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Learning in Development Research Framework for Athlete Development and Sports Science Support

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A thesis submitted in partial fulfilment of the requirement of Sheffield Hallam University for the Degree of Doctor of Philosophy (PhD)

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Candidate Declaration

I hereby declare that:

- I have not been enrolled for another award of the University, or other academic or professional organisation, whilst undertaking my research degree.

- None of the material contained in the thesis has been used in any other submission for an academic award.

- I am aware of and understand the University's policy on plagiarism and certify that this thesis is my own work. The use of all published or other sources of material consulted have been properly and fully acknowledged.

- The work undertaken towards the thesis has been conducted in accordance with the SHU Principles of Integrity in Research and the SHU Research Ethics Policy.

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Abstract

Understanding how we become skillful is an essential for those working in athlete development settings. Research has shown how socio-cultural factors can continually shape an athlete's development journey, highlighting the potential for a myriad of possible complex challenges. Scholars have argued that traditional research approaches towards optimising athlete development have tended to neglect critical features that have important implications for transferring findings to applied settings. There is a need for a framework to guide both research and practice within specific sports organisations.

The objective of this thesis is to introduce methodological possibilities to investigate and illuminate (i) form of life at a professional youth football club, and (ii) address a research gap on the need for a more contemporary research framework to guide reliable ways of conducting research and designing practical applications. To achieve this, underpinned by an ecological dynamics rationale, I introduce the Learning in Development Research Framework (LDRF). To provide a strong justification for the nature of the fieldwork and methods adopted, I present a 4-year ethnographic study from a professional football club in Sweden that has adapted the framework.

In chapter 1 I introduce literature relevant to the study and discuss the significance of the thesis. The theoretical perspective presented in Chapter 2, illustrates concepts and ideas that inform the approach I have adopted throughout the thesis. In Chapter 3 I provide an in-depth explanation of the LDRF, adapted from its published form (see O'Sullivan et al., 2021). Chapter 4 investigates the socio-cultural context in which the phenomenon has been historically constructed. In Chapter 5, I present an investigation of a form of life at a professional youth football club. Chapter 6 highlights how the impact of being immersed in a local setting can be complemented by subsequent action cycles that aim to implement its findings. In Chapter 7, I present, adapted from its published form, a contemporary Player Learning in Development Framework (O' Sullivan et al., 2021), that has been brought to life, as a direct consequence of implementing the LDRF. The thesis concludes with a summary, some limitations and challenges and future recommendations for research.

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Dedicated to my children, Millie Rose, Josep and Samuel

In loving memory of my Father

Fail we may, sail we must

Personal Bibliography Associated with Thesis

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Key Conference Presentations Relevant to Thesis

Kisakallio Motor Skill Acquisition Conference. Keynote speaker - Ecological Dynamics in

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Ontario Soccer Summit. Keynote speaker - A Constraints Led Approach to youth football-

Theoretical presentation and practical session (Toronto Canada). 3 March 2018.

Movement and Skill Acquisition Conference Cork Institute of Technology. Keynote speaker -

Ecological Dynamics in youth football. (Ireland). 6th April 2018.

SPARC Symposium Skill Acquisition and Talent Development in Sport: Sheffield Hallam

University. Presentation on AIK Form of Life. 12th December 2018.

Swedish Sports Federation National Conference - An ecological approach to athlete development (Stockholm) March 15th, 2019

North Toronto Soccer Club, Toronto, Canada - An Ecological approach to youth football – July 17th, 2019

SPARC Symposium. Transforming Lives Through Skill Acquisition- An ecological Approach to learning in development. Sheffield Hallam University – Sept 11th, 2019

Lithuania Football Association Keynote speaker – Modern trends in Youth Football – An Ecological Approach to player development (Villnius) NOV 20TH 2019

Copenhagen Football Association - An ecological approach to player development – (Copenhagen, Denmark) 11th February 2020

Sport Northern Ireland - Reconceptualizing youth player development (Derry, Northern Ireland) – 4th March

Den Bosch Football Club the Netherlands – A nonlinear approach to player development in competitive football. 1st December 2020

Norwegian School of Sport Sciences Keynote speaker- A nonlinear approach to player development in competitive football (Olso, Norway) 29th October 2021

Finnish Football Association -Player learning in development at AIK football. 2nd February 2022

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Prologue

The Accidental Transdisciplinary Researcher

I have an early memory of my father entering the back garden of the house of my childhood in Cork city, Ireland, to ask me what I was doing. I said that I was a cowboy and that I was shooting those bad Indians (who were obviously hiding in the long grass at the end of the garden). My father took me aside and briefly provided me with another perspective on the plight of the North American Indian. Since then, I have been an Indian. This initially caused much debate and indeed confusion amongst my friends in the local neighbourhood. Family loyalty had compelled me to side with my new tribe as we played out scenes from (in)famous westerns regularly shown on Irish state television.

My father, a welder by trade, also brought the love of sport and art, in particular music, into our home. The sound of voice and guitar and smell of oil on canvas were all welcoming signals for me to come and join him. When we both took up an interest in river trout fishing, he would regularly paint the rivers we fished and even mastered the art of tying his own flies, which he used to lure trout. While I was fully focused on catching trout, by whatever means necessary, my father seemed to be embedded in the whole experience. The mumbling river, a ripple in a deep pool, a solitary gazing heron, flies dancing perilously close to the water as the sun set. Landing a fish was merely a bonus. A human child in the waters and the wild.

I have been lucky to have sport and music as constants throughout my life and they often, as time went by, connected back into each other. This I thank my father for. Indeed, they have defined much of my childhood, while in adulthood I pursued and wandered obliquely between careers in both, occasionally having to come face to face with cowboys. The cowboys you meet as an adult are a lot different from those you encounter as a child.

A stone's throw from my childhood home was Flower Lodge, where the mighty Cork Hibernians played. 'Hibs', as they were locally known, played in the top soccer league in Ireland and were captained by Dave Bacuzzi. We called it 'soccer' as football essentially

meant Gaelic football, that along with hurling were extremely popular national sports deeply rooted in Irish culture. Whenever my father couldn't take me to see Hibs play, even as an eight-year-old, I would wander up the hill on my own to Flower Lodge and ask an adult to lift me over the turnstiles. Different times indeed. Years later I recorded and released an album under the name Bacuzzi (one of my many artist names) and yes, the album was called Flower Lodge.[1] You see what I mean by sport and music connecting back into each other?

In the early part of my childhood street football, or street soccer, brought the neighbourhood children together daily. However, during Wimbledon tennis racquets tended to make a brief appearance. Once a year, Ireland would host a major international showjumping competition and the event was broadcasted live on TV. Suddenly back gardens became a gathering point as children piled in, bringing broomsticks, bins, boxes, car tyres and tree branches, creating an obstacle course that would challenge any rider and horse. Well, challenge us children at least as we channeled our inner rider-horse dyad.

Organised sport entered my life when I was 9. I played soccer for Tramore Athletic and Gaelic football for Blackrock. At school, the teachers organised Gaelic football and hurling games, however during breaktime it was soccer that we played. The coaching I experienced was essentially games-based. I still don't know to this day if the coaches knew what they were doing, but I liked them, they were kind. Soccer became the dominant sport of my teenage years. I also played for my school Gaelic football and basketball teams when I was 17 and 18. I managed to play a few games as an 19-year-old in the top soccer league in Ireland before I attended University College Cork to study computer science and economics.

Music soundtracked these years. I collected vinyl, attended concerts and learned to play the guitar. In university I started to play in various bands and began promoting concerts and events, while still playing for the college soccer team. In 1994 I moved to Sweden. In the late

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[1] https://www.discogs.com/release/266203-Bacuzzi-Flower-Lodge

90's I helped set up Långholmen football (soccer) club with some friends where I played and coached. I also built a small recording studio, started my own record label and began to write and produce music. In 2004 a teammate at Långholmen asked me if I would be his assistant for a local youth team. Within a month he quit as coach, and I was left alone with a large group of 16-year old's and little or no coaching experience with this age group. Things were further complicated by the fact that my music career was taking off, I had released a few successful records and I was getting regular DJ gigs around Europe, occasionally venturing to Japan and Canada. However, I somehow managed to balance the two.

After the birth of my first child in 2008 (I now have 3 children), I took up a job as head of a youth center in Stockholm. As I was also coaching local youth teams, I decided to start attending the coach education courses provided by the Swedish Football Association. While I enjoyed attending these courses, as it gave me the opportunity to meet other coaches, I also found them frustrating. The type of pedagogy that was being promoted on these courses was very autocratic. Coaches were encouraged to get players to simply replicate or reproduce actions. I completed my UEFA A coaching license in 2013 but remained frustrated with coach education and in a way my own development. I decided to embark on a journey of inquiry.

Fail we may, sail we must

My father, who left school at 12, had a creative 'do it yourself' (DIY) ethic. In his 'know as you go' approach he creatively moved with his interests, enriching and growing his knowledge as he went. This has had a clear influence on my approach to music, coaching and more pertinently, my approach to research. In a way I have been carrying out research well before I started my PhD. I am just a little bit better at articulating it now. At least I hope so.

The approach I took to music is captured in a tattoo borne by the late maverick DJ and producer Andrew Weatherall, that was inspired by a fisherman that he met in Cork, Ireland[2]. Inscribed on both arms are the words–'fail we may, sail we must'. It is only now, reflecting on my years of coaching and coach education and researching my frustrations, that this is how I have been carrying out my own personal inquiries. This is elegantly captured in Woods and colleagues (2022) challenging paper on the professional development of academic sport scientists, where they bring to life Said's (1996) characterisation of the amateur's ethos – one who studies for the love of it, as a way of life. One who is: "not just passively describing or documenting what has occurred through a vertical integration of knowledge (cf. Ingold, 2011), but actively transforming with what they directly seek, experience and discover" (Woods et al., 2022).

The journey of inquiry that I embarked on due to my frustrations with the deeply acculturated, socially accepted, and taken for granted way of doing things in coach education, that seemingly limited opportunities for players to think and explore, started with me embracing the humility of not knowing. I reached out to academics across many disciplines around the world. Many were very approachable, kind and generous with their time. Indeed, I have now published papers with some of these fine academics and one is my PhD supervisor. Over time, questions, that demanded further inquiry, started to emerge from my concerns as I got to learn how to know and respond to my interests. This humble appreciation of the epistemology of not knowing and my desire to investigate/wayfind (Woods, 2022) and 'find out', is deeply rooted in transdisciplinarity (Montuori, 2008; 2019). I am, and in a way have been, the accidental transdisciplinary researcher, the amateur, the inquirer within the inquiry, using newly encountered information to guide where I should explore next.

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[2] https://www.dummymag.com/news/cork-fisherman-andrew-weatherall-fail-we-may-sail-we-must/

Acknowledging how my previous experiences played a significant role in the production of this thesis will hopefully prepare readers for my subjective interpretations of the findings. Indeed, my biographical experiences and my research are inextricably intertwined.

Chapter 1: Introduction

1.1 Introduction

Played in over 200 countries, association football is considered one of the most complex and competitive sports in which to reach elite levels (Vaughan et al., 2021). The process of talent development has been described as complex, dynamic and characterised by uncertainty and unpredictability in relation to future outcomes (Phillips et al., 2010). Environments that successfully develop professional athletes can enjoy both increased profits and recognition (Henriksen, 2010). With sports organisations and clubs investing significant resources (financial and personnel) into the professionalisation of the identification and development of talent, these environments have become vibrant areas of research (Ford et al., 2020; Williams et al., 2020).

One such major area of investment is what has been referred to as the 'academy system', now a well-established feature of professional football (Ford et al., 2020). In Europe, most professional clubs have an embedded academy program of identification and development of 'talent' (Williams et al., 2020). Talent identification has been described as a process of identifying and selecting young players who have the potential to excel at more advanced levels of competition (Williams & Reilly,2000). Talent development consists of a systematic combination of coaching, practice and competitive games specifically designed to support players development through the system (Williams et al., 2020). In general football academies have teams at each age group from U9/10 upwards, with the development pathway through ages and stages underpinned by a frequent selection and de-selection process (Ford et al., 2020; Güllich, 2014).

In European youth football, the alchemic pursuit of identifying and developing young 'talent' has gained intensity since the "Bernard case" [3] in 2010, essentially a follow up to the 1995 Bosman ruling. The European Court of Justice ruled that football clubs can seek compensation, if young players they trained signed their first professional contract with a team in another EU country. Youth football could now be framed as an economic activity, thus encouraging the training of young 'talented' players as a form of human capital investment (Hendrickx, 2010). It is within this context, the Standard Model of Talent Development (SMTD) (Bailey & Collins, 2013) emerged. This pyramid structure, characterised by early recruitment, selection and the de-selection of young players through ages and stages is a now a central tenet of player development programs around the world (Güllich, 2014; Rongen et al., 2018).

Dependent on strong coordinated central governance, the SMTD has been critiqued and questioned as it lacks in both empirical and conceptual validity (Bergeron et al, 2015; Bjørndal et al., 2017). Indeed, recent work carried out by Ford and colleagues (2020) in 29 of the highest ranked professional soccer clubs from around the world, highlighted a relatively high annual turnover, around 29%, of players through age groups. This showed ongoing issues with identifying young players and keeping them in the system, while revealing the systems inherent difficulty in coping with fluctuations in performance and development that are naturally occurring aspects of life and learning in sport (Adolph, 2019; Button et al., 2020).

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[3] CJCE, 16.03.2010, Case C-325/08, *Olympique Lyonnais SASP v. Olivier Bernard and Newcastle UFC*, ECLI:EU:C:2010:143 ; Cass. Soc., 6 oct. 2010, *Olympique Lyonnais SASP v. Olivier Bernard, Newcastle UFC*, Bull. civ., V, n° 07-42023.

1.2 Talent Identification

Initially research carried out in professional soccer clubs highlighted that the main objective of youth academies in football was to develop players to meet the needs of the first team (Relvas et al., 2010). However, more recently other objectives have started to come to the fore. For example, identifying and recruiting the best players, based on current performance, across age groups to meet the 'needs' of age group teams within the younger age groups (Ford et al., 2020). What is generally accepted as a complex process, is often contradicted by the paradoxical subjective nature of methods used to identify talent. Lund and Söderström (2017) highlighted how coaches' talent identification in Swedish youth football was guided by what feels right in the heart and stomach; but what feels right is greatly influenced by their experience of previous identifications, interpretations of what elite football entails, and the coaching culture in which they find themselves. These findings echo Christensen's (2009) study of Danish youth national soccer coaches, where it was shown that coaches' talent identification was based on their embodied "gut feelings".

These subjective methods have been criticised due to a bias towards the selection of players born earlier in the (age category year) (Cobley et al., 2009; Helsen et al., 2005). This well documented phenomenon has been referred to in the literature as the Relative Age Effect (RAE) (Musch & Grondin, 2001). The presence of RAE within athlete development systems has been explained by several factors, such as, maturation, date of birth, environmental factors and birth patterns within socioeconomic classes (Teolda da Costa et al., 2010). Further highlighting the inherent problems related to predictive value of future performance in football (Bailey & Collins, 2013; Williams & Reilly, 2000), the maturational differences between individuals have been the most common hypothesis. For example, within a one-year age bracket in youth football, there will be a match of chronological ages but not necessarily biological ages (Finnegan, 2020). As chronological and biological ages rarely progress

concurrently to the same degree (Vaeyens et al., 2008), the variance is likely to be greater than the 12-month age band (Helsen et al., 2005). As earlier maturation can affect the development of several anthropometric and physiological variables (Gastin & Bennett, 2014; Finnegan, 2020) older players are more likely to be selected for more competitive teams where they obtain improved coaching, facilities in comparison to their younger counterparts (Baker & Logan, 2007). Indeed, if older players are more likely to be selected, this may have implications for how talent and expertise is developed.

1.3 Talent Development and Expertise in Sport

It has been proposed that the purpose of a talent development programme is to increase athletes' potential (Vaeyens et al., 2009). Williams and Reilly (2000) suggested that understanding the mechanisms underpinning the development of expertise is important for those involved in the process of talent development. The process of talent development has generally been viewed through the pursuit of either specialisation (intense year-round training in one sport) (Ericsson et al., 1993; Jayanthi et al., 2013) or sampling (engaging in a variety of sports during development) (Côté et al., 2007). According to Güllich and colleagues (2022), the most influential conceptions of talent development in the sports science literature, are the deliberate practice perspective (Ericsson et al., 1993) and the *Developmental Model of Sport Participation* (DMSP) (Côté et al., 2007). These contrasting perspectives are a feature of a long term and ongoing debate in the expertise literature (Güllich, 2022). Discussions have in general been framed around either you are specialising, or you are not, with things being further complicated by the fact that both approaches can lead to positive or negative outcomes (Finnegan, 2020).

Ericsson (1996) suggested that the development of expertise depends on the amount of time spent on effortful, highly structured goal orientated practice not always inherently enjoyable (Ericsson et al., 1993; Ericsson, 2006; Ericsson & Williams, 2007). This idea of

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expertise in sport as a function of intense prolonged effort to improve performance has been coined deliberate practice. It has been argued that deliberate engagement in football-specific training is more likely to lead to elite performance (Ward et al., 2007). While recognising that deliberate practice is necessary for reaching an elite level, Côté and colleagues (2007) argued that expertise is not attained by simply accumulating a putative number of hours of practice. Further, they recommended that a period of deliberate play (e.g., backyard soccer, street hockey or basketball) during childhood adolescence should precede late specialisation. These ideas are echoed in Hornig et al. (2016) study in association football who noted that many of the German national football team cohort engaged in greater proportions of playing activities, also differing from amateurs in having engaged in more sports in adolescence and specialised later.

Of great importance in the development of expertise is the nature of the practice activities in which players engage (Williams & Ford, 2008). The main developmental activities within youth academy football are competitive matches against other clubs and frequent coach led training sessions, usually a mixture of skills/drills and game-based activities complimented with instructions from coaches (Ford et al., 2012; 2020; O'Connor et al., 2018; Partington & Cushion, 2013). It has been argued that there is an over-reliance on skill/drill-based models of practice in player development compared to game-based approaches (Cushion et al., 2012). Based on older theories of learning such as, behaviourist and information processing theories (North et al., 2015), the skills/drills approach has tended to emphasise a technique first orientation where variability is reduced and optimal techniques are learned through repetitive actions before the introduction of game play (Blomqvist et al., 2001; Schmidt et al., 2018). Within this paradigm, a typical training session would progress from an isolated drill with explicit demonstrations of how to execute the 'correct' technique (Williams & Hodges, 2005), to eventually a game, with explicit feedback from the coach

(Mckay & O' Connor, 2018; O'Connor et al., 2018). The experience for the young player can be highly prescriptive underpinned by constant instructions and corrective feedback for reproducing forms of movement or patterns of play (Davids et al., 2012; Kidman, 2010) and can impinge on the development of effective perceptual-cognitive skills and decision making (Côté et al., 2013; Ford, 2010). It has been suggested that these overly prescriptive approaches, associated with a skills/drills approach, can be detrimental for learning (Ford et al., 2010; Renshaw et al., 2022) with significant motivational problems (Renshaw et al., 2012). high injury risk (Côté et al., 2009). premature drop out (Wall & Côté, 2007).

Often associated with a skills/drills approach is Ericsson's notion of deliberate practice (Ericsson et al., 1993, North et al., 2015). Suggested as a necessity for elite adult success (Suppiah et al., 2015), deliberate practice has been criticized for promoting the unnecessary generalisation that development of expertise has all to do with accumulated volume of practice (Seifert et al. 2018). This has arguably resulted in an increased focus on early specialisation (Côté, 1999), or more directly, in the context of this thesis, a phenomenon referred to in Swedish youth football as "early elite investment" (tidigt elitsatsning). Defined by the Swedish sports council, elite investment means, demanding, specialised and organised sports activities with stated performance and results goals (Träff, 2022). These ideas have influenced a trend towards identifying and recruiting players at younger ages with a view to optimising the volume of practice utilising prescriptive approaches (Baker et al., 2017; Seifert et al. 2018). While there has been a tendency for athlete development models to highlight deliberate practice as one of the most important elements of becoming an elite level athlete, other key factors need to be considered (Bruner et al., 2009).

Other variables such as physical and psycho-social environmental constraints, including social structures, tradition of sport, and sports culture need also to be considered whilst acquiring sports skills (see Baker, 2003; Carlson, 1988; Côté et al., 2003). For example, the

development pathway which an athlete selects depends not only on the sport but also on the social and cultural context to which the athlete is exposed to and influenced by (Côté et al., 2007). It has been noted that the social, cultural, and historical contexts in which athletes develop should be considered as important constraints on expertise (Araújo, 2007; Uehara et al., 2016; Vaughan et al., 2019), influencing practice design, coach behaviours and the type of skills that are appreciated (Redelius, 2013; Vaughan et al., 2019). Indeed, Carlson (2007), in his work on Swedish sport, argued that the behaviour of coaches was more important for a child's favourable athletic development than the demands for skill.

Organisational structure and governance have been shown to influence talent development (Martindale et al., 2007; Henriksen et al., 2010) with further concerns around the privatisation of sport (increasing costs) on sports clubs (De Knop et al, 1999). Scheerder et al. (2005) found that children's involvement was highly influenced by parents' participation and support, concluding that social background is a key variable in participation. It was also suggested that key variables were club and school organised activities, as well as gender. Côté et al. (2006) investigated the notion of an athlete's birthplace being a factor in talent development. Illuminating socio-economic and geographical factors, it was noted that smaller cities (population less than 500,000) and towns can provide unique opportunities in terms of expertise development (Côté et al., 2006; MacDonald et al., 2009). More directly, smaller cities can provide more opportunities for play (e.g., street traffic is reduced), access to elite clubs and development of social and motor skills (Baker et al., 2009; Côté, 1999; Evans, 2006; Rossing et al., 2018).

In 2015, the International Olympic Committee released a consensus statement questioning the validity of talent development models in youth sport, whilst also referring to the problematic nature of early specialisation (Bergeron et al., 2015). Negative messages regarding early specialisation have been features of many influential policy and practitioner-

orientated models (e.g., Canada's Sport for Life Model, Australia's FTEM) (Baker et al., 2021). However, there have been calls for a more balanced discussion, with Baker et al. (2021) suggesting that the 'specialisation is bad' message may be far too simplistic.

It has been argued that there needs to be a clear definition of early specialisation that can be utilised across disciplines, oraganisations and by researchers (Mosher et al., 2020). Indeed, Araujo's (2010) work on Brazilian football highlighted how different kinds of early specialisation can exist in different cultural contexts. In contrast with traditional practices from other contexts (e.g., early deliberate practice, precise repetition of movement drills in structured practice tasks), a broader range of early specialisation was developed, with little formal coaching, where players from an early age specialised in "feet-ball activities", that have a direct correspondence to organised football (Côté et al., 2007). Recently, Güllich and colleagues (2022) presented converging evidence on the development of expertise. They indicated that early single-sport specialisation while associated with rapid initial progress may compromise the sustainability of long-term development. It was also noted that early variable, multidisciplinary practice while associated with gradual initial sport-specific progress but greater sustainability of long-term development of excellence.

1.4 Talent Development Models

The study of talent development has led to numerous models being presented within the scientific literature (cf. Bloom, 1985; Ericsson et al., 1993; Bayli & Hamilton, 1999; Côté, 1999; Abbott & Collins, 2004; Bailey & Morley, 2006; Gulbin et al., 2013; Henriksen et al., 2010). Bloom's (1985) model highlighting three primary stages during expertise development (i.e., early, middle, late) provided one of the first systematic attempts to understand developmental processes that elite athletes engaged in on their development pathways. Underpinned by two primary categories of learning activities (i.e., play and intense practice), this model is characterised by initial playful engagement with enjoyable activities through to

increased deliberate dedication (Lordo, 2021). This signaled a move from the idea of talent

being governed solely by genetic dispositions, towards placing a focus on the evolution of

talent (Van Tassel-Baska, 2001). Subsequent research into expertise development has led to

the theory of deliberate practice as one of the primary factors needed to attain elite

performance (Ericsson et al., 1993). Characterised by highly effortful forms of practice,

intended to improve performance of a specific task (Ericsson et al., 1993), it has been argued

that deliberate practice falls short in explaining rapid development for multisport and late-

start elite athletes (Côté et al., 2007). In their Long-Term-Athlete-Development model

(LTAD), Bayli and Hamilton (1999, 2004) recommended that sports should be understood as

early or late specialisation and developed accordingly through various stages. However, the

LTAD has been criticised for its lack of empirical research and described as generic and one-

dimensional in its approach (Ford et al., 2011).

Building on the previously mentioned discrepancies regarding deliberate practice, Côté

and colleagues (1999; 2007; 2009) developed the Developmental Model of Sport

Participation (DMSP). Suggesting an alternative explanation for athletes, the DMSP proposes

developmental pathways, starting from initial engagement through to recreational

participation or elite performance. While the DMSP includes deliberate practice as a

component along with similar stages of development as those identified by Bloom, it also

considers other activities, such as *deliberate play*. The term deliberate play describes

activities that can involve aspects of play and practice, rarely supervised by adults, flexible,

with borrowed rules from organised games (Côté et al., 2007; Côté & Erickson, 2015).

A Psychological Characteristics of Developing Excellence (PCDE) framework was

introduced by Abbott and Collins (2004). Questioning anthropometric or performance /

physiological measures as 'snapshot' identification tools, this model sought to stress the

complexity and non-linearity of the journey to elite success (Abbot et al., 2005; Bailey et al.,

2010). PCDEs included not only mental skills but also attitudes, emotions and desires which are needed to successfully realise potential. It was suggested that awareness of individuals level of growth and maturation, as well as the challenges they face at different stages of development, is central to how PCDE'S should be presented to individuals (Abbott & Collins, 2004). MacNamara and colleagues (2010) highlighted that the deployment of such PCDEs are complicated by the "dynamic, individualised, and complex nature of the pathway to excellence" (p.71).

In their Model of Talent Development in Physical Education, Bailey and Morley (2006) argued that current performance is a poor indicator of ability, since it is mediated through a host of other influences, such as training, support, parental investment and societal values. Further, they also suggested that talent development needs to be understood as complex and multidimensional due to the important contribution of a wide range of abilities such as creative, cognitive, intrapersonal, interpersonal and ability. The authors explicitly acknowledged earlier models as well as the role of practice in high-level performance. However, though highlighting that correlation does not imply casual relations, it was further suggested that while deliberate practice is a necessary it may not be sufficient due to variability in quality of practices and that some practices may be unnecessary (Bailey et al., 2010).

Developed in partnership with the Australian Institute of Sport, Gulbin and colleagues (2013) introduced the Foundations, Talent, Elite, Mastery (FTEM) for the optimisation of sport development. It was suggested that the FTEM provides "practical methods to assist sport stakeholders managing an athlete's career and those who work in developing sport systems" (AIS, 2018, para 6). The applicability of the model has been criticised by MacNamara and Collins (2013), who questioned its generalisability across cultures and sport systems, its neglect of psycho-behavioural development facilitators and lack of insight into

effective development environments and process markers. In their retort, Gulbin et al., (2014) argued that the criticism was misleading and displayed inattentive reading of the original article. They emphasised that the FTEM is a holistic framework of sport and athlete development and not a surrogate for a talent identification model and that bio-psycho-social components of development are embedded throughout the FTEM framework.

A common criticism of talent development models in sport is the inherent inability to deal with the whole landscape of development (Bullock et al., 2009; Ford et al., 2011). Generalised models have been criticised for their failure to account for specific pathway trajectories and transitions encountered by athletes during development (Gulbin et al., 2013). Many models are based on a 'pyramid' shape that amplify linear development of talent, promoting early specialisation, whilst highlighting inherent problems related to prediction of future levels of performance (Bailey & Collins, 2013). Indeed, Côté and colleagues (2012) argued that the majority do not provide testable concepts that can advance understanding of development.

Another important feature of athlete development in sport is based on the career transition literature. The evolution of Stambulova's career transition model was based on a series of Russian studies (Stambulova, 1994, 2003) and has found support in other socio-cultural contexts (e.g., Brown et al., 2015). While the early stage-like frameworks were focused only on athletic career and related stages (Bruner et al., 2009), the work of Wylleman & Lavallee (2004) marked a shift to the holistic developmental perspective outlining stages in athletic and non-athletic development. Wylleman and Lavallee (2004) introduced a developmental model on the normative transitions faced by athletes. Normative transitions are the anticipated transitions an athlete will experience as they move from one stage to another (e.g., amateur to professional). In contrast, non-normative transitions are

unpredictable and involuntary (e.g., injury, de-selection from the team) (Wylleman &

Lavellee, 2004).

Spanning from initial entry into sport through to career termination, Wylleman and

Lavallee placed an emphasis on the integration of transitions that overlap and integrate at four

different levels: athletic, psychological, psychosocial, and academic / vocational levels

(Bruner et al., 2009). The interactive nature of normative transitions recognises that the

athletic transition into the investment years occurs simultaneously with academic (e.g.,

transfer higher education), psychological (e.g., adolescence into adulthood) and psychosocial

(e.g., development of stable relationships) developments. The psychosocial level represents

the transitions and stages denoting the individuals who are perceived by the athlete as being

of great significance during that transition. For instance, during childhood the family is

understood to have the greatest influence on talent development, while in later adolescence

the coach appears to be a dominant influence as the athlete transitions towards stages of

mastery (Côté, 1999). The developmental, interactive and interdependent nature of transitions

faced by individual athletes (Cecic-Erpic et al., 2004), highlights the potential for a variety of

macro level and micro level factors which can impact an athlete's journey through a talent

development environment (Stambulova et al., 2009; Henriksen et al., 2010).

1.5 Towards a Holistic Ecological Approach to Understanding Talent Development

In his PhD dissertation Rolf Carlson (1991) provided a definition of talent development

foregrounding an ecological perspective:

> Developing personal talent is largely an issue of the interaction of the individual with
>
> the environment, what circumstances are offered to learn different skills and social
>
> roles and the individual's readiness for this (p. 33-34).

Carlson (1988) had previously highlighted that much research on the developmental

process during early adolescence and on elite sport had to a great extent involved analyses of

the individual in a non-contextual frame of reference. His study of Swedish elite tennis

players emphasised a dynamic description of the individual as well as the environment in an

interactive process (Carlson, 1987). Drawing on Bronfenbrenner's (1979) ecology of human

development as an empirical framework and the work of sport sociologists Loy et al. (1981),

Carlson endeavoured to analyse players' growing period and sport experiences in an

environmental context.

Primarily used as a theoretical framework within education, health sciences and family

development research, Bronfenbrenner's holistic ecological approach to development has

been studied within sport science disciplines (e.g., Araújo & Davids, 2009; Bengoechea,

2002; Carlsson, 1987; Krebs, 2009; Uehara, 2015). For example, Bronfenbrenner's (1979,

2005) bio-ecological model has informed Gabbard and Krebs' (2012) study of environmental

influences on children's motor development, Strachan and colleagues' (2016) understanding

of high-performance sport and positive youth development and Reeves and Roberts' (2019)

study of the talent identification processes and development environments in European

professional football academies.

From its conception in the 1970's until his death in 2005, Uri Bronfenbrenner's theory

of human development underwent considerable changes (Rosa & Tudge, 2013).

Bronfennrenner (1989) personally criticised his original theory for focussing too much on

context and discounting the role that the person plays in their own development. While the

use of the word *ecology* in his earlier work implied the interplay between the environment

and the individuals who are active within their environments, the switch from *ecology* to

bioecology was to deliberately emphasise the participation of the person in their own

development. This conceptualisation of the individual having influence within an

environment, focusing more on reciprocal individual-environment interactions over time, lead to the process-person-context-time (PPCT) model (Bronfenbrenner, 2005; Bronfenbrenner & Morris, 2006). Bronfenbrenner argued that proximal processes should be viewed as the primary engines of development (Bronfenbrenner & Ceci, 1994). They relate to the connection between aspects of individual (e.g., age, gender) and aspects of the context (e.g., culture) and from 1998 onwards, by what has happened and is currently happening in historical time (Rosa & Tudge, 2013).
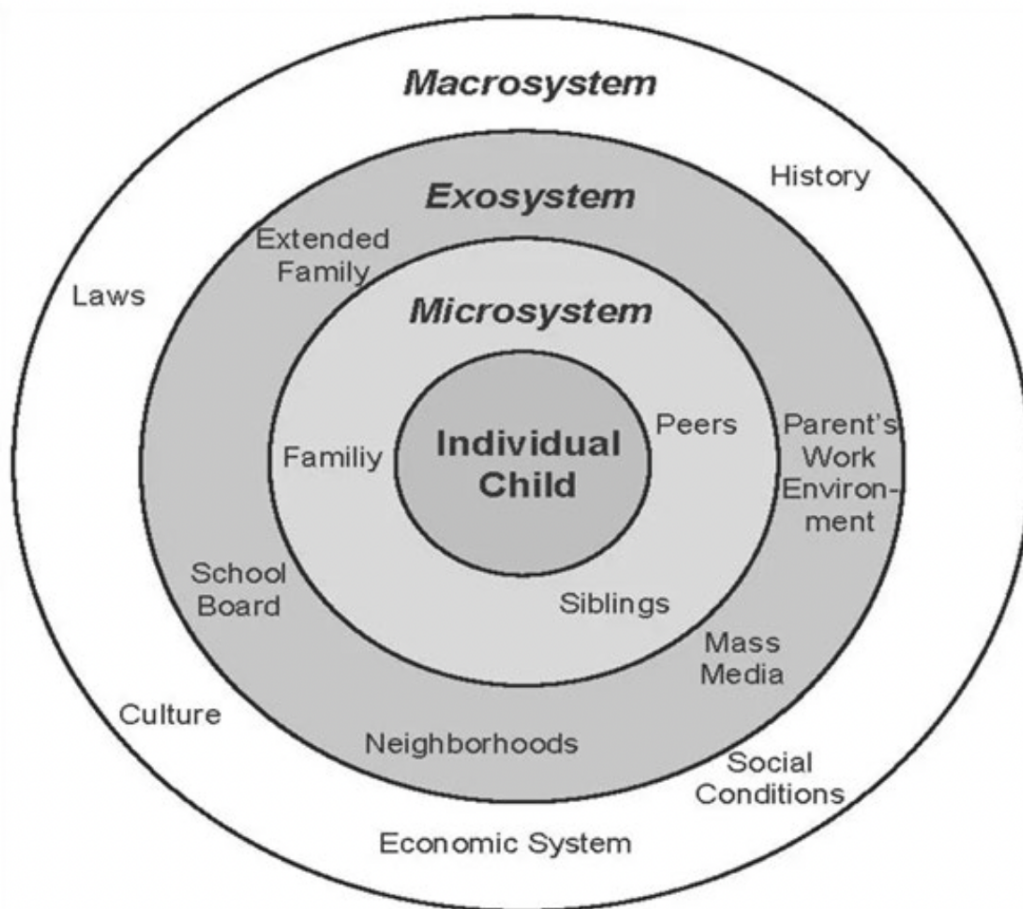
Figure 1 Bronfenbrenner's ecological model, adapted from Niederer et al. (2009)

According to Bronfenbrenner and Morris (2006), *process* 'encompasses particular forms of interaction between organism and environment, called proximal processes, that operate over time and are posited as the primary mechanisms producing human development'

(p. 795). The *person* aspect acknowledges the biopsychological characteristics developed

during person–environment interactions (Bronfenbrenner and Morris 1998). Individual

characteristics were explained in three forms: demand (age, gender, physical appearance),

resource (mental, emotional and social resources) and force (temperament, motivation).

Context includes the physical, social, and cultural aspects of the immediate settings as well as

the still broader contemporary and historical context, described in the earlier work as micro-

meso-exo-macro systems (Bronfenbrenner, 1976). Briefly, the microsystem is where athletic

and personal development take place. The meso-system refers to micro-systems that

indirectly influence the person. The exo-system includes microsystems that indirectly

influence the person and the macro-system is the overarching context of the micro, meso and

exo-systems. The final component of the bioecological model is time and is classified into

three levels: micro-time, meso-time and macro-time (Bronfenbrenner & Morris, 1998). This

reflects an analysis of both the historical period through which a person lives, which includes

micro-time interactions within specific contexts (i.e., family, peers, practice), to the regular

periodicity of meso-time interactions over days, weeks and months up to macro-time, which

reflects socio-historical events (Bronfenbrenner & Morris, 1998). Indeed, to fully understand

proximal process, one must also recognise that distal (indirect) processes are also affecting

the developing individual indirectly (e.g., historical, cultural, sociological conditions).

The distinct properties of proximal processes that influence an individual's

development were clarified by Bronfenbrenner and Morris (2006): 1) An individual must

engage in an activity for development to occur (e.g., part of a talent development

programme); 2) To influence development this activity must take place on a fairly regular

basis, over extended periods of time (e.g., daily, weekly, and monthly engagement in talent

development activities); 3) To be developmentally effective activities must take place long

enough to become increasingly more complex (e.g., appropriate levels of challenge across

yearly development cycles), mere repetition is not enough; 4) Developmentally effective proximal processes have a reciprocal dimension, where interactions from individuals involved must influence the exchange (e.g., the coach and athlete can influence practice designs, known as *co-designing* (Woods et al., 2020); 5) Proximal processes involve interpersonal interactions; and also interactions with objects and symbols.

Garcia Bengoechea & Johnson (2001) have suggested that Bronfenbrenner's bioecological model transcends disciplines (biology, psychology, sociology and anthropology), potentially evolving our understanding of the interplay of factors influencing developmental processes and outcomes in sport. Further, Bengoechea (2002) argued that processes (e.g., coaching, parenting, peer interactions), personal characteristics (e.g., an athlete's age, gender, and ability), contextual factors (e.g., where development occurs), and time (e.g., the athlete's stage of maturation) influence young athletes' developmental experiences in sport. Later Krebs (2009) demonstrated the applicability of Bronfenbrenner's Theory of Human Development to the development of sports talents, developing a 'Bio-ecological Model of Sports Talent Development', to create new avenues for the investigation of the process of sports talent development" (Krebs, 2009). Krebs model proposed an analysis of the development of talent as a phenomenon of proximal processes and their interactions with personal attributes, ecological settings, and dimensions of time. The work of García Bengoechea (2002) was later championed by Dorsch and colleagues (2022) when they presented their heuristic model of the youth sport system, outlining how proximal and distal processes within youth sport can be studied in a more unified way. Here, the importance of societal factors and how they shape the meanings we give to participation in sport was highlighted.

Applying Bronfenbrenner's (1979) ecology of human development perspective to athlete development and foregrounding the environment, Henriksen (2010) introduced the

Holistic Ecological Approach (HEA) in his studies of successful Scandinavian sports

environments. This important development in the research on talent development aligns with

calls for examining the environment or context in which athletes develop (Araújo et al., 2009;

Martindale, 2005). The aim was to shift talent development research away from "the

individual athletes to the broader development context or environment in which they

develop" (Henriksen & Stambulova, 2017). As Henriksen et al. (2010, p. 222) explains:

> This shift facilitates our understanding of the central challenges involved in talent
>
> development in modern societies that have growing problems with the recruitment,
>
> retention and transitions of athletes in sport. Some sporting environments (clubs /
>
> teams) are more successful than others in helping their talented young athletes to
>
> make a successful transition to the senior elite level and an investigation into such (p.
>
> 271).
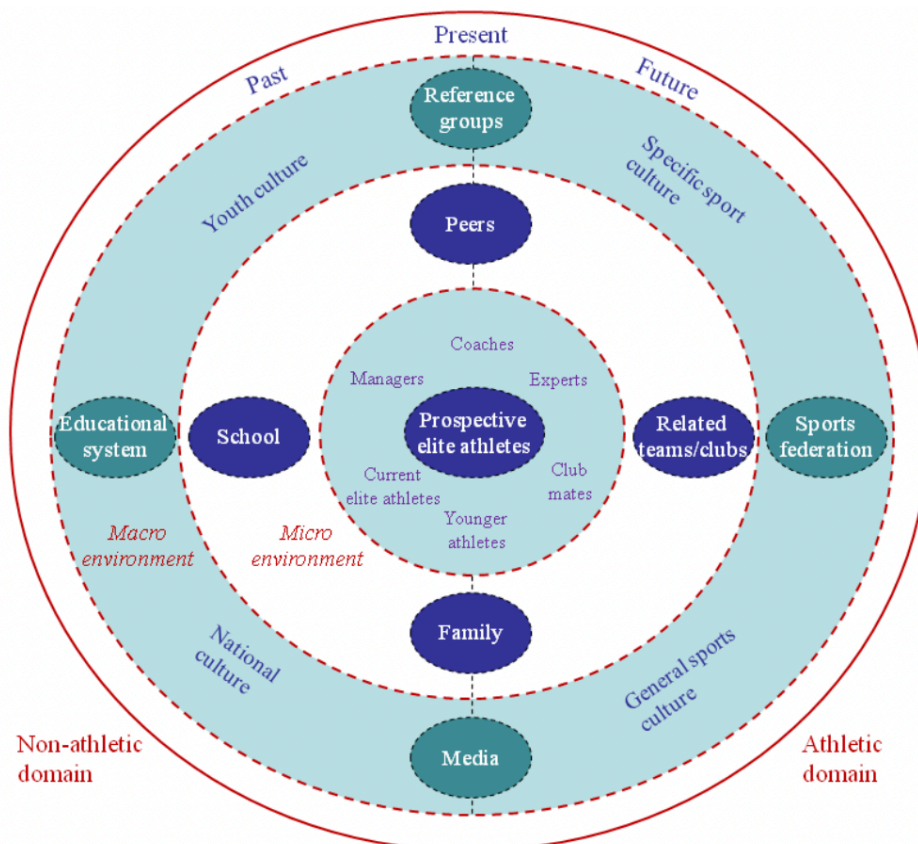
Figure 2 The Athletic Talent Development Model (Henriksen et al., 2010)

Henriksen used two different working models – Athlete Talent Development Environment (ATDE, see Figure 2) and Environmental Success Factors (ESF) (Henriksen & Stambulova, 2017) to underpin the HEA. The ATDE shows the environment as a series of nested systems and is structured in different levels to describe the aspects that affect the individual's environment, micro and macro level. Henriksen and Stambulova (2017) offered the following definition of athletic talent development:

> ….successful environments aids our understanding of talent development.
>
> The progressive mutual accommodation that takes place between an aspiring athlete and a composite and dynamic sporting and non-sporting environment that supports the development of the personal, psycho-social and sport-specific skills required for the pursuit of an elite athletic career (p. 272).

Feddersen and colleagues (2021) questioned the application of Bronfenbrenner's work from the 1970's in Henriksen's work. They suggested that the underpinning features of the bioecological theory (Bronfenbrenner, 2005) is most in line with the proposed definition: "the progressive mutual accommodation that takes place between an aspiring athlete and a composite and dynamic sporting and non-sporting environment" (Henriksen & Stambulova, 2017, p. 272) since it is explicitly considering the progressive mutual accommodation.

Informed by Positive Youth Development (PYD) research (e.g., Lerner et al., 2000), whilst also drawing on the later work of Bronfenbrenner (1999), the Personal Assets Framework (PAF) (Côté et al., 2014; Côté et al., 2016) was introduced to depict factors that may influence athlete development within an ecological context. The PAF proposes that short-term and long-term developmental outcomes are underpinned by the interaction of 3 key dynamic elements of sport (e.g., appropriate settings, quality social dynamics and personal engagement) over time (Côté et al., 2014; Côté et al., 2016), leading to the development of personal assets, the 4Cs of PYD (i.e., competence, confidence, connections,

and character; Côté et al., 2010). In turn, changes in personal assets can lead to three outcomes: participation, performance and personal development (i.e., the 3P's; Côté, Strachan, & Fraser-Thomas, 2008). Vierimaa and colleagues' (2017) recommendations provided the impetus for a conceptual elaboration of the PAF that was proposed in an updated and more ecologically representative version (Côté et al., 2020). Each dynamic element was associated with a subsequent sub-dimension that, aligning more with Bronfenbrenner (1999), extends proximally to distally with those positioned closest to an athlete having the most immediate impact (for more details see Côté et al., 2020).

1.6 Significance of the Thesis

The previous section introduced the existing research relevant to the dissertation, reflecting the current state of research in the realm of talent development, with specific insights into the unique player development setting in youth football that has developed, particularly in Europe, since the early part of this century. In the following section I will discuss the relevance and significance of the thesis which is underpinned by a 4-year ethnographical study embedded in applied practice within a professional youth football club in Sweden. I will highlight how the Learning in Development Research Framework (introduced in Chapter 3), a conceptual framework situated within an ecological dynamics rationale, evolved and was refined within this programme of research to support the evolution of a player development framework (presented in Chapter 7). Central to this body of work is the importance of understanding how we become skillful, an essential for sports organisations and practitioners working in the realm of talent development where the goal of skillfulness is an important objective (Clarke, 1995; Ribeiro et al., 2021). To investigate this, I leaned on more recent conceptualisations that viewed the development of talent as a dynamic process (Davids & Araújo, 2019; Vaughan et al., 2019).

Chapter 2 provides a detailed elaboration on the theoretical underpinnings that inform these conceptualisations. From this more dynamic perspective, it can be argued that a sports club or organisation is part of a complex, multi-layered system, where the social, cultural, and historical contexts in which development occurs are important constraints on the development and understanding of skilled performance (Bjørndal & Ronglan, 2019; O'Sullivan et al., 2021a). Indeed, the types of practice designed, which individuals are identified as talented and the characteristics that distinguish a good coach, are continually shaped by socio-cultural constraints (Redelius, 2013). This highlights the extent to which learning, and skill development are embedded in a larger socio-cultural context, creating a potential for a myriad of possible complex, unpredictable and ill-defined challenges: a wicked problem[4] (Bjørndal & Ronglan, 2019; Vaughan et al., 2019).

While socio-cultural factors are considered influential during an athletes' learning in development, there is still a paucity of research in this area within the sports science literature. It has been argued that traditional research approaches towards optimising talent development have tended to neglect these critical features that have important implications for transferring findings to applied settings (Araújo et al., 2007; Dicks et al., 2010). Indeed, sports science research has tended to favour more positivist approaches (see Uehara et al., 2014), undervaluing socio-cultural- historical factors, thus limiting our understanding of surrounding constraints that may influence athlete behaviours (Araújo et al., 2010). Vaughan and colleagues (2019) argued how the majority of sports science has been limited by a history of "organismic asymmetry," a bias towards the "internal mechanics" of the athlete while neglecting the role of the environment (Davids & Araújo, 2010). This has led to a significant

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[4] As described by Vaughan et al., (2019), wicked problems are global challenges that often involve many societal groups and social systems, have unpredictable consequences, and do not lend themselves to straightforward, traditional solutions (Rittel and Webber, 1973)

body of research applied to sport narrowly focusing on the individual athlete (Henriksen &

Stambulova, 2017), resulting in practitioners and organisations holding an (ontologically)

limited picture of the complexity of human learning and development in sport (Mallo, 2015).

More recent research has sought to redress this imbalance, highlighting how

environmental factors contribute to the development of expertise (see Henriksen et al., 2010;

Rothwell et al., 2019; Uehara et al., 2020). While these studies have proven adept at

providing a descriptive account of the current context in which athletes develop, there seems

to be little or no intention to initiate change or evolve practice in that context. Considering the

potential for a myriad of possible complex and ill-defined challenges in the realm of talent

development, there is a need for an approach that will guide reliable ways of conducting

research, and designing practical applications, that reveal insights on the socio-cultural

complexities and sub-system interrelatedness of athletes and environments.

Until recently, no specific research framework has been proposed to help sports clubs

and organisations with this endeavor. In response, O'Sullivan and colleagues (2021a)

introduced the novel Learning in Development Research Framework (LDRF), which is

presented in Chapter 3. Basically, the LDRF is a deeply contextualised, transdisciplinary

approach to action research that is founded in ecological dynamics and the Skilled

Intentionality Framework (SIF). It is my intention to advocate for and later outline, how the

LDRF was utilised to guide an iterative, ongoing cycle of research and action, and support

the evolution of player development framework at a professional football club in Sweden.

This utilisation of the LDRF is illustrated across Chapter 5 and Chapter 6. These chapters

present an extension of the O'Sullivan et. al (2023) paper, *Utilising the Learning in*

Development Research Framework in a Professional Youth Football Club.

Throughout this thesis I will argue for an approach that aims to remain sensitive to the

socio-cultural-historical contexts in which athletes develop and how these factors are

important constraints on understanding behaviours (practitioners, athletes) in sport. To clarify, this description of the individual athlete as well as the environment in an interactive process is nothing new. Indeed, as mentioned previously Carlson (1988) argued that to fully understand these individual-environment processes, development must be analysed with reference to various contexts that exist in the individual's total environment. More, I intend to elucidate the influential role a confluence of constraints play in the learning in development of skill and the design and evolution of player development frameworks. To achieve this, I will illustrate, how, utilising novel ways of knowing, the LDRF was utilised, to highlight the importance of conceptualising socio-cultural-historical constraints as impinging on and shaping intentionality (of athletes and coaches) and how this was crucial in comprehending and ultimately re-shaping (using action probes) the fields of affordances (opportunities/invitations for action) that invite skill development and team coordination (Rasmussen et al., 2017).

