	28	5	9.4	2.41	7	12	5
Boxing	18.6	1.14	17	20	5	23.4	1.14	22	25	5	4.8	0.84	4	6	5
Weight lifting	15.7	1.71	14	18	4	22.5	1.00	22	24	4	6.75	2.22	4	9	4
Others	14.7	3.05	6	18	35	23.9	5.56	13	36	35	9.3	4.31	1	20	35
Total	15.5	3.13	6	22	135	23.2	4.28	13	36	135	8.3	3.76	1	20	135

*Note: * The information about age and time was not available in some cases. The number of observed cases are those with valid value in this item.*

In summary, the biographic and basic information of participants in Germany and China are relatively similar. These results indicate the comparability of the empirical findings of the German study and the present investigation in China.

4.2 Pre-elite Sport Career

From this section, an overview of the competitive sport careers will be presented. The nature of high-level sport careers of the Chinese participants will be described in four sections: Before the high-level, during the high-level, career end/transition and post-athletic career. Meaningful actors that facilitate to the understanding of personal development and career transition process in a high-level sport context would be discussed in detail. Combining with qualitative analysis in the next part of the present paper, a comprehensive perception about high-level sport career transition process will be undertaken from an action theory perspective.

First, information on the pre-elite athletic career will be addressed. It is necessary to understand the situation before elite athletic career and its influence on the entrance and development of sport career.

It should be noted that, in both investigations in the two countries, we can only touch the cases that persevered with their elite athletic career. The information of pre-elite sport career of those young athletes that did not entry into and/or persevere with elite sport could not be included in the present study.

4.2.1 Educational aspects with regard to the pre-elite sport career

What are the education levels before these participants began with their high-level sport career? Table 24 reports the highest educational or working degree before entering high-level sport.

Table 24: Highest educational or working level before entering high level sport.

	Education level	Frequency	Percent	Valid Percent
Valid	no degree	6	4.0	4.4
	9 year compulsory education	69	46.3	50.4
	12-year-school college	39	26.2	28.5
	university	14	9.4	10.2
	trainee	4	2.7	15.2
	skilled worker	2	1.3	1.5
	Total	3	2.0	2.2
Missing	System	12	8.1	
Total		149	100.0	

4.2.2 Sport activity and the conflicts before a high-level sport career

The difficult challenges and competitive characteristics of contemporary competitive sport ask for an early involvement in the system sport training (Dick, 1988; Han, 1996). Elite athletes usually begin to take part in sport activities at a very early stage of their development. In this section, the situation before the high-level sport career is described.

4.2.2.1 Introductor to sport activity

A multiple selective question was asked about the person who impacted the first contact between the of participants and sport (Table 25).

Table 25: Introductor to sport activity.

Introductor	Coach	Family	Teacher in school	Others	Friend	Club/team	Sport association
Frequency.	66	55	36	26	25	2	0
Valid percent (%)	44.9	37.4	24.4	17.7	17.0	1.4	-

4.2.2.2 Attitudes of social environment towards the sport activity

The attitude of the people in the surrounding social environment (family, friends etc.) to the sport activity is reflected in Figure 14.

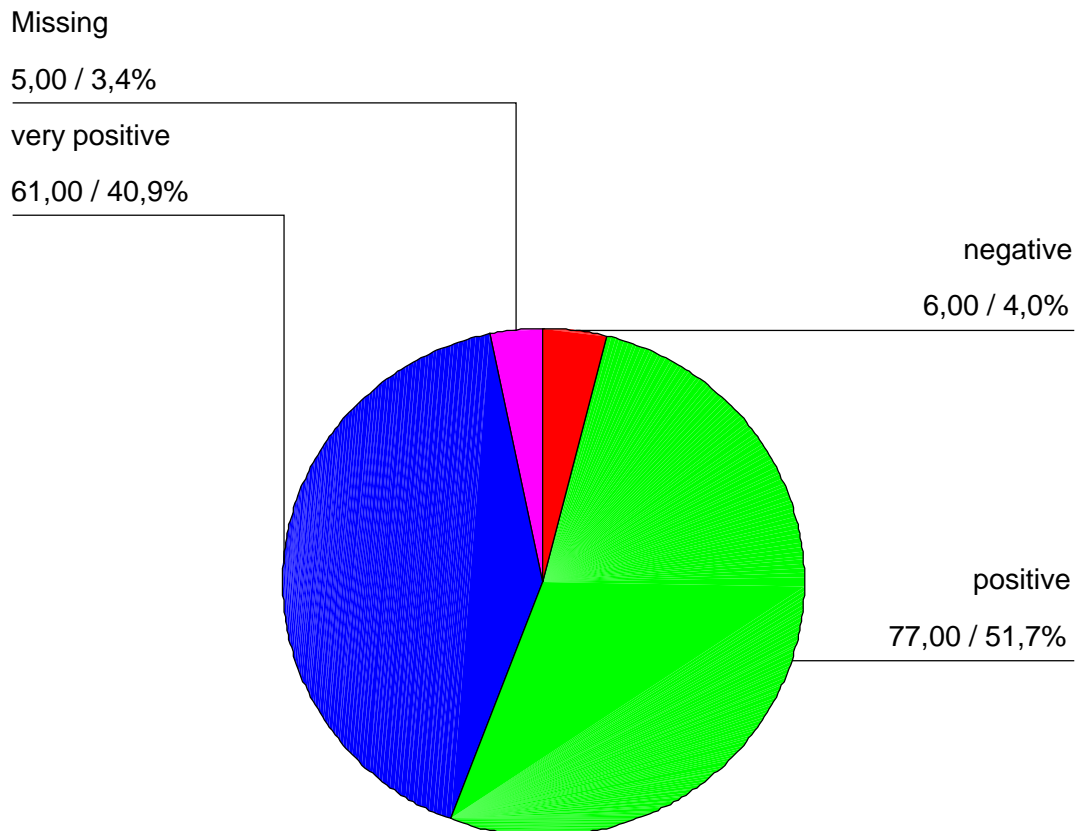


Figure 14: Attitudes of the people in the social environment towards the sport activity* (n =149).

** Another answer to this question -very negative- was NOT selected in all the cases.*

It can be concluded that most of the Chinese participants had a supportive social environment toward their sport activity before their high-level sport career. Later, we will compare this result with the attitude of social relations toward the entry into high-level sport career. After all, a competitive sport career is quite different from sport

activity as leisure hobby. However, this result indicates the importance of social attitudes towards sport activity as a factor that influences the involvement in and development of a high-level sport career. Most high-level sport athletes had a positive social environment with sport activity at their initial stage of sport participant. Once again, those who have a more negative social surrounding toward sport activity are supposed to have higher drop out rate in earlier stage of their development and thus could not be reflected in the present investigation.

4.2.2.3 Conflicts before high-level sport: Resources, solution, and assistance

Figure 15 summarizes the response of a multiple selective question about the conflicts between sport activity and other aspects before having a high-level sport career.

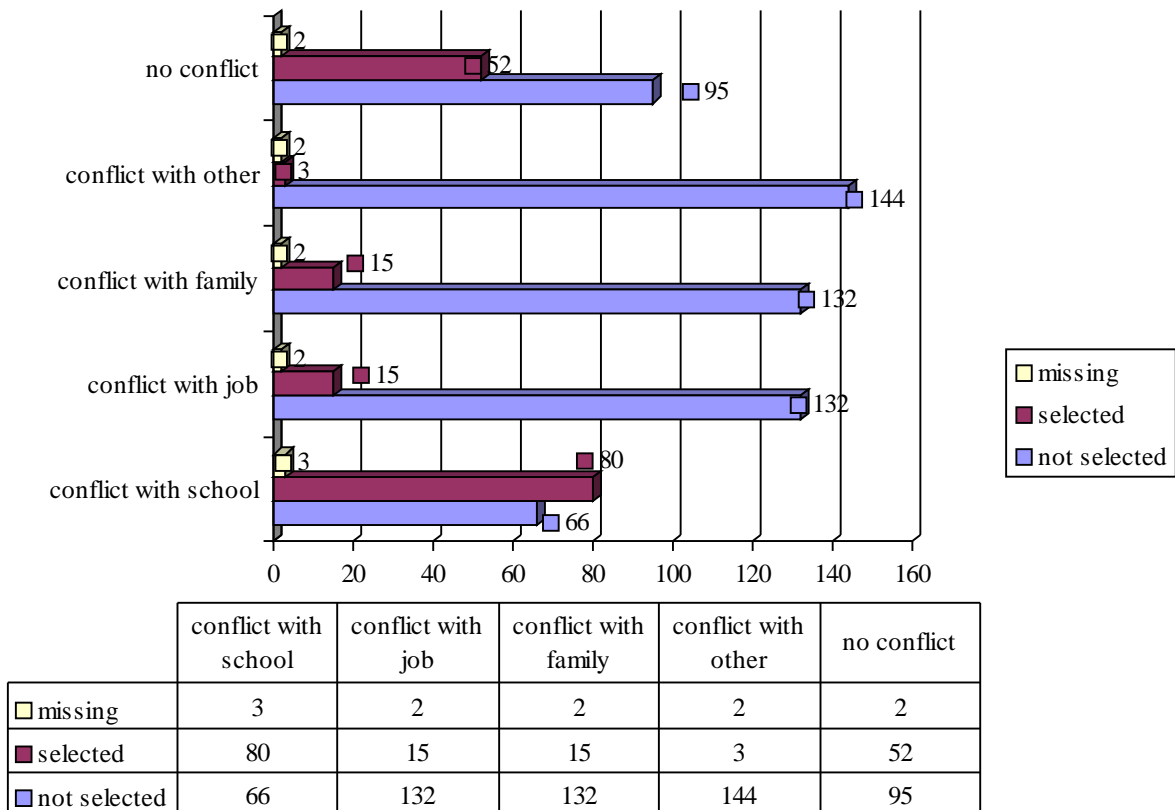


Figure 15: The conflicts in priority of sport activity before the high-level sport career (n = 149).

The main conflict in priority at that phase was between sport and school education. This result is reasonable because individuals at that age stage (the mean age at entry into a high-level sport career is 15.5, see Table 20) are usually receiving education in school. The degree of conflicts was rated a Likert-style question from 0 (very weak) to 3 (very high). In 122 valid answers, the average was 1.37, with a 0.96 SD. There is no significant effect of sex ($p = 0.689$) and age at the athletic career beginning ($p = 0.096$) on the conflicts degrees, but the interactive effect of these independent variables was significant ($p = 0.005$).

To resolve these conflicts, especially the conflicts between sport activity and education, where did these participants get assistance, and did the kind of assistance affect the resolution of conflicts? The results are presented in Figure 16 and Table 26.

In Figure 16, the assistances to solve conflicts between sport activity and other aspects of personal development before a high-level sport career came mainly from the family ($n = 71, 51.1\%$), coach ($n = 62, 44.6\%$) and friends ($n = 28, 20.1\%$). The perceived effects of these resources on the degree of conflicts resolution are also examined (Table 26). It can be inferred from the results that coaches and friends have significant effects on the resolution of conflicts before start of an the athletic career. Though the family is reported as the most popular support resource, it has no significant effects on this process. At the same time, 84.6% of the participants reported that the conflicts they faced before high-level sport career were well or very well solved (Table 27).

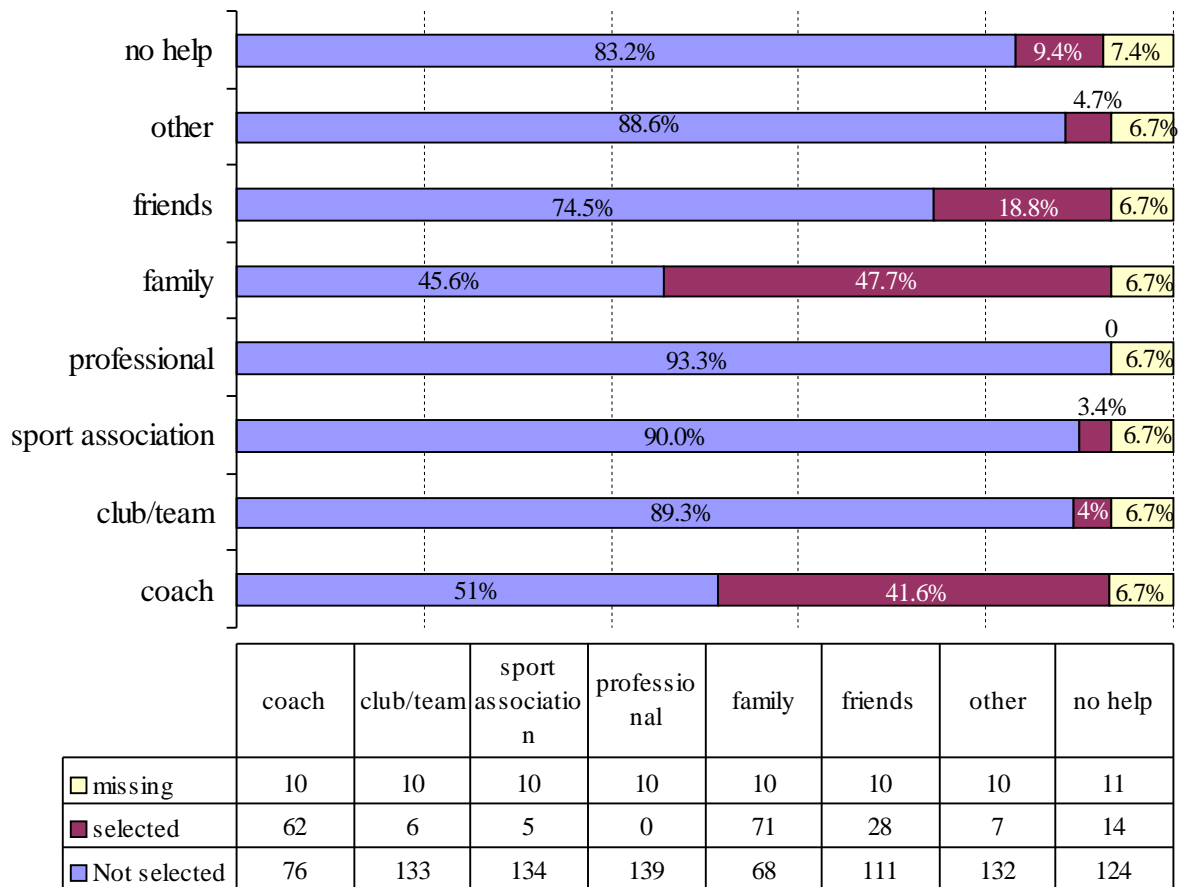


Figure 16: Assistance resources in conflict resolution before high-level sport career (n = 149).

Table 26: The perceived effects of different help resources on the conflicts solved degree.

	Coach	Club/team	Family	Friend
F	6.789	0.592	0.521	6.286
p	0.010	0.443	0.472	0.023

Table 27: The degree of the conflict resolution.

	Degree of Resolution	Frequency	Valid Percent
Valid	very bad	2	1.7
	not well	16	13.7
	well	73	62.4
	very well	26	22.2
	Total	117	100.0
Missing	System	32	
Total		149	

4.3 Elite Sport Career

According to the action theory, the career transition process from athletic to post-athletic life will be influenced by the developmental characteristics of the high-level sport career. What happens on the personal developmental and social domains during a high-level sport career will deeply affect the anticipation, actualization and outcome of the following athletic career transition process.

Many studies have concluded that the competitive sport environment has influence on the socialization process of individuals who are involved in it (Coakley, 1993; Kleiber & Roberts, 1981; Greendorfer, 1992; Nixon, 1981). A competitive sport environment is a “subculture” different from a normal social environment, and provides different value systems, social relationships and so on (Grove, Lavalley & Gordon, 1997; Brustard & Ritter-Taylor, 1997; Messner, 1981). Although much of these factors may influence the athletic career transition process, only several factors of research interest will be included and discussed from the contextual development and critical life events perspectives.

4.3.1 The entry into a high-level sport career

To decide to receive systematic sport training in a province-level sport team (i.e. “professional teams” in China) is viewed as the beginning of one’s competitive sport career. There is a talent selection and cultivation system in China, composed by three levels from bottom to top: Extracurricular Sports School, Junior Sports School and “Professional” Teams. It is found through a qualitative analysis that most participants believe that to enter a “professional” sport teams is the natural result of former involvement in a Junior Sports School.

4.3.1.1 The planning degree of athletic career entrance

Table 28 refers to the planning degree of high-level sport career entrance. It can be indicated that almost 40% (39.3%) of these participants have not well planned with their

athletic career entrance. With a Spearman correlation test, both the age of entry and the attitude of social surrounding toward athletic career entrance have no significant relationships with planning degree ($r = 0.05, p = 0.61$; $r = 0.10, p = 0.26$ respectively).

Table 28: The planning degree of sport career entrance.

	Planning degree	Frequency	Valid Percent
Valid	bad	27	19.3
	not so well	28	20.0
	Well	52	37.1
	very well	33	23.6
	Total	140	100.0
Missing		9	
Total		149	

4.3.1.2 Social surroundings of the athletic career entrance

The main reference peoples who encouraged entry into an athletic career can be seen in Figure 17. Most participants ($n = 110, 76.4\%$) in this study were encouraged by their coaches to make the decision of sport career entrance. Family ($n = 83, 57.2\%$), friends ($n = 35, 24.1\%$) and school ($n = 23, 15.9\%$) also played certain roles in the entry process. Most people in the (94.5%) social surroundings took a positive attitude towards the individual's athletic career (see Table 30). This factor has high consistency with the attitudes toward individual's sport activity before the athletic career ($r = 0.554, p = 0.000$) and is supposed to be very important to the entrance and maintenance of athletic career. Just like what has been mentioned previously, individuals with a negative social surrounding may drop out very early and can not appear in the present investigation.

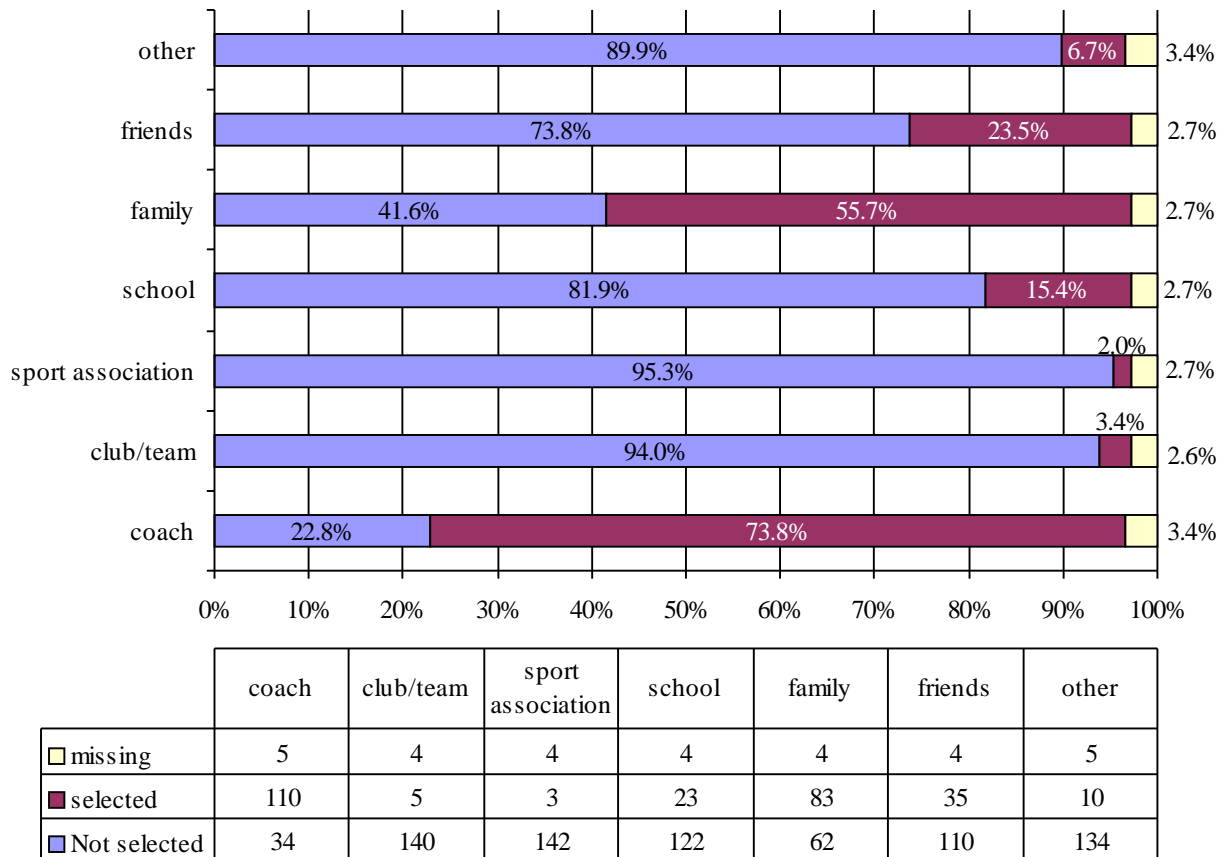


Figure 17: Frequency of reference people who encouraged entry into a athletic career (n = 149).

Table 29: The attitude of the people in the social surrounding towards the athletic sport career.

	Attitude	Frequency	Valid Percent
Valid	very negative	1	0.7
	negative	7	4.9
	positive	65	45.5
	very positive	70	49.0
	Total		143
Missing		6	
Total		149	

4.3.2 Personal developmental environment during elite sport career

To obtain more understanding about the influence of athletic career on the adjustment and development process in the following career transition process and post-athletic career, a subjective perspective on the former athletic career (e.g. critical conflicts, individual behavior space, and social surroundings) will be described in this section.

4.3.2.1 Main conflicts during the top-level competitive sport career

In Figure 18, it can be seen that conflicts experienced during the top-level competitive sport career mainly existed between sport and academia ($n = 96, 65.8\%$), and sport and occupation ($n = 32, 21.8\%$). However, there were also 32 (21.8%) former athletes who reported that there was no conflict during their top-level competitive sport career.

