The profile of activities in which youth engage is an important determinant of their overall development. Youth who spend long periods of time watching television or playing video games will develop different habits and skills than individuals who spend their time in more productive endeavors, such as learning a musical instrument or playing sports. The significance of sport as an integral avenue for children’s development has been formally recognized by different organizations around the world as an important global issue. Sport is an activity in which youth have reported experiencing the unusual combination of high intrinsic motivation and determined engagement over extended periods of time (Larson, 2000). Despite the positive value that sport can have in children’s lives, adults often alter the experience of youth in sport to achieve short-term outcomes that are not in line with children’s needs and long-term development. This book focuses on how we can keep children’s experiences in sport positive while still developing elite-level athletes.

The documentary *Lost Adventures in Childhood* (Harper, 2009) takes a critical look at the state of growing up in the world today. Interviews with leaders in the fields of developmental psychology and youth sport depict a grim picture of overstressed children who are severely lacking in opportunities to play without adult supervision. We are introduced to a father who keeps track of his two daughters by receiving their exact GPS coordinates, updated every two minutes, via the girls’ cell phones. We are taken to a summer camp where a photographer takes 700–800 pictures of the campers each day to post on the camp’s website for parents to see; the camp director then spends three to four hours each day fielding phone calls from parents concerned that their child looks upset or disengaged in one of the photos. We follow
a family as they drive their two young daughters from one sport commitment to another; one of the daughters remarks about the difficulty of doing her homework in the car because of car sickness. These scenarios are in sharp contrast to images conjured up when considering the childhoods of previous generations: children of all ages playing in the neighborhood without adult supervision.

Achieving elite performance in sport is a feat that is highly acclaimed and can be financially rewarding in today’s society. As worldwide youth sport becomes increasingly professionalized and institutionalized, play and child-led activities are being replaced by a professional model of sport for children driven by adults. However, this model is limited because of the implicit and unsupported assumption that high volumes of intense and adult-directed training during childhood will increase a child’s chance to climb to the top as adults in elite sports.

Adult-driven sport programs for children are most often based on a talent-identification model, in which adults use a rigid skill-based approach to evaluate talent and weed out the less skilled children. This approach implies an early selection of talented children, an increase in resources for a special group of athletes, and training that is not always consistent with the children’s motivation to participate in sports. There are a number of problems with traditional methods of talent identification when applied to children (see Pearson, Naughton, & Torode, 2006; Vaeyens, Lenoir, Williams, & Philippaerts, 2008). For example, characteristics that distinguish success in an adult athlete (i.e., size or speed) may not become apparent until later adolescence. At the same time, there is no guarantee that a young athlete who possesses a desired attribute will still possess that attribute as an adult athlete. Pearson et al. (2006) also noted that talent is dynamic and multifaceted: The characteristics of talent may be different across age groups and attempting to measure these characteristics often means that more important factors are overlooked. Additionally, there is the major concern that youths begin maturing at different times and rates; late maturing athletes could be summarily dismissed through traditional talent-identification methods (Pearson et al., 2006). Finally, there are a number of negative consequences that result from intense sport training during childhood that are associated with a strictly adult-led and rigid skill-based model of children’s sport, such as an increased level of injuries, burnout, and dropout (Côté, 2009). In a review of talent detection and talent-development in sport literature, Régnier, Salmela, and Russell (1993) concluded that the long-term prediction of talented athletes based on an evaluation of children in specific youth sport programs is unreliable and inefficient.

Despite the evidence against early talent identification, the quality of effective youth sport programs continues to be measured by the performance of young athletes who reach elite performance in adulthood—with little attention being provided to those other youths who could also have eventually developed into elite-level athletes had they been given the appropriate training and environment. While talent detection can be seen as a performance process that focuses on a select number of children, a talent-development approach involves a long-term commitment to an inclusive process that focuses on children’s needs and their continued participation in sport. A talent-development approach to children’s sport provides the most appropriate and adapted environment for long-term development of skills for a larger number of participants. This approach to youth sport appears to be a more efficient way of designing sport programs for children (Côté, Coakley, & Bruner, 2011).
This book uses a talent-development approach to present and discuss research evidence that highlights how different activities, as well as personal and social variables, affect children's involvement in sport and the long-term acquisition of skills. Different aspects of talent-development in youth sport will be presented, including the effect of play and practice, the effect of the environment, and the influence of involved people such as coaches, parents, and peers.