To comprehend the myriad of socio-cultural constraints that influence behaviors of athletes, coaches and practitioners, I turned to Wittgenstein's (1953) notion of form of life (explained in Chapter 2), which consists of values, beliefs, practices and customs that continually shape how we live (Rietveld & Kiverstein, 2014). This notion also appears in the Skilled Intentionality Framework (SIF) (see van Dijk & Rietveld, 2017), a conceptual framework I used as a research lens to investigate form of life at AIK youth football. Foregrounding ethnographical strategies of inquiry, the SIF (explained in Chapter 2) helped me to capture a sense of how a multitude of social, cultural, economic and the political factors have historically shaped cultural practices in a specific ecological niche. Here, more recent conceptualisations of Gibson's (1979) notion of affordances (see Chapter 2), couched in an ecological dynamics rationale (Araújo et al., 2019), was used to support a central argument of this thesis: that an important task for sports science support and an essential for

sports organisations or practitioners working within the realm of talent development, is understanding of (un)skilled performance within the socio-cultural-historical context in which individuals are embedded.

Aligning with my intention towards cultivating a more holistic understanding to support a broader perspective on player development, transdisciplinarity, as foregrounded in the SIF, offered a distinctive way of engaging with empirical inquiry in sport science (Rothwell et al., 2020a). Unbound by disciplinary boundaries, this creative approach to scientific inquiry promotes contextualised study with a phenomenon and is fundamental to illuminating the entanglements of real-world and wicked challenges (Woods et al., 2021). For example, initiating a contextual analysis (see Chapter 4), to zoom out (holistic/macro viewpoint) to appreciate the all-encompassing ecological context, can demonstrate a transdisciplinary point of departure and support the investigation of socio-cultural contexts in which phenomena are historically constructed (Vaughan et al., 2019). This contextual knowledge can be utilised to inform (not determine) observation and interviews to help capture deeply relational and contextual experiences; individualised experiences that do not belong to a discipline (Woods & Davids, 2022). This way of zooming in and out on a form of life, using the SIF, helped me to illustrate, throughout the thesis, how constraints transcend disciplinary boundaries, acting over varied timescales (Balagué et al., 2019), cascading from macro to micro-environments, influencing events and experiences.

Chapter 5 and Chapter 6 extend on the O'Sullivan et al. (2023) paper. In Chapter 5, I highlight how in the early part of my thesis work, I leaned on the SIF to capture how influential socio-cultural forces interacted to constrain how practitioners and players at AIK youth football behave and perform. A key feature of the SIF is that it encourages the researcher to step out and engage directly with the phenomenon, to explore various knowledge landscapes (e.g., zooming in and zooming out on a form of life) to investigate

how context and environment constrain how practitioners and athletes behave and perform in sport. Within this framework, transdisciplinary approaches and ethnographic endeavor were utilised to further the investigation (van Dijk and Rietveld, 2017). Here, utilising a contribution of ethnographic strategies, contextual historical analysis (see Chapter 4), observation, field notes and interviews (see Chapter 3), I linked a zoomed- out view on the form of life to a zoomed-in perspective on concrete situations (i.e., how athletes engage with affordances for skilled behaviour).

In Chapter 6, I illustrate how the LDRF was utilised to inform present and future possibilities of evolving practice and player development at AIK youth football in Sweden. With the support of a DoM, I show how the impact of being immersed in a local setting (utilising the SIF) was complemented by an action cycle that aims to implement its findings. Essentially, ethnography informed both, the initial research cycle, providing insights into the form of life, with the following action cycle (interventions/probes) helping us to capture real-world changes in practice and connect the research back into the development of a player development framework. This ongoing (iterative) responding to and attending to the potential for the constant re-organisation of knowledge, is a key feature of the LDRF.

In Chapter 7 I present the Contemporary Player Learning in Development Framework (Sullivan et al., 2021), a user-friendly developmental framework for practitioners grounded in ecological dynamics which, informed by the LDRF, is currently being used by AIK Youth Football in Sweden. Finally, in Chapter 8 I present a summary of the thesis, including strengths, limitations and recommendations for future research. Also, whilst referring to the main tenets of the LDRF, I highlight potential issues with implementing a copy-paste of the Contemporary Player Learning in Development Framework without first gaining an understanding of the specific socio-cultural historical context.

1.7 Qualitative Methodology

Choice of qualitative research was informed by the purpose of the research (Silverman, 2006). For example, positive methodology with its emphasis on experimentation and tendencies to eliminate the complexity of the external world, is often unable to sufficiently articulate how elements interact in a nonlinear fashion (De Silva, 2014). This is problematic, considering that development in sport is multidimensional and complex (O'Sullivan et al., 2021a). The phenomenon being investigated is an ecology that is complex and emergent. Therefore, I turned to a form of inquiry that will help to illuminate and understand what emerges under conditions of complexity at multiple levels. In this study, it was essential for the researcher to be immersed in the data, exploring all possible nuances and interactions in order to view data from a variety of perspectives (Maher et al., 2018). Therefore, working within an interpretivist framework, a qualitative approach adopting ethnographic principles and techniques were employed.

1.7.1 Defining Ethnography

With its roots in the social anthropologies of the early 1900, ethnography has been described by Wolcott (1990) as "a picture of the 'way of life' of some identifiable group of people" (p.188), through the study of social interactions, behavior's and perceptions that provided rich, holistic insights into people's views and actions (Reeves et al., 2008). More recently, Uehara and colleagues (2014) suggested that in its most basic sense, ethnography refers to a 'sketch' of life in its everyday lived context. In recent years ethnography has developed into a key qualitative research method, proving useful in studying human behaviour in a wide range of settings, providing rich, holistic insights into people's views and actions (Reeves et al., 2008; Uehara et al., 2014). Indeed, researchers have recommended its use in sports environments in an effort to move away from conventional research methods

(Krane & Baird, 2005; Uehara et al., 2014), allowing the researcher to observe and record changes over time (Wolcott, 1999), producing impactful research useful for problem solving in sport (Krane & Baird, 2005).

According to Sanday (1979), key paradigms of ethnographic research include the Holistic style, the Semiotic style and the Behaviourist style. The holistic style was originally pioneered by *Franz Boas and his followers (Sanday, 1979).* Highlighting the importance of a society's historical development behind culture formation, the Boasian school of thought, through an inductive framework, viewed culture as something that could be considered as the personality of a society (Sanday, 1979). Bronislaw Malinowski, viewed by many as the first renowned ethnographer (Sands, 2002), while sharing views on studying culture, he did not agree with the Boasian method of historical reconstruction. His emphasis was on active participation through "participant -observation" but he also criticised earlier accounts of etic based ethnography work that focused on the outsider's point of view.

The core of the semiotic approach to culture lies in the search for the "native's point of view," (Sanday, 1979). The semiotic style features two parallel schools of thought. The thick description school of Clifford Geertz on the one hand and the field of ethnoscience on the other. Thick description has been described as one of the most important concepts in the lexicon of qualitative researchers (Ponterotto, 2006). Switching the interpretive lens towards subjective explanations and meanings of the people engaged in the behavior's, thick description, stressed the importance of describing the context, the emotions and web of social relationships (Ponterotto, 2006). This approach has not been without its critics. Often referred to as a "peopled ethnography" (Fine, 2003), where the findings echo the respondents' interpretation rather than the true meaning of the phenomenon itself. Roy and Banjeree (2012) argued that it is difficult for the researcher to remain neutral with this approach, as the

focus is on reporting the findings with no intention of making any comparison or analysis from the findings.

The ethnoscience approach is the study of the grammar of culture, where the ethnographer's role is not limited to description alone, going one step ahead of thick description, through utilisation of societal comparisons (Roy & Banerjee, 2012). This approach defines culture as "a system of standards for perceiving, believing, evaluating, and acting", in order to operate in a manner acceptable to its members. (Goodenough,1971., p. 41). The ethnoscience approach has been criticised by Roy and Banerjee (2012) for not taking in to account the historical background behind the symbolic discourse, nor the role of heritage and biological aspects of the society.

The behaviouristic style drew its inspiration from the theoretical framework of the relation between a society's culture and its members' personalities (Roy and Banerjee, 2012). Behaviourists seek to form an integrated behavioral science approach guided by the researchers own theoretical presumptions (in relation to personality, biology, ecology, social interaction and culture), while applying a mix of traditional ethnographic methods and techniques such as participant observation and sampling and interviewing. (Sanday, 1979; Levine, 2007; Whiting, 1965). This deductive approach, taking the opposite stance to that of the Boasian school, places an emphasis on etic (observers' perspective) interpretation of results (Levine, 2007). Questions have been asked if this approach can capture the emic (perspective of the studied social group) perspective of the phenomenon leading to an on-going debate regarding what should be the focus of ethnography (Beatty, 2010).

1.7.2 Choice of Ethnographic Approach: The Hybrid Approach

While each ethnographic school has its merits and demerits, I turn to Roy and Banerjee's (2012) Hybrid ethnographic paradigm to illustrate my ethnographical approach in this study. The Hybrid approach, leaning on the virtues within each of these three approaches,

is best described as a synergy between emic and etic. Here the researcher brings out the research participants' point of view and the social semiotics (emic), while historical records and priory theories develops the researchers own outlook (etic). Tedlock (2003, p.165) captures this in a broader definition of ethnography elucidating the multiple and different inter-related perspective of the big social picture necessary for this body of work, one that:

> .. involves an ongoing attempt to place specific encounters, events, and understandings into fuller, more meaningful context. As a result, it combines research design, fieldwork, and various methods of inquiry to produce historically, politically, and personally situated accounts, descriptions, interpretations, and representations of human lives.

This programme of research is based on data collected during a 4-year period between 2018-2022, where, as part of my employment I occupied the dual role of practitioner-researcher within AIK youth football. Ethnography was therefore deemed as an appropriate method as it is longitudinal in nature, allowing me as a researcher to explore all possible nuances and interactions in order to view data from a variety of perspectives (Maher et al., 2018). While the choice of qualitative research, utilising ethnographic strategies (guided by the SIF) provided plenty of opportunities to gain an understanding of form of life through prolonged engagement, it was understood that as an embedded researcher I carried a bias in determining what is observed, recorded and analysed (Mulhall, 2003). Therefore, to satisfy the issue of quality, the notion of trustworthiness is considered of great importance. As argued by Tracy (2010), qualitative research is about being sincere and transparent about biases and goals. In order to make the utilisation of qualitative methodology credible, I clarify my dual role as practitioner-researcher and reflect on its possible complementariness and paradoxes (see Chapter 5).

1.8 Thesis Overview and Research Questions

The aim of this thesis is to investigate and illuminate (i) form of life at a professional youth football club, and (ii) address a research gap on the need for a more contemporary research framework to guide reliable ways of conducting research and designing practical applications. It is my contention that this thesis will offer insights into how sports organisations and practitioners can meet the challenge of highlighting, harnessing and re-shaping the socio-cultural practices that can evolve and persist within a specific sports organisation, in order to help them to better understand and further athlete development environments.

To meet this challenge, I advocate for (and outline) the Learning in Development Research Framework (LDRF) (Chapter 3). More directly, I exemplify how an embedded ethnographic investigation in a form of life, can help deepen our understanding of how prevailing, dominant socio-cultural and historical constraints can influence the development of practitioners and players in a professional youth football club. I then highlight how the impact of and ongoing immersion in a real-life setting (sports club) can be complemented by the implementation of findings in that specific context. Further, I illustrate how through an ongoing iterative process we can connect the research back (through action) into the development of a contemporary player development framework (presented in Chapter 7).

The study was carried out at Allmänna Idrottsklubben (AIK) youth football club in Stockholm, Sweden, which provided a rich and unique socio-cultural and historical backdrop. Three main questions were investigated during the study. The primary research question that was devised to help orient the direction of the inquiry was: *Is there a connection between young players interactions with relevant fields of affordances and the intentions of coaches at AIK youth football, with the socio-cultural and historical context ?*

Exemplifying how the researcher remains 'in touch' with the phenomenon to offer a deeply contextualised and continuous analysis of a form of life, in the first research cycle (2018-2019), a secondary question emerged during data analysis-synthesis: *To what extent is the value-directedness (intentionality) that players experience on the football pitch related to the macrosystems, socio-cultural constraints, and forms of life that influence responsiveness to affordances?*

The initial research cycle indicated a need to dampen the influence of the "control over context" approaches that were shaping the intentions (in session design) and attention (during practice and performance) of players and coaches. The first system probe, "AIK Base" (chapter 6) (see O'Sullivan et al., 2023), was introduced (e.g., on field education) throughout 2019 to encourage the coordination of shared principles and language. To further illustrate an 'ongoingness' of inquiry and how the researcher remains 'in touch' with the phenomenon as it persists and changes, a third question emerged during the second research cycle (2019-2020): *What are the 'sticky' socially and culturally constructed values, beliefs and attitudes contributing to a system inertia?*

The second research cycle revealed a need to dampen tendencies to prioritise knowledge about the environment, while amplifying task designs and coach behaviours that promote the development of players knowledge of the environment. This was highlighted in how coaches adopted the game model (Ribeiro et al., 2019) concept to limit unpredictability. To further dampen the 'sticky' influence of control over context tendencies. the Contemporary Player Learning in Development Framework (chapter 7) (see Sullivan et al., 2021) was proposed. Introduced throughout 2021 (online and on-field education) this framework included the Foundations for Task Design Model (Sullivan et al., 2021) and the relational concept of shaping skilled intentions (Vaughan et al., 2021) to support the

designing of tasks underpinned by a responsiveness to multiple affordances (Vaughan et al., 2021).

It is important to point out that even though, for the sake of clarity, this study is presented in a linear and sequential fashion, the data collected did not follow a linear path in the analysis (see Appendix 2). Rather, the research process was a nonlinear, non-sequential process based on the notion of reflexivity (Dowling, 2008), where the research procedures are applied in a non-linear fashion, becoming iterative and interrelated to each other (Uehara et al., 2014). What I am advocating for in this thesis is the idea of sport science practiced as an art of inquiry. I propose that the LDRF facilitates such an appreciation of research, where the scientist is deeply embedded, dwelling within a sports organisation, following along with the ongoing and unfolding inquiry (Figure 3). Indeed, the very idea of an ongoing-ness highlights the iterative and integrated nature of the LDRF.

I contend that this way of paying attention to an ecology of relations can support and enrich one's understanding of the relations between the interplay of specific socio-cultural constraints and affordances for skill learning within a form of life. After all, as elegantly put by Woods and Davids (2022), to know a phenomenon is to know its story of becoming, joining with its goings on.
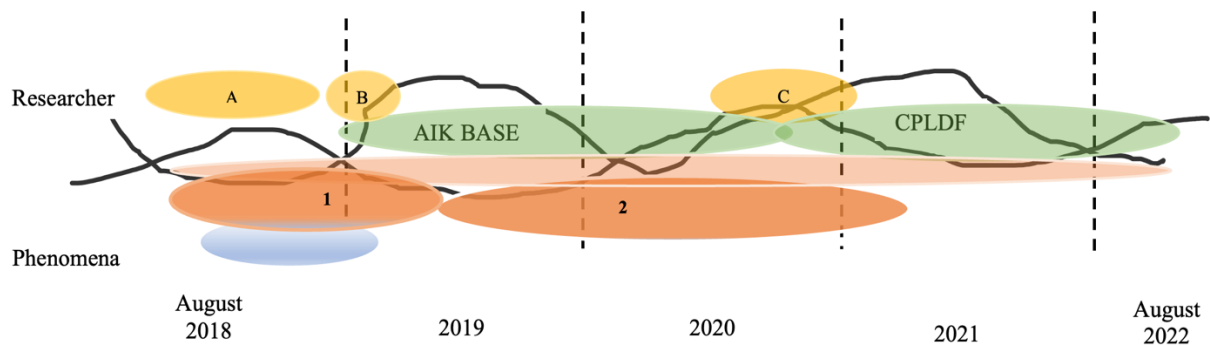
- 🟡 Contextual historical analysis
  - A denotes initial contextual historical analysis (see Chapter 4)
  - B denotes data collected via document analysis that informed the historical contextual analysis compared with, analysed alongside, and synthesized with data emerging in the micro during fieldwork. Please see Table 3 and Table 4 in Appendix 2
  - C denotes how the researcher remains in touch with an ecology of relations. Here, some of the emerging data in the second research cycle compelled the researcher to collect more data through further investigating (e.g., document analysis) the socio-cultural contexts in which phenomena historically unfold. Please see Table 8 in Appendix 2

- 🔵 Interviews

- 🟠 Long term research activity-ongoing ethnographic inquiry

- 🟠 More focused and intense field work (observation, informal conversations, videos, photos)
  - First research cycle. Please see Chapter 5 and Table 1 in Appendix 2
  - Second research cycle. Please see Chapter 6 and Table 7 in Appendix 2

- 🟢 Pedagogical probes
  - AIK Base. Please see Chapter 6
  - Contemporary Player Learning in Development Framework (CPLDF). Please see Chapter 7, Appendix 4 and 5 and link here

Figure 3 The LDRF foregrounds research that is 'undergone' longitudinally through attentive and responsive participation. How the researcher comes to know the landscape, and how they learn to correspond (probes), is through dwelling. The graphic highlights how the LDRF was utilsed, through an ongoing ethnographic inquiry punctuated by probes (AIK Base and Contemporary Player Learning in Development Framework) delivered at the micro-level of on-pitch coaching pedagogy. The coloured phases are depicted in width and length forms to highlight the intensity and duration of engagement in each activity. *Inhabiting a place in-among the coming-into-being of the phenomena (as it evolves and persists), encourages a perceptual attunement to its ebbs and flows, and what the phenomena have to share directly with the researcher. Graphic is taken from (O'Sullivan et al., 2023) and adapted from Woods & Davids (2022).*

1.9 Summary

Guided by the theoretical framework of ecological dynamics, combining ethnographic form of inquiry and action research, I present in this thesis a suitable methodological approach to help us better understand skilled performance in a specific context and further player development environments. The approach I advocate for aims to remain sensitive to the notion that sociocultural constraints influence practices in means that differ from context to context. More directly, the recognition that similar types of sociocultural constraints can shape vastly different sociocultural practices from context to context as they interact with, and within, different forms of life. This supports a proposal that is very much central to this thesis: there is no copy and paste template, athlete development frameworks should evolve in interaction with the socio-cultural context in which individuals are embedded (O'Sullivan et al., 2021a).

In the next Chapter I will present the main concepts and ideas that underpin the theoretical perspective that informed the approach I have adopted throughout this programme of research.

Chapter 2: Theoretical Perspective

2.1 Introduction

The thesis presented here is underpinned by the theoretical rationale of Ecological Dynamics which acts as an 'umbrella framework' that aligns the relationships between the concepts and constructs underpinning this body of work. A theoretical framework provides a lens to design and conduct research, helps explain how the world works, offers a means for interpreting findings and critically contributes to justification of the significance of the programme of research (Anfara & Metz, 2014; Lederman & Lederman, 2015).

Jane Clarke (1995) highlighted the importance of understanding how we become skillful, as an essential for those working in educational settings where the goal of skillfulness is an important objective. Indeed, understanding of skilled performance and practice in sports is very important for talent development and enhancing expertise (Ribeiro et al., 2021). For much of the 20th century, how skillfulness is achieved has historically been viewed from two paradigms, namely, the maturational stage perspective and information processing.

The maturational stage perspective sees the unfolding of motor skills as driven by genetics and as a direct result of nervous system maturation (Rudd et al., 2021). In the latter half of the 20th century, the development of skilled behaviour focused on the notion of the mental representation of a movement plan, an act in the brain, which is acquired as a function of learning and task experience (Araújo & Davids, 2011; Clarke, 1995). This more cognitive-oriented theoretical explanation has been referred to as information processing, an analogy that the brain functions rather like a computer to process information and produce behavioural outputs (Anson et al., 2005; Rudd et al., 2021). This theory drives a top-down approach to movement with a construct located inside the brain, captured in Schmidt's (1975) term 'schema', setting the scale of analysis somewhat exclusively within the organism (Araújo & Davids, 2011).

This linear (cognitive) view has arguably led to the integration of narrow technique-based pedagogical delivery (Oslin & Mitchell 2006; Schmidt et al., 2018), where individuals learn by progressing through three observable stages (Fitts & Posner, 1967). The early part of learning is referred to as the "cognitive stage" where, often isolated from context, there is a focus on the 'correct' movement execution with verbal instructions and corrective feedback from a coach. The next stage is referred to as the "associative stage". Here, due to refinement and improved control (reduced variability), a reduction in attentional demands means that the brain has more processing power to direct attention toward features outside of the body. The third and final stage is the autonomous stage. 'Automaticity' of movement control is putatively achieved, and execution of a movement technique can be 'run off' with minimal conscious intervention, freeing up cognitive capacity to take on more challenging aspects of the game, such as decision-making, planning and problem solving. Practice and athlete development is, therefore, aimed at strengthening motor programmes that can be 'run-off' to provide automaticity in actions (Schmidt & Lee, 2005). The evidence for these approaches is limited, with numerous concerns emerging not least from key proponents of such approaches (Renshaw & Moy, 2018; Schmidt & Young 1987). One such criticism is that the information process approach does not consider the role of environment as an important source of information for action (Rose, 1997). Indeed, Renshaw et al., (2022) argued that this silo approach (separating motor learning and motor development) heavily contributed to how learning has been understood, with little attention paid to the role of 'non-learning variables' such as growth, maturation and personal development.

Ester Thelen (1989) and other dynamical theorists such as Scott Kelso (1995), who provided inter-related but not identical frameworks, along with the seminal work of Davids, and colleagues (1994), questioned this theory, rejecting the idea of a movement pattern being viewed as an entity. Indeed, Davids et al., (1994) proposed a new biophysical way of

considering movement regulation in sport, emphasising coordination and its acquisition, for sport scientists who tended to use a traditional cognitive perspective. From this perspective it can be argued that motor abilities are not underlying, innate or separate from perceptual skill development, but rather are entangled in the learning process (Rudd et al., 2021). These ideas have contributed to the development of what is referred to as the ecological dynamics approach to understanding coordination and its acquisition. Here, the movement pattern is not seen as an entity to be acquired and stored in the central nervous system, but as the ongoing development and adaptation of a reciprocal functional relationship that emerges from the continuous interactions of the individual athlete, task and environment (Araújo & Davids, 2011).

2.2 Ecological Dynamics

Ecological dynamics has emerged as a guiding theoretical framework to inform approaches in research and practice, to athlete skill development and pedagogical practice in sport (Button et al., 2020). This perspective offers sporting practitioners a transdisciplinary theoretical framework to conceptualise learning, performance and talent development (O'Sullivan et al., 2021a; Vaughan et al., 2019). My intention to position an ecological dynamics rationale within this thesis is based upon the theoretical framework's potential for integrating various unified theoretical perspectives, promoting a more holistic approach towards athlete-environment-centered skill development (Davids et al., 2008).

Ecological dynamics blends concepts from constraints on dynamical systems (Kelso, 1995; Newell, 1986), complexity sciences (Edelman & Gally 2001), ecological psychology (Gibson, 1979), and the seminal research of Brunswik (1956). Here it is acknowledged that skill learning in development is highly dynamic influenced by constantly changing constraints (Chow et al., 2020). Defined as boundaries that shape the coordination and control of an animal's behaviour, constraints were first categorised by Newell (1986) (see Figure 3)

as: Individual (e.g., height, speed, cognition, emotions and motivation,); Task (e.g., specific

to the activity to be performed such as rules, boundary markings and information present in

the learning environment design); and Environmental (e.g., light, facilities, values,

societal/cultural expectations) in nature. These three classes interact and evolve over varying

timescales, helping us to appreciate the ecological scale of analysis, the player-environment

relationship (Araújo et al., 2006). Given the dynamics and non-linearity of interacting

constraints, a change in one category may lead to a change in emergent movement behaviors,

resulting in changes in the way an individual interacts with the environment (Clark, 1995;

O'Sullivan et al., 2020).
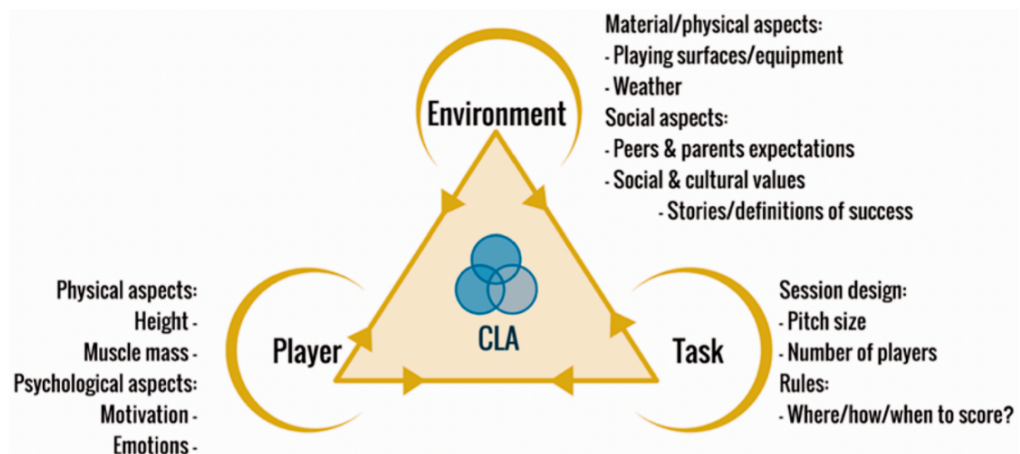
Figure 4: Adopted from Newell's model of constraints (1986), conceptualising constraints that shape and guide learning

This scale of analysis views perceptions, cognitions, and actions as self-organising

phenomena that emerge under interacting constraints. (Seifert et al., 2013). Fundamentally,

emerging between an individual's action capabilities and the opportunities or invitations for

action (referred to as *affordances*) offered by a specific performance environment (Araújo et

al., 2006; Button et al., 2020; Chow et al., 2020; Ross et al., 2018). Within this framework,

the direct perception of information (i.e., from self-movements, teammates, opposition,

surface, events), perceived in terms of affordances that provide different opportunities or invitations for (inter)actions, can be used by athletes to guide skilled action in practice and competition (Seifert et al., 2017).

Affordances can be understood as properties of an individual-environment system, scaled to each individual's action capabilities (e.g., speed, strength, perceptual capacities), body dimensions, which invite actions (Davids et al., 2013). Affordances are perceived by each individual as they learn to establish a better fit with the performance environment. This idea of a continually refined *fit* emerging between each individual and a performance environment highlights the idea that humans perceive the environment in relation to its functionality, and its meaningfulness detected in affordances (Gibson, 1979), which provides insights into what they learn and know and how they can decide to act (Araújo et al., 2006). From this perspective, learning to skillfully navigate a task or performance setting can be understood as the gradual emergence of an adaptive, functional relationship between an individual and their environment (Renshaw & Chow, 2019), satisfying a confluence of interacting constraints (Davids et al., 2013). This appreciation highlights the reciprocity of an individual and the environment coupled as a dynamical system (Warren, 2006), which was eloquently described in the seminal work of Gibson (1979, p. 223) when he stated, "we must perceive in order to move, but we must also move in order to perceive."

Skill learning in development, from an ecological dynamics perspective is understood to emerge from the complex and dynamic interactions of an individuals' continuous adaption to surrounding constraints, which changes over micro- and macro- timescales (Button et al., 2020; Davids et al., 1994; Uehara et al., 2014). This connotation implies that constraints can be manipulated and exploited to provide opportunities (affordances) for actions to emerge. Therefore, understanding how constraints on action influence the exploration and perception

of information sources and self-organisation in practice and competition (Renshaw et al., 2019), is an essential for sports scientists and practitioners.

Consistent with this perspective, learning occurs in the midst of ongoing developmental changes (Adolph, 2019), within specific socio-ecological contexts (Flôres et al., 2019), influenced by numerous contextualised, reciprocal interactions between people and places (Bronfenbrenner & Morris, 2006; Vaughan et al., 2019). This rationale offers a variety of conceptual and methodological approaches (Stokols, 1996) for investigating skill learning in development that underpin this study. Pertinent to this thesis, research designs in athlete development environments could benefit from adopting an ecological dynamics rationale, by highlighting the importance of studying organism-environment relationships, while ensuring that environmental properties are preserved. These ideas were first introduced by Brunswik (1956) in his 'representative design' theory.

2.2.1 Representative Design

Brunswik's ideas have significant implications for how the research in this thesis has been conducted where the focus has been on naturalistic field-based studies. Traditionally in the field of motor learning there has been a preference for reductionist research designs that emphasise experimental control. For instance, laboratory-based designs for experiments were predicated on the belief that by controlling most of the variables, it would allow researchers to study a perceptual skill (Davids et al., 2006). An example of this would be video-based studies of perceptual skills where performers were required to respond using simple movements (e.g., joystick response). Davids and colleagues (2006) argued that this type of reductionist experimental design neglects critical features of performance environments, which have important implications for transferring findings to applied settings (e.g., coaching, talent development) (Araújo et al., 2007; Dicks et al., 2010),

Brunswik (1956) proposed the representative design framework for the design of experimental settings, to allow participants to sample perceptual variables from the organism's typical environment. Applied to research designs in sports settings, this key idea implies that research studies should preserve the perception-action relations that are specific to an organism and a performance environment (Seifert et al., 2013). Indeed, Brunswik's notion of representative design compliments Gibson's (1979) emphasis on the significance of a reciprocal relationship between perception and action, providing a strong argument for the nature of the fieldwork and qualitative methods presented in the current thesis, where all data are collected *in situ*. As exemplified by the framework of ecological dynamics, and the theoretical proposals of Brunswik (1956), this relationship between the individual and environment, viewed as a pair of mutually coupled dynamic systems (Warren, 2006), is further emphasised by Gibson's (1966, 1979) theory of affordances.

2.2.2 Gibson's Theory of Affordances

James Gibson's (1979) ecological approach to perception, cognition and action challenged the mechanistic and reductionist views of human behaviour in traditional psychology. Central to Gibson's work is the notion of affordances (1979), emphasising the interdependence of the organism and its environment. This emphasis helps us to avoid problems with defining skill development as an 'internal' characteristic of an individual (referred to as an 'organismic asymmetry,' see Davids & Araújo, 2010; Dunwoody, 2006), or as a characteristic of the environment (O'Sullivan et al., 2020a). Gibson proposed that individuals can directly perceive and act on affordances, which are neither objective nor subjective, but properties of the individual-environment system that do not cause behaviour, but constrain it (Gibson, 1979).

2.2.3 Different Conceptualisations of Affordances and Relations with a Form of Life

There is an ongoing debate regarding the ontology of affordances and how we should study them empirically (e.g., Chemero, 2003; Reed, 1996; Rietveld & Kiverstein, 2014; Turvey et al., 1981; Withagen et al., 2012). For example, contrasting interpretations, from Turvey's (1992) view of affordances as dispositional properties of the environment complemented by dispositional properties of animals, and Chemero's (2003) view of affordances as relations between the abilities of animals and features of the environment, have fueled an ongoing debate on how affordances invite action (Withagen et al., 2012).

In this thesis I adopt Rietveld and Kiverstein's (2014, p. 326) relational view of affordances, where the "affordances the environment offers are dependent on the abilities in a particular ecological niche". This more recent 'relational' reconceptualisation of affordances (Rietveld & Kiverstein, 2014) extends on the more traditional action-scaled view on affordances (Seifert et al., 2021). More directly, affordances are not just passively situated in isolation in the materiality of immediate behavioral settings of a sports organisation (training session, competition). Rather they are entwined within a more culturally encompassing, socially and historically developed constellation of practices and forms of life (van Dijk & Rietveld, 2017). Here, affordances are understood in relation to the many abilities available in a particular form of life (Rietveld & Kiverstein, 2014; Vaughan et al., 2021).

Rietveld and Kiverstein (2014) turned to Wittgenstein's (1953) notion of form of life to comprehend the myriad of sociocultural practices available to individuals. A form of life (i.e., athlete-environment system) consists of values, beliefs, practices and customs that continually shape how we live (Rietveld & Kiverstein, 2014; Wittgenstein, 1953) and can manifest as socio-cultural constraints on the normative behaviors and customs of our communities and cultures (van Dijk and Rietveld, 2017; Vaughan et al., 2019).

Vaughan and colleagues (2019) highlighted that it was the availability of socio-cultural practices (constituted by beliefs, skills, habits, customs, attitudes) that defines a dominant form of life or way of doing things (Rietveld and Kiverstein, 2014). A dominant form of life might be conceptualised as the deeply acculturated, socially accepted, and often taken for granted way of doing things. Providing the example of comparing the opportunities to dance in England and Brazil, Vaughan (2020) asked us to consider if an English or Brazilian form of life (cultural context) afford football players more or fewer opportunities to explore movement potential through dance. So, while forms of life can influence the way sports organisations implement their athlete development programs (Rothwell et al., 2018), the SIF can illustrate the extent to which sociocultural and historical constraints in a form of life (e.g., a football club) can shape the intentions (in session design) and attention (during practice and performance) of players and coaches (O'Sullivan et al., 2021a; Vaughan et al., 2021).

2.2.4 Sporting Forms of Life and Affordances

An example of identifiable forms of life in sport would be British rugby league, skiing in Scandinavia, and hurling in Ireland. Indeed, research has revealed how forms of life can demonstrate the influence of specific socio-cultural-historical constraints in the learning and development of skills. For example, Rothwell and colleagues (2018) highlighted how the systematic practices of Taylorism and other key socio-cultural-historical influences shaped sociocultural practices in the sport of rugby league, manifested in dualistic (i.e., separation of mind and body) approaches to practice task designs, based on the decomposition of complex individual or team skills (Chow et al., 2016). Further, O'Sullivan and colleagues (2021b) demonstrated the importance of the socio-economic (equipment shortages), the political context and the influence of Anatoly Tarasov (godfather of Soviet hockey) in shaping the unorthodox technical and tactical repertoire of Soviet ice hockey players during the cold war period. These examples illustrate how forms of life recognisable in the values, practices and

behaviours of practitioners can be constructed by the relationship between wider social values and key individuals involved in specific sports (Day & Carpenter, 2015).

This conceptualisation of how form of life, specific to a geographical location, can influence how sport practitioners design athlete development programs, illuminates issues with copying and pasting ways of practicing and performing associated with more successfully nations (or teams) in sport. Indeed, in their UEFA European youth football study, North et al. (2015) warned against the uncritical application of good practice ideas from other successful countries and clubs, arguing that an approach which works in one socio-cultural context may be distracting or even detrimental in another. Of critical importance here is the recognition that similar types of socio-cultural constraints can shape vastly different socio-cultural practices from context to context as they interact with, and within, different forms of life (e.g., playing style).

2.2.5 The Skilled Intentionality framework

The theory of affordances embedded in forms of life is central to this thesis. This is captured in the Skilled Intentionality Framework (SIF), a conceptual framework that directly couples forms of life to the relevant fields of affordances that influence skilled action (see van Dijk & Rietveld, 2017). The SIF foregrounds the notion of sociomaterial entanglement, stressing that affordances are not just passively situated in isolation in the materiality of immediate behavioral settings of a sports organisation (training session, competition). Rather they are entwined within a more culturally encompassing, socially and historically developed constellation of practices and forms of life (van Dijk & Rietveld, 2017). The SIF helped to illuminate the influence of a (zoomed out) form of life at the (zoomed in) microscale of development (i.e., how athletes engage with affordances for skilled behaviour), capturing how influential socio-cultural forces interacted to constrain how practitioners and players at AIK youth football behave and perform.

The use of this relational conceptualisation of affordances, has the potential to provide a valuable contribution to our understanding of (un)skilled performance by enriching our understanding of why some affordances invite movement and others do not. More directly, this nuanced perspective highlights how people act on relevant affordances (rejecting the use of others) because of the abilities they have acquired, due to a history of interactions in forms of life (see O'Sullivan et al., 2021a).

2.3 Summary

In this chapter, I introduced concepts and ideas that inform the approach I have adopted throughout this thesis. Central to this is an ecological perspective of the athlete environment relationship, where skillful development is considered to always be situated within a socially, culturally, and historically constructed form of life. I integrate a range of scientific sub-disciplines (ecological psychology, constraints on dynamic systems, skill acquisition theory, phenomenology, philosophy, and sociology), to support the investigation of interacting constraints that continually shape relations between a society, culture and community, influencing learning development and engagement in talent development and coaching settings. It is hoped that this helps the reader to anticipate the qualitative data and theory used throughout this thesis to unpack, enrich and clarify our understanding of the relationship between socio-cultural-historical constraints and the athlete-environment system.

The constructs and concepts discussed in this chapter inform the Learning in Development Research Framework (LDRF). These key concepts underpin the research studies undertaken in the ensuing chapters. The next chapter introduces the LDRF and has been adapted for the thesis from its published form (see O'Sullivan et al, 2021a).

Chapter 3: The Learning in Development Research

Framework for Sports Organisations

3.1 Introduction[5]

A sports club or organisation is part of a complex, multi-layered system with a potential rich range of outcomes, facilitating factors and challenges related to the athlete development environment and wider sociocultural influences (Henriksen, 2010). It has been argued that the athlete development setting alone cannot account for the behavior of its inhabitants (Rothwell et al., 2020b). This idea highlights the extent to which learning, and skill development are embedded in a larger sociocultural context, creating a potential for a myriad of possible complex, unpredictable and ill-defined challenges: a wicked problem (Bjørndal & Ronglan, 2019; Vaughan et al., 2019). For example, inherent barriers to changing practice in sports organisations shaped by sociocultural-historical constraints can limit the adoption of new and innovative approaches (Woods et al., 2020a). Therefore, in sports, like other performance environments, context means everything! There is a need for an approach that will guide reliable ways of conducting research, and designing practical applications, that reveal insights on the sociocultural complexities and sub-system interrelatedness of athletes and environments.

To comprehend the myriad of sociocultural constraints that influence behaviors of athletes, coaches and practitioners, I turn to Wittgenstein's (1953) notion of form of life, which consists of values, beliefs, practices and customs that continually shape how we live (Rietveld & Kiverstein, 2014). This notion also appears in the Skilled Intentionality Framework (SIF), a conceptual framework that directly couples forms of life to the relevant fields of affordances (opportunities for action) that influence skilled action (see van Dijk & Rietveld, 2017). More directly, the SIF foregrounds the notion of sociomaterial entanglement, stressing that affordances are not just passively situated in isolation in the materiality of

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immediate behavioral settings of a sports organisation (training session, competition). Rather they are entwined within a more culturally encompassing, socially and historically developed constellation of practices and forms of life (van Dijk & Rietveld, 2017). So, while forms of life can influence the way sports organisations implement their athlete development programs (Rothwell et al., 2018), the SIF can illustrate the extent to which sociocultural and historical con- straints in a form of life (e.g., a football or rowing club) shape the intentions of athletes, soliciting some affordances over others and directing skill development.

Of critical importance is the recognition that similar types of sociocultural constraints can shape vastly different sociocultural practices from context to context as they interact with, and within, different forms of life (e.g., playing style). What is possible in Barcelona or Melbourne might not be possible, or needed, in Stockholm or Beijing. The implication is that athlete development frameworks should evolve in interaction with the specific sociocultural context in which practitioners and individuals are embedded (Vaughan et al., 2019). As yet, no specific research framework has been proposed to help sports clubs and organisations with this endeavor.

It is my intention in this Chapter to advocate for (and later outline) an athlete development research framework to meet the challenge of highlighting, harnessing and re-shaping the socio-cultural practices that evolve and persist within a specific sports organisation. I will now introduce the Learning in Development Research Framework (LDRF) which has been proposed to guide an ongoing cycle of research and action at AIK youth football club in Sweden.

3.2 The Learning in Development Research Framework

Extending the work of Uehara et al.'s Contextualised Skill Acquisition Framework (CSAF) (2014), the LDRF proposes a deeply contextualised, transdisciplinary approach to action research that is founded in Ecological Dynamics and the Skilled Intentionality

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Framework (SIF) (Button et al., 2020; Rietveld et al., 2018). Here, aspects of qualitative inquiry (i.e., ethnographic) are foregrounded, while remaining open to quantitative modeling of dynamic systems (see Vaughan et al., 2017).

While the CSAF is adept at providing a descriptive account of the current context in which athletes develop, there seems to be little or no intention to initiate change or evolve practice in that context. In contrast and adopting a transdisciplinary view, the LDRF promotes collaborative problem solving (Nicolescu, 2002) and knowledge mobilisation – the act of moving research into the hands of research users (teachers, coaches, professionals) to effect change (Gainforth et al., 2014). In the LDRF the knowledge of practitioners and researchers is utilised to co-create methods and methodologies to optimise the athlete development environment/context under investigation.

Following the recommendations of Araújo et al. (2017), the LDRF focuses on ecological approaches that can illuminate the interplay between sociocultural constraints and affordances for skill learning and athlete development. To capture this interdependence of affordances and constraints, I lean on research designs that can zoom in and out on a form of life at various levels of analysis as outlined within the SIF. For example, (1) a zoomed-out perspective can help identify the relatively regular and stable patterns of behavior found among individuals taking part in a practice. This level of analysis of a form of life highlights how 'ways of doing things' (style of play, coach behaviors, task designs) reveal themselves in the regularities that characterise socio-cultural practices (training, preparation for performance, competition) and the way we consider them (e.g., type of language used). This is complemented by (2) zooming in on the practices in which people partake, observing how individuals selectively engage with relevant fields of affordances in a particular train- ing session or competitive event; and (3) further zooming in on the lived perspective of a skilled individual being responsive to their surroundings (van Dijk & Rietveld, 2017).

This zooming in and zooming out on a form of life (e.g., by means of ethnographic methodologies), helps us to appreciate how landscapes of affordances (i.e., available sports and pastimes in certain cultural contexts) shape the relevant fields of affordances (opportunities for action relevant for an individual in a particular situation) and regular patterns of behavior within specific practices (e.g., training sessions and competition). These patterns are what Reed (1993) called embodied intentions: the persistent ways in which people engage with relevant fields of affordances. Indeed, the landscape of affordances across football's form of life is rich, resourceful and dynamical, showing how cultural contexts can simultaneously shine a light on some affordances while overshadowing others (Vaughan et al., 2021). Here, affordances are understood in relation to the many abilities available in the form of life (Rietveld & Kiverstein, 2014; Vaughan et al., 2021). The field of relevant affordances is also relational in nature, but it is relative to an individual. This conceptualisation can enrich our understanding of why some affordances invite movement and others do not. For example, the opportunity to exploit space (in a certain situation) by dribbling may not yet be part of a player's field of relevant affordances (due to a history of engagement with affordances), but it belongs to the wider landscape of affordances within the 'football form of life'. An astute observing coach may manipulate task designs in practice to help educate the players' intentions and attention toward this opportunity. These nuanced perspectives highlight how people act on relevant affordances (rejecting the use of others) because of the abilities they have acquired, due to a history of interactions in forms of life. By capturing this ecological perspective on the form of life, the LDRF aims to illuminate the relevant field of affordances that stand out, inviting the development of certain skills, habitual interactions in performance, and patterns of behavior.

As the intention with the LDRF is to initiate change and/or evolve practice in a specific athlete development environment, the impact of being immersed in a local setting, utilising

the SIF, is complemented by an action cycle that aims to implement its findings. Here, I propose interventions devised to probe the system (Snowden & Boone, 2007). Interventions can be aimed at macro or microsystem levels. For example, the organisational structure within a club may be changed and/ or how coaches might aim to shape athletes' intentions in order to educate attention (see Sullivan et al., 2021). Interventions should aim to amplify or dampen sociocultural constraints shaping the form of life, and relevant fields of affordances, in sport organisations (Vaughan et al., 2019). For instance, avoiding language that reinforces ideas and narratives associated with socio-cultural constraints can dampen their influence. (e.g., referring to under nine football players as elite (see Kirkland & O'Sullivan, 2018). As findings are being implemented through interventions during the action cycle, in tandem, the next research cycle (utilising SIF) seeks to capture the evolving sociomaterial environment as it persists and changes, connecting the research back into the next action cycle.

The approach I advocate aims to remain sensitive to the notion that socio-cultural constraints influence practices in means that differ from context to context. Aligning with North and colleagues (2015) warning against the uncritical application of good practice ideas from other successful countries, this approach recognises that there can be no 'copy and paste'. We must aim to comprehend, and attend to, the contextual complexities of our situations and co-create practices that amplify and dampen helpful and unhelpful aspects of our form of life.

3.3 Philosophical foundations: towards re-contextualising our ways of knowing in athlete development environments

Before the intervention of ecological psychology, most psychologists and philosophers followed a historically dominant understanding of mind and behavior in mechanistic terms using reductionist philosophies and methods (Withagen et al., 2012). In this traditional perspective, the environment was understood to be linear and deterministic, passively

complying with physical laws governing matter in motion (Withagen et al., 2012). This ontological assumption has had a deeply engrained ripple effect, influencing western philosophy/psychology and science for hundreds of years (Baggini, 2018). Some influential thinkers such as Alicia Juarrero (1999) have criticised traditional philosophy of science and historically dominant theoretical ideas, pointing out that they were predicated on premises of the 'covering-law model', which invokes universals and general statements to explain human behaviors. This model of theory, philosophy and science dates back to the dialogues of influential philosophers, such as Aristotle and Socrates. Indeed, Plato's dialogue, The Meno, seeks to explain knowledge acquisition in human learning with reference to internalisation of universals and templates. According to Riley and Turvey (2001), Juarrero's criticisms of the 'covering-law model' in philosophy and science are relevant and influential because they are severely critical of its attempts to 'dump context in favour of universals' (p. 164). This historical trend is evident in football methodologies that prioritise the internalisation of shared (coach-driven) mental models (e.g., tactical plans and game models), over the need to shape a learner's intentions, and educate their attention toward environmental properties (e.g., context), enhancing athlete autonomy through engagement opportunities (see Vaughan et al., 2021, for details).

A path dependency of seventeenth-century scientific ideas (i.e., the Newtonian/Cartesian paradigm, see Birhane, 2021; Montuori, 2011) has arguably led sports science and pedagogy to downplay the role of environmental (sociocultural, historical, political) constraints, creating an organismic asymmetry (Davids & Araújo, 2010). This biased preference for organism-centered explanatory mechanisms has had an influence in shaping applied research and practical interventions, arguably inhibiting our understanding of the myriad of complex interactions that typify an athlete's world (Davids & Araújo, 2010). In response, a growing body of research encompassing sociological and ecological approaches

to coaching and athlete development are echoing the recognition that the 'current positivist hegemony may be restricting our understanding of human behavior' (Uehara et al., 2014, p. 4). Further, van der Kamp et al. (2019) highlighted a need to radically broaden our ways of knowing (i.e., epistemologies).

A central aim of the LDRF is to shift the focus of athlete development research away from just the individual athletes and towards understanding behavior at the level of interactions between a performer and their performance environment, both continuously shaping each other (Araújo et al., 2017). Providing the philosophical (ontology and epistemology) foundations for this shift, van Dijk and Rietveld (2017) describe the ontology of constitutive sociomaterial entanglement. This worldview aims to demonstrate the extent to which sociocultural practices (e.g., football) and opportunities for action (affordances) exist as 'two sides of the same coin' (p. 2) and exhibit a constitutive relation, where practices and affordances do not admit of a prioritisation.

Constitutive sociomaterial entanglement is the ontological notion used to explain the active, dynamic and transdisciplinary reality of the environments in which we live and develop. It proposes that the ways which we live (i.e., forms of life), the practices we partake in (i.e. sports training methods), the affordances we perceive (i.e. invitations/opportunities for action in these contexts) and the skills we develop (i.e. passing, dribbling) are constitutive relations and aspects of a holistic system that continuously form each other (van Dijk & Rietveld, 2017). Within the realm of player development, the constitutive sociomaterial entanglement might be productively portrayed by the ATDE working model (see Figure 4). Transcending the path-dependent organismic asymmetry bias, the SIF makes a significant contribution by outlining the extent to which the intentionality of any organism-environment system is an interdependent and constitutive relation- ship (van Dijk & Rietveld, 2017). In other words:

Intentionality characterises the system, not just biological organisms within the

system. Thus, intentionality in the sense of value-directedness characterises

environmental structures [i.e., a form of life/ATDE] and processes [i.e., sports training

methods] as much as it does the organisms [football players] who shape and are

shaped [e.g., skill development] by those structures and processes. This implies that

values are necessary constraints on both the constitution and the selection of

affordances (Hodges & Baron, 1992, pp. 269–270, text in brackets added)

Crucially, the SIF connects social and cultural aspects of life with the skill development

of athletes by demonstrating the resonance between a form of life and the relevant field of

affordances that stand out in their training sessions. This resonance has been explained as the

value-directedness of player-environment intentionality (see Vaughan et al., 2021).