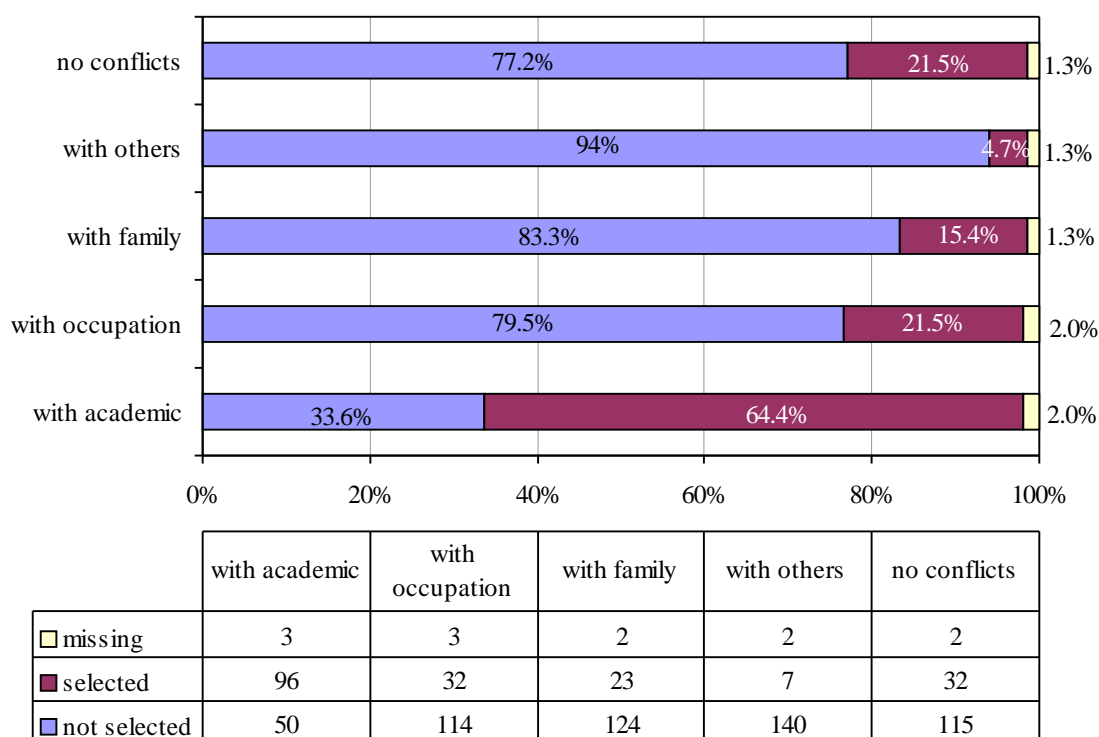


Figure 18: Main conflicts during high-level competitive sports career ($n = 149$).

A z-test was carried out to examine differences between the reported percentages of various conflicts before and during athletic career. The results can be seen in Table 30. It indicates that the conflicts of sport activity with school, family and others were not significantly different between the two points in time. However, the conflict between sport activity and occupation significantly increased. On the other hand, frequency of no conflicts in priority during competitive sport career was significantly lower than before the career. These results revealed that most conflicts encountered before the athletic career extended into the career while conflicts between sport activity and occupation significantly increased. Compared with the point of pre- high-level competitive sport career, the reported frequency of “no conflicts” was significantly lower during the athletic career.

Table 30: Frequency comparison of the conflicts before and during athletic career.

Conflicts with ...	Frequency	Before athletic career	During athletic career	<i>z</i>	<i>p</i>
school	Selected	80/146	96/146	1.208	0.1135
	Not selected	66/146	50/146	1.496	0.0673
occupation	Selected	15/147	32/146	2.566	0.0051*
	Not selected	132/147	114/146	1.120	0.1313
family	Selected	15/147	23/147	1.427	0.0767
	Not selected	132/147	124/147	0.458	0.3234
others	Selected	3/147	7/147	0.998	0.1591
	Not selected	144/147	140/147	0.174	0.4309
No conflicts	Selected	52/147	32/147	2.088	0.0183*
	Not selected	95/147	115/147	1.318	0.0937

* *Difference is significant at the 0.05 level (2-tailed).*

4.3.2.2 Main resources of assistance to solve the conflicts during top-level competitive sport career and their effects

When athletes are faced with above mentioned conflicts, will they get any assistance from others? If they do, what are the sources of assistance? How do they think these assistances do help with on the conflicts solving process? In Figure 19, the assistance

resources that these athletes received are illustrated. The perceived effects of some main sources of assistance can be seen in Table 31.

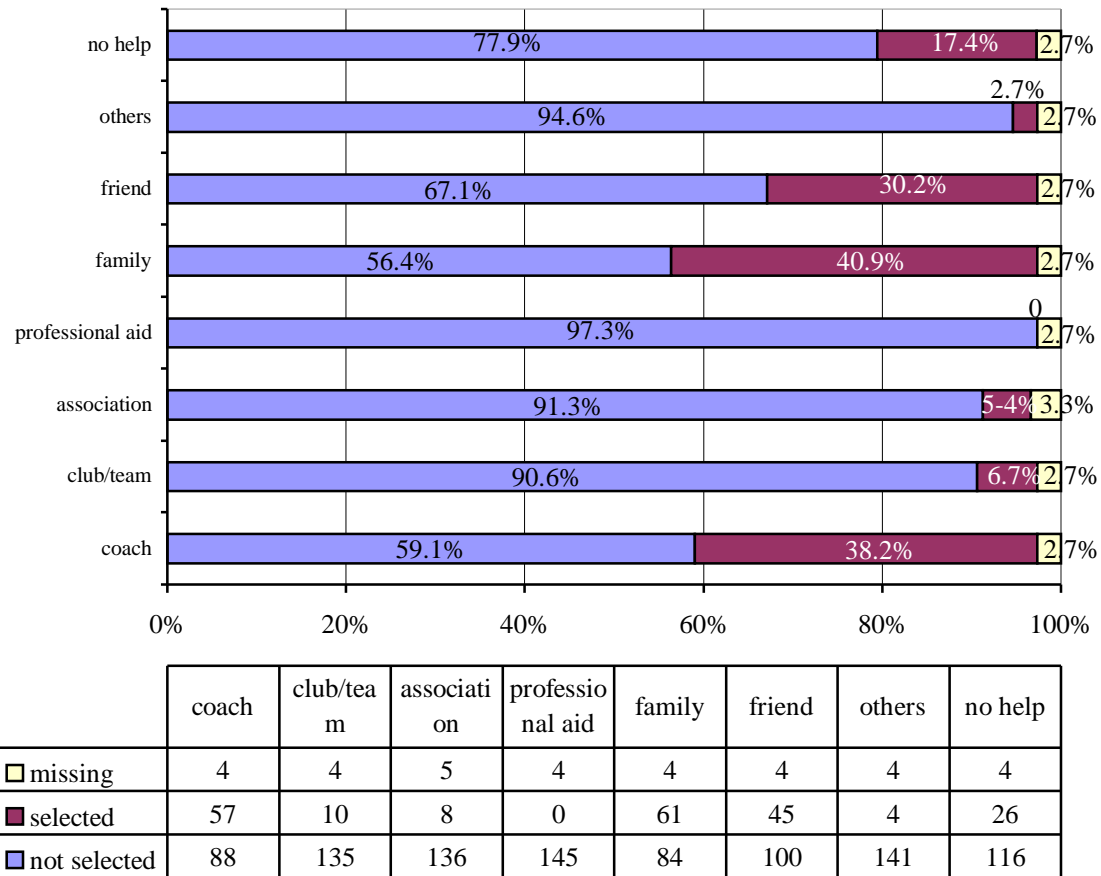


Figure 19: Sources of assistance for conflicts resolution during sport career (n = 149).

Table 31: Perceived effects of main resources on conflict resolution.

	Coach	Club/Team	Family	Friend
F	0.332	1.103	0.633	0.615
p	0.566	0.296	0.428	0.434

The family (n = 61, 42.4%), coach (n = 57, 39.3%), and friend (n = 45, 31.0%) are most popularly reported as sources of assistance when Chinese Participants face conflicts during their top-level competitive sport career. However, these resources are perceived

by most participants as having no significant effects on conflicts resolution. This result may indicate that the athletes themselves take the most crucial yet isolated place in the (conflict resolution) processes.

The degree to which conflicts are resolved are depicted in Table 32. About 73.6% (n = 84) of the participants indicated that their conflicts are well or very well solved during their athletic careers. These percentages are lower than those before their athletic careers (n = 99, 84.6%; see Table 27). Another 48 (36.4%) participants reported that the conflicts were not well or very badly solved. It is assumed that, during top-level competitive sport career, high intensity of sport training and competition demand almost all the time and energy that the athletes possess throughout the duration (M = 8.36 years, SD= 3.76; see Table 23). Thus the conflicts between the main task (to achieve better performance and win in competitions) and other attempts like academic success and/or occupational development will also exist throughout the duration. Therefore athletes during their sport careers have little space (time, opportunity, allowance etc.) to develop themselves in other fields such as academia, occupation etc. (Tables 33-36). Consequently, the conflicts between sport commitment and academic, occupation and son so on, will accompany the progress of the athletic career and can hardly be resolved without institutional intervention and professional assistance from psychological, educational and occupational approaches.

Table 32: Degree of conflict resolution during high-level athletic career.

	Degree of resolution	Frequency	Percent	Valid Percent
Valid	very bad	8	5.4	6.1
	not well	40	26.8	30.3
	well	68	45.6	51.5
	very well	16	10.7	12.1
	Total	132	88.6	100.0
Missing		17	11.4	
Total		149	100.0	

Table 33: Free decision making space within sport (e.g. to change club or/and sport items) during high-level athletic career.

	Free decision making space	Frequency	Percent	Valid Percent
Valid	very low	67	45.0	48.2
	low	54	36.2	38.8
	high	12	8.1	8.6
	very high	6	4.0	4.3
	Total	139	93.3	100.0
Missing		10	6.7	
Total		149	100.0	

Table 34: Free decision making space outside sport (e.g. to receive education or occupational training in other directions) during high-level athletic career.

	Free decision making space	Frequency	Percent	Valid Percent
Valid	very low	54	36.2	38.6
	low	37	24.8	26.4
	high	36	24.2	25.7
	very high	13	8.7	9.3
	Total	140	94.0	100.0
Missing		9	6.0	
Total		149	100.0	

Table 35: Degree of free time during high-level athletic career.

	Free time	Frequency	Percent	Valid Percent
Valid	very low	40	26.8	27.4
	low	74	49.7	50.7
	high	31	20.8	21.2
	very high	1	0.7	0.7
	Total	146	98.0	100.0
Missing		3	2.0	
Total		149	100.0	

Table 36: Perceived personal limitations caused by athletic career.

	Personal limitation	Frequency	Percent	Valid Percent
Valid	very high	23	15.4	15.9
	High	52	34.9	35.9
	low	50	33.6	34.5
	very low	20	13.4	13.8
	Total	145	97.3	100.0
Missing		4	2.7	
Total		149	100.0	

The differences of reported percentages in the above four items were examined by a Chi-Square. The results can be seen in Table 37. It indicates that most of the Chinese participants have low or very low decision making space both inside and outside sport, and do not have enough (low or very low degree) free time for themselves. But the reported frequencies of personal limitations caused by sport are not significantly different between “low or very low” and “high or very high” degrees. However, more than half (51.7%) of them still considered intensities having been bounded to a high degree in their personal domain for athletic reasons.

Table 37: Chi-Square test results about personal development environment during high-level athletic career.

	Free decision space inside sport matters	Free decision space inside sport matters	free time degree	personal limitation caused by sport
Low or very low	121	91	114	70
High or very high	18	49	32	75
Valid Case	139	140	146	145
χ^2	76,324	12,600	46,055	,172
df	1	1	1	1
p	,000	,000	,000	,678

4.3.3 Individual attitudes and perceptions with high-level athletic career

Under the personal developmental environment and conflicts which were depicted in the above section, the attitudes and perceptions of individuals with the high-level competitive sport careers need to be revealed to have a better understanding of their subjective (developmental) action contexts during their athletic careers.

4.3.3.1 Subjective satisfaction with high-level competitive sport career

In terms of the subjective satisfaction with various aspects of the high-level competitive sport career, most of the participants were satisfied with the sport career except for private support (sponsoring) of sport items and the financial conditions of clubs/teams (Table 38). The aspect which had the highest level of satisfaction was coach (88.9%), and the one with the lowest satisfaction level was private support (sponsoring) of sport club/team (38.7%).

The effect of personal developmental environment (Table 33-36) on these satisfaction variables were examined by an ANOVA procedure. The result indicated that the interaction among four variables “decision making space inside sport”, “decision making space outside sport”, “free personal time” and “personal limitation caused by sport” had a significant effect on satisfaction with the sport career as a whole ($F = 2.011$, $p = 0.028$).

Table 38: Satisfaction with competitive career in Chinese former elite athletes.

Satisfaction level	With club/team	With coach	With medical care	With association	With state support	With private support	With financial condition
Not satisfied at all	5 (3.5%)	3 (2.1%)	3 (2.3%)	5 (3.9%)	4 (2.8%)	24 (21.6%)	14 (10.5%)
Somehow not satisfied	39 (27.3%)	13 (9.0%)	28 (21.5%)	37 (28.9%)	34 (23.6%)	44 (39.6%)	65 (48.9%)
satisfied	87 (60.8%)	83 (57.6%)	68 (45.6%)	75 (58.6%)	80 (55.6%)	40 (36.0%)	50 (37.6%)
Very satisfied	12 (8.4%)	45 (31.3%)	31 (23.8%)	11 (8.6%)	26 (18.1%)	3 (2.7%)	4 (3.0%)
Valid Case	143	144	130	128	144	111	133

4.3.3.2 Personal perspective of the influence of athletic career on health

The influence of high-level competitive sport on personal health during the athletic career is reported in Table 39. A Chi-Square test indicated that percentage of perceived positive and very positive influence is significantly higher than negative and very negative one ($\chi^2 = 7.723$, $df = 1$, $p = 0.005$).

Table 39: Influence of athletic career on personal health.

	Perceived influence	Frequency	Percent	Valid Percent
Valid	very negative	11	7.4	7.8
	negative	43	28.9	30.5
	positive	75	50.3	53.2
	very positive	12	8.1	8.5
	Total	141	94.6	100.0
Missing		8	5.4	
Total		149	100.0	

4.3.3.3 Perspective on the influence of athletic career on social life

The perceived influence of athletic career on social life (e.g. relationship with family and friends etc.) was also frequently reported as positive or very positive (see Table 40). The difference between “positive and very positive” and “negative and very negative” groups is significant ($\chi^2 = 43.643$, $df = 1$, $p = 0.000$).

Table 40: Perceived influence of athletic career on social life.

	Perceived influence	Frequency	Percent	Valid Percent
Valid	very negative	6	4.0	4.2
	negative	26	17.4	18.2
	positive	98	65.8	68.5
	very positive	13	8.7	9.1
	Total	143	96.0	100.0
Missing		6	4.0	
Total		149	100.0	

4.3.3.4 The most important success in athletic career and its effect

“The most important success of athletic career” was studied with an open question. Through a content analysis, the answers provided by the participants were summarized in Table 41.

Table 41: The most important success in athletic career: Content and frequency.

The most important success in athletic career	Frequency	Valid Percentage
To gain excellent performance in important competition	60	46.2
Self actualization and improvement of self quality	30	23.1
Have a ideal result with athletic career	9	6.9
Improvement of sport performance level	11	8.5
To win honor for group (team, country etc.)	7	5.3
No such important success	7	5.3
To take part in important competition (e.g. The Olympic Games)	6	4.7
Missing	19	

The influence of athletic success on the whole athletic career and life outside athletic career is reported in Table 42. It reveals that even success in sport can have negative influences on both athletic career and life outside of sport. It mostly depended on individual perception rather than the objective truth of the success itself. In addition, the relationship between influences inside and outside sport career is significant ($r = 0.32$, $p = 0.000$, $n = 122$).

Table 42: Influence of the most important athletic success inside and outside athletic career.

Influence	Inside athletic career		Outside athletic career	
	Frequency	Valid percent	Frequency	Valid percent
Valid very negative	3	2.3	3	2.3
negative	5	3.8	11	8.6
positive	80	61.1	88	59.1
very positive	43	32.8	26	20.3
Total	131	100.0	128	100
Missing	18		21	
Total	149		149	

4.3.3.5 The most important loss in athletic career and its effect

Besides important successes, it is also possible for individuals to encounter serious losses during their elite athletic careers. “What was the most important failure during athletic career” was also asked as an open question. The result of content analysis is presented in Table 43.

Table 43: The most important loss in athletic career: Content and frequency

The most important loss in athletic career	Frequency	Valid percent
Could not achieve predetermined sport goal	21	21.0
Sport injury/ pain/ fatigue	21	21.0
Could not take part in important competition (e.g. the Olympic Games)	14	14.0
Failure or poor performance in competition	12	12.0
Too early retirement, short athletic career	10	10.0
Training with a poor ability coach	10	10.0
No important loss	8	8.0
Self-indulgence during athletic career	4	4.0
Missing	49	

“Could not achieve predetermined sport goal” and “sport injury/pain/fatigue” are frequently reported as the most important loss in athletic career. An interesting result is that some former athletes believed that “training with a coach who does not have enough sport or training ability” is their most important loss. It somehow reflects the limited decision making space within sport activity during their athletic career. There were also some participants who believed that the most important loss during athletic career is “self-indulgence in athletic career”. Both of these two answers are indeed “causes of loss” rather than “loss” per se. However, they can also reflect different perhaps contradicting beliefs about loss in athletic career. The influence of these perceived important losses inside and outside elite athletic career life can be examined in Table 44. It can be seen that the important losses in athletic area are perceived as positive or very positive to some athletes. The relationship between influence of the most important athletic loss inside and outside athletic career is also significant. ($r = 0.511, p = 0.000, n = 101$).

Table 44: Influence of the most important athletic loss inside and outside athletic career.

Influence	Inside athletic career		Outside athletic career	
	Frequency	Valid percent	Frequency	Valid percent
Valid very negative	30	25.0	13	11.9
negative	59	49.2	55	50.5
positive	24	20.0	36	33.0
very positive	7	5.8	5	4.6
Total	120	100.0	109	100
Missing	29		40	
Total	149		149	

4.3.4 Social environment during high-level athletic career

Although the aspects of the social environment during the high-level athletic career such as (a) the attitude of the people in the social surrounding towards high-level competitive sport career; (b) assistance in conflict resolution; (c) reference people who encourage the entry into an athletic career have been analyzed and discussed in previous sections, there are still some other factors would be described in this section to provide a all-

round impression about the individual's social surroundings which will affect the personal perspective of the athletic career context.

4.3.4.1 Friends networks during high-level competitive sport career

Table 45 gives an overview of the source of friends during the athletic career. These results are compared with those before the sport career. The reported frequency of the friends out of sport was significantly reduced during athletic career.

Table 45: Source of friends before and during high-level athletic career.

	Source of friends	Before athletic career		During athletic career		Sig.	
		Frequency	Valid Percent	Frequency	Valid percent	<i>z</i>	<i>p</i>
Valid	sport	39	26.5	52	37.1	1.588	0.056
	out of sport	21	14.3	7	5.0	2.550	0.005
	sport and no sport	87	59.2	81	57.9	0.144	0.443
	Total	147	100.0	140	100.0		
Missing		2		9			
Total		149		149			

4.3.4.2 Perceived popularity and relationship with media

As a result of the development of contemporary competitive sport, the relationships between the elite sport system and mass media such as newspapers, broadcasting and TV are being studied. Elite athletes usually become highly popular through various kinds of media. Some studies have discovered the maladjustment caused by the loss of focus and identity crisis at the end of sport career among some former famous athletes (Sinclair & Orlick, 1993; Grove, Lavalley & Gordon, 1997). However, the commercialization and the popularization of elite sport in China has increased only in the recent years (Fan, 1997). Athletes who ended their athletic careers before the end of 1980's usually did not have any media attention unless he/she had very excellent performance at the world level. The participants' perceived popularity by themselves and their satisfaction toward media reports are offered in Table 46 and Table 47 respectively. A Spearman correlation test indicates a significant relation ($r = 0.30, p < 0.001$) between the two variables, i.e., athletes who have higher perceived popularity were also likely to have higher satisfaction with their public images.

Table 46: Perceived popularity during high-level athletic career.

	Popularity during athletic career	Frequency	Percent	Valid Percent
Valid	very low	36	24.2	25.2
	low	45	30.2	31.5
	high	56	37.6	39.2
	very high	6	4.0	4.2
	Total	143	96.0	100.0
Missing		6	4.0	
Total		149	100.0	

Table 47: Satisfaction towards self-related media report.

	Satisfaction degree	Frequency	Percent	Valid Percent
Valid	not satisfied at all	8	5.4	6.4
	not satisfied	30	20.1	24.0
	satisfied	81	54.4	64.8
	very satisfied	6	4.0	4.8
	Total	125	83.9	100.0
Missing		24	16.1	
Total		149	100.0	

4.3.5 Future development planning during high-level athletic career

The developmental environment of athletes has been described with several parameters in the section of “personal developmental environment during elite sport career” (see section 4.3.2). Under such an (perceived) environment, how did these former elite athletes plan for their future personal development? What did they plan during their athletic career and how much did they realize these plans? In Figure 20 and Table 48 these questions would be addressed.

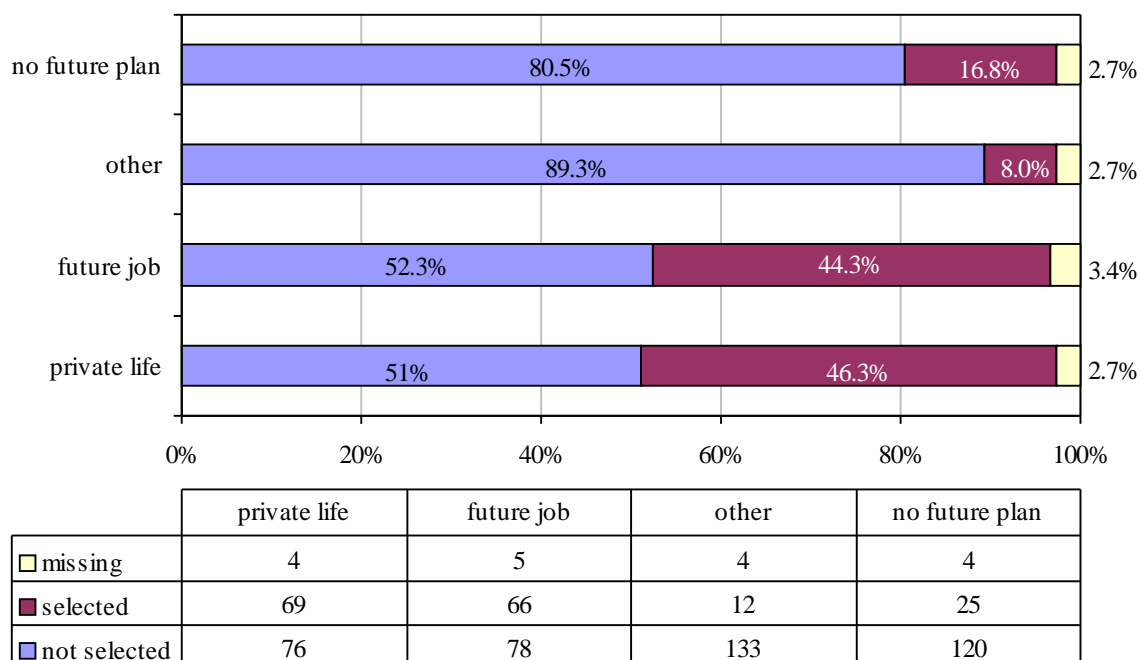


Figure 20: Future plan: Frequency (n = 149).

Table 48: Realization of plans after the athletic career.

