Talent Identification and Development in Sport: International Perspectives

Joseph Baker, Steve Cobley and Jörg Schorer (eds.)
Routledge, Abingdon, UK

2012; ISBN: 978-0-415-58161-5 (pbk)

Book Review by Simon Jenkins

INTRODUCTION

Talent is "an individual's *potential* for success in a domain" (p. 3) with talent identification referring to "early recognition (relative to being an adult)" of that potential and talent development being concerned with nurturing of the potential, through attention to the provision of appropriate training and resources" (p. 5). This book is billed as offering "a comprehensive synthesis of current knowledge in talent identification and development in sport" (Backcover). The editors are researchers from Canada, UK and Germany.

THEORETICAL AND CONCEPTUAL MODELS FOR UNDERSTANDING TALENT IDENTIFICATION AND DEVELOPMENT

There are chapters on whether genes predict potential (Joseph Baker), the role of psychology in talent development (Aine MacNamara and Dave Collins), environmental influences on talent development (Sean Horton), the numerous pathways to sport expertise – best exemplified by Jean Côté's Developmental Model of Sport Participation (Damian Farrow), and talent development from the perspective of "athletes as complex neurobiological systems" (Ian Renshaw, Keith Davids, Elissa Phillips and Hugo Kerhervé).

The chapter by Horton warns that that "the consequences of early specialization are sometimes profound in terms of a child's long-term physical and psychological health" (p. 47), and he discusses the case of the Polgár sisters:

> László Polgár, who is a psychologist by profession, felt that early, intensive specialization was the key to achievement in any field. ... Even before starting his own family he penned a book, entitled *Bring up Genius*. Polgár subsequently had three daughters and introduced them all to chess at a young age. ... All three were spectacularly successful players. The eldest, Susan, became the number one ranked woman in the world and the first woman ever to achieve Grandmaster status. ... The Polgár sisters appear to be living proof of their father's theories. ... [However, some authors] question László's assertion that genetics played no role in his daughters' success. Others question the motivational aspect, arguing that chess and the sisters was like an arranged marriage that worked out well...
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> Polgár may have gotten lucky with the success of his daughters, but to a considerable extent he made every effort to take luck *out* of the equation. ... They grew up in a small apartment in Hungary during the communist era, with modest

financial resources. In addition, women faced explicit discrimination in the game; females were not considered to be genetically and/or temperamentally suited to chess. Indeed, when Susan [the eldest] first qualified for the men's world championship the chess authorities attempted to block her participation. ... By providing early, intensive training, and by taking control of their schooling, Polgár shaped their early experiences to a remarkable degree. Perhaps just as important, his daughters attribute their enthusiasm and love for the game to his ability to ignite their interest in chess when they were children. (p. 48-49)

In the concluding chapter of the book, the editors point to "the lack of a comprehensive model guiding research" (p. 171) in talent identification and development, but that "Newell's [1] model provides a framework for conceptualizing issues ranging from relative age and birthplace effects to skill acquisition and expertise development" (p. 172):

At a given point in time, those deemed as 'talented' will be determined by an interaction between individual [(chronological age, maturation status, training experiences, psychological characteristics)], task [(speed, power, flexibility, strength, endurance, balance, aesthetics, coordination, perception, decision-making)], and environmental [(support, availability of facilities, coaching quality, cultural importance, sport policy)] constraints. (p. 172)

With its emphasis on Newell's model, the chapter by Renshaw et al. is arguably the most important in the book. These authors argue that "[r]igid, over-structured talent identification and development programmes that fail to consider interacting individual, environmental and task constraints underpinning sports performance are unlikely to succeed" (p. 64). Rather, "[c]reating variability in practice is essential to the learner's discovery processes and produces flexible and adaptable performers who invent novel adaptations to solve typical motor problems" (p. 74) and "coaching in talent development programmes should adopt an athlete-centred, *hands-off* approach where learners are provided with environments where they can learn generic and sport specific skills, rather than be prescriptively taught putatively optimal movement patterns that are hypothesized to characterize all experts" (p. 78).