3.4 Theoretical foundations: towards understanding a human ecology of complex adaptive systems

To counteract the previously mentioned organismic asymmetry in research and player

development, ecological dynamics has emerged as a guiding theoretical framework to inform

new approaches to athlete development and pedagogical practice in sport (Button et al.,

2020). Providing an integrated explanation for human behavior, ecological dynamics utilises

key concepts from ecological psychology (Gibson, 1979), dynamical systems theory (Kelso,

1995; Newell, 1986), complexity sciences (Edelman & Gally, 2001), evolutionary science

(see Button et al., 2020), and the seminal research of Brunswik (1956).

From an ecological dynamics rationale, player development frameworks should account

for an understanding that player development is multidimensional in nature, emerging from

the complex and dynamic interactions of groups of individuals with a range of task and

environmental constraints in practice (Davids et al., 2008). Constraints were first categorised

by Newell (1986) as Individual (e.g., height, speed and motivation); Task (e.g., specific to the

activity to be performed); and Environmental (e.g., light, facilities, values and societal/cultural expectations) in nature. These three classes interact and evolve over varying timescales, helping us to appreciate the ecological scale of analysis, the player-environment relationship (Araújo et al., 2006). This broader perspective on player development encourages researchers to investigate the environmental, historical, and sociocultural constraints that shape the intentions (i.e., intentionality) of the athlete-environment system. Indeed, Reed (1993) argued that intentions are not enclosed or insulated from the agent's body and the environment, but a dynamic relational interaction exists.

3.4.1 Player-environment system intentionality

Player-environment system intentionality might be best conceptualised and experienced as a directedness (van Dijk & Rietveld, 2017) toward something or someone in the sporting environment (Rasmussen et al., 2017). In football, players might experience a directedness toward, and simultaneously pay attention to, the positioning and movement of certain teammates in specific situations, shining a bright light on some affordances, and overshadowing others (e.g., a central pass might overshadow the opportunity to dribble into space). We might say that the intentionality experienced frames processes of perception and action, leading players to attend to certain environmental properties, and selectively engage with some affordances over others (Rietveld et al., 2018; Vaughan et al., 2021). Crucially, the intentionality of a player-environment system is embedded within, and related to, the broader intentionality that characterises forms of life (van Dijk & Rietveld, 2017). Brazilian football provides a vibrant example, where the form of life has contributed to a relevant field of affordances whereby the gap between an opponent's legs stands out, resonating with cultural significance. The directedness experienced (player-environment intentionality) toward this inter-pedal gap invites players to deceive opponents (with a nutmeg) and embody a way of playing football (playing with ginga) as one with Brazil's cultural identity (Uehara et al.,

2020). In this way, Hodges and Baron (1992) have argued that intentionality is value-directed and that affordances are value- realising.

The value-directedness of intentionality offers insight into the role forms of life play in constraining athlete attunement to available affordances (Hodges & Baron, 1992). More directly, it allows us to gain a perspective on how social and cultural phenomena can (shape and re-shape organisational structures, coaching methodology and) directly constrain the relevant fields of affordances that stand out in sporting environments. I propose that sociocultural constraints can both illuminate and characterise the value directedness that shapes player-environment intentionality and ultimately influences the development of expertise in athletes in different forms of life (Araújo et al., 2010; Rothwell et al., 2018).

3.4.2 Affordances: the key relation of the player-environment system

Gibson's theory of affordances (1979) emphasised the interdependence of the organism and its environment. From an ecological dynamics rationale, humans perceive the environment in relation to its functionality, and its meaningfulness (i.e. the value-directedness) detected in affordances, which are understood as properties of an individual-environment system, scaled to each individual's action capabilities (e.g. speed, strength) and body dimensions (Araújo et al., 2006). This perspective provides insights into what individuals learn and know and how they decide to act (Araújo et al., 2006). Pertinently, affordances are not only related to a particular individual, but specific to forms of life (Rietveld & Kiverstein, 2014; van Dijk & Rietveld, 2017). Sociocultural constraints have shaped models of learning and underpinned ideas of linear causality that have had powerful influences on practices within sport (Button et al., 2020). For instance, top-down, early selection mechanisms can exclude or marginalise players who do not display, in that specific snapshot of time, the required traits to fit into a sports organisation (Uehara et al., 2018).

3.4.3 Bronfenbrenner's bioecological model

The application of a Gibsonian approach to human development, utilising Bronfenbrenner's (1995, 2004) bioecological model, can provide a reference point to understand the athlete-environment relationship in a specific ecological niche (or human ecosystem). Bronfenbrenner's model, applied to sport contexts, is defined by the interaction of four key elements; process (opportunities to practice and play offered to the individual), person (soma-type), context (settings in which the individual is found); and time (e.g. training session, season, career). The model is conceptualised as four levels of nested systems (Krebs, 2009): (i) the microsystem, where interpersonal roles and relations are engaged in over time (home, school, practice), (ii) the mesosystem (the relations among two or more microsystems in which the developing person actively participates), (iii) the exosystem (setting in which the developing person does not participate actively, but nonetheless experiences its influence), and (iv), the macrosystem (economic, social, education and political systems). This conceptualisation reveals the reciprocity of humans and environments coupled as a complex adaptive dynamical system (Davids et al., 2015).

Conceptualising socio-cultural constraints as impinging on and shaping intentionality is crucial if we are to comprehend and ultimately re-shape the fields of affordances that invite skill development and team coordination (Rasmussen et al., 2017). For example, decisions made at the National Governing Body level about pedagogical approaches (subject to sociocultural constraints) are promoted through coach education. The type of player development programs they promote can have a cascading influence on organised practice and opportunities for action, shaping learning, development and participation opportunities for young players in their performance environments (Rothwell et al., 2019). In turn, this can shape commonly accepted beliefs, values and practices (e.g., parental expectations), further

influencing how these approaches to practice task design and player development become identified as a normative part of the culture (Rasmussen et al., 2017).

To illustrate this broader perspective, it is useful to view Henriksen (2010) proposed adaption of Bronfenbrenner's bioecological model, the Athlete Talent Development Environment (ATDE) in Figure 4. Referring to the model can illustrate the intertwined relationship between forms of life and relevant fields of affordances, providing a sense of how a form of life can influence and sustain practices, customs, beliefs and attitudes within a sporting ecological niche (Button et al., 2020). Further, learning experiences are continually shaped as much by the social milieu as they are by each individual's physiology, anatomy or psychology (Uehara et al., 2014). The ATDE can be used to provide methodological guidance and a framework for organising knowledge (prospective findings). The ATDE is explained as:

> ... a dynamic system comprising (a) an athlete's immediate surroundings at the micro level where athletic and personal development take place, (b) the interrelations between these surroundings, (c) at the macrolevel, the larger context in which these surroundings are embedded and (d) the organisational culture of the sports club or team, which is an integrative factor of the ATDE's effectiveness in helping young talented athletes to develop into senior elite athletes. (Henriksen, 2010, p. 160)
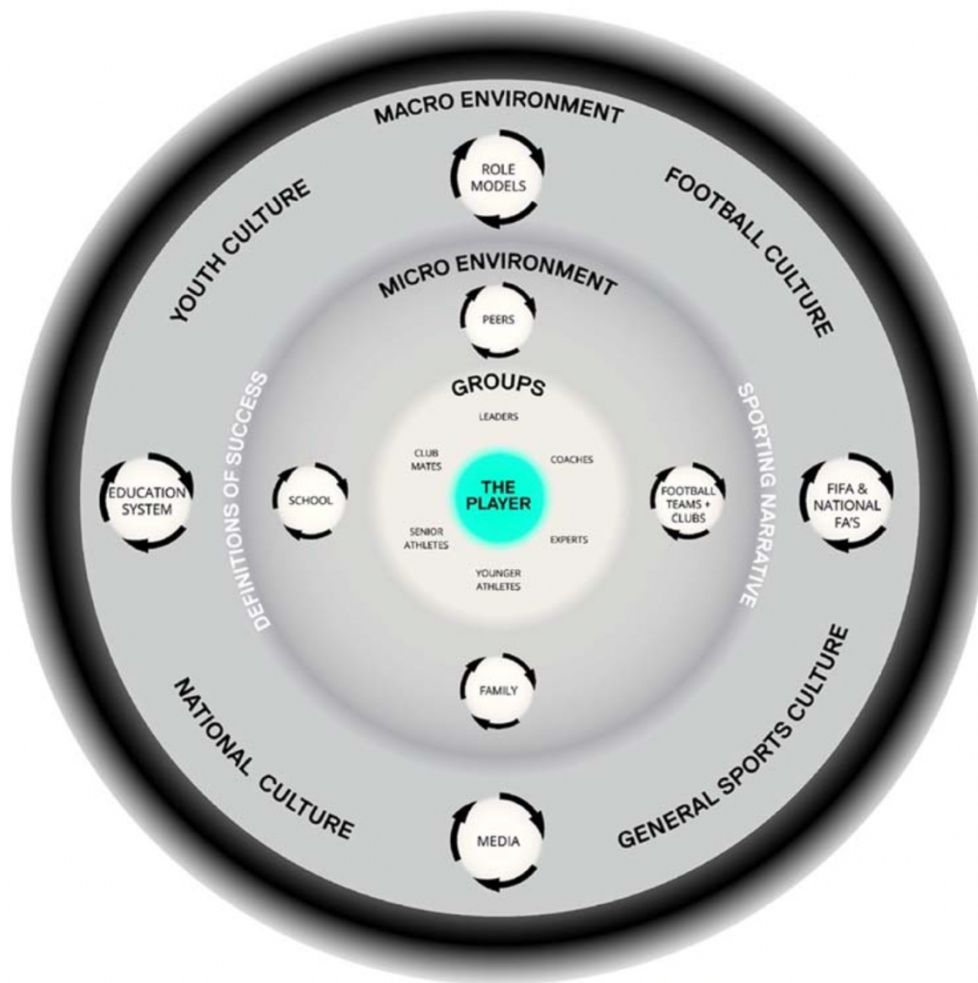
Figure 5. A football specific version of the ATDE. Note: Originally adapted from 'Athlete Talent Development Environment', by Henriksen (2010), taken from Vaughan et al. (2019) reproduced here with permissions from the Player Development Project Copyright 2017

3.5 Methodological foundations

I have already identified a need for a framework (to guide both research and practice) to meet the challenge of highlighting and harnessing the socio-cultural practices that emerge and persist within a specific sports organisation. In order to engage with the socio-cultural complexities and sub-system interrelatedness of athletes and environments, I have outlined the relationship between socio-cultural constraints, player-environment intentionality and fields of affordances. In this section, I draw attention to the potential methodological connection between system complexity and action research. Further, I will suggest that a combination of ethnographic strategies and action research can offer a deeply contextualised

and continuous analysis and assessment of a form of life in a particular ecological niche, even while findings are being implemented.

3.5.1 Action research to address complex issues (wicked problems)

Our intention to promote action research grounded in an ecological dynamics rationale to enhance the effectiveness of a transdisciplinary approach is based upon the following characteristics:

1. An ecological dynamics perspective can help us to conceptualise the inherent non-linearity of the learner and the learning process in sports organisations characterised as complex systems (Renshaw & Chow, 2019). Furthermore, this nonlinear perspective highlights the notion that small changes in system properties can lead to large changes in emergent behavior and vice- versa (Chow et al., 2011). The idea of working with the nonlinearity of the research context is central to action research (Phelps & Hase, 2002), where the purpose is to instigate changes in dynamic and complex systems (Brooks & Watkins, 1994).

2. Action research is consistent with the notion of viewing change (learning) as an adaptation to the environment, which is fundamental to complexity (Phelps & Hase, 2002). Learning in complex systems can be understood as self-organisation under constraints, where instead of understanding the whole, by isolating its parts, we understand the whole by understanding the relations between, and continuous interactions of, its parts (Heylighen, 2008). Interactions within and between system levels are central to the conceptualisation of forms of life within the SIF, contrasting with deterministic models of human behavior where 'one size fits all' approaches are deemed necessary to guide performance. Action inquiry rejects the idea that one generalisable solution can fit multiple situations (Brooks & Watkins, 1994).

3. Complexity acknowledges the uncertainty of prediction of system outcomes over longer timescales. The input of a new idea or 'action' (e.g., subtle change in how people interact) into the system can lead to different outcomes that cannot be predicted (different social structures) (Eve et al., 1997). Action researchers have embraced notions of unpredictability, seeing it as a goal and 'the stuff of which 'real life' is made or enacted' (Wadsworth, 1998, p. 7).

Emphasising the development and enrichment of a reciprocal and functional relationship between athletes and environments forming complex, interconnected systems (Araújo & Davids, 2020), can provide a valuable theoretical underpinning for action research (Phelps & Hase, 2002). In turn, action research can provide a valuable methodological approach to the critical and practical study and evolution of complex systems in contexts like sport, work and education (Phelps & Hase, 2002).

3.5.2 Action research utilising ethnographic forms of inquiry as a suitable research methodology

In an effort to move away from conventional research methods, researchers have recommended the use of ethnography in sports environments as a qualitative method of inquiry to generate and analyse data (Uehara et al., 2014). Ethnography provides an avenue to highlight the contextual interactions of complex social phenomena, broaden the scope of ecological psychology and provide insights into athlete-environment intentionality (van Dijk & Rietveld, 2017; Vaughan et al., 2021). While ethnography supports long-term immersion in a local setting, to understand community issues and relate them to wider cultural issues, it can have limited impact (Hearn et al., 2009). However, it has been argued that when complemented by action research, ethnographic research is more 'likely to be useful and usable by those working on the ground ... and to address the identified gaps between research and the ability to implement its findings' (Tacchi et al., 2009).

I advocate that combining ethnographic form of inquiry and action research can support a suitable methodological approach to help us better understand and further player development environments. It can help us access experiential (through daily interactions of coaches, players, stakeholders in a form of life) and empirical knowledge that can uncover the influence of social, cultural, and historical constraints (Rothwell et al., 2020b). Such (iterative) integration of knowledge types may emphasise a focus on co-creation, sharing and development of living knowledge, 'producing useful results to make positive changes' (Nelson et al., 1998, p. 12), and support the uptake of innovative and novel approaches to learning in sport (Renshaw et al., 2019). Essentially, ethnography can inform both, the initial research cycle, providing insights into the form of life, with the following action cycle (interventions) helping us to capture real-world changes in practice and connect the research back into the development of a player development framework. This can mobilise the social and cultural participation of individuals and community members so that they become engaged in their personal development and in the development of their community (Foth, 2006).

I will now briefly highlight the ethnographic strategies of inquiry that helped me link a zoomed- out view on the form of life to a zoomed-in perspective on concrete situations.

3.5.3 Historical contextual analysis

Adopting a transdisciplinary point of departure (see Vaughan et al., 2019), in an effort towards cultivating a more holistic understanding to support a broader perspective on player development, contextual analysis can illuminate some social, cultural and historical constraints that influence skill development in a form of life (Araújo et al., 2010). This way of monitoring a form of life is significant as it gives insights into what is understood as normative, what is changing, what are the path dependencies and what opportunities

(pathways) are emerging. This perspective informed observation and interview methods and what data should be collected in the field (Uehara et al., 2014).

3.5.4 Observation

Fieldwork in the form of observation at AIK youth football took place at various levels or grains of analysis. Unobtrusive observation (Schensul et al., 2012) provided the opportunity to observe behaviors and actions, sociocultural practices and events. Participant observation provided more exposure to, or involvement in the day-to-day activities, offering the opportunity to follow the participants across several contexts (Uehara et al., 2014). Observant participation, a methodological technique which allows for a more 'embedded' exploration of a form of life (Moeran, 2007), provided insights into the functioning of relationships and rules, all of which are fundamental to ethnographic research (Wilkinson, 2017). For example, observant participation helped reflect the embeddedness required during 'on field' support, where the integration of the research (action) was being explored. Initial field notes included text, audio and video and were reviewed, combined and categorised into a detailed log of field notes. Observation helped explain some of the contextual analysis findings previously unearthed and inform future interviews.

3.5.5 Semi-structured and informal interviews

Informal interviews occurred spontaneously and regularly in the context of participant observation (Rinaldo & Guhin, 2019). For example, speaking with coaches before and after practice sessions or specific work meetings. Interviews allowed access to different perceptions and while also giving meaning to observations. As highlighted by Uehara and colleagues (2014), open-ended questions were used to elicit the views and opinions of participants and maximise the exploration of the topic.

3.6 Summary

In this chapter I presented the LDRF as a novel way of guiding research and action, supporting the notion that athlete development frameworks should evolve in interaction with the socio-cultural context in which individuals are embedded. This signals a move away from, or indeed a counterweight to, what has to date being our scientific understanding of talent development processes that have been largely informed by positivist studies (e.g., psychological, physiological and biomechanical) of youth performance (Thomas et al., 2022). I have highlighted the need to recognise that athlete development environments are not blank slates devoid of social, historical and cultural influence, but provide the potential for a myriad of possible complex challenges. To access this broader view, I proposed the need for a framework to guide both research and practice, to meet the challenge of highlighting, harnessing and re-shaping the socio-cultural practices that emerge and persist within a specific sports organisation. It is hoped that this chapter, which was recently published (O'Sullivan et al., 2021a), will provide inspiration for sport organisations and clubs, interested in evolving their athlete development frameworks, to further investigate this broader and more contextual perspective on athlete development.

In the next chapter, as an initial step in accessing this broader and more contextual perspective, I will introduce a contextual-historical analysis to illuminate and explore the influences of socio-cultural-historical constraints. It is my intention that this will provide a contextual framework around which the remaining chapters of this thesis will be constructed.

Chapter 4: Contextual Historical Analysis

4.1 Introduction

> Let us not forget that we may imagine a society without sport, but we cannot imagine sport without society. The development of sport as well as its structure, its actors, as well as its results, must be related to the society it is part of. (Peterson, 2008).

Sport and in particular football have been an integral part of the national identity of Sweden, with its organisation, structure and evolution shaped by historical, cultural and political traditions (Peterson, 2008). With a population of just over 10 million (Central Bureau of Statistics; 2017[6]), Sweden is one of the world's leading sporting nations, relative to geography and population. More than 3 million inhabitants are members of a sports club and an estimated 2.4 million are actively involved in sports. Described as the Swedish sports model, sport organisations have historically been publicly financed (Norberg, 2012), with roots in volunteerism; underpinned by a social value system linked to public health, democracy and education (Fahlén & Sjöblom, 2012). In the last few decades, Sweden has transformed from social democracy to a country renowned for its deregulation (Alm, 2016). This transformation, in parallel with fundamental changes in the world of sport e.g., professionalisation and commercialisation, has challenged the Swedish sports model (Norberg, 2016; Österlind & Wright; 2012).

It has been argued that to better understand athlete development in and through sport, culture and context matter most (Araújo et al., 2017; Juarrero, 2019). A contextual historical analysis has been proposed as a productive approach for investigating the socio-cultural contexts in which phenomena are historically constructed (Uehara et al., 2014; 2018, Vaughan et al., 2019). In this chapter I present an historical analysis of the socio-cultural environmental constraints of Swedish sport, in particular youth football, to give insight into

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[6] Central Bureau of Statistics (2017). The people in Sweden. http://www.scb.se/hitta-statistik/sverige-i-siffror/manniskorna-i-sverige/

the overarching ecological context (macrosystem) that conveys the information, ideology, and values that influence organisational structures (i.e., roles, responsibilities, tasks) and events in the embedded microsystems (i.e., coaching sessions) where athlete development takes place (Kasser & Linn, 2016). Adopting a transdisciplinary point of departure, I endeavour to describe the extent to which historical socio-cultural constraints are dialectically entangled with the development of football, in particular youth football in Sweden.

To support a broader perspective on player development at AIK youth football, I introduce and discuss literature that illuminates some social, cultural and historical factors that can influence skill development in a form of life (Araújo et al., 2010; Uehara et al., 2016). This included primary sources, those deemed to have the closest relationship with the study, such as materials produced in the time period under study (e.g., newspaper editorials, speeches, government documents, literature, film, podcasts) and secondary sources, materials such as scholarly works with a degree of hindsight) (Terborg-Penn, 1985) (e.g., see Appendix 2). Information was retrieved from various documents and media such as books, coach education material and articles (both printed and electronic) sourced from the Swedish Football Association (SvFF), Swedish Sports Confederation (SSC), AIK football club and various newspaper articles relating to child youth sports in Sweden and the development of Swedish society, which I translated from Swedish to English. My most important sources were The Nordic Sports Forum archive[7] on Swedish sports, sport policy and sports studies, the Swedish Sports Confederations document bank[8], the Swedish Football Associations

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[7] https://idrottsforum.org/merom/svidropol/

[8] https://www.rf.se/bidragochstod/Dokumentbank

(SvFF) coach education material, the Center for Sports Science (CIF) archive[9] and various national media archives (e.g., Dagens Nyheter[10] archive from 1864-2022, Aftonbladet).

There are many different models and paradigms (e.g., deconstructivism, reconstructivism, constructivism) in writing the history of sport, but as Allen Guttman once said, "no key turns all locks" (Horne, 2008). Therefore, it is not my intention to argue for the preeminence of one over the other. Following the recommendations of Uehara (2014), I write this chapter under the view of reconstructivism (see Booth, 2005a), seeking to recover the reality and truths of the past and aim to provide secure foundations for historical knowledge. Reconstructionists typically present their histories as narratives, showing the explanandum to be connected to other events in a meaningful way (Booth, 2005b). It is important to point out that my aim is not to offer accounts that are linked to causal reasoning and involving causal relationships. My intention is to use this chapter to provide a contextual framework that will provide the foundations for the remaining chapters of this thesis, by describing how historical socio-cultural constraints are dialectically entangled with the development of football, in particular youth football in Sweden. This offers the reader an opportunity to contextualise the data presented in Chapter 5 and Chapter 6.

4.2 An Emerging Swedish Model and Sports Movement

In the first decades of the twentieth century, Sweden transformed from a poor country to a modern industrial nation, offering leisure time for most social groups (Fahlén & Stenling, 2016). An emerging welfare state, often referred to as "The Swedish Model", promising all citizens a reasonable standard of living (Fahlén & Stenling, 2015), started to take shape. Within this transformation developed a key concept labelled 'the people's home' (folkhemmet) that signaled radical reforms firmly established by the Social Democrats on

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[9] https://centrumforidrottsforskning.se/kunskap-om-idrott/rapporter

[10] https://arkivet.dn.se/

coming to power in 1932 (Siminson, 1985). Unemployment benefits were introduced in 1934, housing loans and maternity benefits in 1937, followed by further reforms in nursing, dental and healthcare (Norberg, 1993). In the labour market, the Swedish Model has been described as a national variant of the Fordist project (Billing et al., 2004). Fordism, underpinned by the leading principle of Taylor's 'Scientific Management' based on a production line ethos, sought to remove skills from the shop floor. However, in Sweden, employees aimed to increase shop floor skills and invest in shop floor workers (Koch, 2008).

Figure 6. Dagens Nyheter report on the opening ceremony of the 2012 Olympic games, 7th July 2012

In parallel with developments in Swedish society, the success of the 1912 Olympic Games in Stockholm and a growing popularity in competitive sports imported from England (Österlind & Wright, 2014), voluntary and membership-based sport clubs grew exponentially in the early part of the 20th century (Norberg, 2002; Sjöblom, 2006). The games introduced a new model of efficiency, being the first Olympics that used automatic timing devices for track events and to capture the photo at the finishing line. The ideology that initially helped shape the Swedish sports model was founded in amateurism, an ethos that British army, sailors, merchants, schoolteachers, and clergymen introduced to foreign lands (Guttmann, 1994). Amateurism's malleability allowed it to engage with divergent socio-cultural, political and ideological contexts (Llewellyn & Gleaves, 2014). This ideology provided the foundation for an emerging Swedish sports movement based on democratic values, particularly equality in participation.

The establishment of the Swedish Sports Confederation (SSC) has been viewed as the starting point for these voluntary and membership-based sport clubs that came to characterise the Swedish sports model (Fahlén & Stenling, 2015). Acting as an umbrella organisation for what is known as the 'Swedish Sports Movement', the SSC began to act on behalf of the government in the distribution of the annual central government funds (Stenling & Sam, 2017). Since providing its first grant for sport in 1913, the Swedish government has given extensive financial support to organised sport, while the SSC has been central to its administration and distribution (Norberg, 2002; Fahlén & Stenling, 2015). Defined as an 'implicit contract' (Norberg, 2011) and positioned as an extended arm of the welfare state in the area of sport and leisure, the SSC enjoyed a monopolistic position promoting a 'sport for all ideal' that embraced the general principles of the Swedish welfare state (Bergsgard & Norberg, 2010).

After World War II, with many migrants returning, Sweden experienced a long period of economic growth (Hort, 2014). Having remained neutral during the war and with its entire industry and infrastructure intact Sweden became an industrial leader, delivering much of the goods and material needed for postwar construction. Buoyed by a growing young population, the Swedish welfare state took shape. As highlighted by Fahlén and Stenling (2016), an important part of this new welfare state was to facilitate and satisfy the need for 'meaningful leisure'. Described as activities that had mental, physical and societal benefits (Eskilsson, 2000), 'meaningful leisure' became part of the policy for leisure and sport and given a prominent position in the evolving welfare state (Ekström, 2003). Due to concerns that the improved standards of living would make people unfit, a trend developed among sports businesses, insurance companies and politicians to support sports that combined recreation and exercise (Hjelm, 2017). Between 1946 and 1968, there was an increase in the number of sports facilities, from 2,400 to 82,000 (Norberg, 2002), with more than 95% of the facilities publicly owned. Between 1952 and 1968, there was a 550% increase in spending by local government authorities on sport and outdoor life (Sjöblom, 2006).

4.3 The State and the Free Market

During the latter third of the twentieth century, Swedish society experienced a rapid transformation. An increase in unemployment and a recurring financial crisis resulted numerous changes in government. In 1995, Sweden entered the European Union, more and more women entered the workforce and with a further challenge of integrating immigrants, huge demands were placed on the public sector (Norberg, 1993). This called in to question the welfare model's capacity to adapt to these changes and its very ethos was challenged as restructuring of the public sector promoted ideas such as outsourcing and privatisation (Blomqvist, 2004). The 'people's home' started to give way to a new "welfare society". The role of the state was diluted in favor of the free market where private initiatives coexisted

with the state. In the wake of industrialism, children went from being objects of authoritarian subordination, to projects for professional care and pedagogical development (Dencik, 1995). Due to childcare, school, sports clubs and leisure activities, children were now establishing relationships with more adults than before. This was further developed by Redelius (2002).

> Since different professional groups, teachers, leisure educators and leisure leaders, have partly taken over the role of parents as educators and norm-setters in children's lives, there has thus been both a professionalisation and an institutionalisation of children's upbringing. Sports leaders are thus just one of several groups of educators in society who have as a leisure activity or profession to take care of, lead and teach children and young people (p. 23)

Swedish sport was also undergoing a transformation. There was an increase in privately owned gyms and alternative or adventure sports, such as, skateboarding, snowboarding and hiking (Lindroth, 2011). The long-standing amateur rule was abolished in 1967, welcoming in the professionalisation of sport (Wikberg, 2005; Alm, 2016). Governing mechanisms associated with neoliberal ideologies began to question the sustainability of the Swedish sports model (Fahlén & Stenling, 2016).

The neoliberalism of Swedish social democracy in part was initialised by the Social Democrats in the 1980's, while a clear system shift was implemented by the center-right coalition government in 1991 (Sunnercrantz, 2017). However, it can be argued that neoliberal philosophy first appeared on the radar of Swedish society in the 1970's when the Nobel prize for economics, which was under control of the Swedish banking elite (Harvey, 2005), was awarded to Friedrich Hayek in 1974 and to Milton Friedman in 1976. As highlighted by Sunnercrantz (2019), deregulation initiatives were seen in all Nordic countries, to a higher degree than many other social democratic countries in Europe, such as Germany or France. Through Sweden's transformation from social democracy to a country renowned for its

deregulation, sport remained an important issue on the government's agenda (Alm, 2016; Bergh and Erlingsson 2009).

4.4 What Does the Sports Movement in Sweden Want?

At a meeting in the Swedish city of Umeå in 1995, the SSC and its members unanimously approved the document "idrotten vill" (The Will of Sport); a living document, viewed as a foundation for policy making and one that is in symbiosis with the development of sport in society (Riksidrottsförbundet, 2009, p. 2). A government bill drafted in 1999 entitled *A Sports Policy for the 21st Century – Public Health, Popular Movement and Entertainment* called for savings in governmental expenditure, more efficient administrative routines and above all monitoring and evaluation (Österlind & Wright, 2014). An important tenet of the 'implicit contract' had been the autonomy and self-determination of the recipient of the funds, but now government support started to come with explicit demands, where evidence of the efficient use of taxpayers' money became a key feature of the governing funding model (Fahlén & Stenling, 2016). This explicated a wider social responsibility for organised sport, bringing it into many public and political discussions (Centre for sports science, 2014), such as, public health (Özdemir & Stattin, 2012) and crime prevention (Radmann, 2013). The result was an increasing demand on orginisations to follow up their government support with results via key performance indicators (Fahlén et al., 2015). In a sense, the state primarily promoted professionalisation, the market supported commercialisation (Document analysis: Debate article: Idrottens professionaliserings och kommersialiseringsprocesser, 2005, Translated from Swedish).

In 2005, sensing a growing need to initiate discussions on the vision and value of sport in an evolving society influenced by globalisation, professionalism, individualism and commercialism the SSC conducted a review of the "idrotten vill" document. The main purpose was to develop a common platform of what being involved in the Swedish sports

movement means. The outcome of these discussions was published in August 2009. This updated version of "idrotten vill", detailed the vision and values for the future of Swedish sport. The SSC recommended that the Swedish sports movement should be based on a self-governing and unified sporting movement as well as world-class education in coaching, athlete development and leadership and that youth sports must be based on a child's rights perspective, that is, to comply with the United Nations Convention on the Rights of the Child (Riksidrottsförbundet, 2009).

4.4.1 An Emerging Wicked Problem

New perspectives and interests for the sports movement, inspired by the phenomenon of globalisation, individualism, commercialisation and professionalisation, was seemingly in conflict with the logic of organised sport in Sweden (sport for all), placing higher demands on clubs and organisations (Olsen, 2013; Stenling & Fahlén, 2009). Members of these clubs and organisations began seeing themselves to a greater extent as customers and began placing demands to get value for their membership (Olsen, 2013). More and more sports clubs started hiring staff (Nagel et al., 2015). Clubs that hired paid staff gave the impression of fulfilling certain municipality demands and therefore received increased financial support from the state (Olsen, 2013). However, the Swedish sports movement still attracted many volunteers. In the European Commission's Eurobarometer on sport and physical activity (2014), the highest number of recorded sport volunteers in the European Union in 2014 was in Sweden.

The ideological commitment of the Swedish sports movement was being firmly put to the test. Swedish sport faced up to a contradictory challenge. In a society coming terms with its transformation from social democracy to one renowned for its deregulation, balancing the democratic values of 'sport for all' with elite ambitions, was becoming a multifaceted wicked problem. Wagnsson et al., (2015) summed up this problem in their state funded report:

> For sports associations, the market pressure is correspondingly rooted in perceived demands to run an increasingly professionalised and customer-oriented business

(Document analysis: Idrottens pris: About the costs of sport and the importance of membership, 2015, p.8. Translated from Swedish)

4.4.2 The Modern Sports Movement: As Many as Possible, As Long as Possible, in an as Good Environment as Possible

Today, the main task for the SSC is to work as effectively as possible for the member federations so that they can devote maximum time to sport itself. This is done in cooperation with the Swedish Sports Movement's Study Association (SISU), which since 1985 has been the sports movement's educational organisation. Recognising that there are challenges for the sports movement to face in the future, the SSC conducted broad strategy work between 2013 and 2015. In May 2015 a strategy document was presented that lay the foundation for what has become known as 'Strategy 2025'.

Strategy 2025 describes the SSC's present common vision for the future of the Swedish sports movement as agreed upon by its member associations. Its aim is to promote a more 'welcoming' Swedish sports movement, where a focus on development will mean that more people will want to and are able to play sports together for life (Riksidrottsförbundet, 2019a). This strategy highlights a recognition that the future of sport in Sweden must evolve with the changes that are taking place in society while exploring new ways of organising and structuring sport to capture people's commitment.

Since the legitimacy of government funding rests on making mass participation a priority and promoting public health, drop-out rates are of great priority (Fahlén & Karp, 2010; Fahlén et al., 2015). Ninety percent of all children have been active in a sports club or organisation at some point during their upbringing (Riksidrottsförbundet ,2017). However, more recently there has been a marked reduction in participation during the teenage years, with many children leaving organised sport at the age of 11 (Riksidrottsförbundet, 2019b). With the ambition of being a movement for lifelong sports, the idea of the sports movement

being a pyramid with a broad base consisting of children's and youth sports and a pointed

peak in the form of elite sports, needed to change (Riksidrottsförbundet, 2016a;

Riksidrottsförbundet, 2019b). The change the modern sports movement seeks to achieve with

strategy 2025 can be summarised as "from triangle to rectangle and is characterised by: as

many as possible, as long as possible, in an as good environment as possible" (Document

analysis: Riksidrottsförbundet, 2019c, p. 4. Translated from Swedish).

A key element of strategy 2025, and a point of recent discussion, is the notion that

youth sports in Sweden, must comply with the United Nations Convention on the Rights of

the Child (UNCRC) (Riksidrottsförbundet, 2019a). On the 1st of January 2020 the United

Nations Convention on the Rights of the Child became law in Sweden. Everyone under 18

years of age is considered a child. All member clubs and associations of SSC are obliged to

follow these guidelines and it is a prerequisite for being a member.

4.5 Football in Sweden

Figure 7. Fans heading to the opening of the first 'real' football pitch in Sweden in 1908 to watch Ögryte take on Viktoria of Berlin. Retrieved from http://www.stff.se/om-stff/historia/stockholms-fotbollforbunds-jubileumsbok-1917-2017

Imported from Great Britain and originally viewed as a working-class game, football in

Sweden was guided by amateur rules and principles until 1967 (Andersson, 2002; Billing et

al., 2004). Gothenburg, a harbour city with many connections to Great Britain through its sailors and Scottish textile industry, was first to host a football match played in Sweden under association rules by two Swedish teams (Örgryte IS and Lyckans Soldater) in 1892. The Swedish Football Association (SvFF) was founded on the 18th of December 1904. In 1908, Wahalla, the first 'real' football arena in Sweden was opened in Gothenburg when a game between Örgryte and Victoria from Berlin was played in front of 8,000 spectators[11]. The same year Sweden played its first international game against Norway in front of 3,000 spectators in Gothenburg, winning 11-3. On the 29th of march 1917 Stocholm Fotbollförbund (StFF), the Stockholm Football Association was founded. The following year the first womens football match in Stockholm took place in 1918 at Aspudden IP.

Stockholms FF:s jubileumsbok 1917-2017
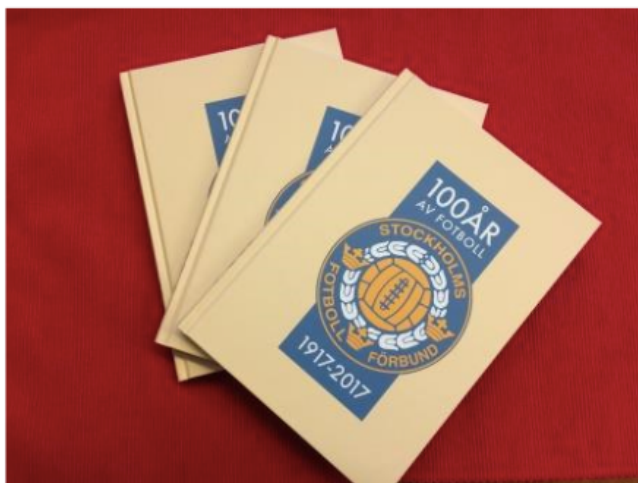
Figure 8. Stockholm Football Association Jubilee Book 1917-2017 image retrieved from http://www.stff.se/om-stff/historia/stockholms-fotbollforbunds-jubileumsbok-1917-2017/

According to the Stockholm Football Association Jubileum book 1917-2017) published in 2017, youth football in the early 1900 mainly involved junior football and school football team. The junior Stockholm district championship took place for the first time in 1914. Competitive school football also began the same year with the 'Kronprinsens pokal' (the Crown Prince Trophy). It wasn't until the early 1930's that Stockholm clubs began to build

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[11] https://fogis.se/om-svff/ar-for-ar/artalen/?profile=16628

their own youth football teams to took part in the local boys league. AIK won the first Stockholm boys cup beating Karlberg 4-1 in the final. In 1934 the Stockholms Boys Football Association was formed but that was soon taken under the wing of StFF (Stockholms Football Association). Various boys football competitions were organised over the years until 1957 when the currently named St Eriks-Cupen was founded. Girls teams were active in the St Eriks-Cupen for the first time in 1969 when 35 teams took part in the tournament. 28 football clubs (including AIK) were registered members at StFF in 1917, 49 teams took part in league competitions and in total there were 278 games played. In comparison with 99 years later: 378 clubs, 5,397 teams involved in approximately 35,000 games in 2016.

After the Second World War, Sweden took its place amongst the elite in world football. After Olympic Gold in 1948 and bronze in the 1950 World Cup, the men's national team reached a peak in 1958. Under the guidance of Englishman George Raynor, Sweden as host nation, reached the World Cup Final, only to be denied by a brilliant and flamboyant Brazilian team. In the following years, with the declining stature of the national team, falling attendances in the domestic league and limited economic possibilities for the elite clubs, the idea of departing amateurism became an attractive prospect (Billing et al., 2004). With the dismantling of the amateur rules in 1967, football opened as a worldwide 'spectacle' attracting many commercial possibilities, re-articulating the relationship between football and society in Sweden.

Figure 9. Swedish national team 1958 World Cup final. Published in Aftonbladet 05-04-2017

On November 29, 1969, the weekly football program 'Tipsextra' premiered on Swedish National TV (SVT). A match between Wolverhampton Wanderers and Sunderland from the English first division was broadcasted live into the homes of Swedes (Svab, 2007). It was the first time a country broadcasted live league matches from another countries league. English football had become 'the people's home' Saturday routine, as over three million Swedes sat down (many with Tipsextra betting coupons) in front of the TV every Saturday during the program's first year (Jacobsson, 2009).

Today, football is the most popular sport in Sweden. All participating clubs in the Swedish football league systems are governed by the "51-percent rule", implying their members are the majority shareholders. This means that commercial investors are not allowed to have more than a 49% stake, limiting corporatisation and the possibilities to attract additional institutional investors (Karlsson & Skännestig, 2011).

4.5.1 Early Coach Education and Player Development

In 1931, SvFF created a Technical Committee whose task was to train Swedish coaches and players (Peterson, 1993). By the end of the 1940's SvFF had arranged a form of education for coaches and instructors (Peterson 1993). With Swedish football embedded in an

amateur ideology the focus was mainly on a broad range of coaches working in clubs rather than those working at the top level of the game. The typical background for the senior coach was a former player taking over as coach (Peterson, 1993), where it was assumed that they already had the amount of football knowledge and experience required to be able to organise training (Eliasson, 2003). Sweden began looking to seriously develop its coach education during the 1960's. When English FA educator Alan Wade gave a lecture in 1965 that was translated into Swedish (Peterson, 1993), England's training philosophy started to gain traction in Sweden. In 1969, SvFF introduced a new 4 step coach education pathway, but it wasn't until 1975 that this education was fully implemented (Peterson, 1993).

As the 1960's neared its conclusion, the Swedish men's national team were struggling on the international stage. Lars "Laban" Arnesson was hired by SvFF and given the task of elevating the position of the Swedish national team on the international scene. West German football, which Arnesson was a big fan of, became the model for how the men's national team defended. West Germany's success as World champions in 1974 and indeed Sweden taking an unofficial 5th place, was taken as a sign that this style of play should be the benchmark for Swedish football. It was proposed that Swedish clubs should play a similar system as the Swedish national team (Peterson, 1993). This shaped what would be called "the Swedish model". Educational material from West Germany such as Heddergott's Neue Fußball-Lehre was translated into Swedish, providing SvFF with the means to steer the pedagogical development of Swedish football in a direction desirable to them (Eliasson, 2003).

4.5.2 A Philosophical and Pedagogical Schism

While man-man marking and the libero underpinned the new system of play for the Swedish national team, the arrival of two Englishmen, Bob Houghton at Malmö FF and Roy Hodgson at Halmstad, signaled the introduction of a radically different system. This led to a

philosophical schism in Swedish football. The Swedish model had initially found its legitimacy in West German football, while the English model reflected the long-standing English influence on Swedish football. This Swedish model emphasised individual skills, man-man marking and adapting the style of play to the opponent. Training was primarily small-sided games accompanied by special training focused on individuals. The "English model", prioritised collective play, with pressure on the ball carrier and zonal marking, reinforcing traits that increased the coach's influence over what happened on the field (Eliasson, 2003). This "teacher-centered" pedagogy gave the impression of authority and professionalism. The coach had the overall picture of how the game should be organised and the players needed to assimilate the systemised knowledge that the coach promoted (Peterson 1993, Eliasson, 2003). This is described here by Eliasson:

> In other words, they put the coach's role as educator clearly in focus – the coach had the overall picture of how the game should be organized and was solely responsible for teaching this to the players. This "teacher-focused" pedagogy is reminiscent of Aristotle's methodological instructions for the second, "reason-developing" phase of theoretical school education, when the students/players must assimilate the systematized knowledge the teacher/coach possesses.

(Document analysis: Idrottsforum:The battle for the pedagogical power over Swedish men's football at senior level 1974-82, August 19, 2003. Translated from Swedish)

In 2015, Lars Lagerbäck, the former Swedish national team coach, spoke about Houghton and Hodgson in an interview with the English football magazine Fourfourtwo. He referred to how they had changed the coaching and playing style in Sweden utilising a tough offside and zonal defense system (Edwards, 2015). According to Lagerbäck, no-one before had organised teams in Sweden the way that Houghton did.

Houghton won the league with Malmö in 1974 while Roy Hodgson won the league with Halmstad in 1976, playing a similar style of football. The Swedish media began to complain about how the English-influenced football was advocating a style of football that killed creativity and entertainment. (Peterson, 1993). Between 1974 and 1979, Malmö under Houghton and Halmstad under Hodgson, dominated Swedish football, between them winning

the Allsvenskan (Swedish premier league) five times. In an effort to break the English

dominance, Lars Arnesson temporarily left his job at SvFF to take over Östers IF and applied

the Swedish model. In 1978 he managed to briefly break the dominance of the English model

when Östers IF became Swedish champions. However, in 1979, Malmö FF created a

sensation. After beating big clubs such as Monaco, Wisla Krakow and Austria Wien in the

knockout stages of the European cup, they narrowly lost the final 1-0 to England's

Nottingham Forest.

Divided loyalties between the two philosophies seemingly resulted in a dysfunctional

national team, as those who adopted the 'English model' with their clubs were expected to

adapt to the 'Swedish model' in the national team. The 'English model' was proving

successful, while the national team using the "Swedish model" were in decline and failed to

find the same level they displayed in the 1974 World Cup in Germany. Many coaches, such

as Arnesson, who were tied to the Swedish model, rejected the English model claiming that it

was "ugly", "boring" and "destructive" (Eliasson, 2003). In an interview series with Tomas

Peterson, Jens Altnäs (2003) captures these views as well as contextualising the debate:

> The debate took place in a period in Swedish society when neoliberalism emerged for
> the first time and became a serious ideological challenger to the social democratic
> welfare policy. The criticism of Roy and Bob was that they played robot football,
> factory football and it was rubbish football. The players who submitted to the system
> acted like robots without their own will. They could not express their own talents and
> they had to run exactly as they were told, like on a conveyor belt.

(Document analysis: Svenskafans: Bob and Roy, August 21, 2003. Translated from Swedish)

One such coach that saw great opportunities to learn from the English model, was Sven

Göran Eriksson, who took over the reins at IFK Gothenburg. Sensationally IFK Gothenburg

made it to the UEFA cup final in 1982, defeating Dinamo Bukarest, Valencia FC and FC

Kaiserslautern en route. The impossible was achieved when they defeated Hamburger SV

from Germany in the final. Sven Göran Eriksson had further developed the English model in

to the "Swenglish model" and he was clear about his source of inspiration (Peterson 1993),

> – Tord (Grip) and I led the Swedish U21 national team, and we were very curious about what Roy and Bob were up to. Lars "Laban" Arnesson, who was the A national team coach and head of education in SvFF, hated the way they advocated that football should be played. He was inspired by German football with marking and libero. In the end, Tord and I had to leave our jobs in the union, says Svennis

(Document analysis Norsk Fotballtrenerforening: The meeting that formed the "Scandinavian coaching school, 2nd March 2020, translated from Norwegian)

Authority (SvFF) alone was not sufficient in the long run for the pedagogical legitimacy of the Swedish model, especially in the face of such successful sporting results and the seemingly more professional nature projected by the English model. Arnesson accepted the "Swenglish model" using it to replace the Swedish model as the national team's style of play (Peterson 1993).

The increased professionalisation of Swedish football during the 1970's had a profound influence on coaching and coach education. A new generation of coaches with academic backgrounds, embracing new ideas in international football, came to the forefront of Swedish and Scandinavian football. A key moment was a meeting between 30 Scandinavian football coaches in Estoril[12], Portugal on 8-15 November 1983. Led by Benfica coach Sven Göran Eriksson, Tord Grip (Malmä FF), Gunder Bengtsson (Vålerenge) and Roy Hodgson (Örebro SK). The meeting was decisive in setting the blueprint for Scandinavian and Swedish football (and coach education), arguably up until the present day (Moen, 2020).

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[12] https://fotballtreneren.no/2020/03/02/%EF%BF%BCmotet-som-dannet-den-skandinaviske-trenerskolen/
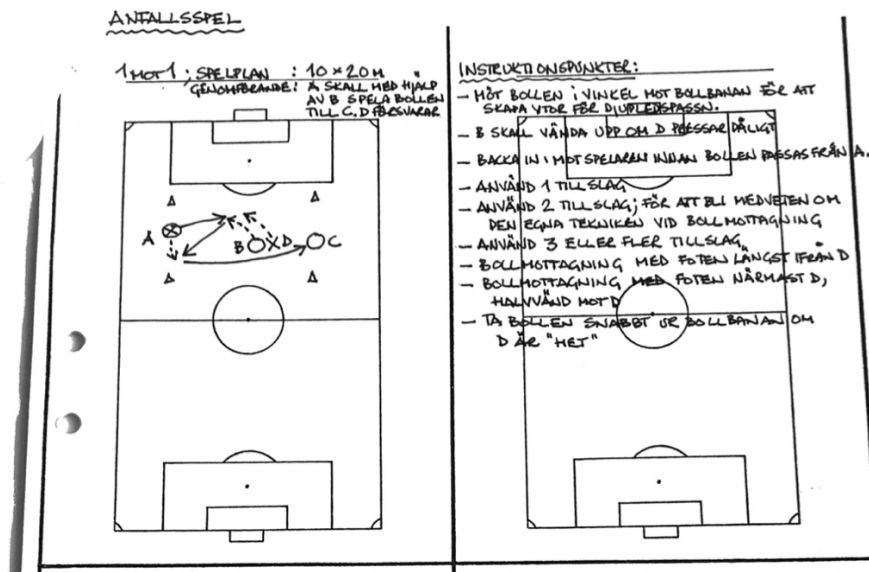
Instruction points
- Meet the ball at an angle to the pathway of the ball to create space for a deep pass forward
- B should turn if D presses in a bad way
- Back into the player before the ball is played from A
- Use 1 touch
- Use 2 touches to be aware of your own technique on receiving the ball
- Use 3 or more touches
- Receive the ball with foot furthest away from D
- Receive the ball with foot nearest D while half turned to D
- Take the ball quickly out of the area if D is beaten

Figure 10. Estoril conference notes on Sven Göran Eriksson's presentation from attendee Thomas Lyth 1983. English translation of direct instruction points from coaches to players promoting touch constraints and prescribed movement.

4.5.3 The Professional Swedish footballer

Malmö FF became the first club to offer its players the opportunity to become professionals in 1989 and by1990 professional players received salaries that exceeded the average middle-class salary (Billing et al., 2004). Sweden hosted the European Championships in 1992 and took an unexpected bronze medal at the 1994 World Cup, helping to accelerate a renewed public interest in Swedish football. In 1995 Sweden hosted the Women's World Cup. After winning the European championships in 1984, the Swedish Women's team took World Cup bronze in 1991 and silver in 2003.

The Bosman ruling in 1995 had increased freedom and mobility of football players within the European Union. Players without a contract could move freely to another club in another country, which was not possible before. Outside investors became attracted to football because of its financial potential, leading to increased salaries and transfer fees. In 1999 the SCC permitted public limited companies to be part of professional sport (Gammelsæter, 2009). The game became to be viewed as a spectacle, and TV agreements to broadcast games guaranteed money, and Swedish football started to become part of the entertainment industry (Billing et al., 2004). Sport sections became very popular in daily and weekly newspapers and magazines, with the newspapers themselves regularly using sporting themes in advertisements. In May 2000, Aftonbladet launched *Sportbladet,* a sports supplement that had previously been part of the Swedish tabloid. Inspired by the Italian football newspaper *La Gazzetta dello Sporti Italien*, *Sportbladet* was published on pink paper. By 2009 the paper had 867,000 readers (Edwinsson, 2010).