	Realization of plans	Frequency	Percent	Valid Percent
Valid	very bad	15	10.1	11.8
	not well	26	17.4	20.5
	well	73	49.0	57.5
	very well	13	8.7	10.2
	Total	127	85.2	100.0
Missing		22	14.8	
Total		149	100.0	

A Spearman correlation test indicated that there was no significant relationship between plans for private, future job and others aspects. On the other hand, “no plan for future” was negatively related with the first two plans. (see Table 49).

Table 49: Relations among various future plans during athletic career.

	private life	future job	other things	no future plans
private life	1,000	-,045	-,086	-,331**
future job	-,045	1,000	-,126	-,431**
other things	-,086	-,126	1,000	-,138
no future plans	-,301**	-,423**	-,138	1,000

** Correlation is significant at the 0.01 level (2-tailed).

4.4 Athletic Career Termination and Career Transition

Based on the understanding on the personal developmental events and environment before and during high-level competitive sport career, athletic career end and career transition process will be addressed in the present section. Topics such as the reason for athletic career end, response to the career end, preparation of career end and following life as well as the adjustment to a post-athletic new career. will be highlighted. The interactive effects among various aspects will also be analyzed.

4.4.1 Causes of sport career end

The causes of top-level competitive career end were investigated by an open-ended question. Participants could provide multiple answers to explain their reasons for sport career termination. The result (Table 50) was subjected to content analysis procedure. Among China participants, “injury/health problem” and “age” were the most popular cause of sport career end. The “system” is made up of factors such as retirement caused by dissection or pressure from sport organization, or dissonance with sport system. More than thirty percent (32.8%, n = 49) of these participant did not provided any answer to this question.

Table 50: Main reasons for competitive sport career end.

Cause	Age	Injury/Health problem	Occupation	Education	System	Missing
Frequency	27	41	12	6	14	49
Valid Percent	27.0	41.0	12.0	6.0	14.0	

4.4.2 Response to high-level athletic career termination

As an important stressful life event (Holmes & Rahe, 1967; Lazarus & Folkman, 1984), the athletic career end (retirement) bring about stressful crises (Stabulova, 2000) during the life-span development process. How athletes respond to their athletic career termination is another important issue that will be addressed in the present investigation.

The subjective responses toward sport career termination are reflected in Table 51. It can be seen that, in the emotional aspect, the reported frequency of “rather difficult” or “very difficult” is not significantly less than “rather easy” or “very easy”. However, there were more “easy” responses are reported in social aspects and new job seeking (see Table 52). Even then, the number of individual with difficult or very difficult responses to their athletic end still calls for intensive efforts in further research and intervention in this field.

Table 51: Responses to the end of athletic career.

Feeling	Emotional response		Response on social aspects		Response on new job seeking	
	Frequency	Valid Percent	Frequency	Valid Percents	Frequency	Valid Percent
Very easy	12	8.6	16	11.3	7	5.0
Rather easy	60	42.9	86	60.6	76	54.3
Rather difficult	51	36.4	35	24.6	40	28.6
Very difficult	17	12.1	5	3.5	17	12.1
Missing	9	6.0	7	4.7	9	6.0

Table 52: Difference between frequencies of responses at the end of athletic career.

	Emotional response	Response on social aspects	Response on new job seeking
Very easy or rather easy	72	102	83
Very difficult or rather difficult	68	40	57
Chi-Square	.114	27.070	4.829
df	1	1	1
Asymp. Sig.	.735	.000	.028

The end of an elite athletic career might also reduce the level of public interest in an athlete. Most of the Chinese participants (77.4%) treated this reduction easily or very easily. Meanwhile others (22.6%) faced this change in various degrees of difficulty (Table 53). Furthermore, this response is significantly related (Spearman correlation) with the popularity degree during athletic career ($r = 0.22$, $p = 0.015$), i.e., individuals

with higher popularity during their high-level competitive sport career would respond to the reduction of public interest (caused by athletic career termination) more negatively.

Table 53: Response to reduction of public interest.

	Response	Frequency	Percent	Valid Percent
Valid	very easy	23	15.4	18.0
	rather easy	76	51.0	59.4
	rather difficult	26	17.4	20.3
	very difficult	3	2.0	2.3
	Total	128	85.9	100.0
Missing		21	14.1	
Total		149	100.0	

4.4.3 Preparation for athletic career end and transition

The preparation for athletic career termination and career transition include the plans for a of career end and actions to prepare for the coming career termination. It might either be awareness and actions at the beginning of the career or a short-term preparation just before the happening of career end. The contents of preparation span occupational, educational, social and other aspects. Athletes can prepare for their athletic career end themselves and also with the assistance from their social networks.

4.4.3.1 Degree of planning of the sport career end

There were 62.3% participants who reported that they finished their athletic careers with “not well” or “not at all” planned end (Table 54). This result revealed a bad situation in athletic career planning the participants.

Table 54: Planned degree of athletic career end.

	Planned degree	Frequency	Percent	Valid Percent
Valid	not at all	34	22.8	23.3
	not well	57	38.3	39.0
	Well	49	32.9	33.6
	very well	6	4.0	4.1
	Total	146	98.0	100.0
Missing		3	2.0	
Total		149	100.0	

The effects of the degree of planning for sport career termination (Table 55) and preparedness degree (see Table 57) according to the subjective feeling in transition process were examined with Chi-Square as shown in Table 55 and Table 56. It appears that the planned degree of sport career end has significant effects on many aspects during the high-level athletic career end/transition process.

Table 55: Effects of planned degree on individual perspective of various aspects during retirement/transition process.

	Emotional response	Response on social relationship	Response on new job seeking
Chi-Square	9.516	4.752	6.039
df	3	3	3
Sig.	0.023*	0.191	0.110

* significant at the 0.05 level (2-tailed).

Table 56: Effects of planned degree on preparation in various aspects during retirement/transition process.

	Preparation on emotion	Preparation on social relationship	Preparation on new job seeking
Chi-Square	27.715	20.346	12.345
df	3	3	3
Sig.	0.000**	0.000**	0.000**

** significant at the 0.01 level (2-tailed).

4.4.3.2 Preparation for athletic career end during the transition process

The preparation for career end includes occupational (new job seeking), educational, emotional and social aspects (Table 57). Chinese participants in the present investigation usually had good or very good preparation for their athletic career end. However, there was also a remarkable percentage of bad and very bad preparation in all these aspects. The relationships among various aspects were significantly positive (Table 58), i.e. the individual who has good emotional preparation will usually be well prepared in other aspects. On the contrary, individual who has bad preparation in one aspect is usually badly prepared in other aspects. The effects of planning for a career end on the preparation in various aspects can be examined in Table 56.

Table 57: Prepared degree on various aspects at the end of athletic career.

Preparation	Emotional aspects		Social (relational) aspects		new job seeking	
	Frequency	Valid Percent	Frequency	Valid Percents	Frequency	Valid Percent
Very good	17	12.0	9	6.5	12	8.5
Rather good	75	52.8	71	51.1	82	58.2
Rather bad	40	28.2	52	37.4	41	29.1
Very bad	10	6.7	7	5.0	6	4.3
Missing	7	4.7	10	6.7	8	5.4

Table 58: Relationships among preparations of career end.

		Emotional aspects	Social relational aspects	Occupational (new job seeking) aspects
Emotional aspects	Spearman Correlation	1.000	0.639	0.381
	Approx. Sig. n	.	0.000	0.000
		142	138	138

4.4.3.3 Preparation for post-athletic career: Attitude and actions

The preparation for athletic career end during the career transition process has been examined. The attitude towards and the actual actions to prepare for post athletic career are illustrated in Figure 21.

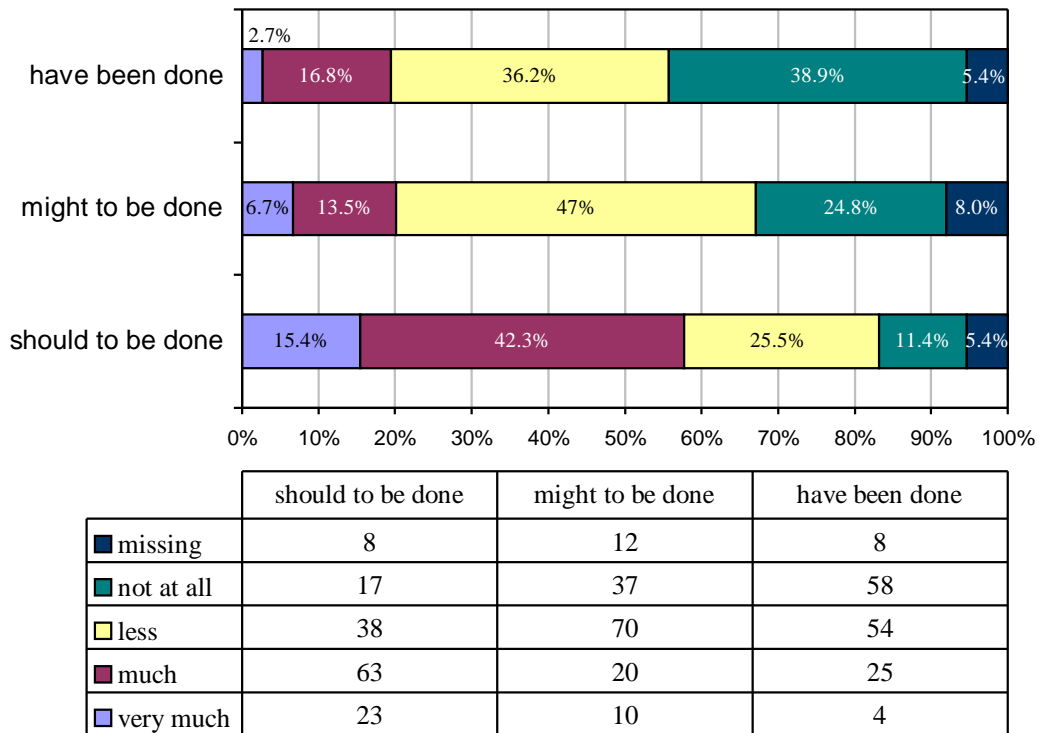


Figure 21: Career end preparation during high-level athletic career: Ideas and facts (n = 149).

A *t*-test was used to examine the disparity between the three variables. The differences between every two of them are all significant (see Table 59). It reflects that most former athletes who participated in this investigation were dissatisfied with their preparation during top-level competitive sport career for post-athletic career. They also had a negative perspective toward the contextual possibility of their preparation work. Furthermore, a Spearman correlation test indicated that the preparation work “should to be done” and that which actually “have been done” were respectively significantly related with some indexes of personal development environment during athletic career. The correlation results can be seen in Table 60.

Table 59: Difference between attitude and actual action in post-athletic career preparation.

Pairs	n	Mean	SD	t	df	p
Should be done - have been done	138	0.84	0.98	10.118	137	0.000
Should be done – might to be done	135	0.64	1.02	7.262	134	0.000
Might to be done – have been done	135	0.19	0.96	2.252	134	0.026

Table 60: Relationships between career end/transition preparation and personal development environment.

		Decision making space inside sport matters	Decision making space outside sport matters	Personal free time	personal limitation caused by sport
Preparation have been done	Spearman Correlation	0.177*	0.015	0.174*	0.002
	p	0.040	0.863	0.041	0.979
	n	135	135	139	138
Preparation should to be done	Spearman Correlation	0.146	0.283**	0.052	-0.011
	p	0.097	0.001	0.550	0.901
	n	131	131	135	134

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

4.4.3.4 Assistance during the preparation for athletic career termination

During the athletic career transition process, where did athletes get assistance in their preparation, and from where did they want to get assistance? In Table 61, the discrepancies between reported and desired sources of assistance are examined. It can be inferred that athletes received assistance mostly from family; however, they would have liked to get more assistance from the coach, friend and sport association. A few of them (4, 2.7%) wanted to go through the retirement process without any help. On the

other hand, these athletes got **little** assistance from professional (career assistance) approach, club/team and sport association. They either **did not** want to get assistance from professional approach, club/team and sport association, or they **did not** think it is possible to get assistance from these sources. At the same time, most of them (140, 97.3%) **did not** want to go through sport retirement without any help. These results reflect the subjective perceptions of the athletes have of their social environment during retirement/transition process.

Table 61. Received and desired assistance during sport retirement/transition.

	sport association	club/team	coach	professional assistance	family	friend	no help
selected	13(49)*	12(28)	68(82)	3(23)	70(65)	64(85)	16(4)
not selected	131(95)	132(115)	76(60)	142(121)	75(79)	81(59)	129(140)
missing	5(5)	5(6)	5(7)	4(3)	4(4)	4(5)	4(5)

* The numbers out of parentheses reflect the actual situation; the numbers in parentheses reflect the participants' wishes.

The above results can be further analyzed by a t-test between the assistance that was actually received and what they wanted to get during the career transition process. Table 62 indicates a significant difference between these two variables, i.e. the assistance that they received was significantly lower than what they wanted (Table 62).

Table 62: Difference between received and wanted assistance during athletic career transition process.

	n	mean	sd	t	df.	p
Received assistance	135	1.03	0.92	-8.115	134	0.000
Wanted assistance	135	1.84	0.91			

4.4.3.5 Adjustment of post-athletic career: Sex differences

The influence of different sexes on the adjustment process of post-athletic career can be seen in Table 63. No difference between sex groups have been found in the Chinese sample.

Table 63: Perceptions of influence of gender on post-athletic career adjustment.

To adjust to post-athletic career. compared with male athletes. female athletes is.....	Frequency	Percent (%)
more difficult	32	23.0
more easy	25	18.1
no difference	82	58.9

4.4.3.6 Adjustment of post-athletic career: The time

The account of time necessary to adjust to a post-athletic career after sport career end was also investigated. The result can be seen in Figure 22. It reveals that almost half of the former athletes acclimatize to a new career and environment in half to one year (27.5% and 21.5 % respectively); 16.8% needed one year to two years to get over this process. Another 12.8% of the participants indicated that it took more than two years to adapt while the remaining 14.2% former athletes adapted to new situation within one month. These results indicate that there are remarkable individual differences among retired elite athletes in the re-adaptation to post-athletic life environment. Some of these athletes went through it smoothly, while others could hardly accomplish this process even after more than two years.

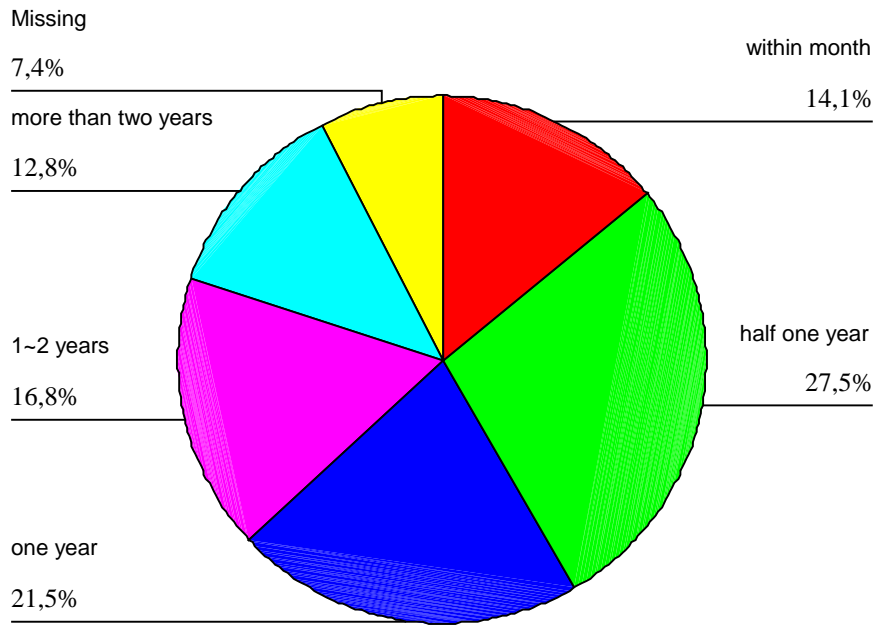


Figure 22: Time needed to adjust to post-athletic life (n = 149).

4.5 Post-athletic Career and Every Day Life

The post-athletic career of former elite athletes investigated in this study encompassed several aspects: (a) The educational and occupational situations in post-athletic career, (b) social relationships, (c) retrospective evaluation on elite athletic career and (d) perspective of future life.

4.5.1 Educational and Occupational aspects

To receive further education and/or to get a proper new occupation are important to retired elite athletes in order to adapt to their post-athletic careers. They are also remarkable factors to differentiate athletic career end from normal chronological retirement. Whether athletes have satisfactory (upward) educational and occupational opportunities after their athletic career is a very important predictor of successful career transition and post-athletic career development (Coakley 1986, Mihovilovic. 1968). In the present study, various issues on this topic are included and will be discussed in the following sections.

4.5.1.1 Education after high-level athletic career

It has been mentioned that Chinese elite athletes can usually get some education during their athletic career. This kind of education is different from normal education outside the competitive sport system. In Figure 23, the changes after sport career end are illustrated. It can be seen that most of these former Chinese elite athletes did not pursue formal education. Rather, most of them began with new jobs.

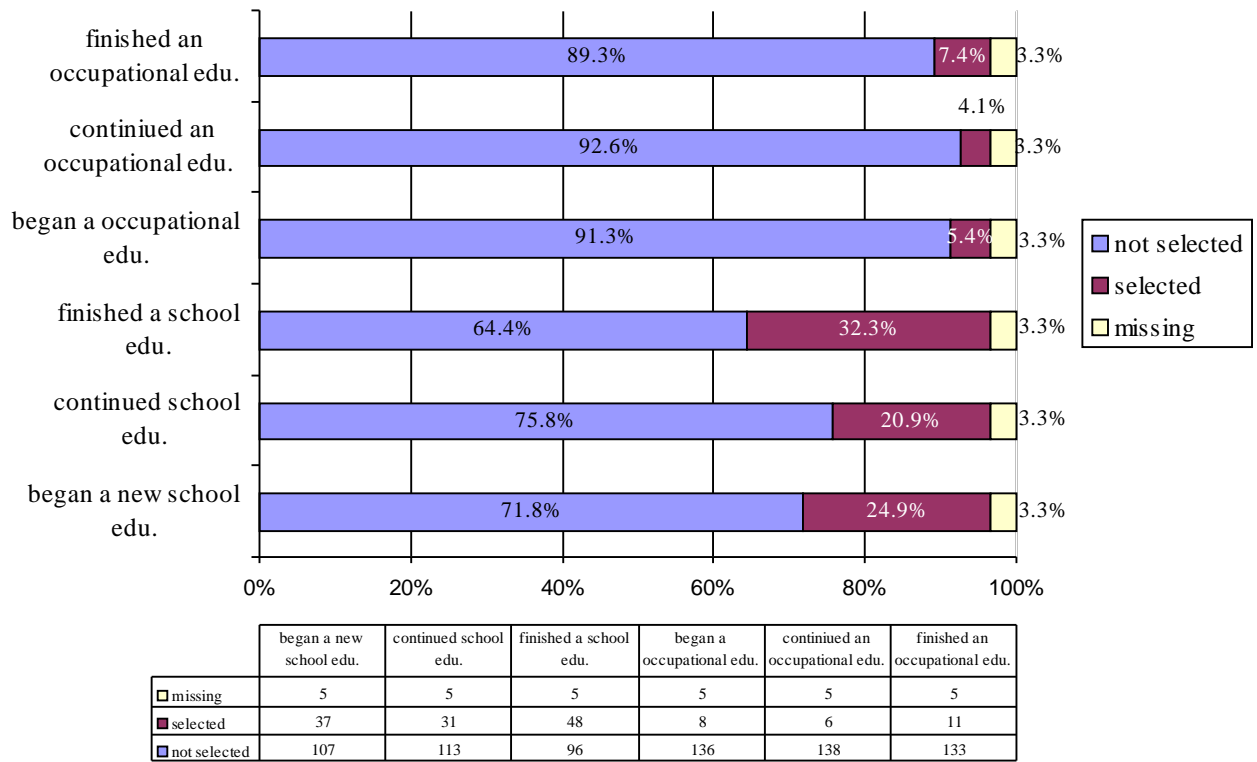


Figure 23: Educational activities during post-athletic life (n = 149).

4.5.1.2 Relationship between new job and competitive sport

In Table 64 the relationship between the post-athletic new job and sport is examined. A total of 82.8% of the former Chinese elite athletes got sport related jobs after their elite athletic career. Only 16.5 % participants indicated that there were no relation between their new jobs and sports. This trend revealed that the Chinese competitive sport system used to arrange their retirement athletes within the sport system by providing job opportunities in the competitive sport system. However, the shortcomings of this approach have realized and have been criticized as a block to the reforming process from governmental to the social-economical directing mechanism of the competitive system (Hu. 2000).

Table 64: Relationship between post-athletic job and sports.

	Selected frequency	Valid percent (%)
Very close relation	99	71.3
Close relation	16	11.5
Somehow a relation	1	0.7
No relation	23	16.5
Total	139	100
Missing	10	6.7

Compared with the results of the German investigation, significant differences are found between two country groups: More than 80% former Chinese athletes in the present investigation were substantially involved in a sport-related occupation at the time of the investigation. In the German participants, more than 60% former athletes had new job which has no relation with sport (Table 65).

Table 65: Relationship between current job and sport.

	Germany		China		Significance	
	n	%	n	%	z	p
No relation	33	61.1	24	17.3	5.90	0.00
Somehow a relation	10	18.5	16	11.5	1.18	0.11
Close relation	11	20.4	99	71.2	7.64	0.00

The benefits of former sport participation to current career life were also investigated (see Table 66). Most former athletes believe that their former experiences with competitive sport career benefited their current career lives. This may be explained by the close relationship between their current job and sports. A Spearman correlation test indicated a significant correlation between the “relationship with sport” and “benefit from sport” ($r = 0.83, p = 0.000$).

Table 66: Benefits of former sport participation to current career life.

	Frequency	Valid Percent (%)
Very beneficial	92	63.4
Beneficial	21	14.5
Somehow beneficial	9	6.2
No beneficial	23	15.9
Total	145	100
Missing	4	2.7

4.5.1.3 Assistancess in post-athletic occupations

The main sources of assistance of former elite athletes during post-athletic career are depicted in Figure 24. It can be inferred that the influential power of former sport organizations (club/team and sport association) have been reduced. The connection with coach usually existed in a more private form. The assistance during post-athletic career is mostly from friends and family.