The remainder of this chapter is dedicated to providing a short overview of the origins of contemporary talent-development research in sport, followed by an outline of the different chapters covered in this book.

**ORIGINS OF CONTEMPORARY TALENT-DEVELOPMENT RESEARCH IN SPORT**

Bruner, Erickson, McFadden, and Côté (2009) conducted a review of 229 articles, books, and book chapters that focused on models of talent development. The goal of this review article was to trace the genealogy of talent development research in sport. In general, the results were divided into four stages of research that led to our present understanding of talent-development in sport. The first two stages focused on the work of Bloom (1985) and Ericsson, Krampe, and Tesch-Römer (1993), while the remaining two stages were directed more specifically toward sport research.

The first stage of talent-development research in sport can be found in the foundation texts published between 1973 and 1991. Five texts (Bloom, 1985; Gustin, 1985; Kalinowski, 1985; Monsaas, 1985; Sosniak, 1985) at the foundation of talent-development research in sport were contained in Bloom’s book on talented young people. In their pioneering research, contributors to Bloom’s volume (1985) traced the development of talent through interviews with scientists, musicians, artists, and athletes who achieved a high level of performance in their specific domain. The athletes interviewed were tennis players and swimmers who had exhibited elite performance by winning international competitions, such as Wimbledon or the Olympic games. Bloom (1985) inferred a general pattern of development and psychosocial conditions that appeared necessary for reaching an ultimate level of elite performance in any domain of expertise. The other four texts at the foundation of this genealogy presented a more experimental approach to high-level talent-development that included, for example, the seminal work of Simon and Chase (1973) on expertise in chess.

The core of the second stage of talent-development research was based on the work of Ericsson and his colleagues (1993) on deliberate practice. Building on the work of Simon and Chase (1973) and Bloom (1985), Ericsson et al. (1993) analyzed the current level of training and the developmental histories of several groups of highly accomplished musicians to account for individual differences in their current level of achievement. Examples of other texts that emerged as being central to this second stage include publications by Ericsson and Lehmann (1996) and Howe, Davidson, and Sloboda (1998). These authors adopted methods and principles of cognitive psychology to develop and apply the expertise approach, and proposed different conditions of practice (i.e., deliberate practice) as the essential elements of expertise development. Although this second stage of talent-development research in sport referred
to the work of Bloom, the literature in this stage was limited to the perceptual and cognitive aspects of skill acquisition. Aspects of motivation, social influences, and psychological variables were acknowledged by the authors of this second stage, but not seriously discussed and integrated in their approach to talent-development.

The year 1998 marked the beginning of the third stage, featuring important sport studies that focused on the longitudinal aspect of talent-development in sport (e.g., Helsen, Starkes, & Hodges, 1998). This stage included four texts (Helsen et al., 1998; Starkes, 2000; Starkes, Helsen, & Jack, 2001; Young & Salmela, 2002) that were heavily influenced by Ericsson and colleagues’ original publication (1993) on deliberate practice. These sport studies focused mostly on practice activities throughout development by eliciting information from athletes through retrospective questionnaires. The main observation from these studies was that a monotonic relationship existed between the number of hours spent in relevant practice activities and the level of performance attained by athletes. When answering a retrospective questionnaire, athletes rated practice activities (i.e., deliberate practice) that were high in effort as also being high in enjoyment. This stage of sport expertise research began to revive the work of Bloom by highlighting such important aspects of talent-development as enjoyment, motivation, and psychosocial influences that were signalled as being critical. However, these aspects were not yet fully integrated in this stage.