As Sweden embraced the new cultural economy of deregulation, football took on new levels of interest for Swedes. Peterson (2005) argued that the state encouraged professionalism while the market promoted commercialisation. This was capitalised on by football, particular men's football which increasingly became produced for the market (Alm, 2016). This highlighted a shift from an activity previously built on a non-profit basis, being redefined by other values such as economic, leading to a profound commercialisation of sport (Peterson, 2005).

4.5.4 The Professionalisation of Youth Football in Sweden

Peterson's (2005) argument that the state encouraged professionalism, while the market encouraged commercialism, started to become evident in youth football. For sports associations, the market pressure was correspondingly rooted in perceived demands to run an increasingly professionalised and customer-oriented business.

> Part of this has certainly been the professionalisation process we have been able to follow in sports since the early 1990s, that is, the dream of becoming a professional in one's sport is not only a child's, but also a parent's. Thus, the child's activities develop to also become interesting from the outside what they can perform in the future (p.13)

(Document analysis: Idrottens pris: About the costs of sport and the importance of membership, 2015. Translated from Swedish

In 1993 the 'Tipselit' project was formed as a collaboration between SvFF and Svenska Spel (a state-owned gambling organisation). The project was initiated after Sweden's failure in the World Cup in 1990 with the aim to develop elite football in Sweden by purposefully investing in young 'talents' aged between 14-19. Ironically, 1 year after the formation of Tipselit, Sweden took World Cup bronze in the USA, with Tomas Brolin being named in the world eleven team. In 2009 the organisation Swedish Elite Football (SEF) and Svenska Spel took over Tipselit. While the collaboration between SEF and Svenska Spel was for male youth players, a similar program was set up for young females in a collaboration between SvFF, Elitfotboll Dam (Women's elite football) and Svenska Spel.

On introducing the international concept of "Academy", the Tipselit project began to spread its focus on players aged between 8–19 years. Member clubs were given the possibility to strengthen their talent development programs by receiving funding to employ qualified coaches. The idea was that full-time coaches would contribute to an elite-oriented education for the clubs' 'talents'. In addition, the clubs would ensure that both players and coaches received education in the form of studies or vocational training. A certification model was also created for clubs to control and measure their own progress. Clubs received points according to their activities and were categorised by being awarded between one and five stars.

The Bosman ruling in 1995 set the starting point for two major factors that arguably accelerated the professionalisation and commercialisation of youth football. Firstly, it facilitated a marked increase in football agents in Europe (Andersson & Fathers, 2017). Secondly it set the foundation for what is known as the "Bernard case". In 2010 the European

court ruled that football clubs can seek compensation, if young players they trained signed their first professional contract with a team in another EU country. Swedish youth football began to be understood as a form of capital investment, amplifying the market driven tendencies of Swedish society. This tendency towards the commercialisation and professionalisation of Swedish youth football was highlighted in a newspaper article in 2015. It was reported that SvFF's yearly "Elite camp" (where the highest ranked 15-year-olds from each district gather for a week's training), had become a smorgasbord for scouts and agents (Börjesson, 2015). Claes Eriksson, responsible for SvFF's player development, also head coach for the youth national teams, spoke about the growing crowd of rogue agents who disturb young players during national team gatherings and these elite camps.

> I'm confronting them. When they cross the line, I am very clear and say -You are not just out on thin ice, you have gone through the ice. Now you have to go back and do your job in a professional way ... If it does not suit you, just to leave the area. It is not a public right to look at the elite boys' camp. It has happened that we have closed national team camps because talent scouts, agents and relatives get involved and the young people have a hard time dealing with it, says Eriksson.

(Document analysis: Aftonbladet: Agenter springer in på plan i jakt på talanger July10 2015. Translated from Swedish)

In 2020 SEF ended its long relationship with state owned gaming, forming a new partnership with the Public Limited Company Unibet, a company that provides a platform for sports betting to over 11 million customers in over 100 countries. This marked an increase in financial investment from 90 million SEK a year with Svenska Spel to 780 million SEK over six years (Rosenlund, 2020). Tipselit changed its name to Unicoach, and the partnership between SEF and Unibet focused its investment with clubs in the top two tiers of the Swedish football league.

4.5.5 Football is for Children Not the Other Way Around

Since early the 2000's, child-youth football in Sweden has started to come under media scrutiny where a polarised debate has been taking place. Many social norms and

organisational pressures present within the facets of professional football arguably began to

impinge on child youth football in Sweden. The use of words such as 'elite' in reference to

children and youth added to the development of a sensationalist artificial mythology in and

around the culture of child youth sports programs (Kirkland, O'Sullivan, 2018). Indeed, an

emerging common phrase of discourse in Swedish youth football and media debates was

'elitesatsning', directly translated as elite investment in children. This has been described as:

"Demanding, specialised and organised sports activities with stated performance and result

goals" (Fahlström et al., 2014). Even former Swedish Justice minister Thomas Bodström (see

Figure 11) got involved in the debate stating: " There is no monster that controls access to

elite programmes. The problem is the football associations cowardice." (Document analysis:

Dagens Nyheter article: Bodström står bakom elitgrupper för barn. December 12, 2007.

Translated from Swedish).

Figure 11. Thomas Bodström (Justice minister 2000-2006)- Bodström stands behind elite groups for children. Dagens Nyheter archive 12-12-2007.

The notion of 'elite investment' began to impinge on the younger age groups in youth

football in parallel with the idea that expertise is directly associated with the number of hours

spent in practice, as was proposed on SvFF coach education courses (Tipselit, 2011). For

example, a UEFA Pro course (highest UEFA coach education license) held by SvFF in

Gothenburg in May 2011, claimed a direct connection between the amount of training and the

degree of expertise:

> Becoming a good player has nothing to do with talent, it's just about training.
> Everything is possible to influence through training except its length. There is a more
> or less accepted belief in the so-called "10-year rule" which states tha to become an
> expert in an area requires a minimum of 10 years (10,000 hours) of training.

(Document analysis: Tips Elit article: Största talangen är att träna May 24 2011. Translated
from Swedish)

This idea of early elite investment and some of the opinions associated with it, were

further captured in an interview in 2013 with Ola Larsson, then academy manager at

Stockholm club IF Brommapojkarna. He expressed his conviction about how early

identification of talent (early elite investment) is the right way to go. In an interview with

Renew Magazine (Felinger, 2013), he claimed:

> Potential for football is seen, above all in the movement pattern of the child. And it
> can be seen early, already at the age of seven or eight. You see if he moves like a
> football player. There is something about balance and coordination.

(Document analysis: Renew Magazine. Tidig elitsatsning avgörande för fotbollstalanger.
2013. Translated from Swedish)

Ideas influenced by the globalisation of sport and ensuing economic interests that

contributed to the professionalisation of Swedish youth football were regularly conveyed in a

popularised form via the media (Brenning, 2019). This was having an indelible influence on

parental expectations and the choices they made for their children, seemingly facilitating the

evolution of a culture of status (an early elite player), both among parents and children

(Brenning, 2019), while also inviting in scout agents who created 'child stars' (Laul, 2019;

Laul & Brenning, 2019). The role of the parent in youth sport came under scrutiny in the

early part of the 21st century, where it was widely discussed both in Swedish sports research

and in the media (CIF, 2015). Concepts such as "curling parent " and " helicopter parenting " were debated. It was suggested that these emerging parenting styles were a form of 'monitoring¨ to ensure that their child did not have to face too much resistance and problems (CIF, 2015).

In 2014, SvFF's publishing department released Fredrik Sundqvist's influential book "This is how youth football works: About community and conflicts in the world's most fun sport." Sundqvist challenged a pervasive sport logic in Swedish youth football. The book was released by SvFF with the intention of being a tool for discussion on youth football values. Sundqvist appeared on National TV and in the major national newspapers. While discussions certainly were facilitated, a clear polarisation in the child-youth sport (particularly football) debate was becoming clear. The same year, the TV series "Sports heaven and hell (Idrottens himmel och helvette[13]) [14]was broadcasted on national TV. Giving an insight in to youth sport in Sweden, asking the question *who is youth sport for?* The series examined problems that both those who play sports and those who coach sports are faced with. The program highlighted a paradox. While there are many reports of children's increasing sedentary life, at the same time early expectations and demands for results are one of the reasons for early drop out. This sentiment is echoed in the Swedish online magazine "Sports Science (Idrottsforskning)" where Fahlström (2015) highlighted an emerging problem due to this changing dynamic in children's sport in Sweden:

> If one thinks that skills should be learned before a certain age and that a certain amount of training must occur early, this probably leads to clubs not taking in new children who have not started in time.

(Document analysis: Idrottsforskning article. Många vägar till landslaget October 2 2015. Translated from Swedish)

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[13] https://sv.wikipedia.org/wiki/Idrottens_himmel_och_helvete

While issues in and around child youth football were openly debated, a report published by SSC in 2016 highlighted that many coaches believed early elite investment was necessary (Redelius et al., 2016). It was also revealed that approximately 50% of coaches had no direct knowledge of the sports movement's foundation document "Idrotten Vill". The report further suggested that clubs were abiding by their own guidelines that they claimed were grounded in "Idrotten Vill". This was further reflected in numerous media articles, for example, sports psychologist Johan Fallby in a debate article in Dagens Nyheter highlighted this polarised debate (Lerner, 2015). This led him to suggest that cultures built on early elite specialisation are seldom responsive to "arguments that are built on an evidence base. This we must try and overcome". (Document analysis: Dagens Nyheter. Att idrotta måste få vara kul December 7 2015. Translated from Swedish). Looking to respond to such significant concerns in and around the culture of child-youth football, the SvFF supervisory board held a meeting in 2015. The association was clear that sports for children must be conducted from a children's rights perspective and comply with the UN Convention on the Rights of the Child (Nilsson, 2015).

In an effort to adapt children's sports to children and not after adult values, it was voted at the meeting that, beginning in 2017, league tables and the reporting of results before the age of 13 years will be abolished. The reason behind the decision, according to then SvFF chairman Karl-Erik Nilsson, was an identified need to promote a more positive football experience to help develop self-determined motivation in children (Nilsson, 2015). It was thought that adults' values around competition had impinged negatively on the child's experience. Children will still compete, but on their own terms and the focus will not be on the result but the experience (Nilsson, 2015).

The decision received both praise and criticism. For example, Niclas Andersson in Swedish online magazine 'Idrottens Affärer (Andersson, 2016), referring to exam grading in

schools, argued that SvFF's decision to abolish league tables for children younger than 13 was denying children their right to compete. He claimed that "self-righteous adults, carry 'weapons of prohibition" (Document analysis: Idrottensaffärer. Och hur gör vi med skolbetygen? January 20, 2016. Translated from Swedish), were putting structures in place that are stopping Swedish youth players from learning to compete. However, the article failed to mention that a similar rule had already, for many years, been in operation in 18 of the 24 districts in Sweden.

4.5.6 Coach Education and the Swedish Football Association in the New Millennium

In 1997, UEFA presented the UEFA Coaching Convention (UCC) to improve coaching standards and promote credibility of the coaching profession in football. SvFF were among the first countries to sign the convention (SvFF, 2016). By 2007 the UCC had evolved into a more detailed guiding document and the SvFF revised its coach education provision to align with the UCC with particular emphasis on UEFA B, UEFA A and UEFA Professional license courses.

Until 2014, contents of the Swedish football association's coach education courses were reminiscent of the "teacher-focused" pedagogy (English model) that emerged during the early 1970's. Coaches were prescribed two main instruction methods that became a dominant feature of the coaching landscape, shaping beliefs and contributing to an expectancy as to what coaching should look like in practice. This was no more highlighted than in the comprehensive coach education book and video archive of 31 films (https://www.youtube.com/watch?v=U9UGWHQX9-c) featuring essential technical movements presented in theme forms, called '*The Technique Register*'. The instruction model coaches were encouraged to use was *visa-förklara-visa* (show-explain-show). Coaches were required to show how the technique is performed, explain how the technique is

performed and show again, before the player is allowed to try the technique in isolation. This instruction method was presented to coaches during coach education as a way of teaching a player how to 'correctly' perform a specific technique (e.g., passing). The second instruction method, visa-pröva-visa (show-try-explain) was to be used when the players must learn to evaluate how they should act in certain prescribed game situations, such as who to pass the ball to.

In 2014 the Swedish Football Association (SvFF) introduced the *C Diploma,* the first stage of their newly revised coach education pathway. Moving from the previous coach-centered approach to a more player-centered one, coaches were encouraged to adopt a more game-centered approach to their practice designs. To further emphasise this child-centered approach, The United Nations Convention on the Rights of the Child is introduced at the beginning of the course book.

4.6 United Nations Convention on the Rights of the Child

On the 1st of January 2020 the United Nations Convention on the Rights of the Child became law in Sweden. This international agreement contains 54 articles and states that children are individuals with their own rights, not the property of parents or other adults. In accordance with guidelines set by SSC, all sports for children must be based on the Convention on the Rights of the Child, as stated in the confederation's statutes. All member clubs and associations of SSC are obliged to follow these guidelines and it is a prerequisite for being a member. How this new law will be applied is still unclear and will depend on how it is interpreted in the court of law. However, through its incorporation the Convention receives the status of Swedish law and must be considered by courts and other authorities in their decision processes and cases concerning children (Schiratzki, 2003). It has been reported that the way selection practices in many youth sport clubs today is in conflict with the convention (Brenning, 2019b; 2019c). Children's rights expert Kirsten Sandberg who has

been a member of the UN Children's Rights Committee has suggested, that not complying with Article 12 can have tangible consequences for the clubs and associations that today "top" (prioritise the best players) and select within their teams (Brenning, 2019c). She has also suggested that this type of selection should not happen until the children themselves can have a clearer opinion about whether they want to be exposed to it. Selection should be made on the basis that it is for the child's and not the club's best interests. Should the Swedish courts interpret the Children's Convention in this way, Kirsten Sandberg claims that it would be illegal for associations not to offer the same training opportunities to girls as boys.

Lawyer Louise Hammarbäck runs the organisation PACS (Protection and Action for Children's rights in Sports), which works on strengthening children's rights in sports. She told Sportbladet (Brenning, 2019b) that no one today knows how the Swedish judicial system will interpret the new laws as they have never been tried in court, but it will make a difference. Sports Minister Amanda Lind when asked in Sportbladet (Brenning, 2019b) if the law will provide more concrete tools to deal with the key issues in child-youth sport suggested that with when the UNRC becomes law, these issues will be high on the agenda.

4.7 Summary

The Swedish state that long facilitated a social situation of limited complexity had been the main agency of social coordination, linking various aspects of social life in and around sport through an ideological political coordination. The fiscal crisis in the 1980's began to erode the protective aura of the state. Facing a crisis of legitimacy, new perspectives such as globalisation, market liberalisation, deregulation, privatisation, decentralisation, weakened people's identification with the state. This provided the opportunity for the emergence of neoliberalist values and new forms of social coordination in and around sport.

In the 1990's football opened up as a worldwide 'spectacle' attracting many commercial possibilities, re-articulating the relationship between football and society in

Sweden. The Bosman ruling in 1995 was significant, allowing players to move freely after the expiration of their contract. The "Bernard case" in 2010 framed youth football as an economic activity, thus encouraging the training of young talented players as a form of human capital investment. This, along with Malcolm Gladwell's potent 'popscience' misinterpretation of deliberate practice (10, 000 hours rule), arguably contributed to the legitimisation of the idea of 'early elite investment' in Swedish youth football.

The professionalisation, some would say modernisation of youth football, set a development path trajectory that embraced a path dependent inheritance of a presupposed need for limiting or indeed fragmenting complexity through reductionism. Arguably, this appealed to parent expectations of what learning in youth football looks like, as it aligned with an emerging parenting style that was underpinned by a form of 'monitoring'. A dominant deterministic paradigm (future state can be predicted from a previous state) was endorsed in both coach education and in the development of player development pathway structures (generic linear athlete pathways). For example, approaches proposed in coach education embodied a form of cultural inhertitance. The 'Technique Register', reminiscent of the "teacher- centered" pedagogy introduced to Sweden by Houghton and Hodgson, offered the promise of control and predictability further providing the impression of authority and professionalism. This rigid role specification, task repetition and the notion of the removal of uncertainty, that became synonymous with practices promoted in coach education, embodied the philosophical principles of Taylor's Scientific Management that underpinned Fordism.

> Managers should not allow employees to think for themselves but make sure they simply carry out tasks as instructed; our scheme does not ask any initiative in a man. All we want of them is to obey the orders we give them, do what we say, and do it quick (Taylor, 2008, p. 215).

Balancing democratic values such as equality in participation while providing a counterweight that supports the pursuit for international success, in a society coming terms with its transformation from social democracy to one renowned for its deregulation, was indeed proving to be a multifaceted *wicked problem*. Despite good intentions to meet these new social conditions through strategical procedures (through documents and guidelines) displayed at operational system level, there seems to still be limited understanding of how to ensure that research and federal sports policies and guidelines are implemented and used in practice. Indeed, it has been shown that the values and guidelines that are conveyed to the associations by the SSC have been mainly ignored by many organisations that want to control and preserve their own activities and the members' interests. This knowledge gap remains problematic. Key to a successful balance (sport for all with elite intentions) lays in each federation and club's ability to enable knowledge mobilisation – the act of moving the research and federal sports policies and guidelines into the hands of research users (practitioners, coaches, parents, players) to effect change (Gainforth et al., 2014). While intervention by the state is still required (e.g., legalities such as UNCRC, financial resources), social coordination can no longer be entrusted exclusively to a hierarchical order. So, while national sports federations have the capacity to influence, it is in the individual clubs where changes need to take place.

Through illuminating and exploring the influences of socio-cultural-historical constraints, in this chapter, I aimed to provide a contextual framework around which the remaining chapters of this thesis will be constructed. I zoomed out to investigate the all-encompassing ecological context that carries the ideology, values and beliefs that influence events and experiences at embedded levels (e.g., practice task design, coach education, structures of talent development pathways). This allowed me to highlight some not so intuitive constraints that transcend disciplinary boundaries, act over varied timescales

(Balagué et al., 2019), and can cascade from macro (sociocultural, political, economic) to micro (practice task designs, coach behavior) environments. It is important to highlight here, just like the player development settings cannot alone account for the behavior of its inhabitants, we should also not assume that player development pathways and structures in youth football are just the product of historical forces. This would imply that we are falling victim to a kind of reductionism that restricts and impoverishes our understanding of player development environments (Vaughan, 2019).

This contextual historical analysis, as part of an evidence-based principled framework for applied sports science support and athlete development (LDRF), proposes that the first step toward understanding form of life is through cultivating a more holistic understanding of culture and context in which a phenomenon has been historically constructed. In this chapter, I endeavored to highlight the broader sociocultural and historical factors that helped to create a context that led to the evolution of environmental constraints (e.g., type of practice designs, type of skills appreciated, coach behaviours), that shaped affordances for skill development at AIK youth football. Aligning with Uehara (2014), due to the non-linear nature of this study, the data from the fieldwork may also be used to inform what should be added or changed to the contextual analysis as the research proceeds. Engaging in this contextual historical analysis also informed the observation and interview methods and what data should be collected in the field. In the rest of this thesis, I will attempt to explain how this contextual analysis helped illuminate key lines of inquiry.

Chapter 5: Investigating a Form of Life at AIK Youth Football Club

5.1 Introduction

In this chapter (and in the following chapter) I will extend on O'Sullivan and colleagues' (2023) paper that provides a practical application of the Learning in Development Research Framework. I will illustrate how the LDRF can guide researchers, practitioners, clubs and organisations to challenge themselves to adapt strategies to design contemporary athlete development frameworks within their ecosystem. First, I would like to remind the reader of the central tenets of the LDRF (see Chapter 3), how (even why) it was generated and informed by theory and offer 'real world' examples of its key concepts to provide a strong justification for the nature of the fieldwork and methods adopted in this study.

It has been recognised that a sports organisation is part of a complex, multi-layered system, where the social, cultural, and historical contexts are important constraints on the development and understanding of skilled performance (Henriksen, 2020). Exemplified in the specific social, cultural, and historical traditions of a nation or region, these factors can play an important role in shaping the way coaches design practice and the way athletes engage with learning environments (O'Sullivan et al., 2021). However, sport science research has tended to undervalue socio-cultural and historical factors that influence athlete learning and development, neglecting critical features that have important implications for transferring findings to applied settings (Vaughan et al., 2019). For example, a path dependency of seventeenth-century scientific ideas (i.e., the Newtonian / Cartesian paradigm, see Montuori, 2011) has arguably led sport science to downplay the role of environmental constraints, creating an *organismic asymmetry* (Davids & Araújo, 2010). This biased preference for organism-centered explanatory mechanisms, focusing on the "internal mechanics" of the athlete (Davids & Araújo, 2010), has had an influence in shaping applied research and practical interventions. This has led to a significant body of research applied to sport narrowly focusing on the individual athlete (Henriksen & Stambulova, 2017), resulting in

practitioners and organizations holding an (ontologically) limited picture of the complexity of human learning and development in sport (Mallo, 2015).

To counteract the previously mentioned organismic asymmetry in research and player development, ecological dynamics has emerged as a guiding theoretical framework to inform new approaches to research, athlete development and pedagogical practice in sport (Button et al., 2020). Drawing on ecological psychology and the theory of constraints on dynamic systems (Gibson, 1979; Newell, 1986), an ecological dynamics perspective proposes that skillful behaviour emerges from the complex and dynamic interactions of an individual's continuous adaption to surrounding constraints, which change over micro- and macro-timescales (Button et al., 2020). Here, it is implied that skill learning occurs in the midst of ongoing developmental changes within specific socio-cultural contexts (O'Sullivan et al., 2021). This perspective highlights the potential for a myriad of possible complex, unpredictable and ill-defined challenges for sport organisations when seeking to implement an athlete development framework (Vaughan et al., 2019).

A growing body of research encompassing sociological and ecological approaches to coaching and athlete development are highlighting a need to radically broaden our ways of knowing (e.g., Rothwell et al., 2018; Uehara et al., 2018: Vaughan et al., 2022). Indeed, more recent research has sought to highlight how environmental factors contribute to the development of expertise (see Henriksen et al., 2010; Rothwell et al., 2019; Uehara et al., 2020). While these studies have proven adept at providing a descriptive account of the current context in which athletes develop, there seems to be little or no intention to initiate change or evolve practice in that context. Considering the potential for a myriad of possible complex and ill-defined challenges in the realm of talent development, there is a need for an approach that will guide reliable ways of conducting research, and designing practical applications, that reveal insights on the socio-cultural complexities and sub-system

interrelatedness of athletes and environments. Until recently, no specific research framework has been proposed to help sports clubs and organisations with this endeavor. In response, O'Sullivan and colleagues (2021) introduced the novel Learning in Development Research Framework (LDRF), a deeply contextualised, transdisciplinary approach to action research that is founded in ecological dynamics and the Skilled Intentionality Framework (SIF). It is my intention to advocate and outline, how the LDRF (see Chapter 3 for details) was utilised to guide an iterative, ongoing cycle of research and action, and support the evolution of a player development framework at a professional football club in Sweden. I will now provide the reader with a brief reminder of the LDRF and its main concepts.

5.1.1 The Learning in Development Research Framework

Utilising novel ways of knowing, coupled to an ecological perspective (e.g., the theory of ecological dynamics and the Skilled Intentionality Framework), the LDRF can be utilised to guide both research and practice within specific sport organisations (O'Sullivan et al., 2021; Vaughan et al., 2022). In this chapter, and the following chapter, I exemplify how socio-cultural practices (task designs) in a specific player development environment has adapted to, and is constrained by, social and cultural forces and how interventions, system probes, were devised to probe the system.

The LDRF focuses on ecological approaches that can illuminate the interplay between socio-cultural constraints and affordances for skill learning within a form of life. Wittgenstein's (1953) notion of a *form of life*, consisting of values, beliefs and practices that continually shape how we live (Rietveld & Kiverstein, 2014), helps us to comprehend the myriad of socio-cultural constraints that can influence an athlete's responsiveness to available opportunities for action. For example, a form of life may define dominant ways of *doing* in a society, community or organisation (Rietveld & Kiverstein, 2014) and can be conceptualised as something that is deeply acculturated, socially accepted, and often taken for granted.

Demonstrating the influence of specific socio-cultural and historical constraints in the development of expertise, current forms of life identifiable in sport could be soccer in Argentina (la nuestra) and Brazil, skiing in Northern Europe and rugby union in New Zealand. These examples provide insights into why certain performance styles are developed in certain regions and why they are valued. This notion also appears in the Skilled Intentionality Framework (SIF), a conceptual framework that, through utilizing ethnographic strategies to generate knowledge, directly couples forms of life to the relevant fields of affordances (opportunities for action) that influence skilled action (see van Dijk & Rietveld, 2017).

Within an ecological dynamics rationale, it is proposed that an individual perceives the environment in relation to its functionality, its meaningfulness detected in information for affordances (Gibson, 1979). Affordances are properties of the individual-environment system that do not cause behavior, but constrain it (Gibson, 1979), helping us avoid problems with defining skill development as an internal characteristic of an individual or of the environment. Foregrounding the notion of sociomaterial entanglement, the SIF highlights how affordances are not just passively situated in isolation in the materiality of immediate behavioral settings of a sports organisation (training session, competition). Rather they are deeply entwined within a more culturally encompassing, socially and historically developed constellation of practices and forms of life (van Dijk & Rietveld, 2017). Constitutive sociomaterial entanglement is the ontological notion used to explain the active, dynamic and transdisciplinary reality of the environments in which we live and develop. It proposes that the ways which we live (forms of life), the practices we partake in (sports training methods), the affordances we perceive (invitations for action in these contexts) and the skills we develop (e.g., passing, dribbling) are constitutive relations and aspects of a holistic system that continuously form each other (O'Sullivan et al., 2021; van Dijk & Rietveld, 2017). So,

while a form of life can influence the way sports organisations implement their athlete development frameworks, the SIF helps illustrate the extent to which socio-cultural-historical constraints in a form of life (e.g., a football club) shape the intentions of players, soliciting some affordances over others and directing skill learning in development (O'Sullivan et al., 2021).

To elaborate on these ideas, it is useful to consider data from a study in a professional football club in Sweden that has adapted the LDRF (see Figure 3 for graphic outline) as a central feature of their Department of Methodology (DoM), to support the evolution of a player development framework. As outlined by O'Sullivan and colleagues (2021), I first endeavour to understand the 'practical situations' within which behaviour emerges within this organisation. To achieve this, the SIF, foregrounding aspects of qualitative inquiry (i.e., ethnographic) are introduced to unpack and enrich our understanding of the relations between coaches behaviours, the socio-cultural and historical context, and players' intentions/interactions within a relevant field of affordances. As the intention with the LDRF is to initiate change and/or evolve practice, the impact of being immersed in a local setting, utilising the SIF, is complemented by an action cycle that aims to implement its findings. Considering that macro-level socio-cultural constraints evolve over the years and can be difficult to directly influence, I illustrate how DoM devised interventions to probe the system (Snowden & Boone, 2007) at the micro-level of on-pitch coaching pedagogy. For instance, respectively amplifying or dampening helpful and unhelpful aspects of form of life that are acting as socio-cultural constraints on coaches' intentions (in session design) and players' attention (during learner interactions in the sessions themselves).

Highlighting the highly iterative and integrated nature of the LDRF, as findings are being implemented through system probes, in tandem, the next research cycle (utilizing SIF) seeks to capture the evolving sociomaterial environment as it persists and changes,

connecting the research back into the next action cycle. More directly, while ethnography supports long-term immersion in a local setting, it can have limited impact (Hearn et al., 2009). When complemented by action research, ethnographic research is more 'likely to be useful and usable by those working on the ground ... and to address the identified gaps between research and the ability to implement its findings' (Tacchi et al., 2009). This combination of ethnographic strategies and action research can offer a deeply contextualized and continuous analysis and assessment of a form of life in a particular ecological niche, even while findings are being implemented (for a more detailed discussion see O'Sullivan et al., 2021).

I contend that emphasising the enrichment of a reciprocal and functional relationship between athletes and environments forming complex, interconnected systems (Araújo & Davids, 2020) (e.g., ecological dynamics), can provide a valuable theoretical underpinning for action research (Phelps & Hase, 2002). In turn, action research can provide a valuable methodological approach to the critical and practical study and evolution of complex systems in contexts like sport, work and education (Phelps & Hase, 2002). It is this opportunity of analysing the phenomenon in greater depth each time (highly interconnected research-action cycles), illuminating the influence of a form of life at the microscale of development (i.e., how players engage with affordances for skilled behavior) and support interventions to probe the system (e.g., player development environment) that characterises the Learning in Development Research Framework (LDRF) in practice.

The Athlete Talent Development Environment (ATDE: Henriksen et al., 2010) (see Figure 17) was used as a framework for data collection and organisation. Acknowledging Feddersen and colleagues' (2021) work on the limitations of the ATDE, I extended its use, emphasising the ecological level of analysis by embracing a Gibsonian perspective (Gibson, 1979), with particular emphasis on Rietveld and Kiverstein's (2014) relational view of

affordances in the SIF. Here, affordances are not just passively situated in isolation in the materiality of immediate behavioral settings of a sports organisation (training session, competition), but are entwined in a particular way of life (van Dijk & Rietveld, 2017).

Rietveld and Kiverstein (2014), extended the more traditional *action-scaled* view on affordances, suggesting that affordances are not simply action opportunities offered by the environment but are dependent on the "abilities available in a particular ecological niche" (p. 326). To illustrate how each sporting context is contained within its own form of life, which may amplify or dampen player engagement with some affordances, it is worth considering Winner's (2001) rich narrative of Dutch football. As a mirror expression of its culture, architecture, landscape, history, politics, geometry and dance, the idea of 'total football' was built on a new theory of flexible space, creating space where there was not any before[15] (van Hilvoorde & Stokvis, 2013). The theory of affordances embedded in forms of life can provide a powerful rationale to help practitioners consider the socio-cultural constraints in specific environments, which may shape expectations and beliefs on coach and athlete behavior, performance, development and learning.

A central aim of the LDRF is to shift the focus of athlete development research away from just the individual athletes and towards understanding behavior at the level of interactions between a performer and their performance environment, both continuously shaping each other (Araújo et al., 2019). The SIF provides the philosophical foundations for this shift as described by the de ontology of constitutive sociomaterial entanglement (van Dijk and Rietveld 2017). This world- view aims to demonstrate the extent to which the ways we live (forms of life), sociocultural practices we participate in (e.g. football), opportunities for action (affordances) and the skills we develop exist as, and exhibit, a constitutive relation where practices and affordances do not admit of a prioritization (O'Sullivan et al., 2021; van

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[15] https://www.thoughtco.com/polders-and-dikes-of-the-netherlands-1435535

Dijk and Rietveld, 2017; Vaughan et al., 2021). For example, referring to Winner (2001), it can be suggested that the Dutch playing style of 'total football' evolved, within a specific socio-cultural context as players' perceptual systems and effectivities developed in, interaction with an intention to create a diverse range of passing and dribbling opportunities/affordances to exploit space.

The SIF can make a profound contribution by providing a perspective on the extent to which athlete development environments are sociomaterial and constitutively entangled within broader macro contexts and structures (Henriksen et al., 2010; Henriksen and Stambulova, 2017). By connecting social and cultural aspects of life with the skill development of athletes, the SIF helps to demonstrate the resonance between a form of life and the relevant field of affordances that stand out in their training sessions. This resonance has been explained as the value-directedness of player-environment intentionality (see Vaughan et al., 2021). An ecological account of these dynamics is reflected in this paper, where for example, I outline how expectations that embody a cultural inheritance of player compliance towards prescribed coaching methods can shape a value-directedness toward affordances that can partially realize that value (Hodges and Baron, 1992; for an example see O'Sullivan et al., 2021). Overtime players that are exposed to these practices may develop unskilled intentionality (coordinate with only a narrow range of affordances (Vaughan et al., 2021).

The SIF significantly contributes to the way one views an ATDE by outlining the extent to which the intentionality of any organism-environment system is an interdependent and constitutive relationship (van Dijk & Rietveld, 2017). In other words:

> Intentionality characterizes the system, not just biological organisms within the system. Thus, intentionality in the sense of value-directedness characterizes environmental structures [i.e., a form of life/ATDE] and processes [i.e., sports training methods] as much as it does the organisms [football players] who shape and are shaped [e.g., skill development] by those structures and processes. This implies that values are necessary constraints on both the constitution and the selection of

affordances (Hodges & Baron, 1992, pp. 269–270, text in brackets added)

Before presenting the findings, I will describe, through adopting a transdisciplinary point of departure, how I applied the LDRF to investigate form of life at AIK youth football. Later in this thesis (Chapter 6 and Chapter 7), I will exemplify how the findings in this section were implemented, informing interventions to probe the system with the intention of respectively, amplifying and dampening helpful and unhelpful aspects of forms of life.

5.2 Research Design

Following the recommendations of Araújo et al. (2017), I endeavoured to utilise ecological approaches (as recommended by the LDRF in chapter 3) to answer the primary research question that was devised to help orient the direction of the inquiry: *Is there a connection between young players interactions with relevant fields of affordances and the intentions of coaches at AIK youth football, with the socio-cultural and historical context ?* To capture this interdependence of affordances and constraints, I turned to a research design that can zoom in and out on a form of life at various levels of analysis as outlined within the SIF (van Dijk and Rietveld, 2017). A key feature of the SIF is that it encourages the researcher to step out and engage directly with the phenomenon, to explore various knowledge landscapes (e.g., zooming in on the microsystems of practice and zooming out on the macrosystems of a form of life) and investigate how context and environment constrain how practitioners and players behave and perform.

Within this framework, transdisciplinary approaches and ethnographic endeavor were utilised to further the investigation (van Dijk and Rietveld, 2017). This aligned with my intention towards cultivating a more holistic understanding to support a broader perspective on player development, allowing me to link a zoomed-out view on the form of life to a zoomed-in perspective on concrete situations (i.e., how athletes engage with affordances for skilled behaviour). In recent years ethnography has developed into a key qualitative research

method, with researchers recommending its use in sports environments in an effort to move away from conventional research methods (Uehara et al., 2014). Indeed, it has been argued that positivism, leaning on quantitative methods has neglected the contextual interdependence of human existence, unable to clearly articulate and capture the rich complex nonlinear interactions in player development environments (Uehara et al., 2014; Vaughan et al., 2019).

Ethnography complements the features of transdisciplinarity (Vaughan, 2019), providing an avenue to highlight the contextual interactions of complex social phenomena, broaden the scope of ecological psychology and provide insights into athlete-environment intentionality (van Dijk & Rietveld, 2017). Ethnography is founded on the collection and documentary of data (audio, video, field notes, interviews) relating to what Gibson (1966) theoretically refers to as secondhand *knowledge about* the environment. Comparatively, *knowledge of* the environment is reflective of embodied-embedded knowledge developed by, and exemplified in, activities behaviour that enhance the coupling between perception and action (Gibson, 1966). It has been argued that gains in knowledge of one's environment (direct perception) may be mediated through communication about the environment (Araújo et al., 2017). Therefore, I contend that a broader perspective on player development, collected via ethnographic endeavor, can illuminate some social, cultural and historical constraints that influence skill development in a form of life, framing the perception-action of affordance utilisation in team sports like football (Araújo et al., 2010; Uehara et al., 2014).

According to Sanday (1979), key paradigms of ethnographic research include the Holistic style, the Semiotic style and the Behaviourist style (explained in Chapter 1). However, I decided to adopt a more inclusive hybrid paradigm (Roy & Banerjee, 2012), utilising the best points from these different ethnographic research approaches. The Hybrid approach is best described as a synergy between emic and etic, where the researcher brings out the research participants point of view and the social semiotics (emic), while historical

records and priory theories develops the researchers own outlook (etic) (Roy & Banerjee, 2012). Maintaining the emic-etic synergy wherever possible is of course challenging. So, instead of viewing them as a dichotomy, the emic/etic contrast in practice, can be viewed as markers on the same continuum (Fetterman, 2010), where I can select between approaches, depending on the stage of the research program (Morris et al., 1999).

Ethnography seeks to better understand a phenomenon and the culture behind it by examining the complexity of the social world and interpreting culture (Smith & Caddick, 2012). A key characteristic of this programme of research was an interpretivist model of explanation (Juarrero, 2000). This allowed me to draw upon individuals' subjective experiences and interpret their meanings through shared experience (Hammersley, 2012). Here knowledge is relative to historical, cultural and subjective circumstances within which agents experience everyday events (Juarrero, 2000) and exists based on subjective interpretations by individuals (Levers, 2013). Interpretivists adopt a relativist ontology while assuming a subjective epistemology (Hammersley, 2012). Relativism challenges the notion of the legitimacy of a single reality or absolute truth and considers social reality as humanly constructed, multiple and subjective (Smith & Caddick, 2012). Importantly, relativism does *not* mean that 'anything goes'. As highlighted by Smith & Caddick (2012):

> Relativists hold research to high and difficult standards. As is the case with all researchers, judgements are and must be made by relativists. The difference between them and quantitative researchers is that they reject the view that a universal foundation for our knowledge is possible (p. 72).

A subjective epistemology is assumed to interact and observe the world and to understand why people behave in the way that they do, or why particular institutions foster certain characteristics (Hammersley, 2012).

5.2.1 Procedure

Following Institutional Ethics approval (Converis ID: ER5584185), data was generated through a contribution of ethnographic strategies, including historical contextual analysis (see Chapter 4), observation at varying degrees of analysis, field notes and unstructured and informal interviews. Adopting a transdisciplinary point of departure to support the investigation, I initiated a contextual analysis (see Chapter 4), to holistically appreciate the all-encompassing ecological context. Information was sourced from my university library, coach education materials, the internet, books and articles relevant to the topic. For example, I gained my UEFA B coaching license in 2011 and UEFA A coaching license in 2013, both from the Swedish Football Association (SvFF). From March 2015 until June 2018, I worked as a head coach educator in the Stockholm district, delivering the first two levels of the new SvFF education courses (launched 2014). This direct access to both old and new coach education material proved to be an invaluable contribution towards illuminating some unique social, cultural, and historical constraints that had an influence on skill development in a form of life (Araújo et al., 2010). These insights helped to inform observation, interviews and what data should be collected in the field, to help capture deeply relational and contextual experiences, individualised experiences that do not belong to a discipline (Woods & David, 2021)

5.2.2 Participant Observation

Participant observation initially offered me the opportunity to follow the participants across several contexts (training, match days, meetings, informal office conversations). Initial field notes included text, audio and video. These were reviewed, combined and categorised, within 36 hours of the event into a detailed log of field notes (Emerson et al., 2011). For example, often on the train back from training I would begin to edit the filmed training session, while making some additional notes to be worked on the next day. Field notes from

meetings, conversations and practice sessions were kept helping recall thoughts and feelings (Tracy, 2013), both mine and participants. Video clips from practice sessions that I held, or was involved in with coaches, were edited and shared with coaches and parents on a regular basis to initiate further discussion and reflection. This is illustrated in my extensive diary of field notes and reflections of varying media and length that helped me to inform the development of the data, how my own emotions, experiences and assumptions might have influenced the study (Gilmore and Kenny 2015). The following excerpt is taken from August 2018.

> Back from the summer break and we just finished our last players' summer camp. My role as supporting coaches at the players' summer camp has also afforded me time to sketch out some thoughts. It can be tough, in fact quite tiring and stressful jumping between roles and environments. This is something that I have been struggling with until recently. One minute I am out in practice doing what I really love, challenging myself to design and manipulate learning environments. Next minute leaving the pitch I speak with a coach who is looking for help as they are having difficulty with a parent who believes that their child should be part of some special academy group. I go and meet the parent to discuss this in the knowledge that I must hurry to another session on a nearby pitch. I arrive at the next session and the coach is warming up a group of 8-year-olds in a manner associated with senior professional football (culturally resilient beliefs). How do I explain to him that, children don't need to warm up in this way, without making him feel bad? Another coach could have his group playing a 4v4 with 3 jokers, thus making it a 7v4 game. Yet his team are at the age where they play only 5- a side. Again, I need to be very careful how I approach this. The next morning, I could be in a Department of Methodology (DoM) meeting discussing my research with colleagues or in a meeting with work colleagues

discussing some administrative issues or delivering a report on some of the age groups I am responsible for. Somewhere in here, I also must find time to take reflective notes for my study. I prefer to take notes as close as possible to a given situation that I have observed or participated in. This often means that the train or bus journey home was used for scribbling down some reflections. One thing that I am finding quite helpful is that I am recording/filming a lot of the practice sessions as I like to share them with colleagues, coaches and parents. Sharing them with coaches means that I can ask them to try a similar design when I come and visit them at the next session. This has created some good opportunities for discussion with coaches after the training session. Sharing the videos with parents has helped remove the impression that we are just throwing in a ball and playing games, that there is an actual deliberate learning intention with the designs. It is things like this that give me energy.

I guess that I am beginning to understand the true importance and advantage of my dual role. It is something that I need to appreciate and embrace more. I keep thinking about that diagram that my PhD supervisor used in the seminars we presented at together in 2018. It is a Venn-diagram with two circles (practice and research) overlapping. The space in the middle where they intersect is the area I occupy, looking both ways, at the research and the practice. The knowledge of the research as articulated by DoM can support our practice at AIK youth football and in turn the information gathered from the practice environment, even the most menial conversations can further inform the research and how we work with knowledge mobilisation (i.e., putting the research in to the hands of those that need to use it).

5.2.3 Interviews

Informal interviews and conversations occurred spontaneously and regularly in the context of participant observation (Swain & Spire, 2020; Rinaldo & Guhin, 2019). This

included, speaking with coaches, parents and staff members before and after practice sessions, at club educational events or during an impromptu 'fika'[16] at the office. The historical contextual analysis helped inform who I interviewed and the range of developing questions that were asked. After purposeful sampling, semi-structured interviews with coaches ($n = 10$) were used to probe for richer information. The selection criteria were that the participants must be an active coach, must work actively in the setting and have attended the Swedish Football Association coach education courses. three coaches held a UEFA A coaching license, three coaches held the UEFA B, with one coach attending UEFA B and three coaches had a level one (1 with C Diploma and 2 with the old SvFF Base 1) qualification.Consent was provided with participants identities anonymised alphabetically. Interviews were carried out face to face between September 2018 and February 2019 at the AIK head office.

The interview guide was informed by Henriksen's (2010) Environment Success Factors model, by theory (Araújo et al., 2010) and the first authors' knowledge of youth football in Sweden. A 3-part guide for semi-structured interviews was formulated. The first section sought to elucidate the participants' experience of playing football as a child (e.g., "What did a typical training session look like when you were a youth footballer?"). The second section aimed to explore participants' entry into the coaching world and their experience of coach education (e.g., "were the type of practices promoted on these coach education courses evident in AIK?"). The third section explored participants' experiences since AIK took the decision to restructure its youth football in 2017 (e.g., can you tell me your thoughts and the thoughts of your parent group regarding AIK's decision?) As a fluent speaker, I carried out the interviews in Swedish, later transcribing them into English. Interview duration varied from 25 minutes to 45 minutes. Throughout the study I returned to the interviewees to gather

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[16] https://www.bbc.com/reel/video/p0bmzygz/the-swedish-tradition-that-can-make-you-happier-at-work

more data, where informal interviews and conversations, filming and assisting during training sessions, helped me to achieve more depth and comprehensiveness, increasing contextual depth in the research (Collins & Stockton, 2018; Culver et al., 2012).

Swain and Spire (2020) highlighted how the role of informal conversations in qualitative research is contested but also relatively neglected, However, considering the deeply embedded nature of my dual role of practitioner-researcher, I regarded informal conversations as opportunities to hear people "tell it as it is" in an everyday context (Hammersley & Atkinson, 2019), potentially providing "context" and "authenticity" that can enrich the data (Swain & Spire, 2020). Indeed, Hammersley and Atkinson (2019) further argued that these interactions or conversations are still a type of interview, in the informal sense. The contextual nature of participatory informal conversations has been described as "opportunistic" moments with 'transient' participants in the research field (Swain & Spire, 2020; Swain & King 2022). To accommodate these "key" moments, people are given pseudo names and not identifiable within the data (Tracy, 2013). Informal conversations can be seen as a useful way to establish a rapport, gain trust, reduce the imbalance between the researcher and participant and get closer to the reality of individuals' experiences, perceptions and beliefs (Hammersley, 2009: Lester & Anders, 2018). I did not take notes of every conversation, only those that I thought, in the moment, contained information that could contribute to answering the research question (Swain & King 2022).

5.2.4 Background and Context

Allmänna Idrottsklubben (Public Sports Club) (AIK) football club in Stockholm, Sweden provided a rich and unique sociocultural and historical backdrop for this study. Today AIK youth football engages around 1700 players between 5 and 19 and is based at the heart of the municipality of Solna just north of Stockholm city. The clubs respective men's and women's senior team play in the highest ranked league in Sweden, the 'Allsvenskan'.

The academy and youth teams (8-19 years) train and play games on Skytteholmens IP [17](three 11 a side pitches and one 7 a side pitch), Huvudsatfältet[18] (one 11 a side pitch and one 7 a side pitch), Råsunda IP [19](One 11 a side pitch and academy offices) Råsasjöns IP [20](One 11 a side pitch and two 5 a side pitches). The main field work was carried out at these venues as well as at the offices and coach meeting and recreational rooms attached to Råsunda IP and Skytteholmens IP as well as AIK head office[21]. All venues are within walking distance of each other and are situated within the municipality of Solna.

Figure 12. Skytteholm IP

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[17] Skytteholm IP https://goo.gl/maps/LQzXqDfGcEiV6qA56

[18] Huvudstafältet https://goo.gl/maps/DRovfKVr2vA1H5y89

[19] Råsunda IP https://goo.gl/maps/sMBNJzkPj2J4sTD39

[20] Råsasjöns IP https://goo.gl/maps/g8UFL2y1eE7iDanw9

[21] https://goo.gl/maps/Tjtn4ANzF5iqPtLu5

Figure 13. Huvudstafältet a warm autumn evening. 8 and 9 year olds training 23-08-2018

Figure 14. Råsunda IP base for AIK academy teams is also used by the club for extra training with the younger age groups

AIK's first youth academy was formed in 2009 (AIK Verksamhetsplan, 2009), and by 2011

the selection of the academy team started at 9 years of age (AIK Verksamhetsplan, 2011).

Supported by full-time coaches, each academy team had a clear focus on individual

development to foster future elite players, whilst selecting and deselecting players one year at a time (AIK Verksamhetsplan, 2011). Those players that were not selected for the academy were offered places in the development team or various 'base teams' that were run by parent coaches.

Figure 15 AIK fans unveil a spectacular 'tifo' on 03-10-2021 at their home ground of Friend's Arena. This piece of work is based on a photo taken of a young fan at a recent home game. "Guard our future" is the caption underneath the image of the young fan.

In April 2017, after an in-depth, rigorous analysis and review of its operations at child-youth level, the club disbanded its early talent selection policy and set about investigating possibilities to build a player development framework guided by three strategic goals: (i) to support the well-being of the child; (ii) to follow supporting documents from the United Nations Convention on the Rights of the Child and Swedish Sports Confederation and (iii), secure the promotion of more youth players to participate in the under 16, under 17 and under 19 years teams and in the clubs senior teams.

In early 2018 a newly formed Department of Methodology (DoM), consisting of

professional coaches and sports scientists, began investigating the current athlete

development environment to inform present and future possibilities of evolving practice and

player development. The seeds for AIK DoM were set in October 2017 when a small group

of practitioners including two PhD researchers gathered and presented at the complex

systems in sport conference in Barcelona[22]. In January 2018 AIK DoM was officially

introduced in the club's yearly planning document that is freely available to all coaches and

parents and published online. The following quote from that document highlights the clubs

intent to adopt an ecological perspective of player development as recommended by the

DoM.

> Qualitatively-quantitatively from an ecological perspective optimise player
>
> development in AIK Youth Football, that in the best possible way will contribute to
>
> sporting development in partner clubs, Stockholm football, Swedish football and
>
> Swedish sports in general (AIK Verksamhetsplan, 2018, p. 22)

Rothwell and colleagues (2020a) suggested that a DoM can offer some applied

implications for challenging dominant thinking in athlete development and research and

support practitioners in developing innovative models for athlete learning, development, and

performance preparation. They argued that much of applied sport science has traditionally

been informed by empirical knowledge derived from separate sub-disciplines of science often

imposing a hierarchical relationship between theory and practice in athlete support. Aligning

with more recent models of sport science support, AIK DoM invested in the importance of

evidence from the experiential knowledge of experienced practitioners and athletes

(McCosker et al., 2019;McKay et al., 2021; Phillips et al., 2010). Applied in this context it

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[22]

https://www.researchgate.net/publication/321213590_Special_Issue_5th_International_Congress_Complex_Systems_in_Sports_2017_abstract_book

would mean the experiential knowledge gained from experiences of coaches and practitioners

at AIK youth football in the micro-structure of practice over minutes, hours, days, weeks and

months.