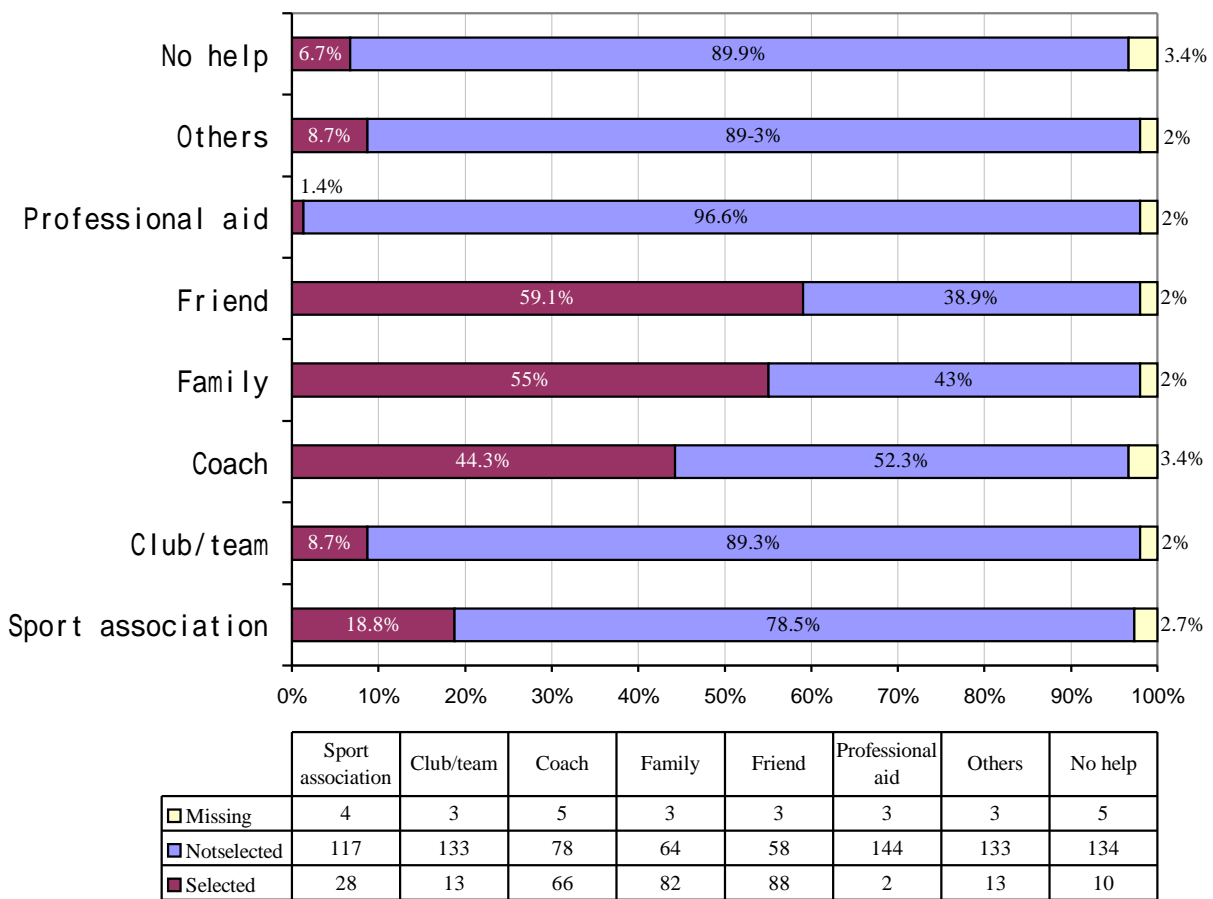


Figure 24: Main assistance resources on post-athletic occupations (n = 149).

4.5.1.4 Perceived social prestige of athletic career and post-athletic occupation

Table 67 refers to the reported frequency of Chinese participants' perceptions of the difference between the social prestige of their athletic position and post-athletic

occupation. Most of them (70.2%) perceived the prestige of their new jobs as having no big difference compared with their former high-level competitive sport career. However, there was also nearly 30% who believed that the athletic career end brought obvious changes to their social prestige.

Table 67: Perceived difference between social prestige of former and current occupations.

	Difference degree	Frequency	Percent	Valid Percent
Valid	very low	51	34.2	38.1
	low	43	28.9	32.1
	rather high	20	13.4	14.9
	very high	20	13.4	14.9
	Total	134	89.9	100.0
Missing	System	15	10.1	
Total		149	100.0	

4.5.1.5 Satisfaction towards current occupation

The satisfaction of participants with current job is reported in Table 68. Compared with the German counterparts, although more former Chinese athletes work in a sport-related occupation. German athletes were more satisfied with their current working life than their Chinese counterparts (Table 69).

Table 68: Satisfaction with current job.

	Satisfaction degree	Frequency	Percent	Valid Percent
Valid	not at all	7	4.7	5.0
	rather not satisfied	19	12.8	13.5
	rather satisfied	89	59.7	63.1
	very satisfied	26	17.4	18.4
	Total	141	94.6	100.0
Missing		8	5.4	
Total		149	100.0	

Table 69: Satisfaction with current job.

	Germany		China		Significance	
	n	%	n	%	z	p
Not at all	2	3.2	7	5.0	0.58	0.28
Rather not satisfied	3	5.0	19	13.5	2.11	0.01
Rather satisfied	35	58.4	89	63.1	0.62	0.26
Very satisfied	20	33.3	26	18.4	2.16	0.01

With regards to the situation within the Chinese group, the mean of this degree of satisfaction is significantly higher than the average degree of satisfaction with other aspects (see Table 38) during athletic careers (Table 70).

Table 70: Comparison between satisfaction with athletic career and post-athletic career.

	Mean	N	SD	t	df	p
How satisfied are you with your current job situation	1.90	80	.72	2.166	79	0.033
Satisspo*	1.7188	80.4254				

4.5.2 Social networks in the post-athletic career

The social environment after athletic retirement is another important aspect of athlete's post-athletic "normal" life. In the present section, the friend networks of these former athletes is examined to deepen the comprehension of post-athletic career of former elite athletes.

4.5.2.1 Satisfaction towards current family situation

Table 71 illustrates that other than 10% of them, most participants were satisfied with their family situations at the time of the investigation.

* The general satisfaction toward athletic career is defined as an average of satisfaction degree of various aspects during athletic career. $Satisspo = (satclub + satcoach + satdoc + satasso + satstate + satprivat + satfinancial + satmedia) / 8$.

Table 71: Satisfaction towards current family situation.

	Satisfaction degree	Frequency	Percent	Valid Percent
Valid	not at all	4	2.7	2.9
	rather not satisfied	11	7.4	7.9
	rather satisfied	67	45.0	48.2
	very satisfied	57	38.3	41.0
	Total	139	93.3	100.0
Missing		10	6.7	
Total		149	100.0	

4.5.2.2 Resources of social networks

We have compared the friend networks before and during high-level athletic career. The results suggest that upon entering the competitive sport career, the amount of friends outside sport significantly decreased (compare with Table 45). What would happen after the athletic career? Table 72 illustrates the sources of friends during post-athletic career. Compared with situation during athletic career, the frequency of friends from only the sport areas is significantly lower. More former athletes set up their social networks both outside and inside sport during post-athletic career. Compared with during the athletic career, the social networks have become wider and more complex.

Table 72: Source of friends during high-level athletic career and post-athletic career.

	Source of friends	post-athletic career		during athletic career		Sig.	
		Frequency	Valid Percent	Frequency	Valid percent	<i>z</i>	<i>p</i>
Valid	sport	28	19.2	52	37.1	-2.843	0.00**
	out of sport	9	6.2	7	5.0	0.138	0.45
	sport and no sport	109	74.7	81	57.9	1.747	0.04*
	Total	146	100.0	140	100.0		
Missing		3		9			
Total		149		149			

** significant at the 0.01 level (2-tailed).

* significant at the 0.05 level (2-tailed).

4.5.3 Review of high-level athletic career

After a certain time interval, how would these former athletes think with their elite athletic experiences? Several retrospective questions were posed in the APAQ, and the results may provide a general profile for the former athletes' conclusive review on their athletic career.

4.5.3.1 Current health: Relationship with past athletic activity

Table 73 depicts the relationship between current health status and former athletic activity. The health problems caused by past athletic activity like training and competition was significantly higher than problems caused by the reduction of athletic activity after competitive sport career end.

Table 73: Current health problem and relationship with athletic activity.

Health problem	caused by former athletic activity		caused by reduction of athletic activity		Difference	
	Frequency	Valid percent	Frequency	Valid percent	<i>z</i>	<i>p</i>
Very low	19	13.1	29	20.3	-1.493	0.0677
Low	47	32.4	72	50.3	-2.630	0.0043
Rather high	46	31.7	33	23.1	1.395	0.0815
Very high	33	22.8	9	6.3	3.678	0.0001
Missing	4		6			

4.5.3.2 Current evaluation of individual top-level competitive sport career

Several years after the top-level competitive sport career ended, how do these former elite athletes evaluate their own competitive sport career in view of their post-athletic career life experiences? Figure 25 sheds some light on this issue.

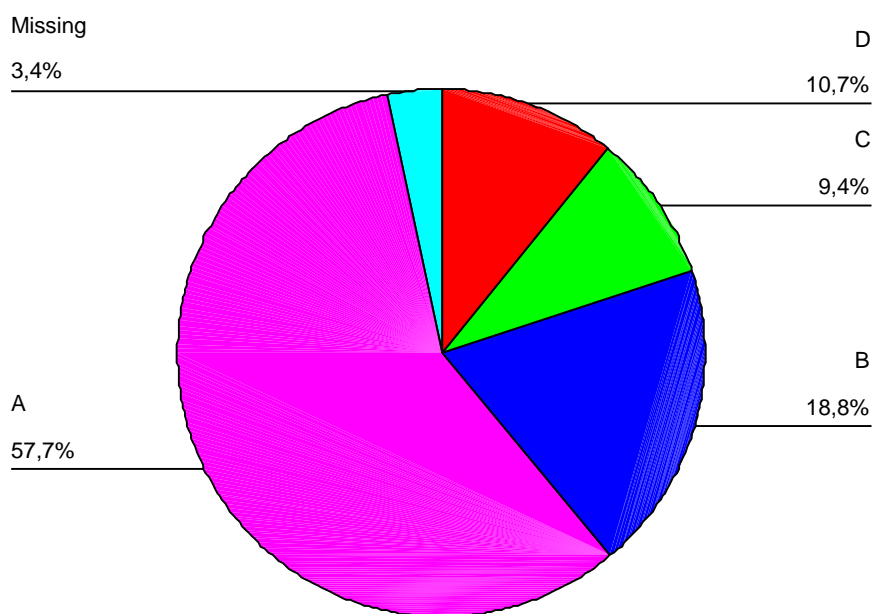


Figure 25: Evaluation towards competitive sport career (n = 149).

Note: In Figure 11:

- A: *“I am glad with my top-level competitive sport career, especially since it had positive influence to my life.”*
- B: *“I am glad with my top-level competitive sport career, even though it had negative influence on some other aspects of my life.”*
- C: *“It’s somehow a regret to me that I participated in top-level competitive sport career, because I have to give up some other things.”*
- D: *“If I can choose once more time, I would never have participated in top-level competitive sport career.”*

In Table 74 the effects of some aspects during the sport retirement/transition process on the individual evaluation of the former competitive sport career can be examined.

Table 74: Effects of several aspects on individual evaluation of former competitive sport career.

Influencing Aspects	df	F	p
Preparation for future occupation during sport career	3	1.549	0.206
Preparation for future occupation during sport career transition process	3	4.760	0.004
Preparation for social relationship during sport career transition process	3	1.258	0.292
Emotional preparation during sport career transition process	3	1.359	0.259

It can be seen that preparation for future occupation during sport career transition process has significant effects on the individual evaluation of former competitive sport career (see Table 74). This may suggest that during the sport career transition process, preparatory work and assistance interventions should focus on occupational aspects such as job seeking and training.

4.5.3.3 Perception of effect of high-level athletic career on personal development

To further explain the evaluation the former Chinese elite athletes made about their athletic career, a question to discover their perceptions of influence of high-level athletic career on personal development was asked. Table 75 provides a brief description. In total 80.9% of them thought that the athletic career experience was positive to their personal development on various levels. On the contrary, 19.2% participants had a negative perspective.

Table 75: Subjective influence of athletic career on personal development.

	Influence of athletic career on personal development	Frequency	Percent	Valid Percent
Valid	very negative	6	4.0	4.3
	rather negative	21	14.1	14.9
	rather positive	85	57.0	60.3
	very positive	29	19.5	20.6
	Total	141	94.6	100.0
Missing		8	5.4	
Total		149	100.0	

4.5.3.4 Relation with past elite athletic career

The relationship with past high-level athletic career was reflected in three aspects: Relation with former teammates, relation with affairs in former sport item and current participation in former sport item. The situation can be seen from Table 76 and Table 77. These results give the impression that most former elite athletes had a close relationship with their former sports. This might be partly explained by the close relationship between their current job and sport (see Table 64).

Table 76: Relation with former sport item.

Relation	With former teammates		With affairs in former sport's	
	Frequency	Valid percent	Frequency	Valid percent
Very low	10	6.9	16	11.0
Low	44	30.3	24	16.6
Rather high	57	39.3	29	20.0
Very high	34	23.4	76	52.4
Missing	4		4	

Table 77: Participation in former sport item.

	Participation degree	Frequency	Percent	Valid Percent
Valid	do no sport	45	30.2	31.0
	do sport. but no competition	82	55.0	56.6
	do sport and compete	18	12.1	12.4
	Total	145	97.3	100.0
Missing		4	2.7	
Total		149	100.0	

From Table 78, it could be inferred that differences between athletes from the two countries also exist in the participation in sport activities after the end of the sport career. Almost 80% of former German top-class athletes are still physically active, while only 13.4% of the Chinese sample continued participating in sport competitions.

Table 78: Sporting activities after the end of the sport career.

	Germany		China		Significance	
	n	%	n	%	z	p
No sport	13	21.0	46	30.9	1.54	0.06
No competition	29	46.8	83	55.7	1.18	0.11
Competition	20	26.2	20	13.4	2.05	0.02

4.5.4 Future plan during post-athletic career

Figure 26 provides a description about the future plans at the time point of investigation. Plan for job was most often selected (64.3%), and 51% of these former elite athletes had plans for private affairs. Only 2.8% of the participants indicated that they had no future plans in all respects.

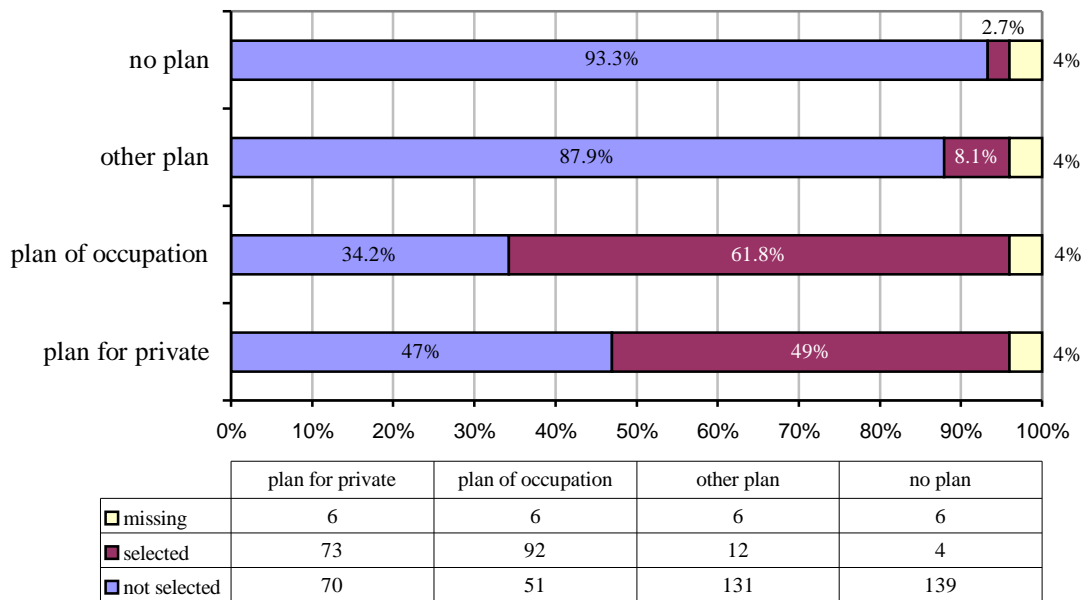


Figure 26: Future plans during post-athletic career (n = 149).

4.6 Summary of Quantitative Results

The quantitative results provide an effective description of the process of athletic career transition and post-athletic career development. As a necessary supplement to the following qualitative analysis, quantitative investigations with large samples has its preponderances in objective data and statistic analysis. It is helpful to make up for the deficits of qualitative case-oriented approaches caused by the limitations of the small number of cases (Ragin, 1987).

The questionnaire (APAQ) used in the present study emphasized psychological, pedagogical and sociological areas of life experience as a top class athlete at different times phases (before top level, during top level, career end and post-athletic career). It also focused on the experience and the management of conflicts or critical life-events as well as the transition from one phase to the next. However, to achieve a better understanding of subjective perceptions about the environment, career development process and characteristics of these former elite athletes themselves, case-oriented intensive individual interviews (Atkinson, 1998; Bromley, 1986; Ragin, 1987) are deemed to be necessary and effective (Dale, 1996; Hackfort, Emrich & Papathanassiou, 1997; Scanlan, Ravizza & Stein, 1989). In life-span development studies, the life story interviews

with their deeply human elements and motifs, can guide us stage by stage, through the entire life course. They foster an unfolding of the self, and help us center and integrate ourselves, through gaining a clearer understanding of our experience, our feelings about them, and their meaning of us. Stories bring order to our experience, and help us to view our lives both subjectively and objectively at the same time.”
(Atkinson, 1998, pp. 9-10).

In addition, researchers in sport psychology (Dale, 1996; Dewar & Horn, 1992; Fahlberg, Fahlberg & Gates, 1992; Hanson & Newburg, 1992; Jackson, Dover & Mayocchi, 1998; Martens, 1987; Scanlan, Ravizza & Stein, 1989; Scanlan, Stein, & Ravizza, 1991; Streat, 1998) have noticed an increasing level of interest in alternative

qualitative paradigms that view the athlete's subjective experience as an important source of information. From an action theory perspective, the present study highlights the entire social-cultural context of athletic career development as a set of action chains. The subjective meanings of the task and environment from the perception of actors are also important. However, case oriented qualitative approaches such as life-story interview can potentially yield a huge amount of data (especially in cross-cultural comparisons) that would be too cumbersome to analyze at the same time (Ragin, 1987). Thus a which focus on critical situations (events and phases) (Danish, Petitpas & Hale, 1995; Hackfort, Emrich, Papathanassiou, 1997) of study objects (process of athletic career transition and post-athletic career development) is helpful to keep the key factors in sight and provide a clear, effective perspective.

The following sections provide information on some critical situations of athletic career development process of Chinese former elite athletes in present investigation.

Additional analysis would also be carried out from an action theory perspective.

Existing German findings and experiences (Hackfort, Emrich & Papathanassiou, 1997; Hackfort & Schlattmann, 1994) would be referred to for comparison.

4.7 Qualitative Results of Interview

In the German investigation, 22 former professional and amateur athletes participated in a semi-structured intensive interview (Table 78). The interview menu is designed based on the action theory integrated framework and the results of past quantitative surveys (Hackfort, Emrich & Papathanassiou, 1997). Individual life experiences and subjective perceptions related to various phases of athletic career were gathered, with special interests in critical events, phases and sources of references relevant to personal development. The mean age of these participants was 32.5 (SD = 5.39).

Table 78: Participants in the German interviews (adopted from Hackfort et al., 1997).

Sport level	Gender		Sum.
	Male	Female	
Amateur	9	6	15
Professional	2	5	7
Sum.	11	11	22

From February to May 1999, 23 Chinese voluntary participants selected base on the previous survey took part in interviews. The mean age was 35.4 (SD = 4.34); most of them were international level athletes in different sports. The Chinese interview guideline was similar to those used in the German version, but considering the unique Chinese cultural and sport system, some changes were made with agreement between researchers in the two countries. The purpose of modifications was to achieve a culturally valid interview.

Interviews in both countries were carried out by experienced staff in the native languages. With consent from the interviewees, the contents of the interviews were recorded with a cassette recorder. All the interview records were transcribed into text in the corresponding language by trained staffs from two countries.

A series of analysis with the German interview data has been carried out in the study by Hackfort and his colleagues (Hackfort, Emrich & Papathanassious, 1997). The present

investigation will quote relevant materials and results of the German study. All the interview transcripts that would be referred to in the following analysis have been translated into English. Instead of quantified approach to analyze the qualitative data (e.g. themes code and frequency analysis), the present study would apply an action theory based interpretative analysis with a focus on the life experience of former elite athletes. The influences of cultural differences will be of special interest.

4.7.1 Athletic career and personal development: Critical events and phases

In line with the quantitative analysis of the APAQ, the qualitative data which is collected in the intensive interviews would also be interpreted with according to the time clue of athletic career. The developmental characteristics of the critical events and phases in the athletic career would be examined.

4.7.1.1 Analysis of athletic career entrance

At the beginning of an athletic career, the entry into an of elite sport is an important event that could potentially be a trigger to spark off an athletic career. The term *entrance of elite sport* refers to the event of individual transfer from his/her original main social/career role (student/trainee in school, worker, etc.) to that of a competitive sport athlete; most of his/her personal resources (time, Energy, feeling, etc.) would be committed to this main role.

In the three-grade sport system (Spare time sport school, youngsters sport school and city/province sport team) in China, only the transfer into the last grades means entrance into the elite sport because individuals in the former two kinds of sport school usually also pay much attention to his/her academic study or activities outside sport training. However, when one has been transferred to a city/province sport team, both the individual and the people in his/her social circumstance would recognize him/her as an “athlete”. He/she will usually leave his/her family and live together with the teammates.

The main financial support will come from a sport institution. Since to most of them, the age of athletic career beginning is low ($M = 15.5$, $SD = 3.13$, see Table 15), the coach usually do not only play the role of a coach for teaching sport skill and improve performance but also that of a parent and supervisor by taking care of routine life.

The sport talent selection system is quite different in Germany. Local sport clubs play a very important role in the development of the country's sport talent pool. These sport clubs are more independent from the government than the sport school system in China, because most sport schools in China are managed by the sport department of the local government. In the beginning, youths training in German sport clubs are mostly self-financed or supported by their family. Therefore they also have more freedom to make choices on sports and entrance the clubs. If they achieve remarkable performance in sport, they might be sponsored by a club or social organization. In China, the children and their family almost pay nothing for the training in sport school. The coaches and training conditions are also provided by sport institutions. However, only those who have good physical conditions and motor abilities can get into this kind of sport school. With the growth of their sport performance, the sport institution would provide more support in various areas ranging from training, competition, travel, and routine life matters. Thus, they have an increasingly dependent relationship with the sport institution. It is obvious that these are two kinds of systems with significantly different approaches. These differences should be always considered during the comparison of career transition processes with elite athletes in the two countries.

