

The Paradox of Human Potential and the Development of Sporting Champions

One of the most obvious challenges in youth sport is the increasing push to identify and stream young athletes into high-performance systems aimed at providing 'optimized environments' to increase athletes' likelihood of eventual success. My research focuses on understanding the process of athlete development, particularly the extent to which early stages of learning and skill acquisition relate to later success. This knowledge is not just relevant to sport. Understanding the factors that influence the development of athletes across different sports, countries, systems, and so on helps us understanding how to design and implement training settings and learning environments for all to thrive.

Bio:

Dr. Joe Baker is the Tanenbaum Research Chair in Sport Science, Data Modelling and Sport Analytics at the University of Toronto. His research considers the varying influences on optimal human development, ranging from issues affecting athlete development and skill acquisition to barriers and facilitators of successful aging. Joe is the author/editor of 13 books and hundreds of peer-reviewed articles and book chapters. More about this research can be found at <https://www.bakerlab.kpe.utoronto.ca/>

Recent Open-Access Reviews in Areas Related to the Presentation

Concerns about genetic testing in sport

McAuley, A. B. T., Baker, J., Johnston, K., Varley, I., Herbert, A. J., Suraci, B., Hughes, D. C., Tsaprouni, L. G., & Kelly, A. L. (2023). Talent inclusion and genetic testing in sport: A practitioner's guide. *Current Issues in Sport Science*, 8(1), 008. <https://doi.org/10.36950/2023.1ciss008>

Approaches to athlete development

Ramsay, G., Mosher, A., & Baker, J. (2023). Is there just one type of multisport pathway? A scoping review of multisport engagement in early athlete development. *Sports Medicine: Open*, 9, 96.

Baker, J., Gayman, A., & Johnston, K. (2023). Lifespan models of athlete development: What have we learned from previous attempts? *Frontiers in Sports and Active Living-Elite Sports and Performance Enhancement*, 5. <https://doi.org/10.3389/fspor.2023.117976>

Deghansai, N., Pinder, R. & Baker, J. (2022). Talent identification and development in Paralympic contexts: Current challenges. *Frontiers in Sports and Active Living: Elite Sports and Performance Enhancement*. <https://doi.org/10.3389/fspor.2022.926974>

Principles of Talent Development

Principle 1 - Individuals differ on elements related to talent. Individuals differ on all elements of function, development and performance. Sometimes these elements of talent are related to immediate performance and sometimes to factors that affect long-term development, but there is always an influence of genetic variation. However, this does not mean we cannot improve through learning and training.

Principle 2 - Predictors of performance change across development.

The elements that explain and predict performance early in development are usually not the same as those that predict performance later. As a result, things that were important for performance in child or adolescent athletes (e.g., differences in height) may not be as relevant later in development.

Principle 3 - Models of athlete development and prediction need to be multi-faceted and flexible.

Models of athlete development cannot simply focus on performance at a specific time point in development since this performance is the end result of an enormously complicated pattern of behavior, opportunity, and genetic predispositions. At the very least, coaches and sport administrators need to go beyond simply focusing on physical and technical elements of skill development and performance to include elements of psychological, cognitive and perceptual development.

Principle 4 - Predicting long-term outcomes is a bad idea... but often necessary

Based on principles 1 to 3, it would be easy to argue sport stakeholders should never engage in long-term predictions of development or potential. However, the reality is that due to resource limitations, coaches often must make choices about who gets an opportunity and who doesn't. Recognizing that sometimes these predictions are inevitable is important. However, it is also important to acknowledge the limitations of these predictions and take steps to reduce their effects on an athlete's long-term development. At the moment, evidence suggests they are incredibly powerful.

Principle 5 - Frameworks and models built solely on the experiences of successful athletes are flawed.

It is difficult to acquire high-quality evidence on the pathways to sporting success. As a result, those working to create evidence-based policies and practice often must 'take what they can get'. Nonetheless, it is important to remember the limitations associated with different types of research, and that an existing research base may be affected by survivor effects, cohort effects,

From:

The Tyranny of Talent: How it compels and limits athletic achievement... and why you should ignore it