AIK Department of Methodology: Utilising Experiential and Empirical
knowledge to enrich science application and practice in sport and exercise
science

Experiential
Knowledge

**AIK
DoM**

Emperical Knowledge
Theory and Data

Experiential knowledge derives
from daily interactions of coaches,
practitioners, players, sport
scientists, performance analysts

Empirical knowledge derives
theoretical ideas, experimental and
other research, data and modelling
work

Figure 16. Adapted from Rothwell et al., (2020), with permission. Different types of knowledge needed to support athlete development and preparation for performance in sport. Integration of Experiential knowledge of elite practitioners in sport can enrich (and in turn be enhanced by) Empirical knowledge of science and theory. The space where the two bodies of knowledge intersect represents AIK Department of Methodology consisting of practitioners, coaches and applied scientist.

5.2.5 Access and Role Clarification

I gained access due to my dual role of practitioner-researcher and founding member of

the DoM, as part of my terms of employment at the club. My official position was head of

development in the 8-12 age group, whilst also working with research, coach mentorship and

education throughout the club. The potential for role conflict throughout the research process

that this dual position entailed was recognised and I acknowledged that my personal, cultural,

and historical experiences inevitably influenced how I approached fieldwork, interacted with

participants, and interpreted findings. Indeed, my very presence as a researcher may have

influenced the behaviours of others, causing them to act differently (Neuman, 2003). For

example, my dual role could be perceived as a position of authority over various staff members having a negative influence on the data collection process (Smyth & Holian, 2008). When it came to doing interviews, I was also aware that there was a risk that participants may think that their knowledge was being tested. However, the value the club placed on the importance of researchers and coaches collaborating in practice was consistently reiterated by the head of youth development at the twice-yearly coach and parent education meetings. Information about the work of DoM since 2018 has been included in the club's yearly workplan book published and made freely available at the start of each year. My dual position placed me at the heart of the research, meaning that I could get closer to phenomena under investigation (Tedlock, 2000), allowing me to truly hear the voices of the participants and deepening my understanding of their experiences (Krane & Baird, 2005).

5.2.6 Data analysis

A distinct feature of many social science inquiries has been the sequential nature of data collection, analysis and writing up of studies (Tracy, 2018). However, in this study a phronetic iterative (a cycle that repeats) approach was utilised, alternating between emergent emic (e.g., " a nerve") readings of the data and an etic (e.g., coach centered coaching) use of existing models and theories, was used to analyse the findings (Tracy, 2018). This process highlights an 'ongoingness' of inquiry, where the researcher is encouraged to jump into analysis activities as soon as possible, identify a curiosity or problem, feel comfortable in learning by doing and as the process unfolds create guiding research questions (Tracy, 2018; Tracy & Hinrichs, 2017). Analysis alternated back and forth between: (1) data generation, (2) scrutinising emergent findings from the data, and (3), consulting existing theoretical and conceptual frameworks underpinning this case (i.e. ecological dynamics) (Tracy, 2018) (Please see Appendix 2 for data analysis walkthrough). The ethnographic process supported the commencement (during research-action cycles) of data analysis to begin with data

generation (LeCompte & Schensul, 1999), helping us to identify promising directions of research (Tracy, 2018). Initial analysis began with a formal process of interpretation, a descriptive 'primary cycle coding' or 'open coding' (Tracy, 2018, p. 65), where descriptive and basic codes were developed. Examples included, 'focus' and 'order/ordning och reda'. During data collection, the Department of Methodology regularly met in various constellations, as critical friends, to offer different perspectives, reflexively acknowledge multiple 'truths' (Smith & McGannon, 2018, p. 117) and discuss emerging interpretations. This helped in determining how the initial primary cycle codes might be developed in the process of 'secondary cycling'.

The secondary coding cycle was used to interpret, organise and synthesise codes, moving beyond descriptive first level codes towards more "focused" coded themes that required interpretation and theoretical considerations (Tracy, 2018). Smaller first-level codes were grouped in a larger hierarchical (umbrella) category as exemplified in the table below. For example, we can endeavour to devise an umbrella code, a larger hierarchical code called "coach pedagogy" that can encompass smaller primary codes like "focus" and "order". Here, the process of identifying which codes are most appropriate to probe (Tracy & Hinrichs, 2017) was used to focus the analysis-synthesis towards answering the first research question that was devised to help orient the direction of the inquiry: *Is there a connection between young players interactions with relevant fields of affordances and the intentions of coaches at AIK youth football, with the socio-cultural and historical context?*

To delve further into the 'how', 'why', or 'because' during second-cycle coding activities, data emerging in the micro was compared with, analysed alongside, and synthesised with the data collected via document analysis that informed the historical contextual analysis (macro). This allowed for a triangulation of emerging codes using multiple sources of information, gaining varied perspectives on what is happening in the

phenomena, helping form clear, conceptually interesting and contextually rich themes (Creswell, 2016). Embedded here is the appreciation that training sessions do not take place in a socio-cultural vacuum but are deeply entangled within meaningful contexts of a broader societal form of life (Juarrero, 2023; O'Sullivan et al., 2023). Therefore, data from the micro system of practice synthesised with data from the historical contextual analysis can be understood as an important part of maintaining correspondence with the specific ecology of relations.

Returning to the data, these identified codes were then viewed in a more etic, deductive manner. The focus of research was then gradually narrowed to alter between emic or emergent readings of the data and etic use of existing models, explanations and theories. In particular, an understanding of theory and literature provided a foundation for interpreting and building theoretical explanations, as well as informing new lines of inquiry (see 'study overview' Appendix 3). Exemplifying how the researcher remained 'in touch' with the phenomenon to offer a deeply contextualised and continuous analysis, a secondary research question emerged during the data analysis-synthesis: *to what extent is the value-directedness (intentionality) that players experience on the football pitch related to the macrosystems, socio-cultural constraints, and forms of life that influence responsiveness to affordances?*

Fundamentally, this iterative approach to data generation and interpretation informed the refinement and development of system probes and helped capture the evolving sociomaterial environment as it persists and changes, connecting the research back into the next action cycle (probes). I turned to Henriksen's (2010) adaption of Bronfenbrenner's bioecological model (2005), the Athlete Talent Development Environment (ATDE) to assist with the interpretation of themes. The AIK ATDE (Figure 17) was used as a formative model for data collection, organisation and presentation of themes, that signifies their context (e.g., macro or micro) of origin or significance (see Vaughan et al., 2022 for details).

5.2.7. Rigor and trustworthiness

Considering the potential subjectivities, the first author brought to the research process and the writing of the paper, they took steps to be reflexive and sincere in making sense of the data and drawing plausible conclusions (Tracy, 2010). My experience in youth sport and coach education, both nationally and internationally, brought unique insights into the underlying meaning of the sociocultural factors on skill development. For example, I gained UEFA B coaching license in 2011 and UEFA A coaching license in 2013, both from the Swedish Football Association (SvFF). From March 2015 until June 2018, they worked as a head coach educator in the Stockholm district, delivering the first two levels of the new SvFF education courses (launched 2014). My dual role implied prolonged embedded engagement, dwelling in the context of the phenomena, which can, help gain trust and promote accurate and truthful depiction of the participants' lived experience (Cypress, 2017; Tracy 2010). Acting as critical friends, members of DoM provided an opportunity for regular dialogue, to encourage reflexivity and exploration of additional and alternative interpretations of the data (Smith & McGannon, 2017). A quality marker of ethnography (e.g., credibility), relates to my prolonged physical, social and emotional immersion in the organisational culture and daily activities of others in the field (Sparkes & Smith 2014).

5.3 Results and discussion

I will now illustrate how the LDRF was used to illuminate the relations between coaches behaviors, the socio-cultural and historical context, and players intentions/interactions within relevant fields of affordances. I focus on the pedagogy of practice in the microenvironment and zoom out to consider the path dependent influence of these socio-cultural constraints on practice. My analysis of the data reveled that, influenced by specific socio-cultural and historical constraints, (i) coaching skill was being shaped by a

landscape of traditional coach education practices, and (ii), the structure of development pathways and implemented pedagogies went hand-in-glove (for better or worse).

I present a set of data gathered within AIK's ATDE (see Figure 17), enriching interpretations, guiding practical interventions conceived as system probes (Snowden & Boone, 2007). Although findings revealed the importance of socio-cultural-historical constraints on learning and development, it is important to point out that they were not the direct cause of an individual's (player, coach) skill development. For example, the meta theme 'control over context' is presented in the microenvironment but represents a coherence of data, illustrating the cascading influence of (value-directed) themes throughout cultural sub- systems (national culture, sports culture, football culture) (see Figure 17, Figure 18 and Appendix 2). This helped create a context that led to the emergence of 'context-dependent' constraints (Juarrero, 1999) (e.g., types of task designs, development pathways, expectations), shaping the value-directedness experienced by players.
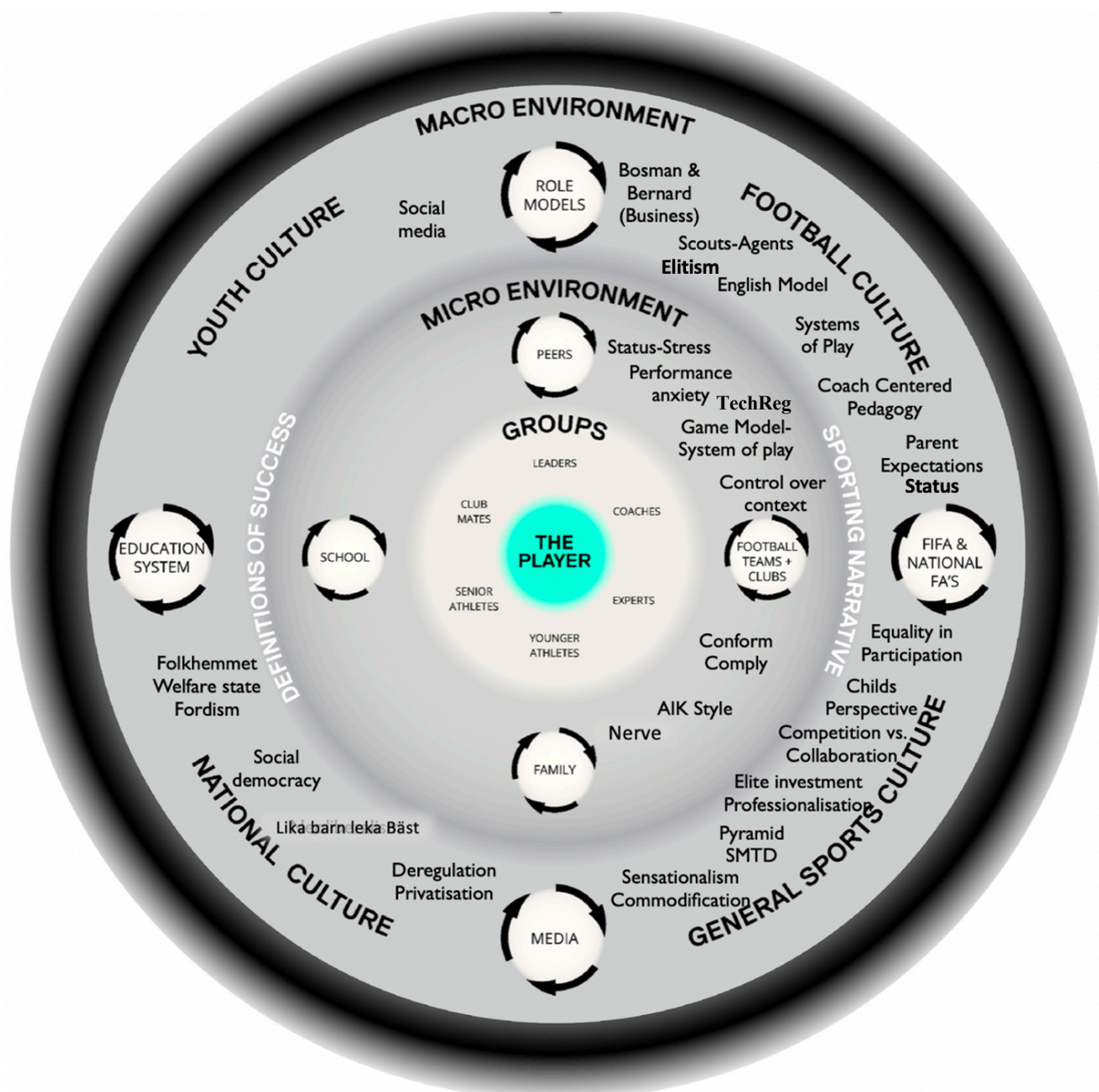
Figure 17. AIK ATDE used to deductively guide, organise and locate the data within a broader ecological context.

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┌─────────────────────────────────────────────────────────────────────────┐
│  Meta theme: Control over context                                         │
│                                                                           │
│  Themes directed towards: Control over context        Related themes      │
│                                                                           │
│  Macro environment: Swedish national culture                              │
│                                                                           │
│        • Lika barn leka bäst                                              │
│        • Neoliberalism                                                     │
│                                                                           │
│  Macro environment: Swedish sport                                         │
│        • SMTD                                    • Collaboration v Competition │
│        • Elite investment/professionalisation                             │
│                                                                           │
│  Macro environment: Swedish football                                      │
│        • Coach centered pedagogy                                          │
│        • Elitism                                 • Systems of play        │
│        • Parent expectations                     • Bernard/Business       │
│        • English model                           • Scouts/Agents          │
│                                                                           │
│  Microenvironment: AIK football club                                      │
│        • Game model/Systems of play             • Nerve                   │
│        • Technique register                                               │
│        • Status and performance anxiety                                   │
│        • Conform and comply                                               │
│                                                                           │
└─────────────────────────────────────────────────────────────────────────┘
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Figure 18. Table showing key themes arising from ethnographic data under the meta theme control over context

I will now exemplify this idea, presenting data highlighting a value directedness relating to the club's microenvironment as well as the broader football culture in Stockholm. Value-directedness is an important aspect of player-environment intentionality (intentions) that shapes intention and guides attention toward certain affordances (O'Sullivan et al., 2021).

5.3.1 Status and Performance Anxiety

> I am with Vincent (academy coach) watching the boys 2008 academy training at Skytteholmen. Parents are anxiously peaking over the closed off 7 a side pitch, while standing on benches in the adjacent children's playground. Something happens and one parent looks up to the night sky, while the parent next to him stares at him and opens his arms, then drops his head and shakes it. The 2008s are the last group to go through the early academy selection before AIK raised the academy age. It was in the local newspaper Mitt i Solna, that AIK head of youth development Leif Karlsson, explained the reasons behind this decision was to "dampen the emphasis on child-youth football being about children being assessed[23] " (Document analysis: Mitt i

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[23] The traditional democratic values of Swedish sport, namely equality in participation and a child's perspective.

Solna article: AIK höjer åldern för start i akademilagen, June 2017. Translated from Swedish). Indeed, I recall an article I read on the Swedish football associations (SvFF) homepage[24]. It referred to how "youth football in Stockholm is the most stressful and unhealthy in the country" (Document analysis: Fogis, September 2017. Translated from Swedish).

With the end of the season approaching in two months, and an imminent selection/ de-selection process approaching, the intensity is quite high. The last part of the session seemed to be a game of constant transitions. The early part of the session was a lot of repetitive predetermined passing patterns followed by 1v1's with no consequence (once the attacker lost the ball the 1v1 was over).

Vincent: This is more like a tennis match
Mark: The coach seems to be willing them on, tempo! tempo!
Vincent: This, I guess is what performance anxiety looks like coming up to the end of the academy season. They are competing against each other, even when in the same team, instead of collaborating to make each other better.

(Field note: Informal conversation, Skytteholms IP, September 21, 2018).

These results reinforce the findings of Vaughan and colleagues (2022) by demonstrating ways in which performance anxiety can emerge from a value-directedness towards interpersonal competition (over collaboration), amplifying opportunities and behaviours that maintain or protect social status. However, these types of observed behaviours also evidence how, shaped by specific socio-cultural constraints, the structure of development pathways and implemented pedagogies went 'hand in glove'. This close relationship between pedagogy and player development pathways was further highlighted in the coach interviews, as exemplified by Coach A:

You see when I began [2011], there was a little nerve that influenced pedagogy. You were forced to have results even at 9, 10 years. A lot of decisions were pre-decided – very clear predetermined patterns which we also practiced very hard in training

The description of a little "nerve" that influenced pedagogy, is indicative of an anxiety and expectation (e.g., results) that cascaded through organisations and structures, amplifying ideas associated with early elite investment and selection de-selection (Standard Model of

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[24] https://fogis.se/arkiv/startsida/2017/09/fritt-spelrum/

Talent Development/SMTD, see Bailey & Collins, 2013). The SMTD, is characterised by early selection into exclusive training programs that often promote hyper-specialisation and result in eventual deselection (Fahlström et al., 2015; Bailey and Collins, 2016). Indeed, this model was a central feature of AIK youth football between 2009 and 2017 where children were "selected for the youth academy one year at a time" (p. 41) (Document analysis: AIK Verksamhetsplan, 2011. Translated from Swedish).

Coaches maintained their status through results and adopted deterministic methods in training and games to control future outcomes and limit unpredictability. The same 'nerve' also emerged in parent behaviour, where ideas of linear causality in task designs (limit unpredictability) and 'nivåindelning' (cemented ability groups) to achieve results, appealed to an emerging parenting style, a form of 'monitoring¨ to ensure exclusivity with their child not having to encounter too much resistance and problems in their development (CIF, 2015). This is captured in the theme 'lika barn leka bäst' (alike plays best with alike), a commonly used cultural phrase that could convey the idea that children of the same ability should only play and train together. The theme 'Lika barn leka bäst' is categorised within a single theme in connection to the national culture but transcends across three themes in the general sports culture (SMTD, Elite investment and Competition v collaboration) and two themes in the football culture (Elitism, Parent expectations/status) manifesting as a form of exclusivity to maintain control, promoting conformity and compliance in the microsystems of practice. When projected onto youth football this phrase, part of the vernacular in and around youth football, could amplify a value on early selection practices associated with the SMTD that were fast becoming a continual pervasive practice in Swedish youth sport (Fahlström et al., 2015).

5.3.2 Lika Barn Leka Bäst

> Mats a parent of one of the young players (9 years old) approaches me. At a club parent meeting, he let his opinion known about AIK removing the early selection

model, saying that the club will "lose the best players to other clubs if we don't select early" (field note 06-11-2018). He was very clear about the need for the best to train with the best. Arne, who coaches this group, had mentioned to me that he had a few parents that wanted 'nivåindelning' (splitting the kids into cemented ability levels). His feeling was that "this is about winning games for their own child". (Field note: Informal conversation, February 13th, 2019). Once again, Mats emphasises the point he made about the need to select the best with the best.

Mats: We call this 'saft och bulle' (children's soft drink and buns) training. It's better to split the group into those that are more motivated and those who just want to play.

(Field note: Informal conversation, Huvudstafältet, February 14, 2019).

Interviews further highlighted parental expectations relating to how young players' learning, and development "should look" in practice. As highlighted by Coach H.

Through a lot of years in football. My feeling is that parents who don't have proper insight into development, they like the look of organisation. They like the look of control, which is easy to get because you can put them in a line and do a passing drill and for someone who doesn't have insight, it can look very, very good. You also get an effect from that very, very quickly and the players can look quite good, quite quickly for doing stuff like that.

The crucial role that parents can play in promoting the athletic development of their children has long been accepted (Côté, 1999). However, more recently Rothwell and colleagues (2019) identified parents as playing an influential role in the form of life. In this case, how the expectations of parents can impinge on coaches, establishing indirect influence on the maintenance of certain types of practice designs, mitigating the use of evidence- or theory-based pedagogical methods. Coupling observations to the explanations of coach A and coach H, we can appreciate how a 'nerve', symbolic of the broader intentionality of a form of life, has impinged on coach intentions when designing and delivering training sessions. This broader intentionality is further illuminated *via* document analysis relating to a congruence of entangled themes ("status", "SMTD" and "elite investment, professionalisation, adultification") that sit in tension with themes relating to the democratic values of Swedish

sport ("equality in participation" and "child's perspective). In the Aftonbladet newspaper it was reported that:

> There is currently a professionalisation of Swedish youth football with foreign big teams, child stars used as advertising planks and agents who shadow football pitches with money in their eyes. The ideals that Swedish youth football movement is based on has been split in two. On one side are international big clubs, elitist academies and money-hungry agents who have turned sports into a market and children into consumers and products. There is an evolving culture of status among parents that have a 'high performing child'.

(Document analysis: Aftonbladet article: Blivit status att ha ett presterande barn, November 24, 2019. Translated from Swedish)

It can be suggested that these tendencies, a system intentionality/ value-directedness (towards early professionalisation) that characterise environmental structures (organisational structures within an ATDE) and processes (training sessions), mirror those from broader macro levels beyond Stockholm and Sweden. For instance, in tandem with the globalisation of sport and ensuing economic interests, the "Bernard case" (see Hendrickx, 2010) in 2010, a follow up to the Bosman ruling, had helped to frame youth football as an economic activity, encouraging the training of young 'talented' players as a form of 'processing' human capital investment. This dynamic arguably contributed to the legitimisation of a player development system underpinned by the notion of 'early elite investment' in young 'talented' Swedish footballers, where young children are grouped by ability into an 'elite' group (lika barn leka bäst). Indeed, it was sports psychologist Johan Fallby that described a "distorted system" in Stockholm youth football, one driven by agents and money and "a strong culture based on anecdotal evidence that early selection works". (Document analysis: Expressen article: Den allvarsamma leken – vem är det som inte får vara med? 31st October 2018. Translated from Swedish).

I am moved to propose that this emergent distorted system in Stockholm youth football was shaping and amplifying ideas and expectations as to what young players learning in development in youth football should look like in practice. Coaches adopted deterministic

approaches under the assumption that inviting players to interact with a narrow range of affordances could provide the mirage of 'control' and improve learning and performance, which in the footballing form of life, was associated with results. One way to limit unpredictability regarding results was to have an early selection of the best children with the best. This value-directedness toward control over context, through limiting unpredictability aligned with a deeply rooted path- dependent coach education form of life and promoted a pedagogy that had deep innate aversion to uncertainty and ambiguity. The main problem is that this reductionist approach deprived children of opportunities for skill adaptation, a fundamental basis for motor learning.

5.3.3 Coach Centered Pedagogy – A Path Dependent Coach Education Form of Life

Practices prioritised in Swedish Football Association (SvFF) coach education until 2014 (coach education was reviewed), were underpinned by a culturally dominant planning paradigm (e.g., specific themes, predetermined coaching points), predetermined passing patterns and the notion of 'optimal' technique, enhancing player compliance by using explicit corrective feedback.These practices highlighted a cultural-historical inheritance that had a cascading influence on the type of practices promoted and appreciated in youth football. This can be traced back to the 1970s, when the pedagogical legitimacy of SvFF's 'Swedish model' (based on the West German model) was being questioned by the successful sporting results and the seemingly more professional nature projected by the 'English model' (introduced to Sweden by professional coaches Bob Houghton and Roy Hodgson). The English model promoted a 'teacher-centered' pedagogy. The coach had the overall picture of how the game should be organised and the players needed to comply, internalising the systematised knowledge that the coach promoted (Peterson,1993), as they "submitted to the system acted like robots without their own will." (Document analysis: Svenskafans: Bob and Roy, August 21, 2003. Translated from Swedish)

This coach-imposed approach drew parallels with behaviourist (neglecting the organism's agency in the learning process) (Lyle & Cushion, 2017) and information processing theories (Fitts & Posner, 1967; Schmidt,1975), that have underpinned traditional 'drill/skill' approaches (North et al., 2015). This was exemplified in the intricacies of the 'technical register' (coaching folder and video archive of 31 films[25]), that dominated coach education until 2014. Coach H elaborates on this prescriptive approach to skill development that was central to coach education until 2014. Coach H elaborates:

> It [technique register] was almost like a workbook on every type of isolated technique which should be used in football. We [the coaches on the course] were doing sessions on tackling [theme]. And we were standing in lines. The first in line ran towards the ball and tackled, kicked the ball, and we were told [by coach educators] how to do that. So yeah, it was, yeah, wasn't good, a lot of instructions, a lot about telling players what to do.

The practices promoted placed an emphasis on instructions and corrective feedback for reproducing forms of movement or predetermined patterns of play. Within this paradigm, stability and consistency for performance is assumed to come from lower levels of variability to ensure automaticity, and repetitive consistency in skill performance (Magill & Anderson, 2017).

Coach J shares his experience of working with the technique register in practice during his early days as a coach in 2014.

> It was as if the trainer had the solution in the form of this folder [technique register]. You line up the kids, say pairs facing each other, throw a ball to each other, then you would pass the ball back with a volley. I would show the kids together with my trainer colleague how you should do it. So, there was a lot of focus on me [the coach] and my

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[25] https://www.youtube.com/watch?v=U9UGWHQX9-c

way was the right way. The players didn't get to express themselves very much, I had shown then how to do it the correct way.

The interviews highlighted the role of the 'technique register' as a 'gold-standard textbook' of ideal movements, promoting a reliance on external agency (i.e., high levels of instruction and feedback) in coach education, and a reductionist and mechanistic attitude towards practice and performance. This perspective contributed to the amplification of a coaching culture that attempted to control future outcomes, shaping skills, beliefs and expectations, while influencing the formation of practices at the club, as summarised here by Coach G: "The technique register, and its micromanagement, was absolutely seen in AIK, in the everyday practices"

While interactions with coaches at the club indicated that there was a range of views and approaches to designing and delivering practice tasks (even within the same training session as highlighted in the above field note), initial findings revealed a clear high dependence on coach-centered approaches. Highlighting a 'path dependence' (Kiely, 2018), coaches were following how they have been coached or complying with the approaches of more 'experienced' coaches. Here Coach C reflects on his early years at the club as an assistant to more 'experienced' coaches.

> When I started coaching, at the beginning, I didn't reflect on this [coaching like how I was coached]. I did isolated training. My first year, 2016, was with XXXX. There were some drills that were A to B to C passing, and you must do this technique. Not very representative. A lot of go, go, go and this is how we do it, this is a good drill as it goes quickly…. The next year I was with XXX he had less prestige. We discussed things more, it was more towards my way, more game-centered, but still a lot of A to B to C passing … I never felt that it gave more than – ah this drill looked good, it worked well, it looked good, organised, it gave a little boost, but I never felt it gave

much really.

Working with more experienced coaches was understood as a way for new coaches to develop their coaching and player development knowledge. This hierarchal position provided the 'experienced' coaches at the club with the status of 'the owners of knowledge'. These coaches constructed training environments that appeared to be successful by their virtue of being orderly and efficient and complying with the 'register'. The idea of "it worked well, it looked good, organised", aligned with cultural expectations of what practice should look like. This gave the impression of coaches being in control over the learning process rather than players, based on what has been termed a 'global-to-local' (top down) direction of regulating player behaviours (Ribeiro et al., 2019), and creating a sense of security for the coaches themselves.

A consequence of this continuous reinforcement loop was the promotion of practice landscapes with the potential to decouple athletes from key informational properties and rich opportunities/affordances available in performance environments (O'Sullivan et al., 2021). This pedagogical approach may severely limit opportunities for exploratory activities that support the development of player autonomy through acting on decision-making opportunities that emerge unexpectedly in performance (Renshaw et al., 2010), termed a 'local-to-global' direction of behaviour regulation (Ribeiro et al., 2019). This was further exemplified in some of the more 'theme-driven' game-based designs that also tended to have an over-constraining influence on player responsiveness to and engagement with affordances. Coach B elaborated on this:

> Yes, even now when they say to players that we must work with switching the play [theme], players just pass the ball from side to side all the time because this is what the coach thinks that they must do and the players' understanding is limited by the idea that they must switch the play, but they will do it so that it will look right for the

coach.

The comments of Coach B illustrate how, even with more game-centered designs, inherent biases (cultural and historical) can lead to a status quo bias for a very specific coaching approach, what Rothwell et al., (2020a) refer to as system capture. In this case, the maintenance of the position of the coach as central to the instructional process and a common belief that greater stability and consistency in match performance is related to practising repeatable outcomes through repeatable movements or patterns. This assumption also seemingly fed an expectation that players should comply and not deviate away from these prescribed ways of performing actions as further demonstrated during an exchange with Coach J.

> I meet up with Coach J at Skytteholms IP. He has been doing a great job with the 2008 age group [non academy teams]. This group was the last to go through the early selection model (at 8 years old) and have been quite difficult to deal with due to stressed parents. This age group also has the lowest number of participants attending the extra training that is aimed at the 8-12 age groups. Coach C who has been helping with the extra training suggested that " Maybe it's a motivation thing. They have already been through the selection process and told that they are not good enough" –

(Field note informal conversation, Skytteholmens IP September 28, 2018).
> The task designs with this group have been very coach -centered since they began at the club.
>
> Mark: How are the practice designs with your group?
> Coach J: Still many passing exercises that do not relate to the principles we wanttowork with, in fact they don't relate to the game.
> Mark: What about coach behaviour?
> Coach J: Quite a lot of instructions to the players. Mainly when in possession of the ball, what to do and especially during traditional possession exercises and games at the end of training. Players can be hard with each other when someone makes a mistake. Maybe this is just player frustration, as every time a mistake is made [a player not following the prescribed passing pattern], there is a risk that the coach will step in and stop the game.

(Field note: Informal conversation Skytteholmens IP, October 21, 2018).

Further highlighting the close relationship between pedagogy and player development pathways, and how coaching skill was being shaped by a landscape of traditional coach education practices, the passing exercises that Coach J refers to were types of task designs

that were over constrained by coaches' inherent cultural tendencies to limit unpredictability and reduce uncertainty (control over context) through rigid role specification. Observations and coach interviews revealed how the actions of young players were, as highlighted later by Coach A, routinely 'drilled' "in very clear predetermined patterns" to be later regurgitated in competitive games. Put simply, youth players were seemingly 'props' in some type of coach-conducted orchestration, where players learned to play an idealised model of the game, as opposed to functioning in the game itself, limiting player autonomy and self-regulating tendencies (O'Sullivan et al., 2021). These 'drill/skill' approaches (North et al., 2015), placed a high value on conformity and compliance, promoting a (false) sense of certainty, reinforcing a culture of prescribed experiences through specific rules and conventions

One of the main aims of the new SvFF coach education courses, introduced in 2014, was to support coaches understanding how "Task designs that have the game as the starting point contribute to conditions for increased learning" (SISU, 2015, p.15). However, strong socio-cultural influences were arguably contributing to a system inertia. A dissonance between coach educators' socially and culturally constructed beliefs and SvFF's intention to contemporise coach education was evident. Even the more game-based task designs promoted on these new courses were arguably prolonging the shelf life of traditional inherited beliefs about how skill is understood and acquired. Coach C elaborated on his experience attending the UEFA B course in 2018.

> Coach C: We had an "overlap" themed session. When we were finished, we were asked by the coach educators if we were happy with what we saw. We said relatively happy! Then we got criticized for a lack of successful overlaps. The coach educator assumed that the success of an overlap was when the overlapping player received the ball. The idea of a successful overlap is not about receiving the ball but also about distracting the defenders, pull them out of position and create other opportunities i.e., a gap to pass or dribble through as the defense is moved out of position by the overlap. We were also criticised for not clearly mentioning the theme of the session in the introduction.

(Field note: informal conversation AIK head office, November 11, 2018)

Intentions to challenge coach educators' socially and culturally constructed beliefs were not helped by the promotion of artificial task constraints in some task designs to limit unpredictability (control over context). This is captured in the coach educator's assumption in the definitive statement "that the success of an overlap was when the overlapping player received the ball." As highlighted by Renshaw and colleagues (2022), the promotion of constraints that can over-constrain actions (overlapping player must receive the ball), can lead to the emergence of new behaviours or team play that is not representative of the performance environment. Another example taken from the same UEFA B course (see Figure 19), highlights the use of the rule that the ball must be played from one side of the pitch to the opposite side *before* a team can score a goal. The key problem with this type of 'universal' instruction is that, with attackers being invited (by the pre-determined rule) to attack wide areas, defenders may co-adapt their movement behaviours to deal with this rule and change their positions to defend the wide areas at the expense of central areas. What transfers to the player in skill acquisition is the information-movement relationship, implying that task designs like these may limit the development of players knowledge in the game (Chow et al., 2016).

These types of designs can promote what can be termed as 'unskilled intentionality', characterised as selective engagement with only a narrow range of affordances (see O'Sullivan et al., 2021). Despite best intentions, task designs on coach education courses continued to embody a 'control over context' path dependency, limiting player exploration opportunities and contributing to the maintenance of a traditional, hierarchical model, the position of the (controlling) sports pedagogue at the heart of the learning process.

Figure 19. SvFF UEFA B Session design page 43

The comments of Coach H and Coach C suggested a *wicked* problem that is seemingly

challenging the evolution of coach education in Swedish youth football. Coach education

courses had historically been delivered using either an atheoretical approach, or approaches

influenced by theories published between 1960-2000 (see Partington & Cushion, 2013; Rudd

et al., 2021). The risk here is that coach education and the work of coaches can become

vulnerable to system capture (doing it the way we always have done) (see Rothwell et al.,

2020a) or misrepresentations of research (e.g., Malcolm Gladwell's 10,000-hour rule, see

Gladwell, 2008). These pedagogical approaches to practice design and skill learning have

largely remained unchallenged and unchanged since the 1970's, over time evolving an

ideological inertia, that shielded and shaped inherited persistent beliefs (Kiely, 2018). These

beliefs have clearly remained challenging to change, contributing to a lack of knowledge

transfer and mobilisation (Gainforth et al., 2014). In this context, the act of providing

practitioners with the knowledge, expertise and skills to successfully implement

contemporary ideas adequately through the new coach education curriculum.

Despite best intentions, task designs on coach education courses continued to embody a

'control over context' path dependency, limiting player exploration opportunities and

contributing to the maintenance of a traditional, hierarchical model, the position of the (controlling) sports pedagogue at the heart of the learning process. For instance, as highlighted by Coach C, reducing task specificity through the removal of variables (by the coach) that are integral to performance contexts. This inherent belief of variability viewed as a source of error was evident in theme driven (e.g., overlap) game-based designs, that were wedded to traditional coaching approaches in Sweden, where the theme is directly related to an artificial, universal task constraint. Wedded in the sense that these types of designs arguably discourage player exploration, contributing to the maintenance of a traditional, hierarchical model, placing the sports pedagogue at the heart of the instructional process.

5.3.4 Connecting the broader intentionality of a form of life to the microsystem of practice and competition

To further highlight how the structure of development pathways and implemented pedagogies went hand-in-glove, I will now provide an example, based on my interview with Coach A. I will illustrate how powerful a form of life can be in influencing and sustaining practices, beliefs and attitudes within a specific sporting ecological niche. Further, I will also use this example to highlight how players (un)skilled behavior can be culturally embedded in a history of engagement with affordances.

> You see when I began [2011], there was a little nerve that influenced pedagogy. You were forced to have results even at 9, 10 years. A lot of decisions were pre-decided – very clear predetermined patterns which we also practiced very hard in training. It can look very good with a team of 10-year-old's because the opponents cannot solve the problem which means it looks good but it's not really that good. He belonged to our academy from the first year at 9 and this was the start of the whole academy journey when we lowered the selection age [in 2011] and there, a lot of decisions were pre-decided decisions [in training and in games]. This set the pattern for him as in his first

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year at AIK academy, he didn't own one of his decisions or test himself with regards to what worked or didn't work for him. Doing these programmed patterns meant he developed a habit of doing what you are told. Which is a big reason why, despite being free, he decides to play centrally to another free player, who probably hasn't the best situation to take the ball forward [see Figure 20]

Figure 20. Case study example.

As mentioned previously, the description of a little "nerve" that influenced pedagogy, is indicative of an anxiety and expectation (e.g., results) that cascaded through organisations and structures, amplifying ideas associated with early elite investment and selection de-selection (SMTD, result focus). This 'nerve' influenced the socio-cultural practices (e.g., coaching styles/ control over context-limiting unpredictability) that shaped young players learning in development opportunities and is indicative of a value directedness that amplified opportunities and behaviours that protect social status (Vaughan et al., 2021). For example, coaches maintained their status through results and adopted deterministic methods (e.g., "very clear predetermined patterns") in training to control future outcomes and limit unpredictability. Players who conformed and complied with coach instructions maintained their status, as it was understood that the coach was responsible for their destiny (academy selection was on a yearly basis). The powerful grip that this 'nerve' had on coach behaviours was further exemplified by Coach A, who later reflected on his early years at the club.

> Years ago, the results were what I leaned on and if we won, we played well, if we lost, we were bad. When I was younger, I didn't want to come in on Monday [to AIK] if we lost on Sunday. I was the one who selected the 8-year-olds to the academy.
>
> (Field note: Informal conversation Råsunda IP, October 16, 2019),

The self-reported perception of pressure, expectations and anxiety suggests a reaffirmation of key ideas and beliefs of neoliberal ideology in sport as highlighted by Coakley (2011). In this context, competition is the primary basis for assessing merit and victory in these competitive reward structures as proof of ability. Further, it illustrates an expression of values that that were very much constrained by the social, cultural and historical character of the institutions (i.e., commodified football academies) and the social order (i.e., neoliberal/individualistic forms of life) (Vaughan et. al., 2021).

Our example (see Figure 20) captures what can be termed as 'unskilled intentionality', characterised as selective engagement with only a narrow range of affordances (Vaughan et al., 2021). In this example, the affordance to pass centrally stands out and solicits the players' attention to such an extent that it overshadows the obvious opportunity (within the socio-cultural practice of football) to carry the ball forward into space. Coupling these observations to the explanations of coach A, we can appreciate how the broader intentionality of a form of life has shaped coach intentions when designing and delivering practices in training sessions: 'You were forced to have results. It can look very good' (Coach A). The interview data suggests that the player in question was drilled to remember/recall 'pre-decided decisions' (passing patterns) rather than search for in-game solutions. This exemplifies the dominance of a 'global-to-local' process (Ribeiro et al., 2019) that can fail to educate attention toward key environmental properties and representative information in the game. In this instance, the player's pass suggests that they are not attuned to key environmental prosperities and relevant information that would inform engagement with multiple affordances. Over time, players exposed to practices that do not contain key environmental properties (teammates and opposition) and representative information (non-scripted movements) may develop unskilled intentionality (coordinate with only a narrow range of affordances) (O'Sullivan et al., 2021). As previous interactions with the form of life placed a value on passing centrally, the player may not have perceived the affordance to dribble forward because they have not been provided with enough opportunities to develop the skills (capabilities) to do so. This situation exemplifies the extent to which forms of life, practices like football, affordances we perceive, and the skills we develop, are constitutive relations and aspects of the same whole that continuously form each other (van Dijk & Rietveld, 2017).

5.4 Summary

In this Chapter I have discussed how the LDRF can support the conceptualisation of a form of life and deepen our understanding of how prevailing, dominant socio-cultural-historical constraints can influence the development of coaches and players in a professional youth football club. In order to engage with the socio-cultural complexities and sub-system interrelatedness of athletes and environments, I investigated the relationship between socio-cultural constraints, player-environment intentionality and fields of affordances.

To access this broader perspective on player development, I explored, utilising the SIF, various knowledge landscapes, linking a zoomed-out view on the form of life to a zoomed-in perspective on concrete situations (i.e., how athletes engage with affordances for skilled behaviour). This way of zooming in and out on a form of life, using the SIF, helped me to contextualise the inquiry and illustrate how constraints transcend disciplinary boundaries, acting over varied timescales (Balagué et al., 2019), cascading from macro to micro-environments, influencing events and experiences. For example, the findings indicated the influence of the 'control over context' approaches that were acting as socio-cultural constraints on the intentions (in session design) and attention (during practice and performance) of players and coaches and expectations of parents. Further, forms of life recognisable within player development structures, coaching practice, behaviours and expectations, amplified a value directedness that was rerouting Swedish youth football towards a form of premature professionalism.

The results provided important insights for the Department of Methodology into the role of specific socio-cultural forces in shaping coach behaviour and player development at AIK youth football. In the next chapter I will illustrate how the findings informed present and future possibilities of evolving practice and player development at AIK youth football. More directly, utilising a combination of ethnographic strategies and action research I will offer a

deeply contextualised and continuous analysis and assessment of a form of life in a particular

ecological niche, even while findings are being implemented.

Chapter 6: The Sticky Nature of Dominant Socio-cultural

Practices

6.1 Introduction

Utilising ecological frameworks (e.g., the theory of ecological dynamics and the skilled intentionality framework) and transdisciplinary inquiry, the analysis provided in the previous chapter conceptualised a form of life and socio-cultural constraints at AIK youth football. I illustrated how influential and prevailing dominant socio-cultural forces interacted over varying timescales to constrain how practitioners and players at the club behave and perform. This constraining character was captured using ethnographic methods that illuminate the nested concepts of a form of life, socio-cultural constraints, value-directedness, and relevant fields of affordances

In this chapter I continue to highlight the richness of adopting of an ecological scale of behaviour analysis, with the aim to understand human action in the very contexts (and cultures) that behaviour occurs and is evolving. I emphasise how the knowledge and information from my initial investigations informed key lines of inquiry that required follow-up. Further, I highlight how the impact of being immersed in a real-life setting utilising the SIF can be complemented by an action cycle that aims to implement its findings. It is important to point out here that this iteration of reseach-action is not merely a repetitive linear task, but rather a reflexive process, altering between emic (emergent) readings of the data and etic (reflection upon current literature and theories I brought to the data) knowledge. I visited and revisited the data, connecting the data to emerging insights and progressively, with the support of a DoM, refining an understanding of an evolving form of life (Srivastava & Hopwood, 2009).

To exemplify this, I illustrate how interventions[26] during action cycles, as recommended by DoM, aimed to amplify or dampen sociocultural constraints shaping the form of life, and

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[26] The notion of 'intervention' in this program of research refers to a Probe-Sense-Respond approach (Snowden & Boone, 2007). In complex domains (a sports club), it is very difficult to identify one correct solution and

relevant fields of affordances at the club (Vaughan et al., 2019). As findings were being implemented during the action cycle, in tandem, the next research cycle (utilising SIF) sought to capture the evolving sociomaterial environment as it persists and changes, connecting the research back into the next action cycle.

Exemplifying how the researcher remains in touch with an ecology of relations, some of the emerging data in the second research cycle compelled me to collect more data through further investigating (e.g., document analysis) the socio-cultural context (see Appendix 2 for data analysis walk-through). A third question emerged during the second research cycle: *what are the 'sticky' socially and culturally constructed values, beliefs and attitudes contributing to a system inertia?* This further illustrates how the research process was a non-linear, non-sequential process, based on the notion of reflexivity (Dowling, 2008), where the research procedures are applied in a non-linear fashion, becoming iterative and interrelated to each other (Uehara et al., 2014).

A specific feature of this stage of my study, was my shifting from participant observation to observant participant (Morean, 2007), particularly during on field coach education. Participant observation provides more exposure to, or involvement in the day-to-day activities, offering the opportunity to follow the participants across several contexts (Atkinson & Hammersley, 1994; Uehara et al., 2014). Observant participation even further reflects the embeddedness required during 'on field' support, where the integration of the research (action) was explored, allowing for a more 'embedded' exploration of a form of life (Moeran, 2007). It could be argued that I had succumbed to 'going native', an occupational hazard with ethnography (Powdermaker, 1967). However, Moeran (2007) argued that this shift enables the researcher to gain information and knowledge that is otherwise available

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outcomes are unpredictable. The focus is on creating opportunities for good things to emerge and being attentive to the possibility of opportunities that may emerge unexpectedly.

only to insiders, and that the very richness of the data collected from being deeply situated in the phenomenon's field of relations will always overcome this disadvantage. Subsequently, observant participation (Moeran, 2007) enabled deeper insights into the functioning relationships, rules and peculiarities of the place and people, all of which are fundamental to ethnographic research (Wilkinson, 2017). This view aligns with the transdisciplinary approach central to the LDRF, encouraging the researcher to engage directly with the phenomenon, opening unique lines of inquiry.

I will now illustrate how through an ongoing iterative process, the research findings were connected back into the development of a player development framework and utilised to inform present and future possibilities of evolving practice and player development at AIK youth football.. So, as findings were being implemented through interventions during the action cycle, in tandem, the next research cycle (utilising SIF) sought to capture the evolving sociomaterial environment as it persisted and changed, connecting the research back into the next action cycle

6.2 First Probe: AIK Base (Underpinning Practice within A Theoretical Framework

Findings from the initial research phase indicated a need to dampen the influence of the 'control over context' approaches that were acting as socio-cultural constraints, shaping the intentions (in session design) and attention (during practice and performance) of players and coaches. Considering that macro-level socio-cultural constraints evolve over the years and can be challenging to influence, the Department of Methodology focused on the micro-level of on-pitch coaching pedagogy, and in particular practice task designs. To form a coherent foundation for the club's practice design and education programs the 'AIK Base' framework (Figure 25) was created to encourage the coordination of shared principles and language. Beginning in November 2018, DoM began providing in-house coach education with 'on

field' support throughout 2019, where the integration of the research to support the development of a player development framework was explored.

In preparation for this 'on field' support, the DoM organised a knowledge sharing event with the full-time youth coaches at the club in late October 2018.

DoM 1	Coach/Development manager
DoM 2	Coach/Development manager
DoM 3	Decision maker/Administrator
DoM 4	Researcher/Sports psychologist
DoM 5	Decision maker/Administrator
Mark	Researcher/Sports pedagogue

Figure 21 Department of Methodology members in attendance

The occasion was opened by the head of youth development, who gave a description of what is happening in AIK. It was once again clarified that by delaying the selection of players, AIK takes the initiative to be at the forefront of child youth football, with a high ambition and belief that we will to a greater extent provide an even better and even more equal and inclusive player education. Elaborating on this introduction DoM presented the quotation: "If the captain's highest purpose was to safeguard the ship, then he would keep it in the harbor."DoM presented a brief description of the development work being carried out by the DoM. For example, the ideas around pedagogy and task design that we had been working together with the coaches at the AIK extra training sessions these last 2 weeks. It was further clarified by DoM 4 that DoM is about bringing people together from different disciplines and take a transdisciplinary approach.
A question was then asked to all the coaches in attendance -If we understand the development of youth football at AIK as an interaction between people and its environment, the coach and others in and around AIK, we must ask the question - what type of environment, what type of leadership and what type of pedagogy can best promote learning, creativity and motivation?
Within the following discussion came a question from Coach C about how best to help young players to become more skillful, to develop "game intelligence"?

DoM 5: The individual's interaction with its environment is how we framedevelopment. This means, of course, that development does not take place on a single occasion or in a linear fashion. We can only reflect on and reason about what in a given situation best contributes to genuine learning. What is worth mentioning in the context is that it is the actual process of seeking relevant information and then acting on it which is where learning is most likely to occur.

This provided a segway in to introducing the tentatively titled 'the Base' (later AIK Base), a concept that placed an emphasis on task designs that foreground local

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interactions as opposed to global concepts. The ambition is to start implementing these ideas in 2019. Videos from recent AIK extra training sessions offered to the 8-12 age group were shared. Being proficient in the base is a starting point for over time the best way, to be able to perform a game idea/model in the 11 a side.

The Base: It is as simple as either the team has the ball, or the team has not got the ball. We are either in possession or recovering the ball. I introduced the term football interactions. The main purpose for this was to support moving the narrative away from a form of life based on (football) actions (as highlighted in coach education) towards a form of life based on (football) interactions. The term makes it clear thatplaying football is something we do together, and that it requires an understanding of the individual and their background. Everything a player does on the pitch is linked to information about teammates, opponents structure/positioning, the ball. This information then guides players solution choices.

Football Interactions

Fotbollsinteraktioner (dribbling, driva, passa, skjuta, rörelse utan boll, stänga yta, tackla ...) – Social koordination, beror på omständigheter, situation, historisk och kulturellt
• Syftet med träningsdesign är att hjälpa spelare att lära sig att utnyttja fotbollsinteraktioner "in possession" and "recovery of ball".
• Hur: Övningsdesign där tid och ytan är grundlägande variabler. EX In Possession: identifiera, skapa, utnyttja, och använda ytor genom att utnyttja fotbollsinteraktioner
• Nyckelbegrepp i design: luckor, 'pockets', ytor bakom försvar, ytor framför försvar och ytor i djup (speldjup bakåt) – ("ubication": position, kroppsprofil och plats är också viktigt)

Football interactions (dribbling, drive, pass, shoot, off ball movement, close space, tackle)- Social coordination, depends on circumstances, situation, history, culture
• The aim of practice designs is to help players to learn to exploit football interactions when "in possession" and " recovering the ball"-
• How: Task designs where time and space are foundational variables. Ex, in possession: identify, create, use and exploit space utilising football interactions
• Key concepts in design: Gaps, space, pockets, space behind defenders space in front of defenders and space in depth to play back.- ("Ubication"- position body profile and positioning).