Back-tracking to the beginning, the issue of entrance into an athletic career remains. An important trait of contemporary elite sports training is the advancing of systematical training and specialization (Han, 1996). A question following the early entrance into an athletic career arises: What reason(s) made these adolescents choose to become athletes? What is the motivation behind in elite sport participation? According to Murphy (1995), the main motives encouraging sport participation of athletes in Olympic training in USA include: (1) Perceived competence (measurement of skill, improvement of skill), (2) intrinsic motivation (fun, drive to achieve), (3) recognition; (4) the sport, (5) self-development, (6) affiliation and life opportunities, (7) health, fitness and activity, (8)

overcoming adversity; (9) turning points in life, (10) altruism or idealism. In Germany, a study by Alfermann, Sichart, and Dlabal (1993) indicated similar motives such as “physical challenge”, “indication of self achievement limits”, “self confirmation”, and “desire for victory” for sport career entrance and maintenance in German elite athletes. Base on a content analysis of the Chinese interviews, most of the reasons mentioned above apply (Table 79). These results are also in agreement with another study done in China (Zhong, 1998). In that study the reasons for launching into a sport career were concluded as factor of material desire (worship of famous, better remuneration, possibilities of much travel), intrinsic motives (personal interest, self-development, body enhancement, skill improvement), extrinsic effects (influence of family and friends, influence of media), social status change (job seeking, turning point of live situation), opportunity (encouraged by teacher, selected by coach).

Table 79: Motives for elite sport career entrance in Chinese interviewees.

Themes	Content	Frequency (%)
Intrinsic motivation	Interesting. fun. hobby	10 (43%)
	Will to win (championship)	3 (13%)
	Competition and challenge seeking	1 (4.3%)
Competence development	Improvement of sport performance	2 (8.6%)
Personal development	As a path to better (future) social mobility	2 (8.6%)
Extrinsic reasons	Improvement of (material) live condition	3 (13%)
	Selection by coach (sport team)	2 (8.6%)

There were also some reasons like “selected by coach (sport team)” is different with existed study results. Of course, the “selection by coach (sport team)” did not mean that the individual who was selected had no power to refuse the offer, but compliance may be attributable to the significant influence that social reference people (e.g. parent, teacher, coaches, etc.) have on the decision making in some Chinese cases.

Transcription 1

Interviewer: When did you decide to become a high-level competitive sport athlete?
For What reason?

Interviewee: That's the October of 1981... ([interviewer] how old were you at that time?) I was... 14, a little bit more than 14 years old. ([interviewer] For which kind of consideration?) I wanted to be the champion...At that time I have trained in spare-time sport school for 5, no, 4, four to five years. ...My academic study in school was also excellence. Did not like others who trained in spare-time sport school, I studied in a very good key middle school, and was leading in some subjects. At that time I also attended in some competitions of single subject. I had also gained some rewards in mathematic competitions. For this reason, teachers in my school did not like me to join in professional sport team. My parents were same. But I thought at that time, the perspective that to gain champion in sport was more reality to me, and was closer in time. ([interviewer] so...) So I made the decision to enter the high-level sport. (Transcription #8)

Transcription 2

Interviewer: When did you decide to become a high-level competitive sport athlete?
For what reason?

Interviewee: At that time I was just graduated from junior middle school. During study in junior middle school, I swam in a spare-time sport school for several years. According to my plan, I would like continue my study in senior school and then university. During this time break, I still trained in sport school with swimming. But I have risen the idea that to give up the training before my senior school entrance examination*. Just that time, my coach at that time, now he is the headmaster of the spare-time sport school, visited my family. He talked with me with ideas like "How many university students, and how many world championship are there in our country?" (World championship is much less, thus is much valuable). I agreed with his opinion, and then decided to give up my study in senior school and continue my training in youngsters sport school. After one year, I was selected to join in the swimming team of Shanghai. (Transcription #4)

**note: Usually every student can continue with education in senior middle school. but an entrance examination will be carried out to arrange students with different performance for different (teaching) levels of school. Students in school with higher level will have a greater chance of passing in the college and university entrance examination (the pass rate of this examination is about 15-40% in different regions of China).*

Extrinsic reasons and instrumental motivations seem to have a notable impact on the participation of athletic career. In a study in China (Zhong, 1998), sport performance was conceptualized as the athlete's *performance capital*. by which one can open the door to attaining higher social status. It was concluded that “*during period of active play, performance or sport success becomes a capital which has strong influence on his life... In post-athletic period, athlete adjusts to another occupational way of life, whose rank of post-playing job is highly dependent upon the degree of success he has achieved in sport*” (Zhong, 1998, p. 45).

Transcription 3

Interviewer: ... What kind of influence of elite athletic career (on your post-athletic career)?

Interviewee: At least after some good sport performance, I can made selection on my post-athletic occupation. The leaders (in sport system) would also care for my expectations and ideas (post-athletic career development). I could have certain selection space. If someone had no such success (in sport) and reputation, I suppose he/she will have no these (chances).

This result indicated that the athletic career itself is regarded as an approach (tool) to improve social mobility; it is an attempt in life-span personal development. According to the cognitive evaluation theory (CET, Deci, 1975; Deci & Ryan, 1985), these factors may affect expectation and subjective perception of career process (Kamal, 1989; Robinson & Carron, 1982; Watson, 1984).

4.7.1.2 Awareness in and attitude toward personal development during athletic career

The awareness in and attitude towards personal development during athletic career was discussed to in close relation with career behavior. However, despite the instinctive notion that elite sport could be a means to better personal development, participants in the Chinese investigation appeared less aware and/or interested in preparing for post-athletic occupational development, especially in terms of occupational competence outside sports. This may be because firstly the sport specialized education during athletic career resulted in the tradition of former athletes mostly getting their post-

athletic job within sports fields. Secondly, the “trade” between sport *performance capital* and job arrangement in post-athletic life make athletes concentrate more on sport-related matters. According to their beliefs, post-athletic career development might have been integrated into the development in sport competence/performance.

Transcription 4

Interviewer: If it is possible to you to do some preparation for the post-athletic job during high-performance sport career? How great it can be?

Interviewee: This depends on the environment. When I was athlete, the “Reform and Opening” was not begun yet. It was simpler than situation in today. To us, the society outside (sports) was not familiar. In my opinion, as a people working so many years on sport, as a *professional* athlete*, during his/her active period, one should not think about things for post-athletic... jobs and so on. You should do all your best to improve is to improve your sport performance. To *professional* athletes — spare time athlete different performance and success (in sport) is the only most important task. As to consideration for your post-athletic matters, you might, you might talk it with your coach, with everyone relevant (in sport institution), These things can be arranged or considered for you in other approaches: you want either to continue with your education in sport science, or to other university, or to find a job, you could talk all these with your leaders. However, when you are still an athlete, there are still competitions waiting for you, you should not think to much (outside of sports). (Transcription #14)

* *Note: There are two meanings and expressions with a little difference with the word “professional” in Chinese culture. The first meaning is more economical and commercial, and the other one is more commitment and skill-level related. Here the word “professional” was expressed in the second meaning. Since the original construction of sport system drew lessons from former Soviet model (Ogilvie & Taylor, 1993b; Stambulova, 1994), the high-level competitive sport system was mostly supported by government. This made the high-level sport in China different from both commercial professional sports like NBA, NHL, etc. and the original meaning of “amateur” sport. However, with the reform process in China sports, some sports such as football, tennis, volleyball, badminton had begun with their professionalization attempts.*

Transcription 5

Interviewer: If it is possible to you to do any preparation for the post-athletic job during high-level sport career? How great it can be?

Interviewee: It was nearly impossible. May be there are a few athletes like one of my colleague*, he had made some plan for his post-athletic career. But only a few of them could plan for their future (during athletic career). [Interviewer: for what reasons? No possible to do or no awareness to do?] ... both of them. As for me, I was too young to think about these things at that time. On the other hand..., it might be said that we have not received enough education, thus, the perspective (view) was not so wide, and we have no awareness to think about the world outside (sports). This (less of awareness) also lead the limit of possibility. (Transcription #12)

**Note: Another interviewee before this one. They are now working in same company.*

Transcription 6

Interviewer: Is there any possibility to do any preparation for the post-athletic job during athletic career?

Interviewee: During athletic career...it is very difficult, only if you become a coach (after athletic career end), you can do some preparation, and otherwise it is very hard to prepare for (post-athletic career). You can not anticipate it, sometime things are not under your control. You can not get a job just as your expectation or plan. (Transcription #20)

This kind of integration has its merit in athletes' motivation and maintenance in sport (see also in Gordon, 1995). Further more, institutions of competitive sport have a tendency to guide (limit) athlete to focus on the "core" of the competitive sport, namely the performance. Thus, the awareness and interests in seeking of developing possibilities outside sports are compromised. From a life-span development perspective, the "focus on present" and "neglect the future" approach will lead to inadequate post-athletic career development. In fact, according to Petitpas, Danish, Mckelvain, and Murphy (1992, p. 384), "*many athletes indicated they had no skills except those directly related to their sport. Despite being among the top athletes in the world, they often reported that they felt inadequate and lacked confidence outside of their sport roles*". The development of post-athletic career skills is viewed as being very necessary by various researchers (Baillie, 1993; Ogilvie & Taylor, 1993; Pearson & Petitpas, 1990; Petitpas et al. 1992; Petitpas et al., 1997). Some others researches discussed the

possibility of the transfer skills and characteristics which were developed through sport activities into other life areas (Danish, Petitpas, Hale, 1995; Petitpas et al. 1997).

On the other hand, the mere awareness in and consideration of post-athletic career development might be effective in the acquisition of career-related skills (social competence, interview skill etc.) and life-span career development planning during athletic career. Both aspects are proposed to be important in various athletic career assistance program (Gordon, 1993).

4.7.1.3 Career development behavior during athletic career

The situation of post-athletic career awareness is also related with career development behaviors during athletic career. These career development behaviors refer to intentional personal measures that were taken during athletic career to enhance skills, competence, social relations etc. to facilitate a smooth athletic career transition and/or to improve post-athletic career development. The content of these behaviors include academic and/or occupational education, communication with media and social relations, participation in career assistance program, seeking professional or unprofessional help, etc. These behaviors might directly or potentially benefit post-athletic career development. However, all of these effects are only influential insofar as the individual is aware of personal career development. The original inducement of such behaviors might come from institutional intervention, professional career assistance, social reference, or the athletes themselves.

The situation in China has been introduced in previous parts of this paper. The range of different post-athletic occupations is relatively limited because of the traditional arrangement approach. According to a study by Zhong (1998), there were 48.3% of former Chinese Olympic players in the investigation got their jobs as coaches in China. Some others worked either overseas (15.6%), or as common government staff (15.1%). Another 12.6% got jobs in business while 7.6% became managers. The other 0.8% got professional jobs in other fields (Figure 27).

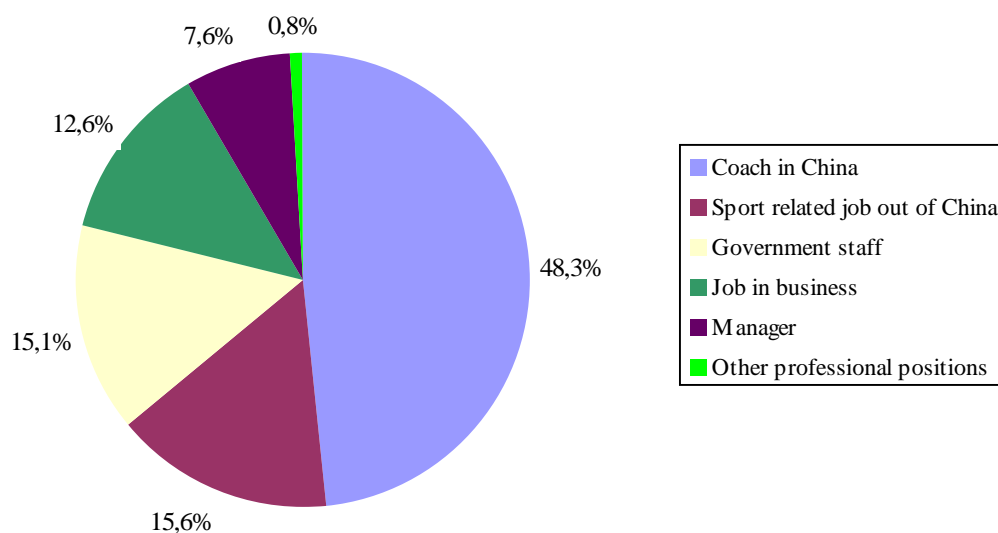


Figure 27: Post-athletic jobs of former elite Chinese athletes (adopted from Zhong, 1998, n = 270).

Most of the overseas and governmental jobs were sport related. In the present study, 71.3% of the Chinese participants reported a “very close relation” between their post-athletic career and sport, while 11.5% reported “close relation”. Only 0.7% and 16.5% participants reported “somehow a relation” or “no relation” respectively.

These results reveal the character of athletic career transition in China, just as Hu suggested, “...all depend on the arrangement of organization” (2000, p. 2). This kind of arrangement puts a heavy burden on the sport organization, and at the same time limits the possibility of personal development in the sports field. In the mid-1980s, as an attempt to ameliorate this situation, the sport system began to provide high-level athletes the appropriate education during the time when they were active in sport or just after the sport career end in order to improve the education level of athletes and meet the increasing requirements of the outside (sport) society. This kind of education might be viewed as a systematic career behavior of these athletes. However, the contents of the education is focused mostly on sport training science and/or sport science. Its effect on post-athletic career development outside sports is still limited.

Transcription 7

Interviewer: Did you have any plan or do some thing for your post-athletic career?

Interviewee: On that time the only thing I wanted was to improve my performance firstly. After that I also planed to study some English by my self. And I have also paid attention to the study (in sport system) during training, for I supposed that may be I could continue my study (in other college/university), so that if I have to transfer into other fields out of sports, I could cope with it (the transition) easier. But most of them were only in mind. [Interviewer: you means without concentrate action or schedule?] There should be, at that time, however, I can not remember them any more, the impression is not clear to me now. (Transcription #10)

4.7.1.4 Athletic career development model

Base on the analysis of the perception of elite athletic career and personal development, the most significant distinction between the Chinese athletes is the type of post-athletic jobs they, i.e., if an athlete develop his/her post-athletic career inside or outside sports. Since most of the retired athletes in China work as a coach and/or manager in the sport system, their athletic experience and skills acquired in sport could serve as their post-athletic career references. Their sport-specialized education during the athletic career can also be viewed as occupational education for post-athletic career. However, the reform process in the Chinese sport system made it impossible to arrange jobs within the sport system for more then 4,000 retired elite athletes every year. More and more athletes will have to find jobs outside sport when they finish with their athletic career. Sport skills and the related education and successes may be irrelevant to the new career. Reality demands a new effective intervention approach in athletic career transition and post-athletic career development processes.

Transcription 8

Interviewer: By the ten year experience in elite sports, how do you look on it?

Interviewee: Opinion..., I think competitive gymnastics is a very hard sport. There are lot of dangers and things like it. To achieve my original objective, e.g. the championship, you must pay much for it, besides some good enough

opportunities.
Interviewer: With regard to yourself, is there any positive and/or negative influence of elite sport career on your current and future career development?
Interviewee: Most competitive sports are arduous. To achieve your objectives, it asks for much commitment, even more than what other people did. Although you might get no satisfied result, you could foster a kind of spirit – never give up. Since in your daily training, your coach, your environment always ask you by these (requirement). Day after day, these requirements become your character. The retired athletes, no matter what job they are doing now, they always have strong competitive characteristic. When you chat with them, they always like vie with others. It's already the trait: want to be the best. [Interviewer: If there is any negative aspects?] Negative aspects... I would say, (athletes) pay too much (for competitive sports), if they have no satisfied success in sport, it is always a kind of press to athletes. There are some retired athletes who trained together with me or was trained by me, when they reviewed their athletic experience, they usually said that, “too much time was wasted for sport, really too much time”. Retired athletes who think like this are not seldom. However, I would say on the contrary, this way (athletic career participation) is selected by yourself, there was no people forced you (to join in athletic career) at the beginning. Even you were deceived (to join in sport career), why didn't you “week up” earlier? (shot laugh). (Transcription #10)

Transcription 9

Interviewer: What is your opinion on the relationship between elite sport participation and personal development?
Interviewee: I think, according to feeling of myself, I... I like that period of experience very much. It is to say, I believe if I can do everything once again, I am sure I will still select to be an athlete. What is somehow pity is that I had not achieved the performance level I expected. The experience of elite sport is beneficial to the following (post-athletic) life, work and study. Because that elite sport is very hard, full of competition. This (the competitive characteristic) will be... indeed, there is also strong competitions in the society outside sport, this will be helpful to the following career. I feel... the deficient aspect is... insufficient education. I don't know how the athletes in other countries can arrange their (sport) training and (academic) study, concerning my experience in sport team, I could not continue with my study during every high-load training section. This is the insufficient point. On the contrary, I would suppose, if an athletes could have more chance to study, to increase his/her knowledge, it will benefit his/her sport performance, ... and future, in any case, I believe. (Transcription #12)

Transcription 10

Interviewer: With regard to yourself, is there any positive and/or negative influence of elite sport career on your current and future career development?

Interviewee: The positive influence, I think... the first would be, it let me experience happiness and also distress (shot laugh). The second would be, elite sport career made it possible to me to travel all over China, even other countries. This is what a normal student can not attain. Thirdly, it is clearly that if I stayed in home these years (did not join in elite sport), I would have no prospect to success on anything. You know, I am the last child in my family, the whole family love me very much, and they doted on me every time. The experience of elite sport fostered my independence, and the characteristic of pertinacity. These (characteristics) is very important to my current work. But the negative aspect (of elite sport participation) is that this elite sport experience left me a lot of injuries, fatigue-caused and long-term-lasting injuries. This is what let me always depressed. (Transcription #2)

According to the study by Hackfort and his colleagues (1997), seven sport career models were derived based on the German research:

- Career model 1

Athletes with smooth (or nearly smooth), purposeful and successful educational and vocational development without detours or uncertainties and finally acquire an adequate vocational position.

- Career model 2

Athletes with smooth, successful educational and vocational development, but experienced difficulties or ambiguities in the acquisition of a vocational position.

- Career model 3

Athletes with successful and prestigious education, but not attained without difficulties. Besides, the last completion of the training was losing or an adequate vocational position could not be obtained.

- Career model 4

Athletes, who disrupted education or had a lack of interest or opportunities in academic pursuit but continued to be successful in vocational work which is not-academician dependent.

- Career model 5

Athletes with a smooth, problem-free educational development, but with open and uncertain vocational training and development.

- Career model 6

Athletes with unstable or disrupted educational development and/or an unstable vocational development; both educational and vocational training are not complete.

- Career model 7

Athletes with a smooth, purposeful school development, but had an unstable vocational development and obtained a vocational position with low prestige and blocked opportunities for development.

In comparison, career development models for Chinese former athletes are simpler than the German ones. Since the sport talent selection model in China is fixed, the most significant distinctions between Chinese athletic career models rest on the kind of post-athletic job. Athletes who possessed more *performance capital* during their athletic careers would usually get a job inside the sport system, e.g. as a coach, manager; athletes with less or poor *performance capital*, would find it hard to get a job within sport, and tend to have outside sport arrangement. In some rare cases, they get a job by themselves or with private assistance. These might be the reasons leading to dissimilarities between the two countries in terms of perceptions of former athletes on elite athletic career and its meaning for life-span personal development.

Based on the analysis of subjective perceptions of the relationship between athletic career and personal post-athletic career development, the athletic career as part of the whole life development process in China can be better understood. However, according to the continuity postulate of life-span development perspective (Danish, Petitpas & Hale, 1995; Lerner, 1985) and the conception of hierarchical and overlapping structure

of action (Boesch, 1991; Hackfort, Munzert & Seiler, 2000; Nitsch, 1982.) this career action process can be further analyzed as several critical phases and critical events (Danish & D'Augelli, 1983; Danish, Petitpas & Hale, 1995; Hackfort, Emrich & Papathanassiou, 1997). The questionnaire and intensive interview guideline applied in present study also investigated athletic career as four interrelated phases: Before top level, during top level, career end and post-athletic career. Career development related information in the former two phases (before and during top level) have been analyzed in previous sections. Subjective perceptions of career developmental events during phases of athletic career end and post-athletic career will be interpreted in the following parts.

4.7.1.5 Characteristic of athletic career end in Chinese participants

The degree of preparation for an athletic career end was reflected in the reason(s) reported for a career end, and in the degree of planning in occupational, educational, emotional and financial aspects. Similar to the situation of entry into an athletic career, social environment is another important indicator of the preparatory degree, it will also be discussed in following sections.

To eliminate irrelevant factors, participants in the investigations in Germany and China were randomly selected among former elite athletes who have ended athletic career for *normal* reasons, i.e. athletes who had urgent, unexpected and involuntary sport career ends were not included in present study. Thus most participants in both the German and Chinese investigations reported their athletic career end as a “natural process”. However, only a few Chinese athletes reported that they had planned sufficiently for the athletic career end. In other word, the athletic career end in most of them was generally natural but ambiguous and uncertain and had to do with the lack of awareness in personal development.

Transcription 11

Interviewer: When did your consideration with sport career retirement begin?

Interviewee: I remember it was the last year (of my sport career). In 1989 my elbow joint was injured in training. It took two years (to cure it). Even so I didn't think
--

about retirement. In common sense, there was already no possible to continue (with training and competition), However, after a period of recovery I feel good and then continued with training. After the 7th (China) National Games, it might be the reason of my age, I thought I should retire from high-level sport. Additionally, I had no special long-term plan (for certain important competition of games) at that time. It was also difficult to me to improve performance. Thus I decided to retire.

...

Interviewer: Did you have any long-term plan on your retirement before your athletic career end?

Interviewee: Not very clear plan, there was only some obscure ideas. For example, to study in university in foreign countries, at that time I had connected with former teammates who were working or studying oversea to get some information about some foreign universities. You know, some ideas like these. (Transcription #10)

Transcription 12

Interviewer: When did your consideration with sport career retirement begin?

Interviewee: After a competition in 1983, in 84 I got injury, my partner* injured during training, I have also got injury with my waist. At that time the idea of retirement had arisen, because that I felt difficult in training. But there were still important competition task, the National Games waiting me. My team still needed my participation for the National Games in 1986. In 1984 I have been 29 years old, this was a really “high” age in sports field at that time. However, I was continuing with my training and competition. Why? Indeed, I have had the idea (of retirement) since 1984, and talk it with managers in team. But the managers told me: “Considering with current situation, we are now lack with successors in your event, we still need your contribution (to gain points) for our province in coming National Games.” (laugh) This is all the reasons, so I persisted to the end of National Games in 1986.

...

Interviewer: Did you have any long-term plan or arrangement on your athletic career end?

Interviewee: There was no any special consideration. According to the situation at that time I have only two ideas: firstly, to stay in team as a coach; secondly, to work as a coach abroad (China). At that time there was possibility to me to teach in some other countries. With regard to myself, since I touched this sport from very young, and also wanted to continue the connection with it. Besides this I had no any special consideration. (Transcription #7)

* *Note: The sport event of present interviewee was a double performance.*

Transcription 13

Interviewer: When did you begin with your consideration of athletic career retirement?