The fourth stage of talent-development research includes texts that focus on aspects of athlete development in sport that move beyond the sole examination of practice activities. Baker, Côté, and Abernethy (2003) were the first to provide a retrospective study of athlete development that focused on practice but also integrated psychosocial aspects of talent-development, such as the role of play and other sporting activities during childhood. The design of this study was based on Ericsson and colleagues’ (1993) original study of deliberate practice and the Developmental Model of Sport Participation (DMSP; Côté, 1999), which was heavily influenced by the work of Bloom (1985). The texts in this last stage continue to advocate the importance of practice, but also highlight the importance of play and sampling different sports during childhood. This fourth stage of research presents a view of athlete development that includes both psychosocial influences and training aspects of expertise (Abbott & Collins, 2004; Côté, 1999; Martindale, Collins, & Daubney, 2005).

Bruner et al. (2009) noted that this fourth stage of talent-development research in sport has largely been influenced by the work of Côté and colleagues (see, for review, Côté, Baker, & Abernethy, 2003, 2007), who conducted several studies examining the psychosocial environment and training conditions of elite-level athletes. Emerging from these studies was the DMSP, which integrates the developing person into his or her environment and pays particular attention to the childhood years of involvement in sport as the foundation of talent-development. Seven postulates associated with the DMSP and its various outcomes have been proposed (see Côté, Lidor, & Hackfort, 2009). Generally, these postulates focus on the concept of play as opposed to practice, and of early sampling as opposed to early specialization during childhood sport. The DMSP has been developed and refined over the last 12 years and presents a set of concepts about athlete development that is quantifiable and testable. In line with the DMSP, this book focuses on the developmental activities as well as the personal and social influences that impact talent-development during childhood.
STRUCTURE OF THE BOOK

This book—Conditions of Children’s Talent-development in Sport—is centered on the fourth stage of talent-development research; it focuses on the intersecting of developmental activities (e.g., practice and play) of young athletes and the personal and social conditions that affect these activities. Although there are a number of existing useful articles, books, and book chapters that focus on the process of talent-development in sport, none of these have yet condensed the actual state of knowledge regarding the structure of the developmental activities in childhood that are most likely to lead to talent-development. Following four decades of research on the physical, psychological, and social aspects of early development in sport, the prominent research findings on these aspects will be summarized, elaborated upon, and critiqued in an academic volume that can be used by researchers and students who are interested in the multifaceted process of early talent-development in sport.

Conditions of Children’s Talent-development in Sport focuses on the conditions that underpin children’s investment in sport and their talent-development. Each chapter examines a different aspect of the early years of involvement in sport, from early introduction to sport through adolescence. A primary aim of the book is to outline and discuss the evidence-based conditions of the optimal learning environments required to minimize dropout and burnout, and to optimize skill development. The objective of the entire volume is to provide the most up-to-date, authoritative, and accessible presentation of core knowledge associated with children in sport and early talent-development. The content of the book has been developed to ensure full coverage of the learning process of young athletes, as well as the personal and social aspects of talent-development in children. The book is composed of 13 chapters, each written by acknowledged authorities in the field of sport psychology or motor development and learning.

As indicated above, the structure of the book is framed around the fourth stage of talent-development research in sport (Bruner et al., 2009), which includes two levels of variables: developmental activities, and personal and social conditions. Figure 1.1 is an illustration of the variables that impact talent-development during childhood. Central to Figure 1.1 are the developmental activities in children’s sport. The developmental activities constitute the process by which learning occurs and motivation is developed during childhood. Four general
types of variables affect the types and structure of developmental activities in which children engage for learning—the physical attributes of the child, the mental attributes of the child, the psychosocial influences, and the environment.

The first three chapters of the book focus on the developmental activities of children in sport and the type of learning that emerges from being involved in different types of play and practice activities. More specifically, in Chapter 2, Côté, Erickson, and Abernethy provide a taxonomy of learning activities and discuss the importance of including both child-led and adult-led activities in children’s sports. In Chapter 3, Masters, van der Kamp, and Capio discuss the evidence supporting the importance of structuring activities that involve implicit learning in children’s sport. To conclude this section, in Chapter 4, Chow, Davids, Renshaw, and Button present principles of nonlinear pedagogy as a way of organizing learning activities that favor creativity, implicit learning, and play in children’s sport. These three chapters are the core of the developmental activities for children’s sport that are expanded upon in the remaining chapters of the book.