Figure 22 Original slide explaining the concept of Football Interaction presented to AIK youth coaches on 24-10-2019

We went a little deeper into what we have tentatively termed 'The Base'
Intercept a pass, close space, drive/dribble the ball, pass, press, cover, cover ball in

1v1, pass between two opponents or dribble between them, open space for a teammate, if you have time and space receive on the far foot, player in front (target) to pass to and behind (point guard). These are very good examples of interaction in the 'base'. Identify information that, in player-environment interactions, results in effective behaviors to use to in different ways, together, move forward to finally create goal chances or preferably make goals.

To emphaise the influence of socio-cultural-historical factors on the utilisation of football interactions Coach A referred to a player (16 years old) that he coached as a 9-year-old when he was part of the AIK early selection model. The coach, feeling under pressure to win games based a lot of his sessions on repeating predetermined passing patterns that players regurgitated in the game. It was successful and they won most of their games. However, the players rarely got to make decisions in the game as they had to comply with the coaches "game model". Coach C says that he can see now that many of these players don't really play information in the game, often missing opportunities to exploit gaps and spaces to penetrate the opposition.

I then presented (while referring to the question asked by Coach C) principles of non-linear pedagogy. There is no right way to perform football interactions, which means that a trainer's task is to design an environment where players can explore different ways of navigating and managing a given situation for themselves. The training should therefore, as a starting point, be information-driven, i.e., that information in task designs should simulate information in the game. This place demands on training design where relevant information sources such as teammates, opponents, ball are available and must be present in order to be detected.

Coaches were invited to design a session on the idea of exploiting gaps/space (6 players) Coaches are invited to participate in creating and sharing a training. design bank that we want to build during the year.

Principer för icke-linjär pedagogik

- **Representativt lärande övningsdesign** – Vilka och vad spelare ser och känner är representativa av spelet.
- **Repetition utan repetition** (rörelsevariabilitet) Det finns ingen "one-size fits all" all teknik. Träning kan fokusera på repetition men det måste finnas tillräckligt många variationer (repetition med variation).
- **Håll perception och aktion kopplad**: Information i övningsdesign ska likna dem i det riktiga spelet.
- **Främja ett externt fokus** av uppmärksamhet (fokus på effekten eller resultatet i motsats till hur aktionen utfördes).

Principles of nonlinear pedagogy
- **Representative learning design**- What players see and feel is representative of the game
- **Repetition without repetition** (movement variability). There is no "one size fits all" technique. Training can focus on repetition but with variation (repetition with variation)
- **Keep perception and action coupled**- Information in the task design should simulate the real game
- **Prioritise an external focus** of attention (focus on the effect or result instead of how the action was carried out)

Figure 23 Original slide explaining the main principles of nonlinear pedagogy presented to AIK youth coaches on 24-10-2019

Task

We have the ball (identify, create, exploit space/gaps utilizing football interactions)

No more than 6 players

Task design based on the principles of nonlinear pedagogy

Figure 24 Original slide showing the task assigned to coaches during the knowledge sharing event on 24-10-2018

(Field note: October 24, 2018)

Rothwell et al. (2018) pointed out that player development pathways could benefit greatly from underpinning their practice within a theoretical framework of the learning process, to mitigate dominating influence of socio-cultural-historical constraints. Grounded in the theoretical framework of ecological dynamics, coaches were encouraged to adopt methodologies and principles of a constraints-led approach (CLA), informing a nonlinear pedagogy in practice (Chow et al., 2011). The ecological notion of *Football Interactions* was introduced to help shift the narrative away from implementing predetermined 'optimal' prescribed actions (e.g., football culture, such as "English top-down model"), towards developing a more adaptive performer. Football Interactions acknowledge that everything that happens on the football pitch is an interaction and these interactions take place in a broader ecology of interactions, beyond the playing area, that shape development within overlapping forms of life. Further, football was defined as a dynamic team sport, in which

players routinely flowed between attacking and defensive phases of play. This dynamic offensive and defensive flux, underpinned by the ecological dynamics framework and informed by a modified three-stage learning model, search and exploration; discovery and stabilization; exploitation (see Davids et al., 2012), informed 'principles of play' at AIK youth football.

Theoretical framework	Ecological dynamics: constraints led approach
Pedagogical concept	**Nonlinear pedagogy**—e.g. (i) Representative learning design, (ii) repetition without repetition (adaptive movement variability), (iii) manipulation of constraints, and (iv), designing opportunities or affordances for developing relevant information-movement couplings.
Football concept	**Football Interactions (pass, dribble, off-ball movement)**—refers to how a player coordinates his/her behaviour within the performance landscape in relation to that environment, on the basis of, not only the immediate physical and informational (i.e., situational) demands but also underpinned by socio-historical and cultural factors.
Principles of play	**In possession:** Search, discover, exploit space and gaps using football interactions. **Recovering the ball:** Close space/gaps, minimise possibilities for opponent's football interactions, win the ball.

Figure 25 AIK Base (with permission from Woods et al., 2020)

The intention with 'AIK Base' (Figure 25) was to set the foundation for future practical applications of co-designed tasks, where players are invited to search their affordance landscape to improve the coupling of perception and action and promote the actualisation of relevant affordances through football interactions.

6.3 Second research and action cycle: the 'sticky' nature of socially and culturally constructed values, beliefs and attitudes

As initial interventions (AIK Base) to probe the system were being implemented, in tandem, the next research cycle (utilising SIF) sought to capture the evolving sociomaterial environment as it persisted and changed. Due to the inherent, ecological complexity of a form of life, a probe may or may not initiate the change intended, meaning one cannot impose a specific course of action, only probe, sense, and then respond (Snowden & Boone, 2007), implying that a probe may or may not initiate the change intended. While the second research cycle exemplified a stickiness revealed in players' engaging with compliance affordance, it also revealed that some coaches were evolving their pedagogy. For example, a member of the

Dutch football federation[27] on a study visit referred to a broad range of coaching evident at AIK youth football, from designs that promote player autonomy to coach behaviours that prioritise predefined outcomes.

> It was interesting to see how the opportunity for autonomy in decision making is a major part of the session designs. However, what that coach is doing, I see a lot of that in Holland [referring to a coach showing players where they should be positioned and what the player on the ball should do].

(Field note: Informal conversation Råsunda IP, April 23rd , 2019)

The above field note illustrates an evident shift in the coaching culture. However, some coaches were still leaning on approaches that prioritised knowledge about the environment through over-constraining global to local (top-down) strategies, over knowledge of its (in the game) opportunities to skillfully interact and participate in it. This knowledge about bias was further illustrated in how the questioning method of guided discovery was being presented in coach education. The intention with introducing guided discovery in to SvFF's new coach education course, was to nudge coaches away from high levels of instructional behavior, towards positioning the young players as active agents in the learning process. However, verbal responses where players answered questions (knowledge about) were being conflated with player interactions in the practice environment (knowledge of) and 'tick boxed' as proof of learning. This is summed up in my research diary reflections from May 2019, which also captures some of the main points of discussion that were tabled at the DoM to inform the next action cycle.

> The DoM continue through interactions with coaches and educational meetings, to support the club in building our own development framework that will inform a more player – environment centred approach. The presentations and discussions [AIK Base], often zoom out [macro], and zoom in [practice task design], in an effort for us to understand form of life at AIK.
> On field observations and informal conversations highlight that many coaches are experimenting with their pedagogy, looking to move away from the identified deterministic models of learning and development. However, coaches are still constrained by their history of coach education experiences, how they were coached and how they have coached until now. It is also quite clear with those coaches that

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[27] https://www.youtube.com/watch?v=xfBnPjYrbK0&t=7s

have been at the club for a few years [before AIK decison], how the structural mechanisms [early selection], also impinged on their development as coaches. Some designs still over emphasise the need for predictability, and this is still evident in the planning where a lot of the sessions are prescribed i.e., predetermined coaching points and questions etc. Also, questions [in the form of guided discovery], have become a central element of the new SvFF coach education but just because the young player can give the correct answer, it does not imply learning. This, in my experience as a coach educator on these courses is not being dealt with very well.

Perhaps the terminology of AIK Base is challenging, and this leads to many misinterpretations? While many coaches are referring to the idea of 'constraints', how constraints are being manipulated are highly influenced by the coaches own socially and culturally constructed beliefs towards practice task design. Indeed, the actual understanding of the word 'constraints' is quite varied among coaches. It is misunderstood as negative, or there is an assumption that just by adding constraints, you are adopting a CLA. Of course, it takes time to transcend these inherent tendencies, but we need to find innovative ways to support coaches in recognising these dominant historical and cultural ideas and tendencies.

(Diary reflection field note: May 30, 2019)

One of the aims with AIK Base was to inform how coaches can design in affordances to support skilled intentionality (coordinate with a broad range of affordances simultaneously) (O'Sullivan et al., 2021). However, path dependencies evident in socio-cultural practices that were anchored to a dominant 'coaching' form of life (control over context/limiting unpredictability), meant that encultured approaches remained at times challenging to change and were very 'sticky'. The notion of sticky refers to an ideological inertia, shielding traditionally inherited beliefs about how skill is understood and 'acquired' (Renshaw et al., 2022).

This 'stickiness' was revealed in the "over- constraining" of practice tasks through the application of the game model concept at the club. A game model has been described in the literature as an overarching strategic approach and tactical principles of play, considered of fundamental importance for team organisation to enhance player functionality in specific sub-phases of play (Ribeiro et al., 2019). The theme 'game model' (see Appendix 4 and Appendix 5) is categorised in the microenvironment, nested between the themes 'control over context' and 'compliance' (see Figure 17), illustrating a value directedness of themes throughout

cultural sub- systems e.g., football culture ("English model", "systems of play", "coach -

centered pedagogy") and the general sports culture ("professionalisation"), towards limiting

unpredictability.

How a game model was being implemented at the club was seemingly legitimising the

continuation of deterministic 'control over context' approaches, further influencing the

attention players' placed on environmental properties and engagement with affordances. I

earlier highlighted a form of game model, where young players were drilled to recall pre-

determined passing patterns to be later regurgitated in competitive games (see O'Sullivan et

al., 2021 for more details). The following section relates to data highlighting how a game

model was being implemented in the academy, amplifying player compliance, while aligning

with a contribution of practices associated with what was culturally understood as

professionalism.

> Meeting with Ragnar (head of development for the boys academy). He showed me some session designs that the coaches have logged in to XPS. In general, the designs looked good but many of the sessions had detailed pre-determined coaching points. I wondered "how much insight these presentations of training sessions give into what actually happened in training Are the coaching points a box ticking exercise?" (Field note:19 January 2020).
> Mark: Coaches are clearly spending a lot of time on planning, editing clips and administration work.
> Ragnar: What is it we have discussed before? The illusion of professionalism?
> Mark: It would be interesting if coaches added in observation and reflections after the session- what happened?
> Ragnar: Certification points means lots of administration for the coaches and money [for some it's their salary] is connected to certification. Some of the administration might be of benefit but there is too much.

(Field note: informal conversation, Råsunda IP, January 19, 2020)

> There is a major tendency with coaches to discuss "What" to coach (e.g., tactics, game model), what equipment do we need (footballs, cones). "How" to coach is rarely discussed. I guess that the "How" is harder to administrate! I recall what the Head of academy recently said, "the illusion of professionalism" (Field note: 19 January 2020).
> I attend a coach education event organised by Ragnar. The older academy teams (U16, U17 and U19) are presenting their annual plan and how they are implementing a game model in training and in games. Adam, one of the coaches, goes through a few videos of some of the groups most recent games and training.

Adam: We have players filling all the channels [according to the Game Model] when we are in possession, but we still have problems securing control of the ball. We also have problems moving over in defense, we are slow to act.
Bart the U19 head coach presents his training based on the Swedish Football Associations work plan model. I am intrigued to know why he uses this planning model.
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(Field note: informal conversation, Råsunda IP, February 3, 2020)

On a fika break I engage in conversation with Bart
Mark: I see that you are using the SvFF planning model
Bart: Yes, it works well for me
Mark: What do you mean by that?
Bart: Well, it gives structure to the training by having a clear plan to follow. It's about sticking with the plan.

(Field note: informal conversation, Råsunda IP, February 3, 2020)

The following day I bump into Coach B, now the new u16 coach, on his way out to training. We discuss the previous days presentations and discussions.
Coach B: Players are in the right position [according to the Game Model], so some coaches and players think that everything will take care of itself.
Mark: The coaches seem to emphaise organisation a lot, especially in their planning.
Coach B: There is more talk about organisation of the players on the pitch, organisation of planning, organisation of administration, than actual football. This is how it has been at the academy for the last few years.

(Field note: informal conversation, Råsunda IP, February 4, 2020)

Expressions of controlling behaviors through the explicit predetermined organisation of players are also evident and exemplified in Swedish football via document analysis relating to the theme "compliance", illustrating the depth of the 'stickiness' of deterministic 'control over context' approaches. For example, an article written in 2003 discussing Swedish men's football between 1974-1982 highlights how "the coach had the overall picture of how the game should be organised (modelled), and was solely responsible for teaching this to the (complying) players" (Document analysis: Idrotsforum article: English or Swedish? The battle for the pedagogical power over Swedish men's football at senior level 1974-82, August 19th, 2003, Translated from Swedish). This expectation of player 'positional' and 'role' compliance based on the coach's ambition to limit unpredictability is indeed a long ongoing debate:

The idea of a compact positional defense with straight lines, direct counterattacks and

passing play had taken hold and the players were given clear roles to be carried out in their position and in a way made the game automated by linking all positions to a role and task. Very organisational, industrial and Swedish.

Since the above reasoning is based more on a predetermined organisation (starting position and role are always the same from match to match), with few changes it becomes easy for the players to quickly understand the team's way of playing, which creates a sense of security and recognition and can be trained faster than a more dynamic variant. (Document analysis: Det gröna fältets schack: Should the coach adapt his idea to the players, or should the players adapt to the coach? May 15th, 2020, Translated from Swedish)

These insights resonate with and reinforce the main themes of discussion at DoM meetings throughout 2019. This is highlighted in the below field note taken from a DoM meeting where initial efforts to implement AIK Base were discussed, highlights this:

DoM 1 (Coach/Development manager): Decision making in players in the older girls' teams has not been very good. They come from a drill culture of explicit instructions. When I took over the U19's [2018], I was surprised how difficult it was for the players to play information in game-based session designs- they wanted the answer explained and how they should do things.

DoM 2: (Coach, Development manager): Players are used to be told what to do [e.g., game model], they are waiting for the answers. There has been status culture [boys academy] problem that we need to discuss. Complying with coach instructions means that they (players) have a better chance of maintaining their status as academy players.

Mark: Interesting how maintaining status is more important to players than learning.

DoM 2: Some coaches are also looking to maintain status.

DoM 3: (Decision maker): During my time as head of academy - Female players were expecting a loud male coach- and this influenced my decision on who I employed. Players tended to prefer to turn to a person in authority for information and answers as opposed to peers.

(Field note: Department of Methodology meeting, AIK head office, March 21, 2019).

The field note above exemplifies how the actions of coaches, decisions makers (type of coaches they employed) and players (utilising compliance affordances) can prolong the shelf life of some inherited beliefs (e.g., certain coaches hired to perpetuate this) associated with 'traditional' approaches to skill acquisition. Coaches promoted task designs that shone a light on affordances for 'compliance', at the expense of, and overshadowing, affordances that are value-directed towards playing information in the game, such as key environmental properties (teammates and opposition) and representative information (non-scripted

movements). This highlights again how players (un)skilled behavior ("I was surprised how difficult it was for the players to play information in game-based session designs") can be culturally embedded in a history of engagement with affordances ("They come from a drill culture of explicit instructions").

As previous coach interactions with the form of life placed a value on the utilisation of deterministic approaches to limit unpredictability, these inherent tendencies shaped how coaches implemented a game model. This was having an over-constraining influence on player-environment interactions. These insights align with a void in the literature identified by Ribeiro and colleagues (2019), where there is a lack of understanding of how a game model may impact as potent constraints in shaping self-organisation tendencies within sports teams. While players may be taking up the "correct position [Coach B]" in each situation (knowledge about), in accordance with the game model, this does not necessarily imply that they will be able to self-regulate their co-positioning (based on *knowledge of* the performance context) in relation to the continuous local interactions that change at a faster timescale. Foregrounding *knowledge about* the performance context, coaches were prioritising the operational procedures of coaching, rather than to its actual practice, arguably leading to a *system capture* e.g., doing things the way we have always done them (Ross et al., 2018).

6.3.1 Second Probe: Towards a contemporary player learning in development framework

The following is an excerpt from my research diary where I gather my reflections from the previous days' coach education meeting with academy coaches at AIK and the last few months' field work. The following diary reflection excerpt summarises many of the central discussion points that have taken place during DoM meetings:

Are we paying attention to the local information or just global concepts?

There is a tendency among coaches to place a focus on the global to local processes.

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For example, a game model implemented top-down through training design underpinned by a culturally-dominant planning paradigm. These externally imposed global concepts [processes] are having an over-constraining influence on player performance at the level of local interactions. This is evident in how players [as revealed by coaches during yesterday's education meeting and field work] are seemingly having problems adapting at the local scale of interactions where the information changes at a faster timescale than the global-to-local scale. For example, the global concepts implemented top-down are giving a "false" sense of security to players.

So, global to local processes implemented by the coach are possibly over-constraining individual football interactions [local] and collective performance [global], limiting players ability to co-adapt, using football interactions, to the fast-changing local information. On the other hand, local to global self-organising processes are constrained by local football interactions. While recognising the importnace of global to local processes, players also need to be provided with opportunities to explore self-organising tendencies that emerge at the local-to-global scale in training.

One of the ways that coaches tend to work with more local interactions has been through small-sided possession games. However, this can also be problematic. I attended a game last weekend [11-year old's]. During practice the coach leans on directionless possession games with little consequence [if you lose the ball the opponents cannot score]. For better or worse the young players play like they practice. Sometimes very effective in possession, it looks good, but often with very little intention. The opportunities to exploit 1v1, 2v1 situations [to play around or through the opposition], or free space to drive the ball in to was rarely taken. When the opponent left space to play behind [to play over the opposition], that opportunity was

rarely taken. There is a clear need to design practice sessions that help the players

learn to identify these opportunities.

(Diary reflection field note, February 4, 2020)

The second research cycle highlighted a need to dampen tendencies to prioritise

knowledge about (Gibson, 1966) the environment (e.g., game model, global to local), while

amplifying task designs and coach behaviors that promote the development of players

knowledge of (Gibson, 1966) the environment (local to global). While both levels of

interaction are intrinsically connected (Ribeiro et al., 2019), in this socio-cultural context,

more is effort needed to be directed towards understanding how local-to-global tendencies for

self- organisation can be harnessed. Indeed, there also needed to be some clarification

regarding how directionless possession games, favoured by some coaches, despite best

intentions, may be having an over-constraining influence on players skilled intentions. The

following field note illustrates the main questions that underpinned DoM discussions: Are

players learning a model of the game rather than the game itself? These discussions are

summed up here by DoM 2.

> DoM 2: We need to prioritise designs where players can discover and exploit.We
> don't need to prepare the players for every situation. Problem is that [with the game
> model] the coach is almost trying to automatise everything. Coaches have a tendency
> of falling back on a more traditional way of coaching. There is a need to draw a line in
> the sand.

(Field note: Department of Methodology meeting, AIK head office, March 12, 2020)

It was considered that designing tasks which are more *neutral* in terms of outcomes

(inviting selection from many possible actions) could better simulate the constraints of the

competitive performance environment. In the continued and iterative effort to present the key

ideas of AIK Base and its pedagogic concepts to practitioners at all levels in a more 'user

friendly' manner, the Player Learning in Development Framework (see Chapter 7) was

proposed (introduced throughout 2021). A specific feature of this framework is the

Foundations for Task Design Model (O'Sullivan et al., 2021), supported by the relational

concept of shaping skilled intentions (Vaughan et al., 2021), that aims to support the

designing of tasks underpinned by neutral affordances (Withagen et al., 2012). In developing

this framework, the DoM considered how coaches' tendencies to prioritise knowledge about

the environment (e.g., global to local) may inhibit opportunities for players to educate their

attention towards becoming attuned to the information in a specific performance

environment. To counteract the 'sticky' knowledge about bias, that was highlighted in the

second research cycle, an additional principle of nonlinear pedagogy, shaping skilled

intentions (Figure 26) was introduced to support the implementation and refinement of task

designs (see Vaughan et al., 2021). The aim of this additional principle was to dampen

coach's cultural tendencies towards prioritising knowledge about the environment through

preparing players for certainty. Indeed, the extent of this knowledge about 'stickiness' was

revealed during discussions, as the second probe was introduced by way of online coach

education throughout 2021.

One of coach education evenings placed a focus on how coaches work with their

designs. The break-out rooms had some interesting discussions that highlighted that, not only

were some coaches preparing players of certainty, but they were also preparing themselves.

Vincent and I exchanged notes and reflections on the discussions from the break-out rooms.

> Vincent: One coach spoke about the coaching points they prepare for a session. This
> is what they look for in the session and coach around that
> Mark: Yeah, had a similar discussion. Isn't this just what they have been doing on
> coach education [SvFF] courses?
> Vincent: I guess so. But are you shaping intentions or controlling actions? That was
> where I tried to take the discussion.

(Field note: informal conversation, Skytteholmens IP, May 11th, 2021)

It has been highlighted that successful team performance requires a complex and

intertwined relationship between the co-existence of global-to-local and local-to-global self-

organising tendencies (Ribeiro et al., 2019). However, considering evident path dependencies

that still influenced practice, a suitable counterweight was needed to dampen deterministic

approaches that amplified knowledge about the environment. Therefore, the idea of shaping skilled intentions was proposed by DoM in order to support coaches in amplifying how they can prepare players for uncertainty by promoting the development of knowledge of the environment. The key was to use this as a balance between providing structure or stability (e.g., game models or plans) that constrain players decision making and variation or instability through generating uncertainty and unpredictability representative of competition, in task designs. So, instead of a game model dictating players football actions, it could instead be used to guide players intentions (individually and collectively) and football interactions.
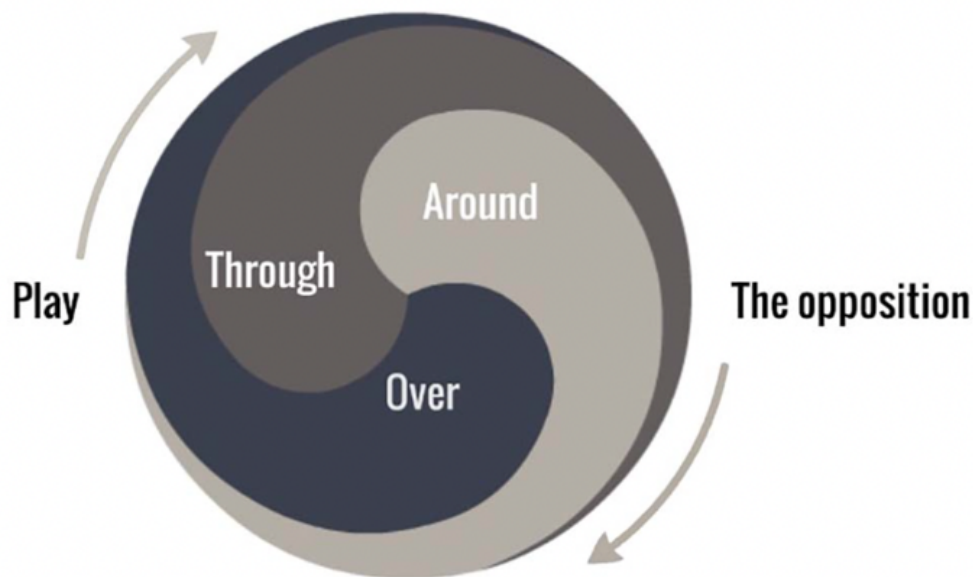

Figure 27 An illustration of the constitutive and nested relation of skilled intentions to play through, around and over the opposition in football (from Vaughan et al., 2021).

When designing practice tasks this implies that learning skills should not be looked at as a process of repeating a solution, but more repeating the process of finding the solution. This practice process is termed 'repetition without repetition' by Bernstein (1967, p234). To further encourage this learning approach, The Foundations for Task Design Model (presented in Chapter 7), based on the key principles of nonlinear pedagogy, was introduced to guide the designs of football specific tasks. The DoM proposed that this model can help coaches to

faithfully simulate informational constraints experienced by players in competition and by shaping skilled intentions, the coach can guide the player towards important features of the environment.

6.5 Summary

In this Chapter I illustrated how the impact of being immersed in a real-life setting utilising the SIF can be complemented by an action cycle (probe) that aims to implement its findings. This highlights the richness of adopting of an ecological scale of behaviour analysis, with the aim to understand human action in the very contexts (and cultures) that behaviour occurs.

I highlighted how the Learning in Development Research Framework (LDRF) guided research and action to capture real-world changes in practice and support the transfer of findings in the applied setting of AIK youth football in Sweden. Across a 4-year study (presented in Chapter 5 and Chapter 6), I illuminated multiple and intertwined unique constraints across interacting systems (see Figure 17) that transcended disciplinary boundaries and shaped the ecological niche at AIK youth football. While subsequent action and research cycles helped me to capture changes in professional practice, they also revealed the sticky nature of dominant socio-cultural practices that were shaping the way coaches design and deliver practice tasks. The stickiness of these approaches was limiting players' opportunity to learn how to learn to perceive information in the game therefore impinging on how they attuned their coupling between perception and action. For example, revealing the reciprocal nature of perception-action coupling, I highlighted how the implementation of a game model by coaches at the club was having an over-constraining influence on players' movement efficiency in order to perceive what was happening in the game (local interactions).

To combat this 'stickiness', the DoM sought to amplify or dampen sociocultural

constraints (during each research action cycle) by re-shaping the value-directedness of player-environment intentionality toward optimal relations (i.e., affordance utilisation) that enhance skill development. A key aspect of evolving practice away from deterministic approaches, was fostering skilled intentionality by appreciating the socio-cultural constraints and associated value directedness resonating within form of life. For example, socio-cultural constraints that manifested itself in a 'control over context' approach to practice and performance meant that the notion of player knowledge of the environment needed to be amplified (shaping skilled intentions) and knowledge about needed to be dampened during coach education and 'on field' support. In the next chapter I will introduce a user-friendly player development framework for practitioners, that was developed as consequence of the application of the LDRF at AIK Youth Football in Sweden.

Chapter 7: Towards a Contemporary Player Learning in Development Framework for Sports Practitioners

7.1 Introduction[28]

Talent development has been described as a progressive, mutual accommodation that emerges to enhance the functionality of an athlete in embedded and dynamic sporting and non-sporting environments (Henriksen, 2010). As part of this 'progressive mutual accommodation', sports practitioners are often challenged to prepare athletes for the demands of current performance environments, while simultaneously developing their performance capacity for future competition. This challenge is captured within the implementation of practical support activities operating at two integrated timescales: the micro- structure of practice (undertaken hourly, daily, weekly and monthly) and at the macro-structure of talent development (over periods of many years) (Button et al., 2020; Chow et al., 2020) Contemporary non-linear pedagogical frameworks, such as the constraints-led approach (CLA), have emerged to theoretically guide practitioners through this challenge (Davids et al., 2008). However, there is a need for continued evidence, with deeply contextualised 'real world' examples, to support further and improved up-take of the practical application of the CLA by sports practitioners (for notable examples, see literature Woods et al., 2020a; Fitzpatrick et al., 2018; McKay & O'Connor, 2018).

Better up-take may result from applied scientists improving the communication of key concepts of the CLA, presenting them in ways that are meaningful to practitioners (Renshaw & Chow, 2019). Up-take effects have also not been helped by some misinterpretations of the CLA in practice (Renshaw et al., 2015). For instance, constraints could be misinterpreted as negative influences that limit skill development by over- or under-constraining practice designs for athletes during development and performance preparation. To avoid (the

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misconceived) effects of "over- constraining" practice tasks, many coaches elect to adopt a laissez-faire (hands off) game-centred approach, whereby the CLA is misconstrued through a 'let the game be the teacher' lens (Renshaw et al., 2015). This is not how the constraints-led pedagogical model conceptualizes the challenges for the learner during the learning process in sport (Chow et al., 2020). In this chapter, I aim to support practitioner understanding of how to overcome interpretative challenges by offering insights into how, when predicated on key ideas of ecological dynamics and conceptualised through the lens of Adolph's notion of learning in development (Adolph, 2019), the CLA can offer a user-friendly developmental framework. To achieve this, I present a bespoke learning in development framework, based on the CLA, that has been established in a high-level youth football organisation, informing coach education and player development.

7.2 Learning in development: towards a user-friendly interpretation of a CLA to conceptualise player development

Ecological dynamics offers sporting practitioners a transdisciplinary theoretical framework to conceptualise learning, performance and development (Vaughan et al., 2019; Rothwell et al., 2020a). More specifically, by blending concepts from ecological psychology (Gibson, 1979) and constraints on dynamical systems (Newell, 1986; Kelso, 1995) expertise, skill and talent development can be understood to emerge from the complex and dynamic interactions of an individuals' continuous adaption to surrounding constraints (performer, environment and task), which changes over micro- and macro- timescales (Button et al., 2020; Davids et al., 1994). Learning, therefore, occurs during continued developmental changes across the whole life-course, and concerns what the individual does about these changes (Adolph, 2019). This is why Adolph used the phrase learning in development preferentially to learning and development.

As proposed by Renshaw and Chow (2019) and as exemplified by both Woods et al (2020a) and McKay et al (2020) when situated within an ecological dynamics framework, the CLA can help practitioners conceptualise the inherent non-linearity of the learner and the learning process in sport. Specifically, it highlights the nature of the continuous complex and dynamic non-linear interactions between a performer (individual), task, and environment (Davids et al., 2008) while offering an explanation for the emerging behaviors observed in sport through identifying key, interacting constraints (Seifert et al., 2017)· The term "non-linear" refers to the notion that small changes in system properties (e.g., the physical, psycho-logical and emotional characteristics of an individual; a team's practice conditions) can lead to large changes in emergent behavior and vice-versa. In other words, changes are non-proportionate in non-linear systems, in that slight changes can have large effects on how a complex system behaves (Chow et al., 2011). For example, manipulating a task constraint, such as changing the mass and size of a football in youth soccer, may lead to the emergence of qualitatively 'new' actions for exploiting gaps and spaces, which may not emerge when players practice with footballs of different properties. An adult-sized (regulation size 5) football, for example, may still afford a young player the possibility to pass or dribble through the invitation of a gap between two players, but due to its weight and size, relative to the action capabilities of a young player, it may not afford the opportunity to perform certain actions, such as playing (chipping/scooping) the ball over the defenders into spaces behind them. The lack of displaying such specific actions should not necessarily be taken as a 'lack of skill' by practitioners. The introduction of a lighter and smaller ball (scaled to the current properties of the young player's physical system) may, comparatively, afford young players the "chip-ability/scoop-ability" of a ball. With this small change, the value and meaning of the context and hence the use and motivation for such action opportunities has changed for the young player due to changes in the individual- environment relationship (e.g., the

introduction of a lighter and smaller ball better 'fits' the current action capabilities of the young player).

Essentially, the CLA explains how aspects of each individual, the environment and task interconnect with each other. This forms a complex system that shapes learning in development. These interconnected system features can be conceptualised as constraints because they guide or channel the direction and rate of development by providing the boundaries within which learning happens. A key point here is that constraints do not determine an individual's learning and performance behaviors, but continually interact to guide and shape them (Davids et al., 1994). This appreciation sets the foundations for our understanding of the learner and the learning process for each individual's unique developmental trajectory, helping us to recognize the opportunities a CLA presents.

Critically, while the CLA helps conceptualise how skills emerge, it does not provide a framework for how to design appropriate learning environments in team sports (Stone et al., 2020). Principles of a non-linear pedagogy can address this limitation, supporting practitioners to harness CLA methods in a range of practice task designs (Correia et al., 2019). Key principles of a nonlinear pedagogy can be summarised as: the designing of representative learning environments that facilitate opportunities for learners to develop and adapt relevant information-movement couplings, manipulation of constraints, repetition without repetition (functional movement variability) and the promotion of an external focus of attention (see Woods et al., 2020a; Correia et al., 2019). The key point here for practitioners is that in this framework, learning is based on an active engagement and interaction of an individual with a performance environment, as they learn to attune to environmental information matched to their action capabilities (Button et al., 2020).

7.2.1 Knowledge of (in the game) and knowledge about (out of the game)

In building toward his theory of Direct Perception, James Gibson (1966) differentiated between 'knowledge of' and 'knowledge about' the environment. While both knowledge 'types' (in)directly influence perception, Gibson asserted that knowledge about the environment reflects an abstracted and indirect response to things or states of affairs. This type of knowledge is typically evident in verbalised responses to questions about things or in the presentation of pictures or symbols representative of them (i.e., whiteboard scribing that shows players about their positioning in a football game). In sport, such knowledge, developed through verbal responses to questions or coach-provided declarative instruction, may be useful when describing performance ex situ. However, while such knowledge may help initially orient an individual in unfamiliar regions, it does not necessarily support a performer's capability to wayfind during performance, in the same way that reading a recipe does not mean an individual can actually cook or that reading about a plant signifies gardening skill (Woods et al., 2020b; Araujo & Davids, 2009).

Comparatively, 'knowledge of' the environment is reflective of embodied-embedded knowledge developed by, and exemplified in, activities (e.g., movements, behaviors, performances) that enhance the coupling between perception and action (Gibson, 1966). For the sake of reaching practitioners across the sporting landscape, we can refine Gibson's interpretation and refer to this type of knowledge as "knowledge in" the game. So, while young players may display knowledge about the game when verbalising responses to questions posed from a coach or educator, it does not necessarily imply that they can actually perform these actions in the game. An important contention of this paper, though, is that practice tasks need to be designed by practitioners with an extensive knowledge about the game, as this knowledge about collective and individual performance can inform practice designs to support the development of a performer's knowledge in the game. So, appreciating

this: how does a practitioner actually design practice activities, using the CLA, that develops a learner's knowledge in the game?

7.2.2 Designing practice tasks that supports "knowledge in" the game

In order to first promote learning 'in the game', practice tasks should be carefully designed to help performers detect information that specifies opportunities for action (referred to as affordances by Gibson) relative to their current performance capabilities (Gibson, 1979). Moreover, practice tasks should help individuals learn how to self-regulate perceptions and emotions to exploit emergent affordances for action. This can be achieved through the deliberate designing in of key affordances with which learners can interact during practice (Chow et al., 2016). Briefly, affordances can be understood as properties of an individual-environment system, providing opportunities for action, scaled to each individual's action capabilities (e.g. speed, strength) and body dimensions (Chow et al., 2016). Humans are surrounded by affordances, which are always available to be perceived when these opportunities for action become meaningful (Gibson, 1979). For example, for some children, a ball is an object with different value and meaning, such as to be avoided, picked up, thrown or kicked. Thus, as there are many possible perceptions and actions in any given situation, practitioners need to guide a performer's intentions toward what needs to be achieved in a performance environment (Jacobs & Michaels, 2007). In doing so, practitioners can educate the attention of players toward the perception and realisation of key affordances available in the environment (Renshaw et al., 2016).

Next, through the lens of Adolph's notion of learning in development (Adolph, 2019), I present a user-friendly developmental framework for practitioners grounded in ecological dynamics, which is currently being used by AIK Youth Football in Sweden.

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7.3 A proposed learning in development framework

To soften previous highlighted path dependencies (see Chapter 5 & 6) there was a need for contemporary, theoretically driven frameworks of player development (which were able to transcend historical or cultural tendencies), inviting practitioners to appreciate the underpinning principles of a rationale grounded in non-linearity. In the continued and iterative effort to present the key ideas of a CLA and its pedagogic concepts to practitioners at all levels, the user-friendly learning in development framework (Figure 27) and foundations for task design model (Figure 28) were developed. The cycle illustrated in Figure 27 depicts a conceptualisation of the key aspects of learning in development, while Figure 28 provides a brief insight into some foundations for football specific task design based on key principles of a nonlinear pedagogy. The key aspects are categorised into three phases relating to the timing and timescales of development at macro and micro levels, as well as the coaches role in guiding the players' development. The following sections unpack the three phases of the learning in development framework shown in Figure 27, while drawing on the summary of foundations presented in Figure 28 to help conceptualise it in practice.
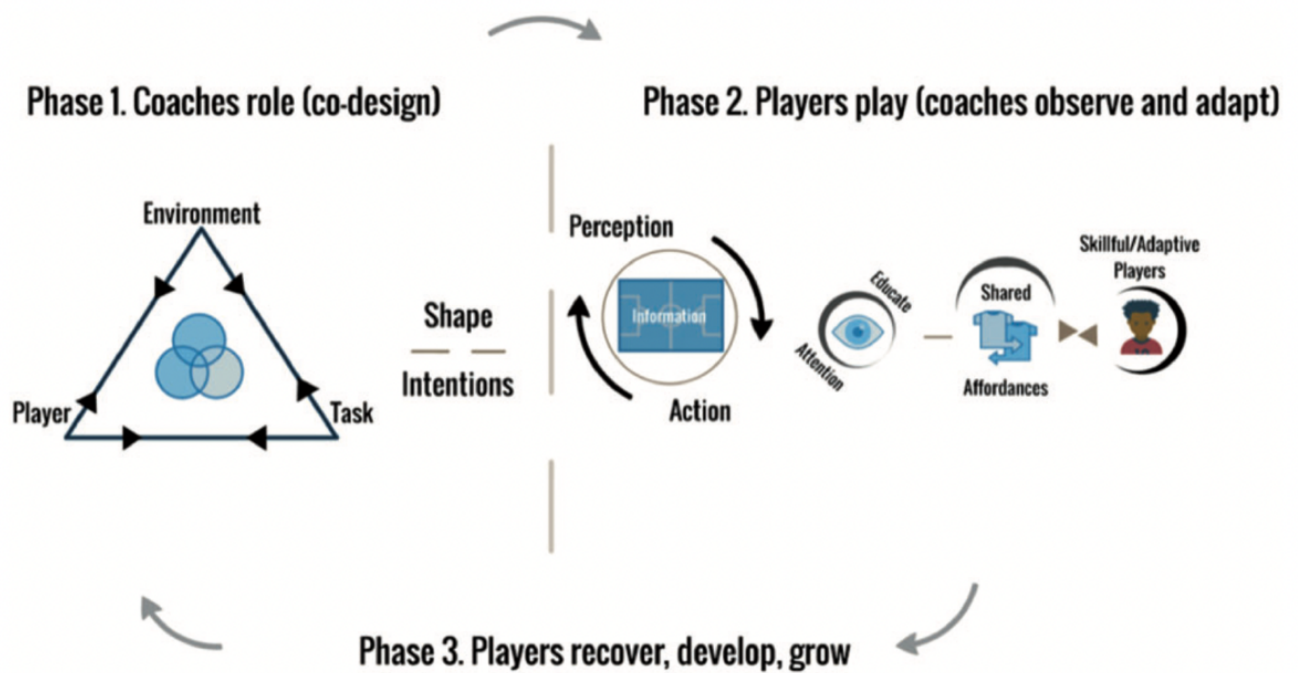
Figure 28 The three phases of the Player learning IN development framework, part of AIK football club's player development cycle.
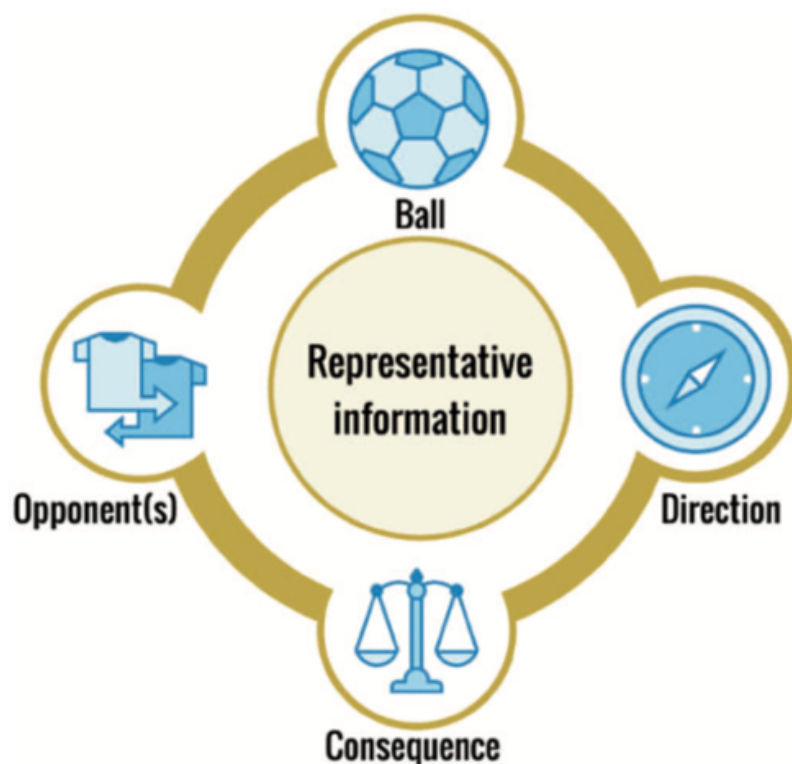

Figure 29 Foundations for task design model. Ball-opponent(s)- direction are key aspects of task design that shape learners' intentions and attention. The idea of consequence (e.g., if we lose the ball and do not win it back, the opponents may score), highlights the continuity and co-adaption of attack and defence. Key information in task design is representative of the game.

7.3.1 Phase one

Phase one illustrates that the coaches role in this framework is to co-design a training session that develops a player's knowledge in the game. Coaches at AIK are encouraged to dampen the sociocultural constraints (previously identified traditional perspectives) that advocate a constant prescription of declarative knowledge about the game, to become a facilitator of activities that place the performer-environment interactions at the core of their practice designs (Wood et al., 2020c). In doing so, learners are actively encouraged to explore the information that is available in their performance landscapes, deepening their knowledge in the game and its possibilities for (inter)action (Wood et al., 2020).

Based on the tenets of the CLA and a nonlinear pedagogy, the coach manipulates task constraints, being responsive to environmental and socio-cultural constraints, to shape intentions that frame the players perception and action. In this framework, co-design alludes to each performer's input in the learning process (and recognition of their unique constraints), both implicitly and explicitly. The implicit input relates to a sport practitioner's knowledge of the performer's current action capabilities. For example, the pitch dimensions, and ball and goals should be scaled to the physical constraints of the performers. Also, the number of players involved in practice tasks can be scaled down and constraints can be added to shape available affordances (e.g., gaps and spaces: influencing spatial-temporal dynamics) that afford more representative football interactions (such as passing, manipulating the ball and dribbling in spaces and between players). The explicit co-design process is evident when adapting the session to the players intentions based on observations made during the session. To shape intentions and/ or shine a light on an area for greater attention, a coach might manipulate task constraints by changing playing area dimensions, as well as adding or removing rules, players, zones and goals. This explicit co-designing of task constraints may

also take place through actively involving the performers in decisions on the design of further adaptations of the learning task.

The foundations for task design graphic is suggested to provide principles for how coaches can design and evaluate 'football'-specific learning environments. Indeed, a design may satisfy the criteria of ball-opponent(s)-consequence, yet still violate the criteria of information in task design is representative of the game. For example, the rule that all players must touch the ball before a goal is scored may not be a representative task constraint (Correia et al., 2019) as it may not promote effective perception-action couplings in relation to relevant affordances available in the performance environment. In this case, the team in possession may not be attuning to the information that supports them in exploiting gaps and space so that they can penetrate and score.

Given this attunement to information to regulate action, learning, within this framework, can be understood as wayfinding (Wood et al., 2020b), an explorative process in which an individual learns to solve problems by detecting information in their environment of use for specifying (regulating and (re)organising) actions. This perspective of the learning process is characterised as a progressive education of attention (helping each performer become attuned to the information in a specific performance environment), which is predicated on Gibson's (1979) perception-action coupling approach for understanding how humans regulate behaviour. For example, a coach observing a small, sided game might want to promote the utilisation of gaps and space via dribbling without denying the opportunity for passing. Adding a task constraint such as awarding a point to the team who is able to intercept a pass, places a risk on passing but does not exclude its utility. When in possession, this risk could invite players both with and without the ball to self-organise their individual and collective behaviors to support the player in possession. While the targeted intention with the task constraint is to shine a light on opportunities to dribble without removing the

opportunity to pass, it also invites opportunities for teammates to continuously adapt their positions to local information (e.g., player in possession, and positioning of nearest opponents).

However, as suggested by Woods et al., (2020a) rules and verbal instructions utilised by coaches can have an over-constraining influence on player interactions and intentions, guiding the player's attention to non- representative information sources. For example, a practice activity designed on encouraging 'overlaps' may be traditionally over-constrained by using a rule that you must pass to the overlapping player (to score). In this case, the defending team need only defend the overlap (therefore, they would just need to self-organize their interactions around the overlapping player to complete their task), especially if the coach announces the (over)constraint to the whole group. Such announcements are common when coaches declare what the theme of a certain session will be (i.e., overlaps). This prescriptive approach could promote an inherent lack of representativeness and ensuing predictability, limiting variability and thus possibilities for players to learn how explore the learning environment, to develop and exploit crucial information-movement couplings to coordinate their actions. For example, the idea of a successful overlap is not limited to an overlapping player receiving the ball, but its value includes distracting the defenders, pulling them out of position and creating other affordances for action. For example, there may be opportunities to exploit gaps more centrally, or on the inside of the defender nearest the overlapping player. Should these affordances be ignored just to comply with a coach's prescriptive instructions on how to perform?

Essentially, practice activity designs should invite opportunities for players to learn how to fine tune their attention (e.g., what information to attend to in a performance context) (Gibson & Spelke, 1983). Thus, if an external influence (i.e., declarations of a coach) reduces attunement to the information available in an environment through an over-constraining

instruction or rule, then the opportunity for players to learn to exploit relevant, available information (by searching) may be limited. So, rather than imposing rules, a coach may challenge players to utilise their teams time in possession to create possibilities to play through, around or over the opposition (shape skilled intentions). In other words, coaches could guide player intentions towards individually and collectively exploiting gaps and space to score a goal. The key point here is that phase one of this framework conceptualises the coach's role as fostering player-environment interactions through carefully co-designed practice tasks. Constraints used in this conceptualisation should guide, shape or encourage actions, not necessarily eradicate, prescribe or dictate them.

7.3.2 Phase two

The second phase of this framework relates to the player, as they are encouraged to tighten perception- action couplings through the progressive detection of information and (re)organisation of action. As explained earlier, the coach can manipulate task constraints and shape intentions to (re)frame a player's perception-action coupling. However, coaches should be cautious of relying too heavily on augmented informational constraints, such as verbal instructions provided to players (Ribero et al., 2019). For example, if uncoordinated defending (e.g., defending at the same time but not together) is making an activity unrealistic, a coach might verbally clarify the players' intentions and task goal when defending (i.e., "our first priority is to stop the opposition playing through, around or over us, while our second priority is to press to win the ball").

This guidance could also be achieved in numerous ways by manipulating the task design, such as the defenders lose accumulated points if the opposition play through them, but they only gain points by pressing and winning the ball. For the players "in possession of the ball", the intention to play through shines a light on opportunities for playing penetrative passes in the landscape of shared affordances to pass and receive between the defenders. But

for the defenders, the shared affordances perceived would relate to opportunities for pass interception and the closing of spaces for opponents to play penetrative passes.

7.3.3 Phase three

The third phase of this framework captures the process of recovery and adaptation to training session(s). Over typical timescales of learning (days, weeks, months, years), this adaptation will change the action capabilities of the player, as they learn in development. Importantly, continued player development will re- shape this whole cycle and the co-design process, emphasising the dynamics of this learning process in this development framework. Something for the coach to reflect on when planning practice task designs throughout these different timescales (weeks, months, years), is that the perception of affordances changes as an individual's capability for action changes. This is because, although an affordance is always available in the environment, its value and meaning for each individual may change as the individual matures, develops and grows (Gibson, 1979). Youth soccer performance environments are dynamic and competitive, requiring young players to learn to adapt and develop innovative solutions by continuously seeking and perceiving opportunities for action in the performance environment (Hacques, et al., 2020). The nature, type, and complexity of these settings change with learning in development as certain avail- able affordances in the environment become more soliciting or inviting than others (Withagen et al., 2012). For example, with maturation and development, specific action opportunities emerge for young players (e.g., being able to play a long pass over the heads of opponents into space behind them) or being able to shoot past the goalkeeper from a distance away from the goal.

To conclude this chapter, I will now provide an example from October 2021, where the ideas and concepts presented in the Player Learning in Development Framework are brought to life during match preparation in the week leading up to a game.

7.4 Practical example: providing balance when using a game model

This example from AIK football U19 boys team (October 2021), illustrates how a game model as an overarching global to local constraint can be used to help shape players intentions during match preparation, to harness local to global tendencies for self-organisation in competitive performance. Adopting the Foundations for Task Design Model (see Figure 28) during weekly match preparation, the coach can use their 'Knowledge about' the game to design practice tasks to guide players search and exploration towards information in the game (e.g., features of opponents play). Intentions guide the search activities of the players when in possession or retrieving the ball. To help players develop their knowledge of the environment, coaches can, through manipulating constraints, shape players' intentions to educate players' attention to information in the game. For example, a practice task can be designed that helps players display skilled intentions to balance/juggle nested intentions from moment to moment as they coordinate their movements, both on and off the ball. The aim of the practice task is to help players to play through, around and over the opposition (or prevent the opposition from playing through, around or over their defence).