Interviewee: ... It seems to be hard to give an exact time. It would be the time when you try to achieve an (performance) aim, but it (the aim) is not getting closer, rather more and more distant. ... Exactly, I think in 1985...1986 I had have this kind of idea (retirement). But from 1986 to 1988 when I really ended my athletic career, It is a very natural (transition) process, I had never thought about to maintain (the status)... I fell, it was somehow passive , [Interviewer: passive...] It is hard to say... you felt it was (the performance aim) getting far away from you, and then suddenly, one day you risen the idea: "It is time for us to end", and then you talked with coach: "may be that's all for me". It didn't like an exact time, for example, at which day you began the consideration; at which day you made the decision. I think it didn't like this. [Interviewer: It means from 1986 to 1988, sometimes the idea of retirement risen] Yes, it is right. A better example should be, if somebody ask you: "Which day did you begin to smoke, to be addicted with smoking?" It will be hard to you to answer it, isn't it? At the beginning most people smoke just for funny, isn't it? When you look backward, the addiction begins unawareness.

...

Interviewer: Did you have any long-term plan or arrangement on your athletic career end?

Interviewee: I have mentioned about this before. Before my career end I knew that I want continue my school education, but I had no idea about things like study in which college and which major, as well as what will be after the education. [Interviewer: so, let's concentrate to the career end, did you have plan or arrangement on the event of sports retirement?] No, I suppose it is hard to say like this, just like the example of smoking, the addiction with smoking is not begin under your plan, [Interviewer: It is a long process...] Yes, it took shape in a long period, and further more, a long period and natural generation without plan. (Transcription #8)

In contract to normal age-related retirement in other careers, athletic career is usually just a (beginning) part of a career experience (Coakley, 1986), i.e., in comparison to retirement at old age, the end of an athletic career usually happens during early-adulthood an athlete and will be followed by a *new* career experience.

Athletic career ends fall into two categories: The athletic career ended because there was no chance/hope to go on in the current situation (i.e. passive model) or the career

ended because one wants to explore other possibilities/chances in another field outside sport (i.e. initiative model). A significant characteristic of athletic career end of Chinese participants is that most of them ended the elite athletic career in the passive ways.

Transcription 14

Interviewer: Did you have any plan or consideration on your post-athletic job during your elite athletic career?

Interviewee: ...This (athletic career) should be divided into several phases here. The consideration (on retirement and transition) was not begun at the entrance of sport career. At the first stage, when I began to get touch with this sport, I had no purpose to become an athlete. By the passing of time, I joined into the sport team, at that stage, I knew some successful athletes in my surrounding and try to achieve and overcome (the performance level) of them. And then, at the third stage, by the development of training and competition experience, the performance level increased remarkably. Only in the fourth stage, that means, the sport performance had began with a downward way, at that time, the consideration on following outlet came up naturally. At the previous stages in sport team, man could hardly to thing about this. I don't know situation of other athletes, regarding to myself, just at the time that I had too much injuries to continue training. There was no possibility to me to increase performance, although I wanted to continue, but I can not. Just then, I began to be flustered to think about (retirement and post-athletic career). Yeah, began to be flustered. ... (Transcription #3)

Different models of athletic career end have been discussed to be related with the age and social mobility. Athletes who ended their athletic career at a relatively old age would usually have passive career ending with less social mobility. In contrast, athletes who ended their athletic career at a relatively young age tend to have a positive career ending with more social mobility and career developmental opportunities, especially outside sports. The observations are valid in different sport systems (Coakley, 1986; Zhong, 1998).

4.7.1.6 Experiences during athletic career transition

The athletic career transition refers to the process of an athletic career end and the adaptation to post-athletic new career. Most of the Chinese athletes interviewed claimed that the athletic career end was closely followed by a new occupation or education. Although the acquisition of post-athletic job/education was arranged for by the sport

organization, the psychological and social aspects during the transition were seldom considered by the sport managers, sport psychologists and educational professionals. Most athletes reported emotional and social problems during their transition as *natural result* of career change. It appears that both sport institutions and athletes are low in awareness in the potential and necessity of implementing life-span development interventions during the athletic career.

Transcription 15

Interviewer: How did you think about the difference between your athletic career life and post-athletic career life? After the athletic career end, you became a college student, didn't you? [Interviewee: Yeah.] Were you adapted with your student life?

Interviewee: I was not adapted with it at the beginning. Although I still kept some training at that time, the feeling sit in classroom, the student life is complete different (with athletic career). Most of us (athletes) were very active. Even like me, my character is not so open, I could not keep in quiet in class. It was very difficult to get adapt. Additionally, I felt in university... at the first stage of university study, I felt it was not as warm as in the sport team. Since in sport team a collective just like a big family, in university, there are no interpersonal relationships so closed like in team (shot laugh). Thus, there was some feeling like this.

...

Interviewer: What was the meaning of athletic career end to your personal development?

Interviewee: It meant my growing up. [Interviewer: ... What do you mean "growing up"?] Because you know, when we were in elite sport team, especially to those who had good performance, (they) needn't to think about anything else but training. So long as you wanted to continue your training, the coaches, the managers would arrange everything else very well for you. You needn't to consider with anything. However, as soon as I left sport team, went to the university, instead of the working place. But even in the university, I had the feeling that the entire environment has been completely changed. Everything I could depend only on myself, thus I thought it is the time to me to grow up. (Interview #2)

Transcription 16

Interviewer: How about your emotional response toward your athletic career termination?

Interviewee: It was not so good, since the province did not support my sport at that

time, I had no chance to contribute my new team after I changed my team. So that I was not happy with the termination. ... There was some influence, after my sport retirement, I was depressed in a period, I didn't ask for new job arrangement (from the sport organization) as soon as my retirement. I stayed at home and traveled in various places about two years to make self relief. Sometimes when I saw other athletes' competition, I thought: "If I could take part in, I would also win the game." (laugh). [Interviewer: You were not willingly to quit yet?] No, I was not. (Transcription #11)

4.7.1.7 Post-athletic career

It has been mentioned that former Chinese elite athletes usually get their post-athletic jobs within sport. The results of the interviews conducted in this study confirmed this tendency (Table 80).

Table 80: Current jobs held by the participants in the Chinese interviews.

Current post-athletic job	Male (%)	Female (%)	Sum (%)
Coach	8 (34.8%)	7 (30.4%)	15 (65.3%)
Manager/staff in sport system	3 (13.0%)	2 (8.7%)	5 (21.7%)
Job out of sport	1 (4.3%)	2 (8.7%)	3 (13.0%)
Sum	12 (52.2%)	11 (47.8%)	23 (100%)

Table 80 reflects that most of the post-athletic jobs the participants currently held were sport related. The majority of the former athletes might have benefited from their elite athletic career experiences in the following ways:

- The experience in high-level sport and *performance capital* are helpful in getting a sport related post-athletic job.
- The skills, competences and experiences acquired during the high-level athletic career are useful in sport related post-athletic job.
- The mental characteristics and/or qualities developed during high-level athletic career have positive influence on both sport related and unrelated jobs.
- Few participants reported their elite athletic experience as negative and useless. However, this may be due to selective sampling, i.e., former athletes with

negative experiences with their athletic careers may have less interest in taking part in such interviews that might trigger unhappy memories and experiences.

Thus, although in the APAQ there are remarkable number of former athletes reported that elite athletic career participation had negative influence on the following life in various degrees (see Figure 25), the perceived influence of an elite athletic career experience on post-athletic career job was reported to be positive by most of the participants in the interviews.

Transcription 17

Interviewer: With regard to yourself, is there any influence of elite sport career on your current and future career development?
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Interviewee: I don't think so, no influence. Sine there is not relationship between (my) current job and sports. [Interviewer: no influence on your current and/or future job...] ... as an athletes, if you had some good performance (in sports), the leader (of current job) would like to highlight you, the colleagues, you know, they would say (with respect): "she was famous athletes with a lot of honors", all these will benefit your work of current job, something would become easier. So, there are some influences (shot laugh)... (Transcript #11)

Transcription 18

Interviewer: With regard to yourself, is there any influence of elite sport career participation on your personal development?

Interviewee: Influence... the influence has not appeared yet...hitherto I keep work in sport domain (athlete to coach). There is no working experience in other system and field. It is hard to say the influence of athletic experience on activities in other fields.
--

4.7.2 Environment of athletic career and personal development

The social and institutional environment during elite athletic career is also an important factor of the athletes' personal career development. In the Chinese cultural background the structure of the a traditional family/collective is still intent (Cheng, 1944; Yang, 1995, 1996a, 1996b), and personal development is tightly connected with one's collective. This collective might be a patriarchal clan whose member are connected by blood relations or the organization/institution that the individual works for. Kagitcibasi

and Berry (1989) proposed that in the four cultural dimensions defined by Hofstede (1983), the individualism-collectivism scale is the most important theme in researches in cross-cultural psychology. Most studies in this field in 1990s had the basic theoretical assumption that “*people in different cultures have strikingly different construal of the self, of others, and of the interdependence of the two. These construal can determine, the very nature of individual experience, including cognition, emotion and motivation*” (Markus & Kitayama, 1991, p. 224). The influence of cultures on the “self” are well reflected in the terms of “independent” and “interdependent” self-conceptions (Watkins, Mortazavi & Trofimova, 2000). The independent self-concept was described as the belief that individuality is a function of personal choices that individuals freely make and that it expresses a strong sense of uniqueness (Walsh & Banaji, 1997). It was believed to be based on the western individualistic philosophical thoughts (Hattie, 1992). According to Andersen, Reznik, and Chen (1997), the independent individualistic self-concept is related to “the need for detachment from others in the form of individual autonomy and personal freedom” (p. 249). On the other hand, in non-western collective cultures, the generalizability of this independent self-concept has been challenged. Markus and Kitayama (1991) and Triandis (1989) proposed that individuals developed in non-western cultures tend to have more group-oriented interdependent self-concept with an emphasis on harmony, family orientation, and close personal relationships. The terms independent and interdependent self-concepts have been widely accepted in cross-cultural psychology studies.

With regards to Chinese cultural background, such ideas have been supported by modern Chinese scholars who studied the concept of “self” in the Chinese culture (Yang & Zhao, 1987). Based on a series of analyses, the concept of “self” in the Chinese culture was described:

1. The range of the Chinese *self* includes other people and collective and varies in different situations. It is not defined by the physical means.
2. The highest realm of self-actualization for Chinese is *unself*, i.e. to merge the self into the society that he/she gets along with.

3. The developmental approach of the Chinese *self*, i.e. to merge the self into the society and achieve the highest realm of self-actualization, is through *self-regulation* and observing and practicing *social-norms*.
4. The *self-esteem* of Chinese is socially oriented. It is based on the social respect from other people. To evaluate the self by comparison with others and to enhance self-esteem by overstep others.

When these long lasting traditional characteristics was combined with modern Chinese socialism practice, the connection between the individual and his/her “organization” became extremely reinforced. Before the reform process which started in 1980s, most people believed that they belonged to their organization. Almost everything should and can only be arranged by the organization. The organization, on the other hand, also tries to encourage such connections. A popular doggerel says said that “everything of a person can be operated by his/her organization, including matters before birth and after death”. The dependency of individuals on their collectives (family, organization etc.) has become a significant characteristic in Chinese social structure. They are prone to view (or analogy) social organizations and social relationship outside family as part of the family; and family norm and values are generalized to scopes outside the family (Yang, 1998).

As one of the most important concepts in personality, social, clinical and educational psychology (Hattie, 1992; Hayes, 1993), self-concept has been proposed to have a close relationship with self-satisfaction ratings (Watkins, Mortazavi & Trofimova, 2000), also causal attributions (Carpenter, 2000). Thus the whole process of individual development and socialization, including the career development process, will be influenced by the cultural background. In the present study, the influences of the social-cultural environment on athletes’ self-perceptions of their athletic and post-athletic personal career development become significantly important. The roles of the family, coaches and sport institution (team, association, etc.) would be highlighted.

4.7.2.1 Environment outside sport

The sources of assistances in career development outside sport were mainly the parents (family) and teacher in the school. However, most impacts of these roles happened before the elite athletic career, in particular the impact on the sport career entrance (the role of coach in this event will be discussed in another section). Once individuals have become a “professional” athletes, the relationship with the school teacher would almost definitely lost and influence of parents on the individual’s career development is also significantly decreased because the implication of an elite athletic career entrance for most Chinese athletes is to leave the parents (family) and live together with teammates. They are also financially independent from the family. The coach and manager in the sport team would take care of their daily life and educational aspects in addition to sport training and competitions. The environment inside sport thus plays a more important role in both athletic and post-athletic career development.

The influence from parents and teachers might be positive/encouraging or negative/opposing to the athletic career entrance (The effect of coach on the sport career entrance can be seen in transcription 2). However, based on the samples in the present investigation, the negative/opposing influence is low in occurrence and intensity. Since the individuals subjected to strong and effective negative/opposing influence from parents and teachers might have failed to pursue an athletic career, it is possible that these athletes were not included and reflected by the current study. Only those who persisted in pursuing an elite athletic career were investigated; therefore the reported influences from parents and teachers on the athletic career entrance (and possibly the influence on the athletic career development) were mostly positive/encouraging or mildly (not strong enough to be effective) negative/opposing.

Transcription 19

Interviewer: How old were you when you entrance the elite sport career?
Interviewee: ...Before that I had worked. I began a job at the April of 1976, and the professional sport team joined me in at the end the year (1976). At that time, I was about 18, 19 years old.

Interviewer: How about the attitude of your family toward your elite athletic career entrance? Support or opposite? How was the influence of these attitudes on your entrance?

Interviewee: My initiative coach, of cause, would like to see (my entrance). As to my family, they just felt that it (my sport training) is somehow a little bit danger, but they did not clearly say either support or opposing. My two brothers, support my decision very much. During the past difficult time, they even provided me some financial support. (Transcription #7)

Transcription 20

Interviewer: When did you joined into elite sport team? For what kind of reasons?

Interviewee: I was not so health when I was young, I began my sport exercise for healthy reason, that means my parents instructed me to swimming training to improve my health. I also like it (sport), and then continued with it. There was no significant reason, I was just eager for do well in it. [Interviewer: We say, usually there would be something like a clear decision...] Aha, yes, it was... (19)84, [Interviewer: At that time, you were...] I was 14 years old. I think it (the decision) was a very natural thing, At that time the coach (of province team) made a selection in our youngsters sport school... I felt that (since) I kept my training for many years, the final aim, of cause would be the professional teams, national teams and so on. It was a natural decision.

Interviewer: How was the attitude of your surrounding at that time?

Interviewee: My coach (in the youngsters sport school) of cause, supported my entrance, this was his will to foster us in sport. My parents, they always wanted me to become an athletes, I suppose. (Transcription #14)

Transcription 21

Interviewer: How was the influence of your surrounding on your professional sport team entrance?

Interviewee: ... [Interviewer: Your parents, your teacher...] My teacher... you mean my coach in youngsters sport school? Yes, he had significant influence on me. Parents... They seemed also support me. After all, it my road, they, they agreed me (with the sport team entrance) on 60% (short laugh), of cause, that was enough (short laugh). (Transcription #4)

During elite athletic career, the influence of parents (family) on athletes' career development is drastically reduced; it can be explained by the separation of the living conditions. Although athletes could meet their family on rest days, they would normally spend most of the time with their teammates, coaches and sport managers in relatively exclusive environments. The athletic career transition process is however different. In cases where the parents (family) have social networks and/or the athlete is dissatisfied with the institutional arrangement on post-athletic occupation, most athletes would get help and advice in job seeking from their parents (family). These assistance approaches were totally in private form.

Transcription 22

Interviewer: Was there any environmental influence on your athletic career transition?

Interviewee: Yes, my parents had some important influence. They did their utmost to dissuade me from the idea to study abroad. Indeed, I fairly believe my father. He is a person with less words. But I still have deep imprisonment with that time (of talk). He said: "According to your current characteristics and social knowledge, it would be very difficult to you to survive in society outside sport." He told me: "You had lived in professional (sport) team too long time, things outside sport is not familiar with you. If you can continue in this profession," he meant to be a coach, "at least you are very familiar with it, it would not be impossible to you to achieve success." I agreed with his perspective at that time, OK, then made the decision to be a coach. When I handed in my retirement application, the team asked me just then: "If you have not other better plan, would you like do some coaching work in our team?" Thus, I left in team as a concurrent coach. (Transcription #10)

4.7.2.2 Environment inside sport

Coach

The coach was reported as an important role in the personal development by most Chinese participants. The relationship between the coach and athlete was not perceived as a simple coaching-training relationship in sport skill acquisition and sport competitions. Be it entry into an athletic career, development or transition processes, the coach was always a significant environmental "variable" that should be highlighted in

many cases. Many athletes reported the to be a combination of parents, coach, teacher and manager, i.e. the coach played an important resource for both private and institutional issues. With regards to an athletic institution, the coach was a bridge between the athletes and the sport system. On one hand the coach served as a representative of the sport system to actualize the requirements, intentions and functions of the sport organization; on the other hand, the coach also acts on the behalf of the athletes to take care of their profit and feedback their aspirations to the system. Another role played by the coaches in some cases is mostly at personal level. Due to the long term interaction through training and living together, in some athletes' perception, the relationship between he/she and coach(s) had more personal color. In the Chinese society, informal personal relationships are sometime viewed as being more important and effective than normal official working relations.

Transcription 23

Interviewer: How do you think about the most important coach during your athletic career?

Interviewee: Yeah, my coach, here we would like detail something. He was a famous athlete in our country in 1950s. He was received by the Prime Minister when he was athlete, Prime Minister Zhou. A really good coach, he taught me from youngsters sport school, to professional team, and to the national team. It might be say that I had also changed some coaches during it (sport career), but I have very deep impression with him. Regarding with his coaching style... it is hard to say, somehow like a patriarch, I can say, the time I spent with him would be even longer then the time with my parents. Thus at the off training time, he just cared you like a patriarch, like parents. But in training, in training he was very strict. I can image even today, every pieces of his word and everything he did m were all for you. He always likes to tell you: "You should never forget to improve your performance, otherwise, you will never get care and cherish from me". ...

(Transcription #3)

According to the Chinese interviews, the influence of coaches on individual's career development was usually with reference to the athletic career entrance, and sometimes the athletic career end and transition. Their influence during the athletic career, the most

critical phase from educational and life-span development interventions, was however neglected. This might be attributed to two reasons:

- (a) Officially, career assistance requires institutional commitments and professional interventions and therefore, a coach can not and should not be in charge of such things without organizational appointment and professional advice.
- (b) Individually, a coach may not enough awareness in the concept of educational life-span development of athletes and may not realize the sport organization's obligation in this matter. Based on their own elite athletic career experience (most coaches were former elite athletes) they believed that the best way for individual development was to exchange better sport performance for better post-athletic career job arrangement. Therefore to improve the athletes' performance is tantamount to helping them with individual development.

Transcription 24

<p>Interviewer: According to your opinion, what should current athlete do for their sport retirement and post-athletic career development? Who should take charge for this work?</p>
<p>Interviewee*: It is hard to say. According to the current situation of sport teams, if there is no special arrangement, I think athletes themselves should take care for these things, this is also normal situation. Additionally, now it has been market oriented system, sport team is now different with before. In most occasion it should be took care by athletes themselves.</p>
<p>Interviewer: If it should be cared by themselves, what can they do?</p>
<p>Interviewee: Yes, for example, beside the sport training, may be you should make some considerations on your route of retreat. Of course, don't let these things disturb your training. If you really don't want, or have not enough confidence (on your athletic prospect), just half confidence, then it would be better to you to quit (sport career) as early as possible. You can go to school or do something else. Of course, my prerequisite is that with current situation, there is no satisfactory consideration on athletes' post-athletic career development from sport team. This is just a way without the alternative possibilities. If you don't pay more (consideration) for yourself, the one come to grief at last must be you. (Transcription #10)</p>

* *Note: This interviewee is now working as a coach in provincial sport team.*

Subjective perception on the institutional resources

According to Connell (1990, p.92), coaches and administrators “are more prone to operate as ideologists perpetuate a focus on ‘winning’ and ‘the present’ rather than as educators promoting ‘mastery or the process of competing’ and discussions on ‘post sport career’ issues”. However, some researchers in the field of athletic career have indicated the important role of sport establishment in athletes’ career development process. The obligation and moral responsibilities were detailed in a paper by Thomas and Ermler (1988), additionally, existed experiences on institutional athletic career assistance interventions were introduced in several studies (Emrich, Altmeyer & Papathanassion, 1994; Gordon, 1995; Sinclair & Hackfort, 2000) and future considerations were also proposed (Sinclair & Hackfort, 2000). In summary, in the interests of personal benefits and individual development of athletes, sport organizations should help athletes not only with the entrance of the sport careers, but also with the exiting/transition progresses as well as the post-athletic careers. The career development assistance interventions should be implemented during the athletic career from an educational and preventive approach (Danish, Petitpas & Hale, 1992). Effective cooperation between the sport organization, professional staff, coach, family and the athletes themselves is important. Practices in various countries like Australia, America, Canada and Germany have provided some useful lessons in both theoretical and practical aspects.

It would be misleading to say that the institutional resources available for athletes’ personal career development in is lacking China. Because the tight relationship between individuals and their collective in China society implies that the sport system has traditional institutional obligation to take care of the “outlet” when athletes retire (Tian, Li, Zhang & Wang, 1994). However, the obligation focuses merely on the post-athletic job arrangement, which means to provide an “outlet” to retired athletes. An attempt in reformation, a sport training science emphasized occupational-like education has been available to most elite athletes since the middle of 1980s (The benefits of athletes,

especially the intentions and alternative potentials in personal development and building up competence outside sport were somehow neglected). The psychological and social problems that can potentially surface during athletic career transition have not received attention in both sport psychology and education professions (Si et al., 1998; Tian, Li, Zhang & Wang, 1994; see also, transcription 23).

The athletes, on the other hand, have also reported little awareness in the functions of the sport system in personal development, education and career assistance. These results reflect the limited awareness in the functions of a sport system in personal career development.

Transcription 25

<p>Interviewer: How are you satisfied with your sport team?</p> <p>Interviewee: I think, since the system of China elite sport is completely the supply system. Athletes in it are mostly absent with that, ... for example, just like the questions you asked me: "Did you think about things after the athletic career?" There was little prompt, guidance, including education and training for athlete on this aspect. I suppose this would be a kind of abuse (of the system). However, from the perspective of the sport system itself, (it) provides you all the things, pays you allowance, supplies you so good training conditions... It is already not so easy to the sport system. It seems hard to think so long (for your future) any more (short laugh). (Transcription #10)</p>

4.7.3 Summary

Comparing with the German findings, more details about the interactive and contextual characteristics of athletic career transition and post-athletic career development process can be obtained through a qualitative analysis of the Chinese interviews. From the quantitative results, the following characteristics can be observed:

- (1) The end of an athletic career for Chinese elite athletes was mostly in *passive* model, rather than in a *positive* model.
- (2) To exchange for a better post-athletic career job arrangement with better sport performance during athletic career was a common notion among athletes, coaches

and sport organizations. This limited their perceptions of the functions of a sport system in the athletic career development process.