Chapters 5 and 6 focus on the physical attributes that affect talent-development in children. In Chapter 5, Malina presents an important view of motor development that would be important to consider when structuring talent-development programs for children in sport. Lidor and Ziv complete this section in Chapter 6 by presenting the pros and cons of testing physical attributes and sport skills for identifying talent in children. Together, Chapters 5 and 6 highlight how maturation and development are determinants of performance in children’s sport, but also that the physical attributes of children are variable and sometimes difficult to assess for identifying talented children in sport.

Chapters 7 and 8 focus on two mental attributes associated with talent-development in sport—self-efficacy and perfectionism. In Chapter 7, Chase and Pierce review the literature on self-efficacy in children’s sport and propose some concrete guidelines for enhancing self-efficacy and confidence in children involved in sport. In Chapter 8, Hall, Hill, and Appleton discuss different approaches to the study of perfectionism and examine how the sporting environment and the climate created by coaches may act to reinforce distorted views about achievement and perpetuate the dysfunction cognitive style with which perfectionism seems to be associated. In sum, Chapters 7 and 8 focus on important psychological determinants of children’s participation and performance in sport.

Chapters 9, 10, and 11 consider the social influences of coaches, groups/peers, and family members as catalysts that facilitate talent-development in children. Erickson and Gilbert (Chapter 9) present an overview of the role of the coach in children’s talent-development, with a specific focus on coaches’ behaviors. Bruner, Eys, and Turnnidge (Chapter 10) address how groups and peers influence children’s involvement in sport through variables such as friendship, cohesion, and interdependence. Finally, in Chapter 11, Fraser-Thomas, Strachan, and Jeffery-Tosoni provide an in-depth analysis of how parents and siblings impact children’s participation and performance in sport. This section of the book on social influences highlights the important role other people have on children’s commitment to remain in sport and develop their talent.

The last section of the book is devoted to the social environment of children’s sport. In Chapter 12, MacDonald and Baker summarize the findings of two social phenomena—relative
age and birthplace—which significantly bias the nurturing of talent in children’s sport. Finally, in Chapter 13, Harvey, Jung, and Kirk review social variables such as gender and social class that can distort the equality of opportunities offered to children in sport for developing their talent. The social environment in which children’s sport is embedded is often overlooked in talent-development research, and the last section of this book reviews variables that need to be considered as hindering or facilitating talent-development in children.

In this volume, we seek to present a comprehensive understanding of the variables involved in the development of talent in sport during childhood. Central to the book are the developmental activities of play and practice that contribute to the development of talent in sport, with a specific focus on the physical characteristics of children, their mental attributes, the psychosocial influences, and the social environment, all of which impact children’s sport. We see this book as a much needed compilation of knowledge about a unique, and often not well-understood, phase of talent development in sport. We look forward to further dialogue about the theory and practice of children’s talent-development in sport.

REFERENCES


The challenge of developing creativity to enhance human potential is conceptualized as a multifaceted wicked problem due to the countless interactions between people and environments that constitute human development, athletic skill, and creative moments. To better comprehend the inter-relatedness of ecologies and human behaviors, there have been increasing calls for transdisciplinary approaches and holistic ecological models. We elaborate the notion that creative moments, skill and more generally talent in sport, are not traits possessed by individuals alone, but rather can be conceived as properties of the athlete-environment system shaped by changing constraints. Talent identification is the process of recognising current players that have the potential to excel within football (Vaeyens, Lenoir, Williams, & Philippaerts, 2008), while talent selection is the acceptance of individuals into representative teams and development programmes. Talent identification involves an attempt to predict the future capacity of performance of an individual (Abbott & Collins, 2002). As noted earlier, there are various aspects of performance and player characteristics that can be assessed in order to make selection determinations. Talent identification and development programmes in sport: current models and future directions. Sports Med, 38 (9), 703-714. Vaeyens, R., Malina, R. M., Janssens, M., Van Renterghem, B., Bourgois, J., Vrijens, J., et al.