As the opposition were comfortable defending wide areas, they invited their opponents to attack these areas. Here Coach K describes the intention with the team's match preparation.

> They wanted us to play outside [around], so it was easy for us to play on the wings, but it was crowded between [through], them. So, our priority was to threaten/provoke through and over and then it would be easier to exploit through, around or over. This was to put them out of balance so that they couldn't dictate that we only play the wings [around].

(Field note: informal conversation, Råsunda IP, October 5th, 2021)

Coach K endeavoured to guide players' intentions toward what needs to be achieved in the performance environment. In this case, the practice environment was designed to simulate defensive formation of the opposition who had already been scouted and analysed. Coach K shaped player intentions by providing a deliberate tactical instructional constraint during match preparation, that the players should prioristise exploiting the possibilities of playing through or over. In doing so, the coach sought to educate the attention of players toward the perception and realisation of key affordances that simulate opportunities for action available in the competitive environment. In this case, the priority of provoking 'through' and 'over' unbalanced the opposition and AIK could exploit the opportunities for action offered by juggling/balancing nested intentions of playing through, round or over defences, from moment to moment.

This practice example highlights the nuanced balance needed between providing structure or stability (e.g., game models or plans) that provide an over-arching constraint on players' decision making and variation through opportunities for exploration to deal with uncertainty and unpredictability representative of competitive games. Instead of the game model *dictating* players actions, it was used to *guide* players' intentions (individually and collectively), by directing (educating) players' attention to essential information in the game to exploit utilising football interactions.

7.5. Summary

In this Chapter I presented a user-friendly player development framework for practitioners that emerged as consequence of the application of the LDRF, and which is currently being used by AIK Youth Football in Sweden. I proposed a framework to support the practical application of the CLA in youth football. It highlighted some relevant concerns that challenge the integration of such methodologies, limiting their impact on coach education programs and player development pathways, such as the need to improve the

communication of key concepts and the recognition of misinterpretations. While appreciating there is still work to be done, it is hoped that the framework I presented does address some of these challenges for practitioners. Thus, the purpose of this framework was twofold; first, to help practitioners conceptualise the inherent non-linearity and highly personal nature of learning in order to inform player development pathways, and second, to show how to integrate a CLA in practice task design in a user-friendly manner. This discussion was intended to guide practitioners towards a more flexible and adaptable approach to planning, where, through the implementation and refinement of task designs, they could continually assess and evaluate each individual's needs (within a team) over various timescales of development.

Chapter 8: Epilogue: Assessing the Impact of this PhD

8.1 Summary and Contribution of Research Findings

In this thesis I highlight that specific athlete development environments are not blank slates devoid of social, historical and cultural influence, but provide the potential for a myriad of possible complex challenges. In response I proposed the need for a framework to guide both research and practice within a specific sports club or organisation. Concerns have been raised regarding how traditional research approaches tend to neglect critical features (socio-cultural factors) that have important implications for transferring findings to applied settings (e.g., coaching, talent development) (Araújo et al., 2007; Dicks et al., 2010). However, while not a new concept, I highlighted that the adoption of an ecological scale of behaviour analysis in some recent studies, has signaled a move towards understanding human action in the very contexts (and cultures) that behaviour occurs (see Rothwell et al., 2020b; Uehara, 2014). While there have been high quality studies showing descriptive accounts of the current context, there seems to be little, or no work displaying intentions to initiate change or evolve practice in that context. To address this gap in the current literature, I adopted a more ecological form of research and action conceptualised as the Learning in Development Research Framework (see Chapter 3). This allowed me to investigate the relationship between socio-cultural and historical constraints and the athlete-environment system and illustrate how the investigative findings could be used to support interventions to probe the system.

I illustrated how the Learning in Development Research Framework (LDRF), a novel model of athlete development and sports science support, was used to help, (i) conceptualise the dynamic sporting and non-sporting environment that was having a direct and indirect influence on player development at AIK youth football, (ii) interpret how the dominant socio-cultural and historical constructed beliefs and attitudes to coaching and learning exerted a powerful influence on beliefs, attitudes and expectations regarding players learning in

development, and (iii) guide the utilisation and implementation of findings in the form of pedagogical probes to probe the system (probe, sense, respond) to initiate change and evolve practice. Indeed, it is this contextual implementation of findings that offers the opportunity to address a significant barrier for those working on the ground in practice, the gap between the theoretical underpinning and the practical application.

The aim and objectives were examined across a 4-year study, where all data was collected, and action was implemented in situ. Underpinned by the theory of ecological dynamics, a combination of ethnographic forms of inquiry and action research provided the methodological approach to help better understand and further the player development environment. To illuminate the interdependence of the individual and its environment, I turned to a key tenet of ecological dynamics, Gibson's (1979) theory of affordances as conceptualised by Rietveld and Kiverstein (2014). Extending the more traditional *action-scaled* view on affordances, Rietveld and Kiverstein (2014) suggested that affordances are thus not just passively situated materially but are entangled in a particular way or forms of life (van Dijk & Rietveld, 2017), anchored to social, cultural and historical significance (Vaughan et al., 2021; Rothwell et al., 2018; Uehara et al., 2021). The notion of a form of life (Wittgenstein, 1953) can highlight how values, beliefs, practices and customs that continually shape how 'we' live (Rietveld & Kiverstein, 2014; Wittgenstein, 1953) and can manifest as socio-cultural constraints on normative behaviors (van Dijk and Rietveld, 2017; Vaughan et al., 2019). The theory of affordances embedded in forms of life provided a powerful rationale to help me consider the socio-cultural constraints in specific environments, which may shape expectations and beliefs on coach and athlete behavior, performance, development and learning.

To illustrate this intertwined relationship between forms of life and relevant fields of affordances, I adopted Henriksen's (2010) Athlete Talent Development Environment

(ATDE). Acknowledging Feddersen and colleagues' (2021) work on the limitations of the ATDE, I extended its use, emphasising the ecological level of analysis by embracing a Gibsonian perspective (Gibson, 1979), with particular emphasis on Rietveld and Kiverstein's (2014) relational view of affordances in the Skilled Intentionality Framework (SIF). Indeed, a central aim of this thesis, and therefore the LDRF, is to shift the focus of athlete development research away from just the individual athletes and towards understanding behavior at the level of interactions between a performer and their performance environment, both continuously shaping each other (Araújo et al., 2019, Carlson, 1988). The SIF provided the philosophical foundations for this shift as described by the ontology of constitutive sociomaterial entanglement (van Dijk and Rietveld 2017). This worldview aims to demonstrate the extent to which the ways we live (forms of life), sociocultural practices we participate in (e.g., football), opportunities for action (affordances) and the skills we develop exist as, and exhibit, a constitutive relation where practices and affordances do not admit of a prioritization (O'Sullivan et al., 2021; van Dijk and Rietveld, 2017; Vaughan et al., 2021).

The SIF, foregrounding aspects of qualitative inquiry (i.e., ethnographic), helped to unpack and enrich my understanding of the relations between coaches behaviours, the socio-cultural and historical context, and players' intentions/interactions within a relevant field of affordances. In Chapter 5 and Chapter 6, I highlighted how the SIF can make a profound contribution by providing a perspective on the extent to which athlete development environments are sociomaterial and constitutively entangled within broader macro contexts and structures (Henriksen et al., 2010; Henriksen and Stambulova, 2017). By connecting social and cultural aspects of life with the skill development of athletes, the SIF helped me to demonstrate the resonance between a form of life and the relevant field of affordances that stand out in training sessions at AIK football club. This resonance has been explained as the value-directedness of player-environment intentionality (see Vaughan et al., 2021). An

ecological account of these dynamics is reflected in this thesis, where for example, I outlined how expectations that embody a cultural inheritance of player compliance towards prescribed coaching methods (control over context/limiting unpredictability) can shape a value-directedness toward affordances that can partially realise that value (Hodges and Baron, 1992). Overtime players that are exposed to these practices may develop unskilled intentionality (coordinate with only a narrow range of affordances (Vaughan et al., 2021). For instance, as highlighted in the example of 'unskilled intentionality' (Coach A , Chapter 5), I illustrated the interplay between prevailing socio-cultural constraints and opportunities for skill learning and player development in a form of life.

A specific feature of this body of work is illustrated in Appendix 2, exemplifying what a phronetic iterative approach to analysis/syntheis could 'look' liked in practice, an approach that I feel aligns with the proximity of researcher embeddedness the theorszing proposed in this thesis advocates for. More directly, how a phronetic iterative approach can support LDRF researchers practicing an art of inquiry (thinking through doing) (Woods & Davids, 2022). This process highlights an 'ongoingness' of inquiry, where the researcher is encouraged to jump in and analyse activities as soon as possible, identify a curiosity or problem, feel comfortable in learning by doing and as the process unfolds, create guiding research questions (Tracy, 2018; Tracy & Hinrichs, 2017).

As the intention with the LDRF is to initiate change and/or evolve practice, the impact of being immersed in a local setting, utilising the SIF, was complemented by an action cycle that aims to implement its findings. Considering that macro-level socio-cultural constraints evolve over the years and can be difficult to directly influence, we illustrate how DoM devised interventions to probe the system (Snowden & Boone, 2007) at the micro-level of on-pitch coaching pedagogy. For instance, the initial probe AIK Base, indicated a need to dampen the influence of the "control over context" approaches that were acting as socio-

cultural constraints, shaping the intentions (in session design) and attention (during practice and performance) of players and coaches. Highlighting the highly iterative and integrated nature of the LDRF, as findings were being implemented through system probes, in tandem, the next research cycle (utilising SIF) sought to capture the evolving sociomaterial environment as it persisted and changed, connecting the research back into the next action cycle. This way of capturing real-world changes in practice, revealed the sticky nature of dominant socio-cultural practices.

Due to the inherent, ecological complexity of a form of life, a probe may or may not initiate the change intended, meaning one cannot impose a specific course of action, only probe, sense, and then respond (Snowden & Boone, 2007), implying that a probe may or may not initiate the change intended. One of the aims with AIK Base was to inform how coaches can design in affordances to support skilled intentionality (coordinate with a broad range of affordances simultaneously). As initial interventions (AIK Base) to probe the system were being implemented (throughout 2019), in tandem, the next research cycle (utilizsng the SIF) sought to capture the evolving sociomaterial environment as it persisted and changed. However, path dependencies evident in socio-cultural practices that were anchored to a dominant 'coaching' form of life, meant that encultured approaches embodying an ideological inertia remained at times challenging to change and were very 'sticky' (see Chapter 6).

Data presented in Chapter 6 illustrated how through the use of a game model, coaches were assuming that they could improve affordances by making them more prominent to players so that they only respond to specifically designed ones. This form of "control over context"/limiting unpredictability, was depriving players of decision making and problem-solving opportunities, minimising the coupling of perception and action in order to self-regulate behaviour. For instance, coach B's comments on players being in the right position

according to the game model but experiencing problems with their positioning in relation to the fast-changing information (see page 166). The rigid nature of how a game model was being implemented disregarded the interaction of individual, environmental and task constraints that shape skilled intentions from moment to moment.

To combat this 'stickiness', the Department of Methodology sought to dampen tendencies to prioritise knowledge about (emphasizing global to local tendencies in the team e.g., game model) the environment, while amplifying task designs and coach behaviours that promote the development of players knowledge of the environment (emphasizing local to global tendencies between players). In the continued and iterative effort to build on the key ideas of AIK Base, the Contemporary Player Learning in Development Framework (probe 2) (Sullivan et al., 2021) was proposed to encourage coaches towards more 'neutral' task designs, supportive of athlete functionality. A specific feature of this framework is the Foundations for Task Design Model (O'Sullivan et al., 2021), supported by the relational concept of shaping skilled intentions (Vaughan et al., 2021), that aims to support the designing of tasks underpinned by neutral affordances (Withagen et al., 2012). The DoM proposed that these ideas could act as a counterweight to find the balance between providing structure or stability (e.g., game models or plans) that constrain players decision making and variation or instability through generating uncertainty and unpredictability representative of competition, in task designs. The Contemporary Player Learning in Development Framework is fleshed out in Chapter 7 where a real-life case study of how it can be implemented in match preparation is presented.

An interesting question to consider is could the ideas proposed in Chapter 6 and 7 that formed the Contemporary Player Learning in Development Framework, be transferred and adopted without knowing about the sport and the socio-cultural context in which the sport is carried out? More directly, could I have written Chapter 6 and 7 without the preceding

chapters? The answer is, as I will argue, a very superficial yes! But there is a caveat, and I will discuss this in the next section.

8.2 There is no copy and paste, but there is resonation and inhabitation

Socio-cultural constraints influence practices in ways that differ from context to context, as societies influence, define and engage in sport in varying ways (Messner & Musto, 2016). Exemplified in the specific social, cultural, political and historical traditions of a nation or region, these interconnected constraints can play an important role in shaping the way coaches design practice and how athletes engage with performance preparation environments (Rothwell et al., 2018). The complexity of this issue emerges when we consider that around the world, athletes and coaches engage in practices that are shaped by distinct socio-cultural constraints embedded in varying social, physical, and geographical locations (Dorsch et al., 2022). This highlights how different systems and unique socio-cultural constraints can reinforce issues associated with trying to 'copy and paste' athlete development frameworks from other organisations or countries (O'Sullivan et al., 2021).

In pursuit of developing 'talent' in football, many models have been championed in the popular media[29] (usually after some fleeting international tournament success) with some federations (and clubs) even proudly and openly affiliating with 'approaches' from other countries and clubs. More recently, the Lithuanian Football Federation (LFF), with the deliberate intention to "spread the football culture from Belgium" (LFF, 2021), signed a contract with Belgian club RSC Anderlecht for the acquisition and implementation of their youth player development system (LFF, 2019). These types of copy-paste approaches are by no means unique and has been observed and reported in other countries and sports. This tendency in sport organisations is in direct contrast to what North and colleagues (2015) warned

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[29] https://www.theguardian.com/football/2016/jun/08/iceland-stunning-rise-euro-2016-gylfi-sigurdsson-lars-lagerback

against in their study of the top seven football nations. They stated that the uncritical application of practice ideas from other successful countries and clubs may be too superficial, ignoring the diverse and deeply-rooted nature of socio-cultural constraints that shape how the game may be played from place to place.

A rather more worrying consequence of the influence of copy and paste tendencies was recently highlighted by influential football coach Juanma Lillo[30]. In a self-penned article in the online magazine *The Athletic*, Lillo warned against the normalised homogenisation of what he termed 'machine-like' behaviours in football – behaviours he admits to having helped transform into concepts early in his career (Lillo, 2022). In his analysis of the recent World Cup in Qatar, he criticised the homogenisation of methodologies in world football, the coach's omnipotence and control over context tendencies through reduction (of information present in an environment) and rehearsal (of pre-determined patterns), which takes away the impetus and creativity of players. This is further illustrated in his insightful article, arguing that irrespective of context, a training session in Norway and one in South Africa (for example) would likely be the same, perhaps characterised by 'two touchism' (Lillo, 2022). Lillo laments how coaches across cultures are dumping context in favour of universals, seeking to normalise player behaviours through the internalisation of systematised knowledge *about* the game, which trivialises opportunities for direct and primary experience *of* it. As a self-confessed exponent of many of these ideas, Lillo (2022) reflected on his own contribution to this homogenisation, stating: "If there was one person I would really want to question now, it would be me from 25 years ago".

Considering this, it is worth noting a case in point about the adoption of the proposed Contemporary Player Learning in Development Framework (Chapter 7), including the Foundations for Task Design Model and the notion of shaping skilled intentions. Essentially,

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[30] https://www.transfermarkt.com/juanma-lillo/profil/trainer/6259

could the ideas proposed in this framework be transferred and adopted without knowing about the sport and the socio-cultural context in which the sport is carried out? Yes, is the superficial answer but there is a caveat based on recognising the non-linearities of learning, development and performance.

If we consider the inherent co-adaptative dynamics in invasion games, such a framework is, arguably, more ontologically accurate regarding the complexity of learning in development. For example, when underpinned by the Foundations for Task Design Model, the concept of shaping skilled intentions to guide attention toward dynamic properties of a football environment may be considered an improvement in coaching methodology when compared to methods relying on verbal instructions of abstract tactical concepts providing secondhand knowledge about the football environment (Renshaw et al., 2022). This may be viewed as an improvement in the *why* of coaching practice because it emerges from a more accurate ontology of football, skill-learning and human development (Vaughan et al., 2021). Embedded here is the appreciation that training sessions do not take place in a socio-cultural vacuum but are deeply entangled within meaningful contexts of a broader societal form of life (Juarrero, 2023).

Directing us toward a more ecological conceptualisation of skilled performance, Aggerholm and colleagues (2011) concluded that there are wide cultural differences as to what is recognised as 'the right way to play the game'. They noted that despite unambiguous common objectives (standardised rules, scoring goals, winning games), how teams play the game varies due to distinct socio-cultural constraints. This key idea opens up the ecological notion of *affordances* (Gibson, 1979), extending it to the interconnected socio-material properties of the environment one inhabits (van Dijk & Rietveld, 2017). So, how coaches design practice and the information that players attune to, is influenced by distinct socio-cultural constraints that continually shape the intentions of coaches and players (O'Sullivan et al., 2021, 2023). This helps us appreciate how 'ways of doing' specific to a geographical

location continually influence how sport practitioners design and implement performance preparation frameworks and how players engage with various affordances. Further, I contend that failure to appreciate this idea when implementing a contemporary player development framework risks content regurgitation and compliance, leading professionals to simply *copy and paste* the work of others, oft-with limited understanding and minimal effects, given the dynamics of socio-cultural constraints.

To mitigate this problem, ecological dynamics offers a theoretically appropriate lens in which to support the implementation of contextualised player development frameworks, given its person-environment scale of analysis (Button et al., 2020). The Learning in Development Research Framework for Sports Organisations (Chapter 3); with its conceptualisation of affordances as embedded in *forms of life* (Rietveld & Kiverstein, 2014), can support this shift. Thus, as exemplified in Chapter 5 and 6 , how socio-cultural constraints shape the value directedness of player-environment intentionality (O'Sullivan et al., 2023; Vaughan et al., 2021), this thesis also offers the potential to: (1) push against the potentially distracting and even detrimental *copy and paste* culture, and (2), provide a powerful rationale to guide the design and integration of contemporary player development frameworks, learning to resonate with the complexities of the broader environments we inhabit.

8.2.1 The Ecological Nature of Learning in Development and Designing Meaningful Practice Contexts

Considering how socio-cultural constraints can both illuminate and characterise the value directedness that shapes player-environment intentionality, I would now like to highlight a few points about critically adopting the Contemporary Player Learning in Development Framework (Sullivan et al., 2021).

- Coaches adopting a *copy and paste* approach are at risk of focusing on the content, not the context. This has been described as *the what of coaching* (session plan, game model and tactics), with coaches taking for granted their culturally constituted and psychologically-intuitive methods of delivery – *the how of coaching*. This point is central to the Contemporary Player Learning in Development Framework.

- There needs to be recognition that coaches are indeed part of the complex, socio-cultural environment they inhabit and thus need to focus not on replication, but on the contextualised sensitivities of place. In other words, they need to learn to *resonate with* the broader socio-cultural constraints of the ecosystem by dwelling (Woods & Davids, 2021). The LDRF can make a major contribution to this.

- *What* coach's guide athlete attention towards (i.e., awareness of spaces, gaps, passing opportunities, defenders balance) and *how* (i.e., pedagogy), is shaped by socio-cultural constraints.

The idea that each sporting context is contained within its own form of life highlights that skills have histories (Bernstein, 1991). Not only do they embody the movement experiences of individuals up to the moment of performance, but they have an underpinning socio-cultural context that shapes affordances available in a niche (Bailey & Pickford, 2010; O'Sullivan et al., 2021). This approach underpins the importance of understanding the intentionality of a player-environment relation rather than merely highlighting desirable actions of individual athletes (Vaughan et al. 2021).

From an ecological dynamics perspective, I contended that contemporary player development frameworks cannot emerge in isolation of context – there is a careful need for appreciating the complexities of a deeply-integrated environment. More directly, coaches need to consider how often overlooked socio-cultural constraints are influencing the design and implementation of player development programs. For example, we need to be aware of

the recent 'globalised' trend related to the homogenisation of football (how it is played) and coach education (what to coach). There is, thus, an opportunity to reconceptualise player development, coaching practice and education by highlighting the importance of harnessing socio-cultural and historic constraints using ecological approaches such as the LDRF (O' Sullivan et al., 2021; Vaughan et al., 2022). Perhaps it is time, then, to move away from the copy-paste mentality of popular culture, and understand that sport generally, and football specifically, operate within a complex ecosystem much bigger than itself. Indeed, there may be no copy and paste, but there is resonation and inhabitation – concepts coaches, practitioners, researchers and scientists in sport would do well to take seriously.

8.3 Concluding Remarks

In this thesis I presented the Learning in Development Research Framework as a novel way of guiding research and action (probes), with the aim to understand human action in the very contexts (and cultures) that behaviour occurs and support the transfer of findings in an applied setting. The potential it offers practitioners to become more aware of the extent to which unique socio-cultural constraints continuously shapes their work, can support sports organisations in adapting to these important environmental constraints. A central feature of the LDRF lays in the opportunity of analysing the phenomenon in greater depth each time (research action cycles) as it is evolving. This allows for researchers in sports organisations to view cultures and performance environments as embedded evolving complex adaptive systems, with human development as ecological.

It is important to highlight that the LDRF does not prescribe a universal solution, rather I hope that it can guide how researchers, practitioners, clubs and organisations could challenge themselves to adapt strategies to design contemporary athlete development frameworks within their ecosystem. The results from this study are simply not a generalisation across youth football clubs, even in Stockholm. Indeed, socio-cultural-

historical constraints that influence player development may even vary from neighboring club to club, due to the unique nature of how different forms of life can interact in a variety of socio-cultural contexts. In this way the LDRF can offer the potential for the sharing of local knowledge about the sport and the socio-cultural context in which the sport is carried out. This knowledge helps practitioners to understand and identify the socio-cultural constraints that may be shaping the club structure, parental expectations, coach pedagogy and session design.Therefore, to support clubs and organisations to adapt strategies to design contemporary athlete development frameworks within their ecosystem, the LDRF can support the development of a broader and deeper understanding of the relationship between a form of life and affordances.

The aim of this thesis was to investigate and illuminate (i) form of life at a professional youth football club, and (ii) a research gap on the need for a more contemporary research framework to guide reliable ways of conducting research and designing practical applications. It is my contention that this thesis offers a valuable contribution by providing scientific support for sport organisations and practitioners to meet the challenge of highlighting, harnessing and re-shaping the socio-cultural practices that can evolve and persist within a specific sports organisation by helping them to better understand and further player development environments.

The implication is that there are no 'copy and paste' templates. Practitioners and applied scientists should seek to comprehend the distinct contextual complexities of cultures, communities and situations as they encounter them, co-creating practices that, respectively, amplify and dampen helpful and unhelpful aspects of sport forms of life. Athlete development frameworks should evolve in, interaction with the sociocultural context in which individuals are embedded.

It is my contention that this thesis offers a valuable contribution: providing scientific support for sport organisations and practitioners to meet the challenge of highlighting, harnessing and re-shaping the socio-cultural practices that can evolve and persist within a specific sports organisation, in order to help them to better understand and further player development environments.

8.3.1 Limitations, Challenges and Suggestions for Future Research

The results from this study are simply not a generalisation across youth football clubs, even in Stockholm. Indeed, socio-cultural and historical constraints that influence player development may even vary from neighboring club to club (mesosystem constraints), due to the unique nature of how different forms of life can interact in a variety of socio-cultural contexts. Indeed, different organisations and clubs will present different opportunities and challenges regarding the implementation of the LDRF, particularly in relation to resources (financial barriers, access to qualified staff) and stakeholder patience (e.g., the growth of knowledge that helps practitioners to understand and identify the socio-cultural constraints, is likely to take time).

I recommend that future research should look for innovative ways to implement and refine the LDRF model across a broad range of sports and sporting contexts at various levels. Based on a recent direct communication with Sarah Tracy, discourse tracing (LeGreco & Tracy, 2009) was suggested as a useful way to further analyse and interpret discursive formations that occur through ethnographic designs and help to illustrate the interactions and changes over time in micro, macro, meso levels.

Advances in modern technologies offer great potential towards rethinking and extending how we can carry out such deeply contextualized research as foregrounded by the LDRF. Using tablets, phones or laptops, individuals can become ethnographers in their own

community, in their own time. For example, the Wayfinder platform[31] promotes the notion of communities as ethnographers, inviting individuals in a community to contribute stories specific to their own context. Here, members of a community get to determine what is significant and interpret their own material. The potential this form of distributed ethnography offers to consider different types of knowledge and data, may illuminate insights in how to challenge inherent inertias often related to the 'stickiness' of dominant socio-cultural-historical constraints. For example, in the context of this study future research could investigate what happens when coach pedagogy aims to promote skilled intentions (skilled intentionality) in football. Can coaches adopt a methodology that prioritises knowledge-of and foregrounds learning in performance, what would this look like in practice, subject to the changing contexts, situations and constraints of the real world in which coaching, learning and performance take place.

The LDRF provides the possibility to enrich the potential for co-creation (researchers and practitioners) of practice, supporting the development of a research culture through knowledge mobilization – the act of moving research into the hands of research users. Aligning with the notion that the LDRF does not prescribe a universal solution, we hope that these suggestions can further guide how researchers, practitioners, clubs and organizations could challenge themselves to adapt strategies to design contemporary athlete development frameworks within their ecosystem.

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[31] https://wayfinders.network/blog/concept-feature-overview/

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Appendices

Appendix 1

Ethical approval (Converis ID: ER5584185)

ER5584185; Designing learning environments in contemporary child/youth football development programmes.; O'Sullivan, Mark - Health and Wellbeing; (All other research with human participants)

🏳 Application Approved   ⋯ Admin Info ▾

Status Log

16/08/2018 | 10:54:27 || Keeling, Amanda | hwbak4 | Faculty Ethics Admin
Application Approved
↰ Send for Approval by Reviewers

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Appendix 2: Data Analysis walk through

The preliminary research question that helped to orientate the study was: *is there a connection between young players interactions with relevant fields of affordances and the intentions of coaches at AIK youth football, with the socio-cultural and historical context?* To help unpack this question the Skilled Intentionality Framework (SIF), through a combination of ethnographic strategies (Contextual historical analysis, observation, interviews, field notes), was utilised to generate knowledge. Analysis began with data generation to help identify promising areas of research (Emerson et al, 2011; Lester & Anders, 2018). Initially, first-level descriptive codes (see table 1) were generated to capture the main ingredients of the data (e.g., who, what, when, where).

Table 1. Examples of raw data and initial first level descriptive codes.

17-08-2018 Skytteholms IP Coach I began his session with his group of 11-year old's with some adult warming up exercise, then static 1 on 1 passing drills. It is about 30 minutes before players face an opponent. (Field note: August 17th, 2018).	ADULT WARM UP PASSING DRILL
21-08-2018 Skytteholms IP pitch D I am with my colleague Vincent (academy coach) watching the boys 2008 academy training at Skytteholmen. Parents are anxiously peaking over the closed off 7 a side pitch, while standing on seating area in the adjacent children's playground. I have spent the last 15 minutes watching them from behind. Something happens, one parent looks up to the night sky, while the parent next to him stares at him and opens his arms, then drops his head and shakes it. The 2008's are the last group to go through the early academy selection before AIK raised the academy age. With the end of the season approaching in two months, and an immanent selection, de-selection process approaching the intensity, or the 'tempo' is quite high. The game-based part of the sessions seems to be just constant transitions. According to Vincent, the early part of the session was a lot of repetitive passing drills followed by 1v1's with no consequence (once the attacker lost the ball the 1v1 was over).	ACADEMY ANXIETY MONOTORING ANXIOUS BODY LANGUAGE SELECTION DE-SELECTION INTENSITY-TEMPO STRESS REPETITIVE PASSING DRILLS ONE DIRECTIONAL
Vincent: This is more like a tennis match Mark: The coach seems to be willing them on, Go! Go! Go!. Vincent: This, I guess is what performance anxiety looks like coming up to the end of the academy season. They are competing against each other, even when in the same team, instead of collaborating to make each other better. I was left thinking that this is some sort of interpersonal competition to maintain social status. They are competing against each other, even when in the same team, instead of collaborating to make each other better. (Field note: Informal conversation, August 21st, 2018).	CONSTANT TRANSITIONS COACH VERBAL PUSHING "WHAT PERFORMANCE ANXIETY LOOKS LIKE" INTERNAL COMPETITION COMPETITION STATUS MAINTENANCE NOT COLLABORATING
05-09-2018 Extra Training Skytteholms IP Looking at the sessions that take place after the 'extra training' with the older youth teams, there are a lot of predetermined passing patterns that are practiced in isolation of opponents and then put into a game. If the players don't play out from the back the exact way the coach wants them to, then the play gets stopped. Tonight, I saw a very animated coach who, during an 8v8 practice was moving players around like chess pieces. (Field note: September 5th, 2018).	OLDER TEAMS PREDETERMINED PASSING ISOLATED DRILLS PLAY THE COACHES WAY STOPPED EXPLICT INSTRUCTIONS

I meet Coach G walking off the pitch. Coach G: That coach (the animated coach) needs to get involved in extra training. I don't think he will. He coaches one of the older academy teams and they see this as a step down. (Field note: Informal conversation, September 5th, 2018).	HIERARCHY
COACH A You see when I began it was …. there was a little nerve that influenced pedagogy. You were forced to have results even at 9, 10 years. This influenced your pedagogy a lot and what you do. There was a lot of ABC passing, if you have the ball here you pass there or perhaps there – you should be there when the ball is there, which game short-term results but influenced players over time. You lock their decision, you lock their creative solutions which means we don't get player that are problem solving orientated, that can solve problems. It can look very good with a team of 10-year old's because the opponents cannot solve the problem which means it looks good but it's not really that good.	"NERVE" RESULTS PEDAGOGY PREDETERMINED PASSING EXPLICIT INSTRUCTIONS "SHORT TERM RESULTS" PERSPECTIVE LIMIT DECISION MAKING SHORT TERM "NOT REALLY GOOD"
12-09-2018 Råsunda IP I head over to Råsunda IP after extra training to catch up with Coach J who is responsible for the 2008 groups, those that were not selected for the academy. The 2008's are the last age group to go through an early selection process (8 years old). Coach J: It is a slow start since the summer break. Although I have had a few parent meetings about rotating with the academy. Some parents are annoyed as the academy took in a player from outside the club just before summer. Mark: I can understand that Coach J: So, can I. But some of the parents that are moaning, there kids are not even here tonight. (Field note: Informal conversation, September 9th, 2018). The sessions look lethargic and pretty much isolated technical work for over 45 minutes. Coaches shouting focus, focus as kids wait in line and tempo, tempo, with speed (med fart!) as they dribble to a cone and back or work on a passing drill without opponents.(Field note: September 9th, 2018).	SELECTION POOR CLUB COMMUNICATION NOT AT TRAINING ISOLATED DRILLS "FOCUS, FOCUS" "TEMPO TEMPO"
17-09-2018 Skytteholms IP Watching the sessions while in the adjacent pitch two of the older academy teams are training. As the season is due to start up after the summer break there seems to be a lot of "match planning" training going on. Coach A and H are working on how to press the opposition high up the pitch. As each of them have less than half a full-size pitch, this is quite challenging but then their teams only play 7 a side. I feel that there is too much focus on the pressing as opposed to helping the team playing out to "challenge" the press. A possible relic from "theme" based coach education? On the nearby pitch the older academy teams are spending a lot of time on predetermined passing patterns. I notice this fascination with playing out from the back even when the high pressing team leave gaps to play through and beat the press. The coaches seem determined to get "their" way of playing across to the players. Is this the classic coach looking for their coaching points? Anyway, a lot of these type of sessions at the club have the same formula- build up on one side, move the opposition to that side and try and get the very fast wide player on the other side on the ball in a 1v1 with a quick switch. (Field note: September 17th, 2018).	MATCH PREPERATION TACTICAL PRESSING FOCUS ON THE THEME PASSING -PATTERNS COACH CONTROL PLAY THE COACHES WAY COACHING POINTS FORMULAIC PREDICTABLITY
20-09-2018 Skytteholmens IP …for some reason he breaks a 5 v5 game and starts doing these predetermined passing patterns.	GAME PREDEFINED PASSING

Coach F: I felt that the passing wasn't very good, and I wanted to try and help them to understand the importance of passing and receiving.	RATIONALE "HELP THEM UNDERTAND
13-02-2019 Training Boys/Girls 2011 Skytteholms IP Met with all the coaches. Some of the coaches have experience as they have older children in the club. These coaches have adopted a more game centered approach. 2 of the other groups had too much queuing and passing drills where everything was decided by the drill (A to B to C to A). it is cold and too many kids are standing still. One coach even shouted 'focus' at a freezing kid who was jumping around. In general, most of the teams were playing matches (2 goals) or game like sessions.	GAME CENTERED PASSING- PATTERNS SHOUTING FOCUS! GAME LIKE
Arne: I am trying to balance my role as a coach for all the kids in a group and as a parent for my son Charlie who plays in the team. Charlie sometimes feels frustrated with some of the other players who don't have the same ambition as him. I have had a few parents ask me about 'nivåindelning' (splitting the kids into ability levels). His feeling was that "this is about winning games for their own child (Field note: Informal conversation, February 13th, 2019).	PARENT COACH FRUSTRATED SON AMBITIOUS BEST WITH THE BEST RESULTS
There was a parent complaint about the extra training. I guess the inherent chaos of some of the game-based sessions is a challenge to parent expectations of what training should look like and how coaching is carried out. Looking across to the adjacent pitch where some of the older teams are training where there are neat passing patterns with a coach taking centre stage, I can see this being an ongoing discussion. (Field note: September 9th, 2018)	PARENT COMPLAINT EXPECTATIONS- TASK DESIGN AND COACHING PASSING PATTERNS COACH CONTROL
06-11-2018 Solna School Arion: I have been at extra training. My son enjoys it but I think that there are too many games. They can do that when they want. They don't need a coach for that Mark: What do you mean Arion: Maybe more technique work. My son only uses his left foot. I think there should be some form of technique training so that he learns to use both feet.	EXTRA TRAINING EXPECTATION ASSUMPTIONS ISLOATED TECHNIQUE
Regarding AIK removing the early selection, a common conversation piece and point of view from parents was expressed by Mats Mats: But we will lose the best players to other clubs that select early – if we don't start selecting players early again. (Field note: Informal conversation, November 11th, 2019).	SELECTION "LOSE THE BEST PLAYERS" SELECTION
03-02-2019 Skytteholmens IP Coach E: The parents in my team have a different understanding, even from the C Diploma, what coaching is. They expect a dominant authority, very vocal and the Swedish word is "tydligt"-ordning och reda (order, clear, precise). (Field note: Informal conversation, February 2nd, 2019).	EXPECTATION COACH CONTROL - "ORDNING OCH REDA"
14-02-2019 Huvudstafältet IP Observing one of the 9-year-old groups; the kids are really enjoying the intensity of the game formats in the Swedish winter cold. Within this intensity are loud laughs and spectacular (sliding on their knees as far as they can) goal celebrations. The coach, a parent coach has been attending the extra training sessions that we run (AIK employed coaches and I run sessions once a week for kids who want to train extra) and has started to experiment with some of the designs in practice. Even in this weather, some parents are on the sideline, very engaged in watching every move their child makes. Mats a parent of one of the young players approaches	INTENSITY LAUGHING CELEBRATIONS TASK DESIGNS ENGAGED PARENTS MONOTORING

me. At one of parent meetings organised by the club, he let his opinion known about AIK removing the early selection model. Mats expressed that the club would lose the best players to other clubs if we don't select early (see field note 06-11-2018).	OPINION ON AIK DECISION "LOSE BEST PLAYERS"
I turn to Mats and smile while suggesting that this is just what the young players need on such a cold winter evening like this. Almost on cue, Arion, Mats friend and parent of another player in the group turns up. They are at every training session together and they seem to be really "invested" in their son's football. Sometimes they are so invested that they start to instruct their kids during training sessions.	ARION PARENTS INVESTED INSTRUCT FROM SIDELINE
Mats: They are just playing football; they can do this on their own, this is not serious training"	PERCEPTION OF TRAINING NOT SERIOUS
Mark: What does serious football training look like at this age (9 years old)	
Arion (interrupts): Well, the coach doesn't seem to be interested, it doesn't look like he is in control. It is like a 'sandlåda' (playground sandbox), its chaos, kids can do what they want when playing these games. He should be in there telling them what to do!	COACH NOT INTERESTED "SANDLÅDA"- NOT SERIOUS EXPLICIT
Mats: We call this 'saft and bulle' (child's soft drink and buns) training.	SAFT OCH BULLE
Arion: Why are they doing the same session as Tuesday? We have seen this type of training at extra training as well.	PERCEPTION OF TRAINING
(Field note: Informal conversation, February 14h, 2019).	

Coach H

Through a lot of years in football. My feeling is that parents who don't have proper insight into development, they like the look of organisation. They like the look of control, which is easy to get because you can put them in a line and do a passing drill and for someone who doesn't have insight, it can look very, very good. You also get an effect from that very, very quickly and the players can look quite good, quite quickly for doing stuff like that.	PARENT ASSUMPTIONS ORDER "THEY LIKE THE LOOK OF CONTROL" STAND IN LINE LOOKS GOOD

Coach J

It was as if the trainer had the solution in the form of this folder [technique register]. You line up the kids, say pairs facing each other, throw a ball to each other, then you would pass the ball back with a volley. I would show the kids together with my trainer colleague how you should do it. So, there was a lot of focus on me [the coach] and my way was the right way. The players didn't get to express themselves very much, I had shown then how to do it the correct way.	"IT WAS AS IF THE TRAINER HAD THE SOLUTION" TECHNIQUE REGISTER COACH CONTROL CORRECT TECHNIQUE

Coach G

The technique register, and its micromanagement, was absolutely seen in AIK, in the everyday practices	TECHNIQUE REGISTER COACH CONTROL

Coach B

Yes, even now when they say to players that we must work with switching the play [theme], players just pass the ball from side to side all the time because this is what the coach thinks that they must do and the players' understanding is limited by the idea that they must switch the play, but they will do it so that it will look right for the coach.	THEME PREDEFINED OUTCOME COACH CONTROL PLAY THE COACHES WAY

11-11-2018 AIK head office

We had an "overlap" themed session. When we were finished, we were asked by the coach educators if we were happy with what we saw. We said relatively happy! Then we got criticized for a lack of successful overlaps. The coach educator assumed that the success of an overlap was when the overlapping player received the ball. The idea of a successful overlap is not about receiving the ball but also about distracting the defenders, pull them out of position and create other opportunities i.e., a gap to pass or	THEMED SESSION CRITICISED ASSUMING PREDEFINED OUTCOMES CONTRASTING OPINIONS

dribble through as the defense is moved out of position by the overlap. We were also criticised for not clearly mentioning the theme of the session in the introduction. (Field note: informal conversation Coach C AIK head office, November 11, 2018)	CRITICISED THEME

Coach D

When I came in as assistant trainer in our team 2 years ago it was quite a traditional approach/method where we drilled passes, 5 meters 10 meters, 1 touch, 2 touch. Steer and decide where the kids should be and how they should be positioned – quite detailed.	PREDEFINED PASSING DRILLS EXPLICIT INSTRUCTIONS

09-20-2018 Skytteholms IP

Coach C: I guess, afraid that he will make a mistake. The father wanted a guarantee that his son would play in the academy next year. He said that he has already been talking to other academy clubs. I think that Coach A had him when he was 9 years old. (Informal conversation: September 20, 2018, Skytteholmens IP)	ANXIETY STATUS MAINTENANCE

COACH A

He belonged to our academy from the first year at 9 and this was the start of the whole academy journey when we lowered the selection age [in 2011] and there, a lot of decisions were pre-decided decisions [in training and in games]. This set the pattern for him as in his first year at AIK academy, he didn't own one of his decisions or test himself with regards to what worked or didn't work for him. Doing these programmed patterns meant he developed a habit of doing what you are told. Which is a big reason why, despite being free, he decides to play centrally to another free player, who probably hasn't the best situation to take the ball forward.	ACADEMY SELECTION PREDEFINED OUTCOMES "DIDN'T OWN ONE OF HIS DECISIONS" COMPLY

26/11/2018. AIK head office

Coach J: I have been on the new courses recently. Some of the material that SvFF have is very good, but the coach educators are not very engaged with the material. Mark: In what way Coach J: Well, I had this instructor on one course who said that the course is missing the technique register. Coaches should be using this with the youngest players so that they have a good ground. Mark: I think I know who that is. Coach J: Yes, he also runs the football coach education courses at our university (GIH). (Field note: Informal conversation, November 11th, 2019).	NEW COACH EDUCATION EDUCATOR ENGAGEMENT TECHNIQUE REGISTER COACH CONTROL

09-01-2019 AIK head office

Coach H: Some coaches in the younger age groups hide behind parents to drive the team the way they want to. Mark: In what way Coach H: Parents have expectations about selection and training and some coaches who are "ambitious" want to just win to get recognition. If the club questions the coach, they just get the parents involved to argue for them. (Field note: Informal conversation, November 11th, 2019).	COACHES PARENTS EXPECTATION-SELECTION RESULTS COACH CONTROL

Reflections February 2019

The impression of a learning environment that many parents have is one where there is an illusion of order and discipline, neatly laid out cones and kids running at "tempo". Tempo is a commonly used word, it implies doing something very fast. This is what looks good from the outside. Of course, the coach must also be seen to be telling the players what they should do.	TEMPO EXPLICIT INSTRUCTIONS

Coach D There is a structural problem in Stockholm football that invites the possibilities for the development of an environment that is not child/player centered to develop in clubs. This also influences parents and coaches who in an effort to get results, select the best as early as possible, creating teams within a team. **16-10- 2019 AIK head office** Coach A: Years ago, the results were what I leaned on and if we won, we played well, if we lost, we were bad. When I was younger, I didn't want to come in on Monday [to AIK] if we lost on Sunday. I was the one who selected the 8-year-olds to the academy. (Field note: Informal conversation, reflecting on previous conversation and interview, October 16, 2019).	STRUCTURAL PROBLEM PARENT INFLUENCED BEST WITH BEST RESULTS DEFINED ANXIETY SELECTION

The second cycle coding was used to interpret, organise and synthesise codes, moving beyond descriptive first level codes towards more "focused" coded themes that required interpretation and theoretical considerations (Tracy, 2018). Smaller first-level codes were grouped in a larger hierarchical (umbrella) category as exemplified in the table below.

Table 2. Examples of larger hierarchical umbrella codes.

Umbrella code	Code description	Examples
Coach pedagogy PASSING- PATTERNS ISOLATED DRILLS "FOCUS"-ORDER EXPLICIT INSTRUCTIONS STRESS-ANXIETY COACH CONTOL GAMES BASED PREDEFINED -OUTCOMES PLAY COACHES WAY	Describes the various types of observed practices, pedagogical approaches and coach behaviour at AIK youth football.	…there are a lot of predetermined passing patterns that are practiced in isolation of opponents and then put into a game. If the players don't play out from the back the exact way the coach wants them to, then the play gets stopped. Tonight, I saw a very animated coach who, during an 8v8 practice was moving players around like chess pieces The sessions look lethargic and pretty much isolated technical work for over 45 minutes. Coaches shouting focus, focus as kids wait in line and tempo, tempo, with speed (med fart!) as they dribble to a cone and back or work on a passing drill without opponents. On the nearby pitch the older academy teams are spending a lot of time on predetermined passing patterns. I notice this fascination with playing out from the back even when the high pressing team leave gaps to play through and beat the press. The coaches seem determined to get "their" way of playing across to the players. Is this the classic coach looking for their coaching points?
Parents MONOTORING BEST WITH BEST "LOSE BEST PLAYERS" EXPECTATIONS RESULTS ANXIETY STATUS MAINTENANCE	Describes parents behaviours, opinions and insights into practices at the club.	It doesn't look like he is in control. It is like a 'sandlåda' (playground sandbox), its chaos, kids can do what they want when playing these games. He should be in there telling them what to do! But we will lose the best players to other clubs that select early – if we don't start selecting players early again Parents are anxiously peaking over the closed off 7 a side pitch, while standing on seating area in the adjacent children's playground. Something happens, one parent looks up to the night sky, while the parent next to him stares at him and opens his arms, then drops his head and shakes it. The impression of a learning environment that many parents have is one where there is an illusion of order and discipline, neatly laid out cones and kids running at "tempo". Tenpo is a commonly used word, it implies doing something very fast. This is what looks good from the outside. Of course, the coach must also be seen to be telling the players what they should do.
Coach insights TECHNIQUE REGISTER COACH CONTROL EXPECTATIONS PLAY THE COACHES WAY PREDEFINED OUTCOMES RESULTS ANXIETY STATUS MAINTENANCE	Describes coaches opinions and insights into club in general, on pitch practice	The technique register, and its micromanagement, was absolutely seen in AIK, in the everyday practices He belonged to our academy from the first year at 9 and this was the start of the whole academy journey when we lowered the selection age [in 2011] and there, a lot of decisions were pre-decided decisions [in training and in games]. This set

		the pattern for him as in his first year at AIK academy, he didn't own one of his decisions or test himself with regards to what worked or didn't work for him.
		Through a lot of years in football. My feeling is that parents who don't have proper insight into development, they like the look of organisation. They like the look of control, which is easy to get because you can put them in a line and do a passing drill and for someone who doesn't have insight, it can look very, very good.
		Parents have expectations about selection and training and some coaches who are "ambitious" want to just win to get recognition.
		The parents in my team have a different understanding, even from the C Diploma, what coaching is. They expect a dominant authority, very vocal and the Swedish word is "tydligt", clear, precise, Ordning och reda?
Structure and impact of wider influences "NERVE" ANXIETY STATUS MAINTENANCE BEST WITH THE BEST RESULTS COACH CONTROL	Significant utterances and/or nonverbal actions or practices that resonate with and/or suggest wider influences	You see when I began it was …. there was a little nerve that influenced pedagogy. You were forced to have results even at 9, 10 years. This influenced your pedagogy a lot and what you do. There is a structural problem in Stockholm football that invites the possibilities for the development of an environment that is not child/player cantered to develop in clubs. This also influences parents and coaches who in an effort to get results, select the best as early as possible, creating teams within a team.
Coach education TEKNIQUE REGISTER THEME COACH CONTROL PREDEFINED OUTCOMES PLAY THE COACHES WAY	Significant utterances, experiences or references to both old (pre-2014) and new SvFF coach education courses	"It was as if the trainer had the solution in the form of this folder [technique register]. You line up the kids, say pairs facing each other, throw a ball to each other, then you would pass the ball back with a volley. I would show the kids together with my trainer colleague how you should do it. So, there was a lot of focus on me [the coach] and my way was the right way. The players didn't get to express themselves very much, I had shown then how to do it the correct way." " …we were stuck with the technique register, these big binders of exercises. We just got one exercise that we're told this is what you do. Well, almost like a word book on every type of isolated technique which should be used in football. We were doing sessions on the tackling. And we were standing in lines. The first in line ran towards the ball and kicked the ball, and we were told how to do that." "We had an "overlap" themed session. When we were finished, we were asked by the coach educators if we were happy with what we saw. We said relatively happy! Then we got criticized for a lack of successful overlaps. The coach educator assumed that the success of an overlap was when the overlapping player received the ball. The idea of a successful overlap is not about receiving the ball but also about distracting the defenders, pull them out of position and create other opportunities i.e., a gap to pass or dribble through as the defense is moved out of position by the overlap. We were also criticised for not clearly mentioning the theme of the session in the introduction."
Selection LOSE BEST PLAYERS STATUS MAINTENANCE "PERFORMANCE ANXIETY IN ACTION" RESULTS	Utterances or insights gained in the field in relation to AIK decision and selection and de-selection.	This, I guess is what performance anxiety looks like coming up to the end of the academy season. They are competing against each other, even when in the same team, instead of collaborating to make each other better." "I have had a few parents ask me about 'nivåindelning' (splitting the kids into ability levels- best with best). His feeling was that "this is about winning games for their own child." "Parents have expectations about selection and training and some coaches who are "ambitious" want to just win to get recognition (through results). If the club questions the coach, they just get the parents involved to argue for them."