- (3) The coach was reported to be an important role in personal development for most Chinese athletes and was seen as an important social resource in both private and institutional matters.
- (4) Instead of occupational and social skills, most athletes reported the development of personal characteristics as the most important effect of elite sport participation on their post-athletic career development.
- (5) Although most Chinese elite athletes could get new jobs after the athletic career termination through arrangements by the sport system, their satisfaction with their athletic careers and post-athletic career jobs were lower than their German counterparts.
- (6) Few instances of professional career assistance from sport psychology and sport education were reported in the Chinese interviews. The sport institutions in China do have traditional awareness and obligation to take care of post-athletic “outlets”. However, such short term help in career transition focusing on job arrangements cannot compare to educational and psychological interventions which are still lacking.

5 DISCUSSION

Based on the quantitative and qualitative data analyses in the present study, several general considerations can be drawn. First, the institutional obligations of the sport establishment to provide appropriate professional athletic career assistance interventions will be addressed. Next, various kinds of personal development and coping resources of athletes will be suggested based on the results of the present study. Lastly, further perspectives on the studies and practices in this field are offered.

5.1 Institutional Obligations

Due to the trend of professionalization and commercialization, contemporary high-level sport training and competition has gradually transformed into a type of correlated group activities, rather than events that depend on individual efforts put in by the players. Thus the inter-dependent relationship between elite athletes and the sport system is becoming more apparent. This sport system includes various establishments ranging from sport association, government department, training and assistance institution and sport club to commercial units like sport media, sport product companies and so on. Nevertheless, success of this system is based on the contribution of every gifted sporty individual, be it a beginner or professional.

Given the awareness in life-span development of elite athletes in this system, exiting studies in this domain as well as the present investigation have put strong emphasis on the sport institution's obligations to assist in bringing about a successful life-span development. These obligations can be addressed along two dimensions: Ethical/social considerations and counseling psychology/personal developmental issues.

5.1.1 Moral obligations of the athletic establishment

The relationship between individual athletes and the entire sport system is rather complex. This inter-dependent relationship can be looked at from two angles: (a) The dependence of individual performance on the sport system as a systematic social

plurality, and (b) the reliance of the sport system on individual commitment of athletes (time, sport talent, performance etc.).

Traditionally, this relationship was guided by a utilitarianism principle. Utilitarianism emphasizes that, regardless of an actor's hope, intentions and past actions, the happiness results (ends) of human action is the most important justifying standard between right and wrong. Furthermore, the happiness derived from the results should be defined as the happiness of the greatest number of people rather than the actor's individual happiness. The outcome of a program is more important than the success of the individual in the program. Hitherto, such utilitarian ethics has consciously or unconsciously been a dominant guiding principle of actions in most sport system.

However, the growing concern with personal development and individual perceived benefit has led to growing number of criticisms from various professional domains such as medicine and education. In the field of elite competitive sport, Thomas and Ermler (1988) also stated that "*Based on one of the severest criticisms of utilitarianism, specifically that it appears to justify the imposition of great suffering on a few people (athletes) for the benefit of many people (the athletic establishment and the general public), a pluralistic deontology will be utilized in developing institutional obligations related to the athlete. Deontology argues for the identification of a set of duties of obligation appropriate to a context*" (p. 143).

From the prospective of pluralistic deontological perspective, an individual athlete is "an informed and autonomous decision maker whose individual welfare comes before institutional outcomes" (Thomas & Ermler, 1988, p. 142). Based on this premise, Thomas and Ermler have held that *autonomy*, *beneficence* and *nonmaleficence* (which are interrelated and mutually dependent on each other) should be the main criteria to measure the institutional obligations of the sport system.

Autonomy which emphasizes self-determination and self-governance, is a concept that is well reflected in the basic postulations of the Action Theory. In any organizational setting every one should be treated as an individual autonomous decision maker and intentional actor whose welfare comes before the overall success of the organization.

According to Thomas and Ermler, *beneficence* “is the obligation to help others further their important and legitimate interests”. It includes the provision of benefit, and prevention and removal of harm. Therefore, one can imagine a possible dilemma existing between autonomy and beneficence. In fact, Childress (1980) addressed that “One of the most pervasive and perplexing moral dilemmas in health care results when the moral principles of benefiting the patient and the respecting the patient’s autonomy come into conflict” (p. 17). To provide beneficence to an athlete might lead to a kind of paternalism which means a policy or practice of treating or governing people in a fatherly manner, especially by providing for their needs without giving them rights or responsibilities. This might lead to a threat of individual autonomy. In this respect, the career assistance approach adopted by the Chinese sport system which is investigated in the present study can be viewed as an instance of the *strong paternalism*. These institutional paternalistic behaviors such as education during sport career, post-athletic job arrangement and so on are carried out with intentions of providing beneficence to athletes; however, these measures simultaneously are likely to infringe upon individual autonomy in his/her personal development actions.

In contrast with *strong paternalism*, *weak paternalism* (Hodson, 1977) is viewed as a justifiable and practicable approach to provide institutional beneficence. However, more researches still need to be done in the elite sport domain to determine the appropriateness of weak paternalistic measures from ethical, educational and psychological perspectives.

Nonmaleficence is a principle that is widely recognized in medicine and public health care. It refers to the obligation not to inflict harm intentionally. Controversies about nonmaleficence mainly occur in the situations where harm seems inevitable and the lesser one is often chosen for moral reasons. Nonmaleficence may also arise from single actions that may have both good and bad effect. This principle is related with the concept of autonomy: Who should be the one that make the decision of action in this situation — the individual or the professional power? In the athletic field, the principle of nonmaleficence is seldom discussed and taken into account when institutional assistance to athlete’s personal development is carried out. The athlete should be viewed

as an independent decision maker in the athletic career development process. Just like Brown (1985) stated, *“the effort here should never be merely to prescribe, but also to educate by explaining the rationale for the requirements, presenting the evidence available to substantiate the judgments, and requiring that the athlete understand as much as possible about how decisions were made”*(p. 17).

5.1.2 Institutional obligation from a developmental psychology perspective

The institutional obligation of a sport system can also be discussed from a developmental psychology perspective. During the development and socialization process of athlete, he/she is often treated as a “athletic” person rather than a “natural” person. The sport system tends to narrow athletes’ personal development to encompass only achievement in the athletic area. This will further influence athletes’ identity development and personal commitment during his/her athletic career which could be partly responsible the possible adjustment difficulties during athletic career termination and transition process.

5.2 Personal Resources

Apart from the institutional obligation of sport system, personal resources available to the athletes themselves should also be considered during their career transition process. Personal resources include personal competence, skill, and social network which developed during his/her life experiences. In health and counseling psychology, personal resources are viewed as an important potential factor of individual growth, and coping with stresses. From the perspective of some counseling psychology approaches such as humanistic counseling (Maslow, 1964; Rogers, 1951, 1961), to foster and increase the awareness in personal resources is the main task of the counselor and the only approach of client’s personal growth (Bozarth & Brodley, 1991).

Continuity is a significant characteristic of above mentioned personal resources. Some personal resources which are acquired or developed based on the previous life experiences can also have potential or actual benefits in the future. In other words, some of the personal resources are transferable throughout life. This is a prime postulate of life-span development interventions (LDI). Based on existing study findings (Danish, Petitpas & Hale, 1993, 1995; Petitpas, Danish, McKelvain & Mupphy, 1992) and results of the present investigation, these transferable personal resources icover at least three aspects: Skill/competence, characteristic of personality, and social networks (Table 81).

Table 81: Transferable personal resources in athletic career transition.

Competence/life skills	Characteristic of personality	Social networks
To cope with stress	Self-motivating	Relationships inside sport system
To achieve aim by goal setting	Flexible	Relationships outside sport system
To learn from opponent	views challenges positively	Relationships with media
To make good decisions	Open-minded	Public notability
To have self-control	Competitive	Relationship with business/sponsor
To work as team	Persistence	-

From the results of the present study, the main personal resources the Chinese athletes had appear to be different from their German counterpart. When looking at the positive influence of an athletic career, the development of personality characteristics was reported more frequently by Chinese participants than German athletes. On the other hand, specific life skills were less mentioned by the Chinese participants. Compared with German athletes, former Chinese athletes have established fewer personal relationships with others outside the sport system, other than familial relations. Fewer contacts with media and sponsor were also observed in Chinese participants. These phenomena might be caused by the special circumstances in the Chinese society: The success of an athlete would be recognized as a collective honor rather than an individual matter, and no sport sponsorship for individual was available. However, after the

reformation of the Chinese sport system, significant changes have been made. Thus, the traditional government-arrangement approach of athletic career transition can no longer meet the requirements of the new situation. A new professional athletic career assistance approach which is based on Chinese social-cultural background and the action theory perspective should be developed from both sport management and sport psychological professional approaches.

5.3 Development of Athletic Career Education and Assistance Program: Future Perspectives

During the last two decades, several career assistance programs have been introduced and implemented to elite athletes in countries like Australia (Anderson, 1993; Gordon, 1995), Canada (Sinclair & Hackfort, 2000) U.S.A. (Petitpas, Danish, McKelvain & Murphy, 1992), Germany (Emrich, Altmeyer & Papathanassiou, 1994; Hackfort & Schlattmann, 1994). Most of these programs focus on life-skill education and life-span development counseling; some of them also take into account the coping process with adjustment difficulties during transition. However, most of these programs were developed without an appropriate theoretical background. Hence an action theory framework is suggested here in order to develop a more effective athletic career assistance program. The empirical results obtained in the present comparative study between German and Chinese findings should also be considered in the development of future athletic career education and assistance program in China.

5.3.1 Social environment management

The management of social networks would be integrated into the existing professional assistance program. The social network of elite athletes includes several social environmental components inside and outside sport system. The concept of life-span development should not only be accepted by athletes themselves but also by the coaches because they play a very important role in both sport performance and personal affairs of athletes in China sport system. Results of the present study indicate that till now, some coaches who used to be elite athlete still believe that post-athletic career

development is a personal matter of the athlete, and the the personal development of athlete should not “influence” the sport training. These beliefs might heavily block the actualization of any educational and developmental LDI interventions. Thus future athletic career assistance program should also include education of coaches and sport managers.

Family is another important environmental component in the athletic career development process, but it is a component that cannot be controlled. Schools and some other external factors also belong to this category of “uncontrollable” components. However, being an important aspect of personal resources, especially in a collective oriented Chinese social-cultural background, these social environment components have a remarkable amount of influence on the athlete’s athletic and post-athletic career development. Thus, how to effectively handle and utilize social resources of the athlete should be considered as an important question in career education, assistance and counseling practice.

5.3.2 Occupational spectrum outside sport system

The second consideration is that life-span development interventions in China should be extended beyond the athletes’ career developmental after their athletic career. Based on the results of the present investigation, although China sport system does provide educational opportunities and post-athletic job arrangements for most elite athletes, the degree of satisfaction with post-athletic job still much lower than their German counterpart (see Table 68 & Table 69). The disagreement between the original intention (to provide beneficence for athletes as an institutional obligation) and actual outcome might be an indication that individual autonomy of athlete is an important aspect during the actualization of the institutional obligation.

A significant characteristic of the existing athletic career assistance program in China sport system is the focus on sport training science, which leads to the limitation of the range of jobs after sport retirement. More generalized academic education including life-span development skills are believed to be necessary components of the future educational LDI program. The individual autonomy of athlete should also be treated

seriously in order to achieve optimal balance between beneficence of institutional obligation and individual intention. This consideration could be analogized with the self-generation principle in most counseling practice, i.e. both counseling and career education/assistance program should focus on the independent self-development of individual, rather than impose answers (results) directly through professional power.

5.3.3 Need assessment before career assistance program

Need assessment would be an effective approach to achieve an optimal balance between individual autonomy and institutional/professional interventions. Hackfort and Schlattmann (1994) carried out a study in the Olympic Training Centers (OTCs) in Germany. From their survey with career counselors and experts, coaches and athletes, the perceived task spectrum of an career assistance and social environment management program in OTCs was studied. The level of importance of 63 items classified under 7 task categories were obtained (Table 82). The levels of importance of the various items were defined as *Core Tasks* (1st Order and 2nd Order), *Peripheral Tasks* (1st Order and 2nd Order), and *Special Tasks*.

Table 82: Task categories and items of career counseling and environmental management in OTCs (updated from Hackfort & Schlattmann, 1994, pp. 144-147).

Task categories	Items (response options)
Information/Counseling	<ol style="list-style-type: none"> 1. To inform and advise on education and further training possibilities. 2. To inform and advise on entrance and examination regulations. 3. To undertake vocational counseling. 4. To conduct course guidance. 5. To give support in conflicts. 6. To inform and advise on special requirements concerning university affairs. 7. To inform and advise on school and industrial regulations. 8. To inform and advise on financial assistance. 9. To inform advise on advancement possibilities in military services.
General Support	<ol style="list-style-type: none"> 1. To help with entrance and application formalities. 2. To give support in obtaining suitable training courses and jobs. 3. To prepare for interviews of application. 4. To apply for scholarships. 5. To apply for the refund of expenses for private tuition. 6. To make appointments with other counseling services. 7. To help athletes with interviews. 8. To help with the organization of leisure-time. 9. To help in obtaining accommodation.
Contacts/Cooperation	<ol style="list-style-type: none"> 1. To cooperate with the athlete and his/her parents. 2. To cooperate with the athletes and the coach.

	<ol style="list-style-type: none">3. To cooperate with school principals, subject teachers and class teachers.4. To cooperate with employers and chief instructors.5. To cooperate with the personnel in charge in the military and alternative service.6. To cooperate with the managers of sports training centers.7. To cooperate with sport associations and organizations.8. To cooperate with other counseling services.9. To cooperate with the personnel at OTCs.
Acquisition/Coordination	<ol style="list-style-type: none">1. To help organize professional education compatible with sport activities.2. To help organize jobs compatible with sports activities.3. To help find trainee jobs.4. To help find vacation jobs.5. To help organize positions in sport promotion divisions.6. To help organize new job positions in the alternative services to military service.7. To provide accommodation.8. To enable the rescheduling of classroom tests.9. To organize private tuition.
Administration	<ol style="list-style-type: none">1. To help with applications for admission to special sports training groups.2. To give his/her expert opinion.3. To gather and document particulars on athletes.4. To document activities.5. To prepare activity reports.6. To correspond with the personnel/institutions in charge.7. To take part in committees.8. To help find and arrange for support measures.9. To cooperate in household budgeting.

<p>Supplementary Education</p>	<ol style="list-style-type: none"> 1. To take part in central and decentralized advanced training courses. 2. To participate in seminars and conferences. 3. To read magazines and other literature. 4. To order and study brochures and information material. 5. To participate in work meetings. 6. To take part in external talks. 7. To plan and realize courses and coach seminars. 8. To hold lectures. 9. To publish articles.
<p>Miscellaneous</p>	<ol style="list-style-type: none"> 1. To prepare time adjusted task profiles of the different sports disciplines. 2. To run a boarding school. 3. To plan, conduct and analyze scientific studies. 4. To prepare brochures and information material. 5. To organize photographer dates for athletes. 6. To organize and guide tours at the OTC. 7. To plan and organize public relations affairs. 8. To obtain sponsors for the OTC. 9. To run hobby groups.

The results of a comparison reveal that other than some commonalities, there are remarkable differences between athletes and coaches, as well as counselors and experts. *“Altogether coaches and athletes regard the tasks of the fields Administration (e.g., correspondence), Supplementary Education (e.g., to visit seminars and congresses) and tasks such as to prepare brochures or to organize public relations measures as more peripheral as career counselors or experts do”* (Hackfort & Schlattmann, 1994, p.

191). Some meaningful suggestions were provided to improve the future career counseling and environment management activities in OTCs.

Such task assessment and identification are synonymous with the client need assessment conducted in most systematic programs. Usually there are some differences between different client populations; thus the career assistance/education interventions should be developed based on the need assessment of Chinese elite athletes and coaches. Some cultural and institutional difference between the subjective needs of German and Chinese athletes is reasonable. The task spectrum of athletic career assistance interventions in the Chinese sport system should be different from the athletic career assistance programs in Germany and other countries. However, these assumptions need to be confirmed by further empirical researches.

5.3.4 Position of professional career assistance in elite sports

The type of professional career assistance programs and its role in the elite sport system are important issues. Briefly, there are two types of existed athletic career assistance programs: One is centralized educational workshops and training program, another is routine unstructured counseling.

The first type of program is usually carried out in a group and in a structured way. The CAPA (Career Assistance Program for Athletes) of United States Olympic Committee (USOC) is an example (Petitpas, Danish, McKelvain, Murphy, 1992). This career assistance program was initiated in 1988. After the need assessment with approximately 1,800 athletes (return rate 29%), a life-span developmental model focused on personal skill enhancement guided the design of the program. The objective of the program was to “enhance the confidence of elite athletes by helping them recognize the life skills they developed through their sport experiences that would aid them in coping with the transition out of active sport competition and into a new career” (p. 383). This program consisted of a 1-day workshop conducted by selected teaching staff. Educational materials were provided before each workshop. Three main topics include (1) managing the emotional and social impact of transitions, (2) increasing understanding and

awareness of personal qualities relevant to coping with transitions and (3) career development, and introducing information about the world of work. At the end, all participants were asked for feedback about the workshop through an informal evaluation. In total 142 athletes (77 men and 65 women) have taken part in such workshops at different locations. Most of them (98%) indicated that they were very satisfied or satisfied with the workshop.

Another type of athletic career assistance intervention, routine unstructured counseling, is usually conducted in private between the athlete and a career counselor or sport psychologist. The time of counseling intervention is separately and the content is not pre-structured. The career assistance and environmental management experience in German OTCs would be a good example (Emrich, Altmeyer & Papathanassiou, 1994; Hackfort & Schlattmann, 1994). The athletic career assistance and environmental management is part of the systematic services provided for elite athletes in OTCs, which would “do everything for the athlete and to help him to take advantage of his changes” (Emrich et al., 1994, p. 200). The assistance in career development is mostly carried out in individual way. Through years of practice in OTCs, the concept of educational and life-span developmental career assistance and environmental management has received encouraging feedback from athletes and coaches (Emrich et al., 1994, Hackfort & Schlattmann, 1994).

Each of the two above-mentions approaches has its merits. The collective structured program is time efficient and requires less resources from the sport system. It is also effective in increasing the LDI awareness in athletes. The second approach, on the other hand, provides more personal concentrated assistance from the sport system. Therefore, a combination of these two types of career assistance approaches would be the direction of future practice.

5.3.5 Athletic career development intervention in Chinese sport system: Current status and future perspective

The concept of life-span developmental intervention is not yet widely accepted in Chinese sport system. However, through reformation of the whole system, the

institutional obligations to personal development of athletes are expected to be carried out in a more scientific and professional manner. These issues are getting more and more important in both sport management and sport psychology (Hu, 2000; Si et al., 1998; Tian, Li, Zhang & Wang, 1994). To develop an effective educational LDI assistance system in Chinese sport establishment becomes an urgent task. Of course, the social cultural and individual psychological characteristics should be considered and the experience of the pioneering countries can be good guiding materials. Action theory perspective appears much advantage because of its contextual and environmental emphasizing nature. The three components of career action - task (goal), person and environment - should be defined according to different social-cultural backgrounds and sport systems. Figure 28 provides a basic model to develop an athletic career assistance program in different social background with an action theory perspective.

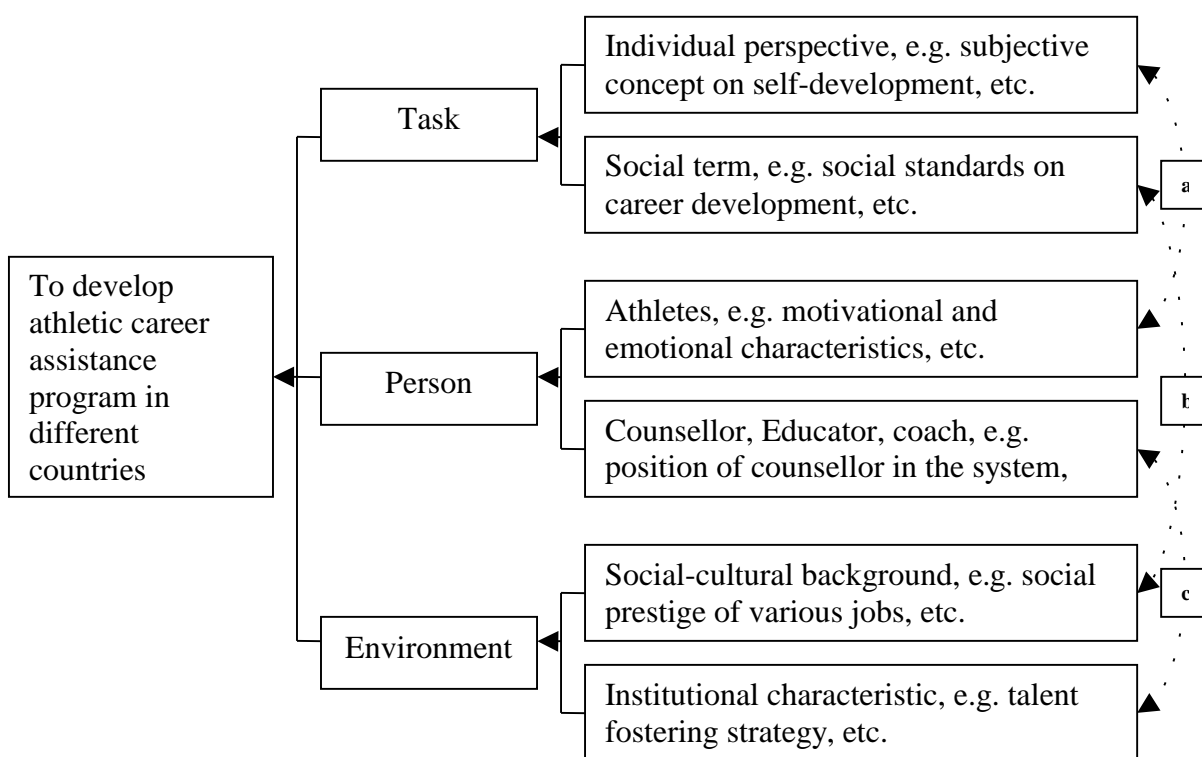


Figure 28: Design of career assistance programs in different cultures based on the action theory perspective.

For example, the task (goal) of personal career development might be different because the cognitive understanding of personal success varies across cultures. In collective oriented societies such as China, “success” is not only a personal matter but is also related to certain collectivities (family, group, country etc.). Similarly, the popularly recognized social term on personal career development is also related with collective honor and so on. With regards to the other two aspects, person and environment, social-cultural and institutional differences should also be considered. Further more, there are likely to be interactive relationships between different aspects (illustrated as a, b, c in Figure 28). These relationships indicate that athletic career development action is a contextual interactive process, which should be studied with an integrative perspective rather than an isolated or separated one.