INTERNATIONAL CASE STUDIES OF TALENT IDENTIFICATION AND DEVELOPMENT

There are chapters on women's artistic gymnastics in the USA (William Sands), soccer in Holland (Marije Eflerink-Gemser and Chris Visscher), rugby league in the UK (Kevin Till et al.), and handball in Germany (Jörg Schorer et al.). In his evaluation of the Talent Opportunity Program (TOPs) in women's artistic gymnastics, Sands concludes that "the productivity versus expense of the TOPS program is questionable," but that "the hidden and tangential benefits of nurturing and educating coaches and athletes are an important side-benefit of the TOPs program that may outweigh the issues of high level athlete performance prediction" (p. 92). With regard to talent development in Dutch soccer, Elferink-Gemser and Visscher state:

From our longitudinal studies it seems that talented youth soccer players who ultimately make it to the top perform better than their less successful counterparts on a combination of performance characteristics (e.g., physiological, technical, and tactical skills). Successful players seem to have acquired better dribbling skills by

the age of 14, develop their interval endurance capacity faster from the age of 15 and outscore less successful players on tactical skills at the age of 17. Nevertheless, one has to be careful in interpreting the scores of individual players based on only one test; it is possible to reach the professional level while scoring worse than the predicted curves for professionals. Therefore, it is of the utmost importance to present the total picture of a talented player's scores on his multidimensional performance characteristics favourably combined with information on environmental characteristics as well as on maturation, learning, and training to trainers, coaches, and staff. (p. 102)

In a chapter entitled, "Explaining African Dominance in Running", Yannis Pitsiladis concludes:

> Ethiopians and Kenyans do not share similar genetic ancestry but they do share a similar environment: namely moderate altitude as well as high levels of relevant physical activity. Furthermore, the implications of the Jamaican motto 'out of many, one people' that is seemingly overlooked by those arguing for a genetic explanation for Jamaican sprint success, is that these islanders are potentially of even greater genetic diversity than either Kenyans or Ethiopians. It is unlikely, therefore, that these remarkable athletes from east Africa or Jamaica possess unique genotypes that cannot be matched in other areas of the world, but more likely that athletes from these areas with an advantageous genotype realize their biological/genetic potential. (p. 143)

The final chapter in the second section of the book is by Jason Gulbin, who is the General Manager for the Australian Sports Commission's National Talent Identification and Development (NITD) program (p. xiii). Gulbin charts the course of the national talent identification and development (TID) system in Australia through three phases:

> The Concept Phase – Talent Detection Experimentation (1987 to 1993)
> The Growth Phase – National Talent Detection and Mass Screening (1994 to 2000)
> The Refinement and Maturation Phase – Targeted Talent Detection and Development (2001 to 2005) (p. 151)

The author pays homage to the work of Allan Hahn, a physiologist at the Australian Institute of Sport (AIS) who "pioneered Australia's first true talent detection programs throughout 1987 and 1988" (p. 152):

> In a seminal case study in the sport of rowing, Hahn tested about 500 students aged 14 to 16 years from the local secondary schools near to the AIS. ...Hahn's vision was spectacularly vindicated vindicated when one of the TID athletes (Megan Still) partnered a non-TID rower (Kate Slatter) to win a gold medal in the women's pairs at the 1996 Atlanta Olympic Games. (p. 152)

OVERVIEW
The editors - Joseph Baker, Steve Cobley and Jörg Schorer – state that their overarching purpose is to inform a 'better' system for talent identification and development in sport (p. xviii). This book is recommended as a text for modules on talent identification and

development in sports science and coaching degrees at both undergraduate and postgraduate levels. A starting point for such modules that adopt this book could be the chapter from Ian Renshaw and his colleagues:

> Traditional approaches tend to overemphasize anthropometric and physiological measures so that potentially talented individuals are initially excluded or de-selected from programmes, due to limited assessments of talent potential based on current performance. In this chapter we argue that the focus in sport needs to eschew early identification of expert athletes towards the development of skilled, highly adaptive performers. (p. 64)

REFERENCES

1.   Newell, K.M., Constraints on the Development of Coordination, in: Wade, M.G. and Whiting, H.T.A., eds., *Motor Skill Acquisition in Children: Aspects of Coordination and Control*, Martinus Nijhoff, Dordrecht, Amersterdam, 1986, 341-360.