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Appendix III Questionnaire - German version

Fragebogen

Name: Vorname:

Geburtsjahr:

Sportart:

Ich gehöre nicht mehr zum Bundeskader seit 198

Kreuzen Sie die Wettbewerbe an, an denen Sie teilgenommen haben:

Top-Ereignisse

Zur Zeit:

Nehme ich weiterhin an Wettewerben in meiner Sportart teil

Bin ich Weiterhin in meiner Sportart aktiv, ohne an Wettbewerben teilzunehmen

Übe ich meine Sportart Überhaupt nicht mehr aus

Seit meinen Ausscheiden aus dem Bundeskader

Habe ich ein Studium aufgenommen/ fortgesetzt/ beendet

Habe ich eine Ausbildung aufgenommen/fortgesetzt/beendet

Habe ich eine meiner Qualifikation adäquate Stelle gefunde

Erlerner Beruf:

Ausgeübter Beruf:

Habe ich eine meiner Qualifikation nicht adäquate Stelle gefunden

Erlerner Beruf:

Ausgeübter Beruf:

Habe ich meinen während der leistungssportlichen Karriere ausgeübten Beruf beibehalten

Habe ich meinen während der leistungssportlichen Karriere ausgeübten Beruf gewechselt

Früherer Beruf:

Heutiger Beruf:

Habe ich mehrere Tätigkeiten ausgeübt und zwar:

Bin ich selbständig und zwar:

Bin ich ohne Beschäftigung seit Monat, Jahr:

Bin ich verheiratete Hausfrau

Genauere Berufsangabe des Ehemannes:

Ich bin mit meiner derzeitigen beruflichen Situation

Voll und ganz zufrieden

Im großen und ganzen zufrieden

Eher unzufrieden

Überhaupt nicht zufrieden

Bitter die genaue Berufsangabe (auch wenn nicht mehr berufstätig):

Ihrer Mutter:

Ihres Vaters:

Wenn ich auf meine leistungssportliche Karriere zurückblicke

Bin ich froh, diesen leistungssportlichen Weg gegangen zu sein, zumal er sich auf mein Leben positiv ausgewirkt hat

Bin ich froh, diesen leistungssportlichen Weg gegangen zu sein, obwohl er sich auf andere Bereiche meines Lebens negativ ausgewirkt hat

Bedauere ich ein wenig, diesen leistungssportlichen Weg gegangen zu sein, weil ich auf bestimmte Dinge habe verzichten müssen

Und noch einmal Wählen könnte, würde ich denselben leistungssportlichen Weg nicht mehr geschreiten wollen, weil:

Falls Sie zu einem Gespräch (Interview) über das Thema: „ Auswirkungen des

Leistungssports auf die nachsportliche Karriere“ bereit wären, geben Sie bitte eine Telefonnummer an, unter der Sie tagsüber erreichbar sind:

Appendix IV Interview manual - German version

Allgemeine Fragen:

Wie viele Jahre Hochleistungssport?
Besonders wichtiger/bewegender Augenblick in sportlichen Leben?
Bedeutende Erfolge?
Noch Beziehungen zum Sport?

Vor Hochleistungsniveau:

Erste Sportarten?
Wie und wann Entscheidung zur sportlichen Laufbahn?
Trainereinfluß? /Vereinseinfluß? /Einfluß der sozialen Umgebung?
Reaktion/ Einfluß der Familie auf die sportliche Laufbahn?
Schulische Situation vorhergesehen/ bedacht?
Schulische Laufbahn?/ Ausbildung?
Laufbahnmanagement? – Wer? Wie?
Einfluß der Familie? – Prioritätenkonflikte?
Andere/ weitere Bezugspersonen?

Im Spitzensport

Leistungsniveau? – Trainingsbelastung?
Trainingsorte – Mobilität?
Verein/ Vereinswechsel?
Gesundheitliche Auswirkungen? – Medizinische Betreuung?
Verzicht wegen des Sports? Damals/ Heute (im Nachhinein?)
Hierarchien im Verein/ im sportlichen Umfeld?
Bekanntheitsgrad? – Verhältnis zu den Medien?
Wohnortnahe Sportausübung?
Auswirkungen des Sports auf das Familienleben? / Überhaupt auf das Sozialleben?
Freundeskreise? Innersportlich/ Außersportlich?
Beziehungen zu den Gegnern?
Beziehung zu den Trainern?
Einbindung naher Verwandter in die Sportausübung?
Schule/ Ausbildung/ Studium und Sport?
Gab es Prioritätenkonflikte? – Gab es Hilfe?
Einstieg ins Berufsleben zu Zeiten des Spitzensports?
Fachwechsel/ Berufswechsel?
Laufbahnmanagement? – Wer? Wie?
Damalige Zukunftspläne rekonstruieren?

Im Übergang

Aufgabe des Hochleistungssports – Wie? Warum? Entscheidung besprochen?
Statuswechsel?
Verhältnis zu den Übergangszeit?
Trainerrolle in der Übergangszeit?
Verein in der Übergangszeit?
Sportfunktionäre / deutsche Sporthilfe in der Übergangszeit?
Wandel oder Kontinuität im sozialen Umgang?
Sportpensionierungsschock? – Bewältigung? – Hilfen?
Ausbildungs- und /oder Berufslage?
Wie verlief die Ausrichtung an eine neue Hauptprofession (Rolle?)
Sport / sportliches Umfeld dabei als Hilfe oder Hindernis?
Intermediäre Hilfen? (Beziehungen aus dem Sport?)
Beratung/ Hilfestellung?
Reaktionen von (potentiellen) Arbeitgebern auf die „Sportlastigkeit“ der Laufbahn?
Zukunftspläne?

Im Leistungssportfreien Alltag

Restsport?
Noch mit dem früheren Verein verbunden?
Gesundheitliche Probleme von der leistungssportlichen Zeit her?
Gesundheitliche Probleme bei der Reduzierung der sportlichen Aktivitäten?
Bedeutung des sportlichen Karriereendes?
Pressearme Zeit?
Als Sportler mehr oder weniger im Mittelpunkt – und im beruflichen Alltag?
Neuer Status?
Berufsprestige? – Unterschied zum Sportlerprestige?
Überhaupt gesellschaftliches Ansehen des Sports / des Sportlers?
Familienleben?
Soziale Beziehungen außerhalb des Berufs? (Noch Sportlerkontakt?)
Soziale Beziehungen im Beruf? (Anders als beim Sport?)
Seit wann überhaupt im Beruf?
Berufszufriedenheit?
Einstellung zum beruflichen Leben?
Zukunftspläne?
Erfolgs-/ Misserfolgsempfinden?

Ausklang

Überhaupt: Verein/Funktionäre/Verband/Ärzte/Stiftung Deutsche Sporthilfe – Wie zufrieden? – Wie unzufrieden?

Unterstützung durch Industrie/ Kontakte zur Industrie?

Zusammenhang: Leistungssportliche Aktivität und Persönliche Entwicklung

Schattenseiten des Leistungssports?

Sonnenseiten des Leistungssports?

Zeitempfinden? – Zeitknappheit?

Entscheidungsspielraum in sportlichen / und außersportlichen Belangen?

Finanzielle Auswirkungen des Spitzensportengagements?

Appendix V APAQ - Translated version (Originally in Chinese)

Athletic and Post Athletic Question (APAQ)

General Information

Name _____ Age _____

Sex:

- male
- female

Highest school education level:

- No school education
- Primary school
- Junior middle school
- Senior middle school
- 2 years college
- 3 years college or above

Highest occupational education level:

- Apprentice
- Occupational middle school (skilled worker)
- University
- No occupational education/training

Sport item: _____

Province team belonged to: _____

Highest athletic level: _____

The time you got your highest athletic level: 19__

The time you entranced “professional” sport: 19__

The time you retired from “professional” sport: 19__

In your competitive sport history, you had took part in which events below? (multiple selective)

- The Olympic Games
- World Cup and/or World Championships
- The Asia Games
- Asia Championships
- Other high-level international competitions
- The National Games
- National Championships

How many hours per week it took in your training? _____hours

How many training places had your used?

- One
- Two
- Three
- More than three

How many time it took from your leaving place to your training place by car?

_____minutes

How many times had you chance your belonging team? ____times

Before Top Level Competitive Sport

1. What is your first sport event?
2. Who leaded you into sport at the first? (multiple selective)
 - Coach
 - Club
 - Family
 - Teacher
 - Friend
 - Others, it is to say _____
3. How about the attitude of your social relations (e.g. family, friends etc.) toward sport?
 - Positive
 - Somehow positive
 - Somehow negative
 - Negative

Simple remarks _____

4. Where did your main friends come from before your became a competitive sport athlete?
 - Sport related and/or sport fans
 - Out of sports
 - Both of above

Simple remarks _____

5. Which conflicts faced by you, when you want to become a competitive sport athlete? (multiple selective)
 - Conflicts between sport and academic
 - Conflicts between sport and occupation
 - Conflicts between sport and family
 - Conflicts between sport and other, it means, with _____
 - No conflict

Simple remarks _____

6. How strong was the conflicts at that time?

- Very strong
- Somehow strong
- Somehow weak
- Very weak

Simple remarks _____

7. How did these conflicts resolved at that time?

- Very well
- Somehow well
- Somehow bad
- Very bad

Simple remarks _____

8. Where did your get help to resolve these conflicts at that time? (multiple selective)

- Coach
- Club
- Sport association
- Family
- Friends
- Others, it is to say _____

Simple remarks _____

9. Which level of school education or occupational training were you undergoing when you decided to involve into high-level competitive sport?

- No school education
- Junior middle school
- Senior middle school
- 2 years college
- Apprentice
- Occupational middle school (skilled worker)
- 3 years college or above

During Top Level Competitive Sport

1. Why did you decide to take part in high level competitive sport ?

2. Who encouraged you to take part in high level competitive sport? (multiple selective)

- Coach
- Club
- Sport association
- Family
- Friend
- Others, it is to say, _____

Simple remarks _____

3. Your plan to take part into high level competitive sport is:

- Very well
- Somehow well
- Somehow no plan
- No plan

Simple remarks _____

4. The attitude of your social relations (family, friends, etc) toward your high level competitive sport career is

- Very positive
- Positive
- Negative
- Very negative

Simple remarks _____

5. Where did your main friends come from during your competitive sport career?

- Sport related and/or sport fans
- Out of sports
- Both of above

Simple remarks _____

6. How about your satisfaction towards the sport institute you belonged to at that time?

- Very satisfied
- Somehow satisfied
- Somehow dissatisfied
- Very dissatisfied

Simple remarks _____

7. How about your satisfaction towards the most important coach of you at that time?

- Very satisfied
- Somehow satisfied
- Somehow dissatisfied
- Very dissatisfied

Simple remarks _____

8. How about your satisfaction towards the most important team doctor of you at that time?

- Very satisfied
- Somehow satisfied
- Somehow dissatisfied
- Very dissatisfied

Simple remarks _____

9. How about your satisfaction towards your sport association at that time?

- Very satisfied
- Somehow satisfied
- Somehow dissatisfied
- Very dissatisfied

Simple remarks _____

10. How about your satisfaction towards the support of country on your sport item at that time?

- Very satisfied
- Somehow satisfied
- Somehow dissatisfied
- Very dissatisfied

Simple remarks _____

11. How about your satisfaction towards the individual or/and business sponsor on your sport item at that time?

- Very satisfied
- Somehow satisfied
- Somehow dissatisfied
- Very dissatisfied

Simple remarks _____

12. How about your satisfaction towards the financial situation of your team at that time?

- Very satisfied
- Somehow satisfied
- Somehow dissatisfied
- Very dissatisfied

Simple remarks _____

13. How about your satisfaction towards the media report about you at that time?

- Very satisfied
- Somehow satisfied
- Somehow dissatisfied
- Very dissatisfied

Simple remarks _____

14. How popular are you at that time as a high level competitive sport athlete?

- Very famous
- Somehow famous

- Somehow less famous
- Really less famous

Simple remarks _____

15. During your competitive sport career, you felt that your space to make free choice within sport activity (e.g. change teams, change sport items, etc.) was:

- Very large
- Somehow large
- Somehow limited
- Very limited

Simple remarks _____

16. During your competitive sport career, you felt that your space to make free choice out of sport activity (e.g. receiving school education at same time, attain in occupational training, etc.) was:

- Very large
- Somehow large
- Somehow limited
- Very limited

Simple remarks _____

17. During that time, the leisure time that you can freely control was:

- Very lot
- Somehow lot
- Somehow limited
- Very limited

Simple remarks _____

18. During your competitive sport career, the personal limit is:

- Very strong
- Somehow strong
- Somehow less
- Very less

Simple remarks _____

19. How is the influence of competitive sport career on your health status at that time?

- Very positive
- Positive
- Negative
- Very negative

Simple remarks _____

20. How is the influence of competitive sport career on your social life (with family, friends, etc.) at that time?

- Very positive
- Positive

- Negative
- Very negative

Simple remarks _____

21. During your competitive sport career, was there any conflict between:
(multiple selective)

- sport and academic
- sport and occupation
- sport and family
- sport and other, it is to say, with _____
- No conflict

Simple remarks _____

22. How strong were the conflicts at that time?

- Very strong
- Somehow strong
- Somehow weak
- Very weak

Simple remarks _____

23. How were these conflicts resolved at that time?

- Very well
- Somehow well
- Somehow bad
- Very bad

Simple remarks _____

24. Where did your get help to resolve these conflicts at that time? (multiple selective)

- Coach
- Club
- Sport association
- Profession counseling
- Family
- Friends
- Others, it is to say _____

Simple remarks _____

25. What is the most exciting or most important events in your competitive sport career?

26. What is the most important success in your competitive sport career?

27. How do you look this most important success of you?

28. How was the influence of this success on your competitive sport career?

- Very positive
- Positive
- Negative
- Very negative

Simple remarks _____

29. How was the influence of your athletic success on your life out of competitive sport?

- Very positive
- Positive
- Negative
- Very negative

Simple remarks _____

30. What was your biggest failure in your competitive sport career?

31. How did you look this biggest athletic failure?

32. How was the influence of this failure on your competitive sport career?

- Very positive
- Positive
- Negative
- Very negative

Simple remarks _____

33. How was the influence of this failure on your life out of competitive sport?

- Very positive
- Positive
- Negative
- Very negative

Simple remarks _____

34. Please simply summary the positive aspects of your competitive sport career.

35. Please simply summary the negative aspects of your competitive sport career.

36. During competitive sport career, you had had future plan on ... (multiple selective)

- Individual aspect
- Occupational aspect
- Other aspect, it is to say _____
- Nothing

Simple remarks _____

37. In your life after sport career, the actualization of these future plans were

- Very good
- Somehow good
- Somehow bad
- Very bad

Simple remarks _____

Competitive Sport Career End and Transition

1. For what reason you end your competitive sport career?

- Sport reasons, it is to say _____
- Individual life reasons, it is to say _____
- Vocational reasons, it is to say _____
- Other reasons, it is to say _____

Simple remarks _____

2. How about your plan to end your competitive sport career?

- Very well planned
- Somehow planned
- A little planned
- No planned

Simple remarks _____

3. How about your emotional response towards competitive sport career end?

- Very depressible
- Somehow depressible
- Somehow comfortable
- Very comfortable

Simple remarks _____

4. How about your felling towards social relations (e. g. family, friends) when you finish your competitive sport career?

- Very depressible
- Somehow depressible
- Somehow comfortable
- Very comfortable

Simple remarks _____

5. How about your feeling towards new job seeking when you finish your competitive sport career?
- Very depressible
 - Somehow depressible
 - Somehow comfortable
 - Very comfortable
- Simple remarks _____
6. How about your emotional preparation towards your competitive sport career ending?
- Very good
 - Good
 - No so good
 - Bad
- Simple remarks _____
7. How about your preparation on social relations towards your competitive sport career ending?
- Very good
 - Good
 - No so good
 - Bad
- Simple remarks _____
8. How about your preparation on new job seeking towards your competitive sport career ending?
- Very good
 - Good
 - No so good
 - Bad
- Simple remarks _____
9. Where did you get help to prepare the competitive sport career ending?
(multiple selective)
- Coach
 - Club
 - Sport association
 - Profession counseling
 - Family
 - Friends
 - Others, it is to say _____
- Simple remarks _____
10. How should an athlete prepare for his/her post competitive sport career life?
-

11. How about your feeling towards the sport retirement caused decreasing of your public attention?

- Very depressible
- Somehow depressible
- Somehow comfortable
- Very comfortable

Simple remarks _____

12. How did your prepared for your postathletic career life during your competitive sport career?

- Very good
- Good
- No so good
- Bad

Simple remarks _____

13. How many time had you took to adjust postathletic career life?

- More than two years
- One years to two years
- Within one year
- Within half one year
- Within one month

Simple remarks _____

14. Compared with male athletes, the adjustment of female athletes to the postathletic career life is ...

- More difficult
- Easier
- Same with male athletes.

15. How much preparation on future career should an athlete do during his/her competitive sport career?

- Very much preparation
- Much preparation
- A little preparation
- Little preparation

Simple remarks _____

16. How much preparation on future career had you done during your competitive sport career?

- Very much preparation
- Much preparation
- A little preparation
- Little preparation

Simple remarks _____

17. How do you think the possibility to make the future career preparation during competitive sport career?

- Very much possibility
- Much possibility
- A little possibility
- Little possibility

Simple remarks _____

18. During your competitive sport career, how many help had you got on the future career preparation?

- Very much
- Much
- A little
- Little

Simple remarks _____

19. How many help did you want to get on the future career preparation at that time?

- Very much
- Much
- A little
- Little

Simple remarks _____

20. Where did your want to get these help? (multiple selective)

- Coach
- Club
- Sport association
- Profession counseling
- Family
- Friends
- Others, it is to say _____

Simple remarks _____

Post-athletic Career

1. After the end of competitive sport career, ...

- I went back to my former occupation before my competitive sport career.

My former occupation before my competitive sport career is

- I changed from my former occupation before my competitive sport career.

My former occupation before my competitive sport career is

My current occupation is _____

- I take a occupation that I learned during my competitive sport career.

The occupation that I learned during my competitive sport career is _____

- I changed from the occupation that I learned during my competitive sport career.

The occupation that I learned during my competitive sport career is _____

My current occupation is _____

- I got a occupation that meet my existed skills.

The occupation that I have learned is _____

My current occupation is _____

- I got a occupation that do not meet my existed skills.

The occupation that I have learned is _____

My current occupation is _____

- I had changed my job many times. (please cite the jobs below)

-
- I have an independent occupation now, it is to say _____

- I begun with school education
- I continued with school education
- I finished my school education
- I begun with occupational training
- I continued with occupational training
- I finished my occupational training
- I have had no job since _____(year)_____(month)
- I am a housewife now

My husband/ companion's occupation is _____

2. Please detail your parents' occupation (even they do not work any more)

Your father's occupation is _____

Your mother's occupation is _____

3. Is there any thing that you had leaned during your competitive sport career is also helpful in your postathletic life?

-
4. Are there any relations between your current occupation and competitive sport?
- Very close related
 - Close related
 - A little related
 - Not related
- Simple remarks _____
5. Is there any help of your formal competitive sport to your current occupation?
- Very helpful
 - Helpful
 - A little help
 - No help
- Simple remarks _____
6. During your postathletic career life, have you got help from... (multiple selective)
- Coach
 - Club
 - Sport association
 - Profession counseling
 - Family
 - Friends
 - Others, it is to say _____
- Simple remarks _____
7. How about the disparity of social prestige between your current occupation and your former competitive sport event?
- Very big disparity
 - Big disparity
 - A little disparity
 - No disparity
 - Simple remarks _____
8. How about your satisfaction towards current occupation?
- Very satisfied
 - Somehow satisfied
 - Somehow dissatisfied
 - Very dissatisfied
 - Simple remarks _____
9. How about your satisfaction towards current family life?
- Very satisfied

- Somehow satisfied
- Somehow dissatisfied
- Very dissatisfied

Simple remarks _____

10. The health problem caused by your competitive experience now is ...

- Very heavy
- Heavy
- Light
- Very light

Simple remarks _____

11. The health problem caused by the reduce of sport activity is ...

- Very heavy
- Heavy
- Light
- Very light

Simple remarks _____

12. To review your competitive sport career, how will you evaluate it?

- I am glad with my top-level competitive sport career, especially it has positive influence to my life.
- I am glad with my top-level competitive sport career, even it has negative influence to some other aspects of my life.
- It's somehow regret to me to participated in top-level competitive sport career, cause that I have to give up some other things.
- If I can choice once more time, I will never participate in top-level competitive sport career.

13. What is the influence of competitive sport career on your individual development?

- Very positive
- Positive
- Negative
- Very negative

Simple remarks _____

14. Now...

- I keep attend in competition of my sport events.
- I keep attend in my sport activity, but competition.
- I do not attend in my sport activity any more.

Simple remarks _____

15. The relationship between my former teammates and me is now...

- Very close
- Close

- A little relations
- No relation

Simple remarks _____

16. The connection between my former sport events and me is now ...

- Very close
- Close
- A little relations
- No relation

Simple remarks _____

17. Where do most of your current friends come from?

- Sport related or/and sport fans
- Out of sport
- Both of above

Simple remarks _____

18. Do you still have any future plan on ... (multiple selective)

- Private aspects
- Occupational aspects
- Other aspects, it is to say _____

Simple remarks _____

PS:

Would you like take part in an further individual interview with researchers on these topics?

- Yes, I do want
- No, I do not want

If your do like, please provide your connection material:

Address:

Tel. :

Appendix VI Interview manual - Translated version (Originally in Chinese)

Interview manual in Chinese interventions

General questions

Particularly important/ instant moving in the athletic life?
The most important successes in athletic career?
Still relations with the sport?

Before high-level sport career

When decided to become a high-level sport athlete? Why?
The attitude of your social relations (family, friends) to your athletic career entrance?
Your reaction to these attitude?

During the high-performance sport career

How many years in high-level sport career?
Your perception to high-level sport through your experience?
Most important events in your athletic career?
Influence of the most important event?
Future plan during athletic career?
Possibility to do something during future plan during athletic career?
Something got in athletic career benefit your following life?
Coaching style of your key coach?

In the career end and transition process

When did your think about retirement?

Performance/social relation (internal sport)/financial situation/health status at the time of athletic career end?

Decision of career end: yourself or guild from others?

Plan of career end?

Social influence on career end and transition?

Emotional response towards career end?

Assistance from system/from individual?

Family life at career end?

Education status at career end?

Effect of your sport experience during career transition? Positive? Negative?

Future plan during transition process?

Post-athletic career

Difference between athletic and no-athletic career? Response?

Is current job the job you wanted during athletic career?

Education/training for you wanted job during athletic career?

Influence of athletic career end on your personal development?

Important degree of career end on your personal development?

Reduction of media report, response?

Social prestige of athlete during athletic career?

Social prestige of athlete today?

Satisfaction with personal life?

Satisfaction with occupational life?

Social relationship: different with relations during athletic career?

Future plan now?

Satisfaction with association/club (team)/medical care?

Connection with industry at that time: your team, yourself?

Final questions

Relationship between high-level competitive sport career and your personal development, your perception?

Your advice to current athletes for their postathletic career: what should they do?
Whose responsibility?

Positive aspects of athletic career to you?

Negative aspects of athletic career to your?

Financial effect of your athletic career?

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