To delve further into the 'how', 'why', or 'because' during second-cycle coding activities, data emerging in the micro was compared with, analysed alongside, and synthesised with the data collected via document analysis that informed the historical contextual analysis (macro). This allowed for a triangulation of emerging codes using multiple sources of information, gaining varied perspectives on what is happening in the phenomena, helping form clear, conceptually interesting and contextually rich themes (Creswell, 2016). Embedded here is the appreciation that training sessions do not take place in a socio-cultural vacuum but are deeply entangled within meaningful contexts of a broader societal form of life (Juarrero, 2023;

O'Sullivan et al., 2023). To better understand athlete development in and through sport, culture and context matter most (Araújo et al., 2019; Vaughan et al., 2022). Therefore, data from the micro system of practice synthesised with data from the historical contextual analysis can be understood as an important part of maintaining correspondence with the specific ecology of relations. Table 3 and table 4 shows data type and data sources that were synthesised during second-cycle coding.

Table 3. Data type and sources that were synthesised during second-cycle coding.

Analysis level	Data type	Data sources
Macro	Formal Texts	NGB guidelines and reports (e.g., Swedish Sports Council documents) SvFF coach education material Nordic Sports Forum Archive Center for Sports Science (CIF) archive
	Media sources and Supplementary texts	Newspapers (eg.., Dagens Nyheter, Expressen, Aftonbladet) Online websites and blogs (e.g., Svenskafans, Norsk Fotballtrenerforening, SEF, idrottensaffär, SvFF, Swedish Sports Council, Fotbollskanalen, TV)
Micro	Observation, field notes Interviews, informal conversations	Coaches, players, parents, club leaders, video footage

Table 4. Examples of raw data that informed the historical contextual analysis (macro) that was analysed alongside, and synthesised with the data emerging in the micro

With the aim to reduce performance anxiety (competing for social status**)** the club want to dampen the emphasis on child-youth football being about children being assessed and valued. It needs to be based on their interest. - We have looked in the mirror and thought. Why should we do it like the others? What is healthy children's and youth sports? AIK has listened to the debate about healthy children's and youth sports, where early elite investment has been criticised from the perspective of children's rights with reference to the UN Convention on the Rights of the Child and guidelines from both the National Sports Confederation and the Swedish Football Association. A misunderstanding is that AIK is closing its academy. No, but we will start it later. Before the age of 13, it should only be based on joy and interest. We want more people to play football longer and this is not a step back, on the contrary. We want as many of our own players in our A-teams as before, at least, but during the journey they we want them to feel good, says Leif Karlsson. (Document analysis: Mitt i Solna article: AIK höjer åldern för start i akademilagen, June 2017. Translated from Swedish) I'm confronting them. When they cross the line, I am very clear and say - You are not just out on thin ice, you have gone through the ice. Now you have to go back and do your job in a professional way ... If it does not suit you, just to leave the area. It is not a public right to look at the elite boys' camp. It has happened that we have closed national team camps because talent scouts, agents and relatives get involved and the young people have a hard time dealing with it, says Eriksson.	PERFORMANCE ANXIETY-STATUS DAMPENING ASSESSMENT SELECTION DEBATE EARLY ELITE INVESTMENT UNRC MISUNDERSTANDING JOY RETENTION CLUB AMBITION WELLBEING CONFRONTATION GONE OVER THE LINE "NOT A PUBLIC RIGHT" STRESS AND ANXIERTY WELLBEING OF PLAYERS

(Document analysis: Aftonbladet article: Agenter springer in på plan i jakt på talanger July10 2015. Translated from Swedish)	
Youth football in Stockholm is the most stressful and unhealthy in the country. (Document analysis: Fogis, September 2017. Translated from Swedish).	"STRESSFUL AND UNHEALTHY"
There is currently a professionalisation of Swedish youth football with foreign big teams, child stars used as advertising planks and agents who shadow football pitches with money in their eyes. The ideals that Swedish youth football movement is based on has been split in two. On one side are international big clubs, elitist academies and money-hungry agents who have turned sports into a market and children into consumers and products. There is an evolving culture of status among parents that have a 'high performing child'. (Document analysis: Aftonbladet article: Blivit status att ha ett presterande barn, November 24, 2019. Translated from Swedish)	PROFFESIONALISATION AGENTS/SCOUTS BUSINESS MOVEMENT DIVIDED ELITE MARKET STATUS "HIGH PERFORMING CHILD"
At the same time as the view of parenting is changing, there is also a change in attitudes towards children in the corresponding direction, where children are regarded more as independent individuals who participate in and influence their surroundings. This in turn has meant increased individuality and freedom of choice for the entire family. With this in mind, it can be understood that parenting in general and sports parenting in particular have come under scrutiny since the beginning of the 2000s and have been extensively discussed both within Swedish sports research and in the media. In this context, concepts such as "curling parent" and "helicopter parents" have emerged and been lively debated. In short, it can be said that these parenting styles mean that the children's path forward in life is "swept" and "supervised" so that they avoid encountering resistance and problems. (Document analysis: Centrum för idrottsforskning, 2015, p12. Translated from Swedish)	PARENTING ATTITUDES INDEPENDENT INDIVIDUALITY SPORTS PARENTING UNDER THE MICROSCOPE RESEARCH AND MEDIA PARENTING STYLES MONOTORING AVOID - UNPREDICTABILITY
The serious game - who can't join? https://www.expressen.se/sport/qs/den-allvarsamma-leken/	SERIOUSNESS
Selection and elite efforts have long been creeping down the ages in AIK, Hammarby, Brommapojkarna and Djurgården. They are accused of distorting a "system" and breaking rules about recruiting children - but they have started to pull in different directions. But also a track that leads straight into Stockholm football, where four big clubs are accused of driving a problematic frenzy, but have started to pull in different directions. It will soon become clear that both cases essentially revolve around one issue more than any other: Selection. Who is selected and who is eliminated? Swedish football loses the most players aged 12-13. In the Swedish Football Association's latest survey from 2017, which Sport Expressen has gained access to, the number of football players dropped from 32,053 at the age of 12 to 23,604 for 13-year-olds.	EARLY SELECTION STOCKHOLM ACADEMIES DISTORTED SYSTEM EARLY RECRUITMENT/SCOUTING DISTORTED SYSTEM SELECTION SELECTION/DESELECTION RETENTION ISSUES
Fallby: The commercialisation of football has played an important role, especially among boys. They (clubs) have developed an enormous fear of missing the next big star which will then mean glory and fame for the person who has "discovered" the player. Football becomes very result-oriented at an early age. Especially in Stockholm. There is also money and agents driving this. This is a structural system where, for example, elite camps and youth national teams should be considered in the overall picture. And parents who have too little knowledge about what constitutes a healthy environment, he says.	COMMERCIALISATION FOMO STATUS RESULTS BUSINESS ELITE PARENT EXPECTATIONS ASSUMPTIONS

The argument you most often encounter when you are out in clubs is that "the others do it". It shows what a low level the discussion is at. Fear drives the system. Unfortunately, I am getting signals that women's football is following in the footsteps of men's football. They have started to select more at younger ages there too, he says. (Document analysis: Expressen article: Den akkvarsamma leken- vem är det som inte få vara med, October 2018. Translated from Swedish)	ARGUMENT LOW LEVEL FEAR DRIVES SYSTEM EARLY SELECTION
Selection for the Youth Academy must be completed in November, and then the coaching organisation must also be presented to players and parents. The players are selected in the Youth Academy one year at a time (p.41). (Document analysis: AIK Verksamhetsplan, 2011. Translated from Swedish).	SELECTION-DESELECTION
For sports associations, the market pressure is correspondingly rooted in perceived demands to run an increasingly professionalised and customer-oriented business. Costs (p.8). (Document analysis: Idrottens pris: About the costs of sport and the importance of membership, 2015. Translated from Swedish)	MARKET PRESSURE "PROFESSIONALISED" CUSTOMER (PARENTS)
Part of this has certainly been the professionalisation process we have been able to follow in sports since the early 1990s, that is, the dream of becoming a professional in one's sport is not only a child's, but also a parent's. Thus, the child's activities develop to also become interesting from the outside, what they can perform in the future (p.13) (Document analysis: Idrottens pris: About the costs of sport and the importance of membership, 2015. Translated from Swedish)	PROFESSIONALISATION DREAM CHILD AND PARENT EARLY ACTIVITY FUTURE PERFORMANCE
There is no monster that controls access to elite programs. The problem is the football associations cowardice. (Document analysis: Dagens Nyheter article: Bodström står bakom elitgrupper för barn. December 12, 2007. Translated from Swedish).	EARLY ELITE BEST WITH THE BEST SvFF COWARDS
 2007-12-12, sida 79 SPORT. Bodström står bakom elitgrupper för barn Avbetala till 0 % eff. ränta Svenska Bil ARKIVFOTOrCHRISTIAN ÖRNBERG Det är inga monster som styr tillgången på elitsatsning Problemet kring satsningarna är förbundens feghet	JUSTICE MINISTER ELITE CHILDREN
Thomas Bodström (Justice minister 2000-2006)- Bodström stands behind elite groups for children. Dagens Nyheter archive 12-12-2007 SvFF's talent developer Claes Eriksson detests teams that top - but is positive about ability grouping players. - *lika barn leka bäst*, he says to Soccer Channel.	

(Document analysis: Fotbollskanalen article: SvFF:s talangutvecklare om nivåindelning av ungdomar: "Lika barn leka bäst, December 17, 2016. Translated from Swedish)	SvFF TALENT DEVELOPER POSITIVE BEST WITH THE BEST

Lika barn leka bäst - möt Malmös nya anfallsduo

⏱ PUBLICERAD: 15 OKTOBER, 2016

(Document analysis: TV4: Lika barn leka bäst -möt Malmös nya anfallsduon, October 15, 2016)
https://www.tv4.se/klipp/va/3572452/lika-barn-leka-bast-mot-malmos-nya-anfallsduo | BEST WITH THE BEST-SIMILAR WITH SIMILAR |
| From having been one obstacle, the money instead became an opportunity. While the state primarily promoted professionalization, the market supported commercialization. A specification of this is that state support has primarily had consequences for grassroots sports, while commercialization has primarily affected elite sports.
(Document analysis: Debate article: Idrottens professionaliserings och kommersialiseringsprocesser, 2005, Translated from Swedish). | STATE MONEY PROFESSIONALISATION/ COMMERCIALISATION

ELITE |
| Becoming a good player has nothing to do with talent, it's just about training. Everything is possible to influence through training except its length. There is a more or less accepted belief in the so-called "10-year rule" which states tha to become an expert in an area requires a minimum of 10 years (10,000 hours) of training.
(Document analysis: Tips Elit article: Största talangen är att träna May 24 2011. Translated from Swedish) | BECOMING GOOD

TRAINING VOLUME BELIEF 10,000 HOURS RULE |
| Potential for football is seen, above all in the movement pattern of the child. And it can be seen early, already at the age of seven or eight. You see if he moves like a football player. There is something about balance and coordination.
(Document analysis: Renew Magazine. Tidig elitsatsning avgörande för fotbollstalanger. 2013. Translated from Swedish) | IDENTIFICATION EARLY "SEVEN OR EIGHT" GUT FEELING |
| If one thinks that skills should be learned before a certain age and that a certain amount of training must occur early, this probably leads to clubs not taking in new children who have not started in time.
(Document analysis: Idrottsforskning article. Många vägar till landslaget October 2 2015. Translated from Swedish) | BELIEF TRAINING EARLY EXCLUDING "LATE" STARTER |
| The debate took place in a period in Swedish society when neoliberalism emerged for the first time and became a serious ideological challenger to the social democratic welfare policy. The criticism of Roy and Bob was that they played robot football, factory football and it was rubbish | NEOLIBERLAISM CHALLENGING ENGLISH MODEL ROBOT FOOTBALL |

football. The players who submitted to the system acted like robots without their own will. They could not express their own talents and they had to run exactly as they were told, like on a conveyor belt. (Document analysis: Svenskafans: Bob and Roy, August 21, 2003. Translated from Swedish)	PLAY THE COACHES WAY PREDEFINED OUTCOMES COACH CONTROL
..the pyramid, many individuals make their entry into organised sports. They develop knowledge and skills through a process where, in a form of Darwinian competition, they are emulated and compete with each other as they practice more extensive and increasingly advanced and specialised training (p66). (Document analysis: Riksidrottsforbundet. Elitidrott rapport 2015. Translated from Swedish)	PYRAMID/TRIANGLE SELECTION/DESELECTION INTERNAL COMPETITION
….on the other hand, competitive spirit, selection and deselection increasingly further down the ages can be explained by the connection to the commercial elite sport. (Document analysis: Debate article: Swedish Sports Science no. 2: Sport between the peoples movement and commercialism, 2003, Translated from Swedish)	SELECTION/DESELECTION EARLY AND EARLIER COMMERCILISATION ELITE
  SvFF UEFA B session design (SvFF UEFA B Coach education, p. 43).	THEME PREDEFINED OUTCOMES COACH CONTROL PLAY THE COACHES WAY
https://www.youtube.com/watch?v=U9UGWHQX9-c SvFF Technique register video 	TECHNIQUE REGISTER THEME EXPLICIT INSTRUCTIONS PREDEFINED PATTERN PREDEFINED OUTCOME COACH CONTROL

	EXPLICIT INSTRUCTIONS PREDEFINED PATTERN COACH CONTROL

Instruction points
- Meet the ball at an angle to the pathway of the ball to create space for a deep pass forward
- B should turn if D presses in a bad way
- Back into the player before the ball is played from A
- Use 1 touch
- Use 2 touches to be aware of your own technique on receiving the ball
- Use 3 or more touches
- Receive the ball with foot furthest away from D
- Receive the ball with foot nearest D while half turned to D
- Take the ball quickly out of the area if D is beaten

(Estoril conference notes on Sven Göran Eriksson's presentation from attendee Thomas Lyth 1983. English translation of direct instruction points from coaches to players promoting touch constraints and prescribed movement).

A feature of secondary-cycle coding, that served to focus the analysis-synthesis towards answering the first research question, was identifying which codes are most appropriate to probe (Tracy & Hinrichs, 2017). Returning to the data, these identified codes were then viewed in a more etic, deductive manner. The focus of research was then gradually narrowed to alter between emic or emergent readings of the data and etic use of existing models, explanations and theories. In particular, an understanding of theory and literature provided a foundation for interpreting and building theoretical explanations, as well as informing new lines of inquiry (see 'study overview Appendix 3). Exemplifying how the researcher remained 'in touch' with the phenomenon to offer a deeply contextualised and continuous analysis, a secondary research question emerged during the data analysis-synthesis: *to what extent is the value-directedness (intentionality) that players experience on the football pitch related to the macrosystems, socio-cultural constraints, and forms of life that influence responsiveness to affordances?*

To answer this question, the utilisation of interpretative creativity (analysis and synthesis) existing theories and models helped to deductively guide, organise, and locate the data within this broader ecological context as illustrated in the AIK ATDE (Figure 17) (O'Sullivan et al., 2023). For example, the use of the broad macrosystem dimension, including a range of putative or generative influences (such as political, economic and socio-cultural) that developmentally instigate belief systems were captured as ethnographic themes and further interpreted as an interconnected system of 'value directedness' that cascaded through contexts. This is also captured in the analytical narrative presented later.

Key findings of the first research cycle

The findings from the first research cycle highlighted how multiple intertwined constraints were shaping the ecological niche at AIK youth football. This helped create a context that led to the emergence of context-dependent constraints (e.g., types of task designs, development pathways, expectations) that shaped the value-directedness experienced by players. Coaches, through a form of 'control over context' were over-constraining task designs so that players could only respond to specifically designed affordances. This indicated a need to dampen the influence of the pervasive organisational approaches that were acting as socio-cultural constraints, shaping intentions and attention of players and coaches. A list of related themes that constitute, arise from, and reinforce 'control over context' are presented in Table 5.

Table 5. Key themes arising from ethnographic data under the meta theme control over

Meta theme: Control over context	
Themes directed towards: Control over context	Related themes
Macro environment: Swedish national culture	
• Lika barn leka bäst	
• Neoliberalism	
Macro environment: Swedish sport	
• SMTD	• Collaboration v Competition
• Elite investment/professionalisation	
Macro environment: Swedish football	
• Coach centered pedagogy	
• Elitism	• Systems of play
• Parent expectations	• Bernard/Business
• English model	• Scouts/Agents
Microenvironment: AIK football club	
• Game model/Systems of play	
• Technique register	• Nerve
• Status and performance anxiety	
• Conform and comply	

Control over context
The raw data provided information gathered to help explain the central phenomenon of the study captured in the meta theme 'control over context'. The location of this theme aims to represent a coherence of data, not the sole location of data collected, or its realm of influence. This is expanded on in the following analytical narrative, where we highlight the extent to which the intentions of coaches and the value-directedness that players experience in training and in games, is related to the macrosystems, socio-cultural constraints, and forms of life that can influence responsiveness to affordances:
Throughout the data, there is an indication that the structure of development pathways and on-field pedagogies at AIK youth football were deeply interconnected, in the sense that development pathways and practice task designs were deeply ingrained in ideas and expectations of the notion of limiting unpredictability. This contributed toward the value-

directedness that was shaping the intentions of coaches and players at the club, which was expressed in many ways. The description of a *nerve* that influenced pedagogy is indicative of an *anxiety* and *expectation* that cascaded through organisations and structures, amplifying ideas associated with early *selection* and *de-selection*. Within an evolving culture of *status* among parents this *nerve* emerged in parent behaviour. Here, ideas of *coach control* led to task designs and 'nivåindelning' (*best with best*) that aimed to achieve *results*, which accompanied an emerging parenting style ground in a form of *monitoring* to ensure exclusivity with their child not having to encounter too much resistance and problems in their development.
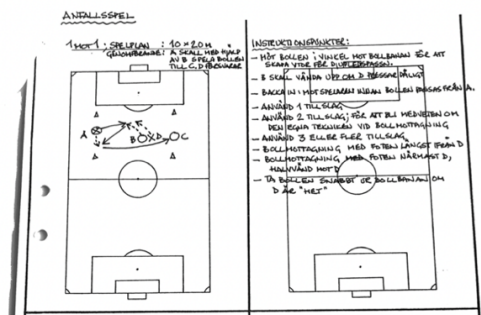
Coaches maintained their *status* through *results* and adopted deterministic methods in training and games. For example, using *predetermined passing patterns* to *control* future outcomes and limit unpredictability (*predefined outcomes*). Players maintained their *status* by *playing the coaches way* through *compliance* with *explicit* coach instructions. This approach provided the mirage of control (*coach control*) which appealed to the *expectations* of parents, which was associated with *results*. Another way to limit unpredictability regarding early *results* was to have an early *selection* of the *best with the best* which was becoming a pervasive practice within Swedish youth sport. These controlling tendencies resonated with those from the broader macro levels of the Swedish sports, football and national culture (*professionalisation, commercialisation, early elite, market pressure*), emerging economic interests (*agents/scouts*) even at the macro levels beyond Sweden, framing youth football as an economic interest (*business*)

This dynamic arguably amplified *expectations* as to what young players learning in development should 'look like'. Indeed, a consequence of this was the reinforcement of the culturally resilient belief that greater stability and consistency in performance is related to practicing repeatable movement outcomes, evident in practice task designs that were limiting player engagement. This value-directedness towards limiting unpredictability aligned with a deeply rooted path-dependent coach education form of life. Practices prioritised in Swedish Football Association coach education until 2014 were underpinned by the use of *themes* that foregrounded *predefined patterns/outcomes*, optimal technique (*technique register*) under *explicit instructions* (*play the coaches way*). These practices highlighted a cultural-historical inheritance (1970's English model) that embodied a *coach control* pedagogy, where the coach had the overall picture of how the game that players needed to comply with (*play the coaches way)*. The *coach control* system trajectory was still evident in the new coach education courses. *Theme* driven game-based designs continued to be underpinned by the over constraining of tasks to limit unpredictability (*predefined outcomes*). Further, the coach educators socially and culturally constructed beliefs contributed to the maintenance of a traditional hierarchical model, the position of the (controlling) sports pedagogue (*coach control)* at the heart of the learning process.

Table 6. Key themes with examples of data relating to the meta theme control over context

Location	Theme	Codes	Examples
Micro-environment	Game model-systems of play	PREDEFINED OUTCOMES PASSING PATTERNS COACH CONTROL EXPLICIT INSTRUCTIONS PLAY THE COACHES WAY	Looking at the sessions that take place after the 'extra training' with the older youth teams, there are a lot of predetermined passing patterns that are practiced in isolation of opponents and then put into a game. If the players don't play out from the back the exact way the coach wants them to, then the play gets stopped. A lot of decisions were pre-decided – very clear predetermined patterns which we also practiced very hard in training
	Conform and comply	PLAY THE COACHES WAY EXPLICIT INSTRUCTIONS FOCUS PASSING PATTERNS	There are many adult expectations placed on children. We seem to be looking to extract some sort of "inner adult". We are expecting kids to behave like mini-(military) adults. Stand to attention, listen attentively, do what we tell them. If kids do this then the coach is a good. This is often the criteria from which parents judge a coach. Yes, even now when they say to players that we must work with switching the play [theme], players just pass the ball from side to side all the time because this is what the coach thinks that they must do and the players' understanding is limited by the idea that they must switch the play, but they will do it so that it will look right for the coach." Doing these programmed patterns meant he developed a habit of doing what you are told
	Status and performance anxiety	NERVE RESULTS STATUS MAINTENANCE COACH CONTROL INTERNAL-COMPETITION BEST WITH BEST	This, I guess is what performance anxiety looks like coming up to the end of the academy season. They are competing against each other, even when in the same team, instead of collaborating to make each other better. I guess, afraid that he will make a mistake. The father wanted a guarantee that his son would play in the academy next year. He said that he has already been talking to other academy clubs." Years ago, the results were what I leaned on and if we won, we played well, if we lost, we were bad. When I was younger, I didn't want to come in on Monday [to AIK] if we lost on Sunday. I was the one who selected the 8-year-olds to the academy.
	Technique-register	COACH CONTROL EXPLICIT INSTRUCTIONS PASSING PATTERNS ORDER	The technique register, and its micromanagement, was absolutely seen in AIK, in the everyday practices There are a lot of predetermined passing patterns that are practiced in isolation of opponents and then put into a game Do everything as fast as you can. From the ladder work to the isolated passing drills, to the games. I also keep hearing "snabba beslut"(quick decisions). Coach C accompanies me to Huvudstafältet. I keep hearing the word focus – (come on boys, a little focus now). Children are doing various isolated dribbling exercises, followed by typical A to B to C passing drills.
Macro-environment Swedish football	English Model	COACH CONTROL PLAY THE COACHES WAY EXPLICIT INSTRUCTIONS	The criticism of Roy and Bob was that they played robot football, factory football and it was rubbish football. The players who submitted to the system acted like robots without their own will. They could not express their own talents and they had to run exactly as they were told, like on a conveyor belt.
	Elitism	BEST WITH BEST EARLY SELECTION PROFESSIONALISM-COMMERCIALISM SCOUTS AGENTS ANXIETY	Selection and elite efforts have long been creeping down the ages in AIK, Hammarby, Brommapojkarna and Djurgården. They are accused of distorting a "system" and breaking rules about recruiting children. It is not a public right to look at the elite boys' camp. It has happened that we have closed national team camps because talent scouts, agents and relatives get involved and the young people have a hard time dealing with it, says Eriksson.

			The ideals that Swedish youth football movement is based on has been split in two. On one side are international big clubs, elitist academies and money-hungry agents who have turned sports into a market and children into consumers and products. Potential for football is seen, above all in the movement pattern of the child. And it can be seen early, already at the age of seven or eight.
	Parent expectations- status	MONOTORING PREDEFINED OUTCOMES COACH CONTROL STATUS MAINTENANCE	There is an evolving culture of status among parents that have a 'high performing child'." "At the same time as the view of parenting is changing, there is also a change in attitudes towards children in the corresponding direction, where children are regarded more as independent individuals who participate in and influence their surroundings. This in turn has meant increased individuality and freedom of choice for the entire family. With this in mind, it can be understood that parenting in general and sports parenting in particular have come under scrutiny since the beginning of the 2000s and have been extensively discussed both within Swedish sports research and in the media. In this context, concepts such as "curling parent " and "helicopter parents" have emerged and been lively debated. In short, it can be said that these parenting styles mean that the children's path forward in life is "swept" and "supervised" so that they avoid encountering resistance and problems."
	Coach centered pedagogy	COACH CONTROL TECHNIQUE REGISTER THEME EXPLICIT INSTRUCTIONS PREDEFINED PATTERN PREDEFINED OUTCOME PLAY COACHES WAY	https://www.youtube.com/watch?v=U9UGWHQX9-c Instruction points • Meet the ball at an angle to the pathway of the ball to create space for a deep pass forward • B should turn if D presses in a bad way • Back into the player before the ball is played from A • Use 1 touch • Use 2 touches to be aware of your own technique on receiving the ball • Use 3 or more touches • Receive the ball with foot furthest away from D • Receive the ball with foot nearest D while half turned to D • Take the ball quickly out of the area if D is beaten
Macro environment Swedish sport	SMTD	SELECTION DESLECTION INTERNAL-COMPETITION ANXIETY	…the pyramid, many individuals make their entry into organised sports. They develop knowledge and skills through a process where, in a form of Darwinian competition, they are emulated and compete with each other as they practice more extensive and increasingly advanced and specialised training. "They are accused of distorting a "system" and breaking rules about recruiting children - but they have started to pull in different directions. But also a track that leads straight into Stockholm football, where four big clubs are accused of driving a problematic frenzy, but have started to pull in different directions. It will soon become clear that both cases essentially revolve around one issue more than any other: Selection."

	Elite investment professional-isation	PROFESSIONALISM-COMMERCIALISM MARKET PRESSURE STATE MONEY ELITE STATUS	"From having been one obstacle, the money instead became an opportunity. While the state primarily promoted professionalisation, the market supported commercialisation." "There is no monster that controls access to elite programs. The problem is the football associations cowardice." Bodström (justice minister) stands behind elite groups for children" "Part of this has certainly been the professionalization process we have been able to follow in sports since the early 1990s, that is, the dream of becoming a professional in one's sport is not only a child's, but also a parent's." "….on the other hand, competitive spirit, selection and deselection increasingly further down the ages can be explained by the connection to the commercial elite sport."
Macro environment Swedish culture	Neoliberalism	MARKET PRESSURE PROFESSIONALISATION	The debate (English v Swedish model) took place in a period in Swedish society when neoliberalism emerged for the first time and became a serious ideological challenger to the social democratic welfare policy. For sports associations, the market pressure is correspondingly rooted in perceived demands to run an increasingly professionalised and customer-oriented business.
	Lika barn leka bäst	BEST WITH BEST SELECTION	 Lika barn leka bäst - möt Malmös nya anfallsduo PUBLICERAD: 15 OKTOBER, 2016 https://www.fotbollskanalen.se/video/3572452/lika-barn-leka-bast-mot-malmos-nya-anfallsduo/

First probe and second research cycle

The preliminary research question was devised to help orient the research in the field and navigate the research context. This was modified and morphed into the second research question during data analysis-synthesis. Findings from this initial research phase indicated a need to dampen the influence of the "control over context" approaches that were acting as socio-cultural constraints, shaping the intentions (in session design) and attention (during practice and performance) of players and coaches. To form a coherent foundation for the club's practice design and education programs, the first probe, "AIK Base" framework (Figure 25) (see O'Sullivan et al., 2023; Woods et al., 2020) was created to encourage the coordination of shared principles and language. As initial interventions to probe the system were being implemented, the next research cycle (utilising the SIF) sought to capture the evolving sociomaterial environment as it persisted and changed.

Table 7. Examples of raw data and initial first level descriptive codes

24-04-2019 Academy training Råsunda IP Observed academy training with the Dutch FA. 3 teams on one pitch. "What that coach is doing, I see a lot of that in Holland" (Filed note: Informal conversation : April 4th, 2019) – referring to a coach who kept stopping a session and goes in to show people where they should be positioned and what the player on the ball does I checked with coach after the session, and he said that he is trying to get the players to work with the clubs game model -which I am a bit unsure what it is! (Filed note: April 4th, 2019).	DUTCH FA VISIT OBSERVING COACH CONTROL EXPLICITLY INSTRUCTING CORRECT POSITION GAME MODEL
27-11-2019 Coach H : My assistant coach thinks that the coach should have all the answers for the players. I am trying to work from the 'Base', but he is pushing a very explicit game model. Very SvFF! He sometimes takes the start of training and delivers it in the form of a theme with very pre-determined goals for the players. Basically, his coaching points. He then steps in asap to correct as opposed to letting things flow for a while. (Filed note: Informal conversation : November 11th, 2019)	"COACH SHOULD HAVE ALL THE ANSWERS" AIK BASE EXPLICIT GAME MODEL THEME PREDEFINED COACHING POINTS PLAY THE COACHES WAY
19-01-2020 Råsunda IP Meeting with Ragnar (head of development for the boys academy). He showed me some session designs that the coaches have logged in to XPS. In general, the designs looked good but many of the sessions had detailed pre-determined coaching points. I wondered "how much insight these presentations of training sessions give into what actually happened in training. Are the coaching points a box ticking exercise?" (Field note: 19 January 2020). Mark: Coaches are clearly spending a lot of time on planning, editing clips and administration work. Ragnar: What is it we have discussed before? The illusion of professionalism? Certification points means lots of administration for the coaches and money [for some it's their salary] is connected to certification. Some of the administration might be of benefit but there is too much. (Field note: informal conversation, 19 January 2020)	RAGNAR LOG SESSION DESIGNS PREDETERMINED COACHING POINTS DESIGNTO TRAINING? BOX TICKING PLANNING/ADMINISTRATION ADMINISTRATION "THE ILLUSION OF PROFESSIONALISM" COACH ADMINISTRATION CERTIFICATION CONNECTED TO MONEY
02-04-2020 Råsunda IP Coach B: There is more talk about organization of the players on the pitch, organisation of planning, organisation of administration, than actual football. This is how it has been at the academy for the last few years. (Field note: informal conversation, February 4, 2020)	ORGANISATION PLAYERS ORGANISATION PLANNING ADMINISTRATION
03-02-2020 Råsunda IP Adam: We have players filling all the channels [according to the Game Model] when we are in possession, but we still have problems securing control of the ball. We also have problems moving over in defense, we are slow to act. (Filed note: Informal conversation: Råsunda IP, February 3rd , 2020) Bart the U19 head coach presents his training based on the Swedish Football Associations work plan model. I am intrigued to know why he uses this planning model. Bart: We are not the best at preventing the opponent's build-up of play in this club. We are in the right position so the players think that this will take care of itself. (Field note: February 3, 2020)	CORRECT POSITION PROBLEMS KEEPING THE BALL POSITIONING PROBLEMS "WE ARE SLOW TO ACT" BART SvFF PLANNING MODEL PROBLEM RIGHT POSITION "TAKE CARE OF ITSELF"

On a fika break I engage in conversation with Bart Mark: I see that you are using the SvFF planning model Bart: Yes, it works well for me Mark: What do you mean by that? Bart: Well, it gives structure to the training by having a clear plan to follow. It's about sticking with the plan. (Field note: informal conversation, February 3, 2020)	PLANNING MODEL WORKS FOR THE COACH "GIVES STRUCTURE" STICK WITH THE PLAN
12-05-2020 AIK head office We don't need to prepare the players for every situation. Problem is that [with the game model] the coach is almost trying to automatise everything. Coaches have a tendency of falling back on a more traditional way of coaching. (Field note: Department of Methodology meeting, March 12, 2020)	PROBLEM AUTOMATISE WITH GM FALL BACK ON TRADITION
04-02-2020 Råsunda IP Coach B: Players are in the right position [according to the Game Model], so some coaches and players think that everything will take care of itself. (Filed note: Informal conversation : February 4th, 2020)	RIGHT POSITION "TAKE CARE OF ITSELF"
11-03-2020 Skytteholmens IP Coach H: The players (academy team) seemed to be used to being told what to do and where to stand. One player came to me and said - "Do you want me to not always pass it to our central midfield when we are building up play?" Vincent: The game model or the "AIK" game model is attacking central Coach H: Yes! And the coaches think that you 'just' attack central, if you want to attack central. So many of the sessions are based on this. (Filed note: Informal conversation: March 11th, 2020).	PLAY THE COACHES WAY "TOLD WHAT TO DO AND WHERE TO STAND" GAME MODEL ATTACKING CENTRALLY JUST ATTACK CENTRAL INFORMS DESIGNS
16-09-2020 Skytteholmens IP Some observations from the extra training that I would like to share with all the p2010/2009 leaders. Our focus is not to help children learn to play 7 a-side or 9 a-side (coach a model). We want them to learn to play football. This is quite challenging in 7 a-side as it is easy to cheat. I'm sure you have met teams that position a striker in an offside position near your goalkeeper and they will try to find that player as soon as possible. (Filed note: September 9th, 2020).	OBSERVATIONS NOT LEARN TO PLAY MODEL LEARN TO PLAY FOOTBALL CHEAT RESULTS
03-02-2021 Friends Arena It will be a very exciting time for our youngest players (8-12). They will get to train at AIK senior team and Swedish national teams home pitch. Usually, the pitch is surrounded by electronic advertising boards. I recall a game that I attended here a few months back. There was some advertising for Uni-Coach which is a big sponsor of Swedish Elite Football (SEF) organisation that is responsible for academy certification and the 2 top leagues in Sweden. Betting companies cannot sponsor youth football events. To get around this Unibet use the name Unicoach!	EXCITING NATIONAL TEAM PITCH ADVERTISING SPONSOR ELITE FOOTBALL ACADEMY CERTIFICATION BETTING COMPAMY SPONSOR UNICOACH

During the second-cycle coding activities, data emerging in the micro was compared with, analysed alongside, and synthesised with the data collected via document analysis that informed the historical contextual analysis (macro). Exemplifying how the researcher remains in touch with an ecology of relations, some of the emerging data in the second research cycle compelled the researcher to collect more data through further investigating (e.g., document analysis) the socio-cultural contexts in which phenomena historically unfold.

A third question emerged during the second research cycle: *what are the 'sticky' socially and culturally constructed values, beliefs and attitudes contributing to a system inertia?*

Table 8. Examples of raw data from further investigations of the socio-cultural and historical context that was analysed alongside, and synthesised with the data emerging in the micro, during the second research cycle.

In other words, they put the coach's role as educator clearly in focus – the coach had the overall picture of how the game should be organised and was solely responsible for teaching this to the players…… ….when the students/players must assimilate the systematised knowledge the teacher/coach possesses (Document analysis: Idrotsforum article: English or Swedish? The battle for the pedagogical power over Swedish men's football at senior level 1974-82, August 19th, 2003 Translated from Swedish) https://idrottsforum.org/articles/eliasson/eliasson.html	COACH IN FOCUS ORGANISING THE GAME TEACH THE PLAYERS PLAY THE COACHES WAY
 https://www.aftonbladet.se/sportbladet/fotboll/a/jPk9kb/bp-holl-fast-vid-spelmodellen-trots-sju-segerlosa-matcher (Document analysis: Aftonbladet: BP stay with their game model despite seven winless games., July 14th, 2013, Translated from Swedish)	GAME MODEL PLAY THE COACHES WAY STICK WITH THE PLAN
The idea of a compact positional defense with straight lines, direct counterattacks and passing play had taken hold and the players were given clear roles to be carried out in their position and in a way made the game automated by linking all positions to a role and task. Very organisational, industrial and Swedish Since the above reasoning is based more on a predetermined organisation (starting position and role are always the same from match to match), with few changes it becomes easy for the players to quickly understand the team's way of playing, which creates a sense of security and recognition and can be trained faster than a more dynamic variant. (Document analysis: Det gröna fältets schack: Should the coach adapt his idea to the players, or should the players adapt to the coach? May 15th, 2020, Translated from Swedish) https://detgronafaltetsschack.com/2020/05/15/ska-tranaren-anpassa-sin-ide-efter-spelarna-eller-ska-spelarna-anpassa-sig-till-tranaren-ett-spelsystem-en-personlig-reflektion-del-2/	STRAIGHT LINES PLAYER COMPLIANCE CLEAR ROLES ORDER INDUSTRIAL AND SWEDISH PREDETERMINED ORDER ALWAYS THE SAME EASY TO UNDERSTAND CAN BE TRAINED FASTER
Return to 4-4-2 as soon as possible. It gives the players security and we don't have to have Mellberg as a game distributor! (Document analysis: Folkbladet: Do not carry this game to South Africa, September 8th, 2008, Translated from Swedish)	RETURN TO 442 SYSTEM "GIVES PLAYERS SECURITY"

Swedish Football Associations Player Development Plan (SISU idrottsböcker och Svenska Fotbollförbundet, 2015, p. 120)

COACH CONTROL
THEME
EXPLICIT INSTRUCTIONS
PASSING PATTERNS
PREDEFINED OUTCOMES

PROFESSIONALISM-COMMERCIALISM

The road to a successful sports career is long and tough. Malin Träff, the National Sports Confederation's children and youth manager, compares the most extreme cases of early professionalization to trafficking.- Money, power and success are incredibly strong driving forces for many, including in and around sports, she tells Swedens Radio.
(Document analysis: Aftonbladet: Youth sport is compared with trafficking, May 2nd, 2022, Translated from Swedish)
https://www.aftonbladet.se/sportbladet/a/Rr0E7A/riksidrottsforbundet-malin-traff-jamfor-ungdomsidrott-med-trafficking

EARLY PROFESSIONALISM
MONEY
MARKET PRESSURE
"STRONG DRIVING FORCES"

However, Stefan Lundin, sports director SEF (Swedish Elite Football Association) feels no worries. He is sure that they work-and have worked-in the right way in Swedish football's talent development program. "We

SEF
NOT WORRIED
WORKING RIGHT WAY
DIFFERENT LEVL

are at a completely different level than before. It is because the academies started the training at earlier ages. (Document analysis: Aftonbladet: Gold the worst thing that could happen. July 11th, 2015, Translated from Swedish) https://www.aftonbladet.se/sportbladet/fotboll/a/ngVm0x/guldet-det-samsta-som-kunde-handa	ACADEMIES EARLIER AGES

Key findings of second research cycle and second probe

As a practical concept, AIK Base (Figure 15) was introduced to guide coaches in designing affordances to support skilled intentionality. However, socio-cultural practices that were anchored to a dominant coaching form of life contributed to a system inertia, meaning that encultured approaches remained, at times, challenging to change and were very 'sticky'. In this context, sticky refers to an ideological inertia, shielding traditionally inherited beliefs about how skill is understood and 'acquired' (Renshaw et al., 2022). This stickiness was revealed in the over-constraining of practice tasks through the application of the game model concept in the academy. A game model has been described as an overarching strategic approach considered important for team organisation to enhance player functionality (Ribeiro et al., 2019).

Table 9. Key themes arising from ethnographic data under the theme Game model

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Meta theme: Control over context

Themes directed towards: Game model   Related themes

Macro environment: Swedish national culture

- Lika barn leka bäst

Macro environment: Swedish sport
- Professionalisation

Macro environment: Swedish football

- Coach centered pedagogy   - Parent expectations
- Systems of play   - English model

Microenvironment: AIK football club

- Conform and comply   - Nerve
                                 - Status

</div>

How a dominant coaching form of life, "control over context"/limiting unpredictability, was shaping how coaches were implementing a game model is exemplified in the following brief analytical narrative:

Adopting a form of "control over context"/limiting unpredictability, coaches were assuming that they could improve affordances by making them more prominent (*explicit instructions, predefined outcomes*) to players so that they only respond to specifically designed ones (*play the coaches way*). This was captured in the rigid nature (*coach control, predefined outcomes, coaching points, predefined patterns/outcomes*) of how a game model was being implemented which was limiting decision making and problem-solving opportunities, disregarded the interaction of individual, environmental and task constraints that shape skilled intentions from moment to moment. For example, players that were in the *correct position* according to the game model (knowledge about) were experiencing *problems with* positioning in relation to the fast-changing information (knowledge of).

The initial research cycle highlighted a form of game model, where young players were drilled to recall *predefined passing patterns* to *control* future outcomes and limit unpredictability (predefined outcomes) and be later regurgitated in competitive games. As previous coach interactions with the form of life placed a value on the utilisation of deterministic approaches (*predefined passing/outcomes, technique register, play the coaches way*) to limit unpredictability, these inherent tendencies shaped how coaches implemented a game model. This value-directedness towards limiting unpredictability aligned with a deeply rooted path-dependent coach education form of life and was having an over-constraining influence on player-environment interactions.

While data in the second research cycle highlighted how a game model was being implemented in the academy through amplifying player *compliance* (*play the coaches way, correct position*) according to the game model), it also suggested that coaches were complying (*status maintenance*) with a contribution of practices associated with what was culturally understood as professionalism (*illusion of professionalism*). For example, coaches were prioritising the operational procedures of coaching (*theme, planning model, stick with the plan*) and emerging operational demands (administration), rather than to its actual practice, arguably leading to a system capture e.g., doing things the way we have always done them. These controlling tendencies resonated with those from the broader macro levels of the Swedish sports, football and national culture (*professionalisation, illusion of professionalism, commercialisation, early elite, market pressure*), evident at administrative levels where the validation of "quality " was arguably making the work of coaches appear both invisible and controllable.

To combat these encultured 'sticky' approaches, a need to dampen the prioritisation of knowledge about (e.g., rigid global to local game model) the environment, while amplifying task designs and coach behaviours that promote the development of players knowledge of (local to global) the environment was identified. Building on the key ideas of AIK Base, the Contemporary Player Learning in Development Framework (Figure 27) (Sullivan et al., 2021) was proposed to encourage the design of tasks which are more neutral in terms of outcomes. As part of this framework, the Foundations for Task Design Model (Figure 28) (Sullivan et al., 2021), supported by the relational concept of shaping skilled intentions (Figure 26) (Vaughan et al., 2021), was suggested to support the designing of tasks underpinned by neutral affordances (Withagen et al., 2012).

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Table 10. Key themes with examples of data relating to the theme Game model

Location	Theme	Codes	Examples
Micro-environment	Conform and comply	PLAY THE COACHES WAY PREDEFINED -COACHING POINTS PLANNING MODEL ADMINISTRATION EXPLICIT INSTRUCTIONS PASSING PATTERNS PREDEFINED OUTCOMES CORRECT POSITION-POSITIONING STATUS MAINTENANCE ILLUSION OF - PROFESSIONALISM	We have players filling all the channels [according to the Game Model] when we are in possession, but we still have problems securing control of the ball. We also have problems moving over in defense, we are slow to act. …a coach who kept stopping a session and goes in to show people where they should be positioned and what the player on the ball does …more talk about organisation of the players on the pitch, organisation of planning, organisation of administration, than actual football
Macro environment Swedish football	Coach centered pedagogy	COACH CONTROL THEME PLANNING MODEL EXPLICIT INSTRUCTIONS PREDEFINED PATTERN PREDEFINED OUTCOME PLAY THE COACHES WAY	In other words, they put the coach's role as educator clearly in focus – the coach had the overall picture of how the game should be organised and was solely responsible for teaching this to the players. https://idrottsforum.org/articles/eliasson/eliasson.html **Training program** Attacking play. Get to an opportunity and score a goal- using depth Example of predefined passing pattern with no opponents
	Systems of play	PASSING PATTERNS PREDEFINED OUTCOME PLAY THE COACHES WAY COACH CONTROL EXPLICIT INSTRUCTIONS	 BP stay with their game model despite seven winless games https://www.aftonbladet.se/sportbladet/fotboll/a/jPk9kb/bp-holl-fast-vid-spelmodellen-trots-sju-segerlosa-matcher The working method describes the team's priorities in the various stages of the game, for example marking or positional defense in the stage of preventing play build-up. The concept is introduced in the game form 7 against 7. Formation indicates the number of players per team. **The team is in formation when the players have taken their starting positions**. The concept is introduced in the game form 7 against 7. Roles are the tasks of the players in the different stages of the game, for example that a midfielder should be higher up the field than the others in the team's play structure. https://utbildning.sisuforlag.se/fotboll/tranare/spelarutbildning/svffs-spelarutbildningsplan/spelet/lagets-spelsystem/

| | | (EARLY)-PROFESSIONALISATION-(ILLUSION OF) ADMINISTRATION COMMERCIALISM MARKET PRESSURE MONEY | | Private company's offering education courses on tactical periodisation. These ideas that were initially intended for senior professional sport are now being used to educate youth coaches. |
| | | | The road to a successful sports career is long and tough. Malin Träff, the National Sports Confederation's children and youth manager, compares the most extreme cases of early professionalization to trafficking.
 - Money, power and success are incredibly strong driving forces for many, including in and around sports, she tells Swedens Radio.
 https://www.aftonbladet.se/sportbladet/a/Rr0E7A/riksidrottsforbundet-malin-traff-jamfor-ungdomsidrott-med-trafficking | |

Appendix 3: Study overview

Research Questions	Data comes from: Observation Field notes Interviews Informal conversations Contextual historical analysis	Theoretical frameworks -How can we understand the data?	How does the data fit the literature?	How do we explain the findings theoretically?	Design of practical implications-
Is there a connection between young players interactions with relevant fields of affordances and the intentions of coaches at AIK youth football, with the socio-cultural and historical context ? To what extent is the value-directedness that players experience on the football pitch related to the macrosystems, socio-cultural constraints, and forms of life that influence responsiveness to affordances? What are the 'sticky' socially and culturally constructed values, beliefs and attitudes contributing to system inertia?	Skytteholmens IP Råsunda IP Huvudstafältet IP Friends Arena AIK head office Video Forum Karlberg NGB guidelines and reports, coach education Nordic Sports Forum Archive Center for Sports Science (CIF) archive Newspapers Books TV Online websites and blogs	*Organised using the* **Athletic Talent Development Environment (ATDE)** *and understood as socio-cultural historical constraints using the* **Learning in Development Research Framework (LDRF)** **Ecological Dynamics** **Skilled intentionality framework** **Form of life** **Affordances are relational**	Skill and talent not a trait possessed by individuals alone, but a property of the athlete- environment system, subject to changing constraints" (Hristovski et al, 2012. p. 27) and the socially and culturally evolving form of life. A form of life can be described as regular behavioural patterns (e.g., movements, ways of thinking, and perceiving or otherwise) manifest as constraints in the normative behaviours and customs of our communities and cultures (Rietveld & Kiverstein, 2014; van Dijk & Rietveld, 2017). Social, cultural, and historical contexts are important constraints on the development and understanding of skilled performance (Araújo et al., 2010; Uehara et al., 2014) *This can illuminate some* "Sticky" path dependencies (Kiely, 2018)	**Ecological Dynamics** *in particular the* ecological notion of ***affordances*** (Gibson, 1979), extended to the interconnected **socio-material** properties of the environment one inhabits (van Dijk & Rietveld, 2017 *and how* socio-cultural constraints shape the **value directedness** of player-environment **intentionality** Sports organisations, teams and individuals as complex adaptive systems skill learning occurs in the midst of ongoing developmental changes within specific socio-cultural contexts Training sessions do not take place in a socio-cultural vacuum but are deeply entangled within meaningful contexts of a broader societal form of life *which shape* persistent affordances within the ecological niche	Probes to dampen or amplify socio-cultural constraints (Snowden & Boone, 2007) **AIK Base** *Introduced on-field during 2019 extensively through weekly club organised extra training from April to June and September to November.* *Consists of* Constraints Led Approach Non-Linear Pedagogy (Chow et al., 2011) Football Interactions Modified three-stage learning model, search and exploration; discovery and stabilization; exploitation (see (Davids et al., 2012) **The Contemporary Player Learning in Development Framework** *Introduced throughout 2021 with both online and on-field education.* *Consists of* Foundations for Task Design Model (Sullivan et al., 2021) *and* Shaping Skilled Intentions (Vaughan et al., 2021) Video: https://www.youtube.com/watch?v=Fsi6lLmuCC4&t=7s Player Learning in Development Cycle (Sullivan et al., 2021) https://prezi.com/view/QQE2A5ied5hoJH5vO6g3/

Appendix 4: Field note examples and other data sources from coach education in relation to the second probe

Material used in coach education is available here:
https://prezi.com/view/QQE2A5ied5hoJH5vO6g3/

06-02-2021
Department of Methodology meeting held on the 06-02-2021 to discuss how we can introduce the Player Development Cycle/ Contemporary Player Learning in Development Framework (O'Sullivan et al., 2021).

DoM 1	Coach/Development manager
DoM 2	Coach/Development manager
DoM 3	Decision maker/Administrator
DoM 4	Researcher/Sports psychologist
DoM 5	Decision maker/Administrator
Mark	Researcher/Sports pedagogue

DoM 4: I guess we will have to do it online as in the present climate (pandemic, preseason preparation in academy teams) we still cannot get such large groups together at Skytteholmen.

Suggested dates to introduce the Player Development Cycle (prezi) over the course of 5 online meetings (via teams).

- 24th February (Wednesday)
- 25th March (Thursday)
- 16th April (Friday)
- 11th May (Tuesday)
- 7th June (Monday)

We would like to have these events open to as many coaches as possible, boys, girls, BoU and academy, therefore we think 17.30-19.30 might be an appropriate time of day.
We think we can introduce the content of the Player Development Cycle (Foundations for task design model and shaping skilled intentions) and create break out rooms (facilitated by us, plus the heads of each age group and some other key coaches) so that relevant age groups can discuss the applications and provide feedback. DoM 1 and DoM 2 and I will (pandemic permitting) try to work individually with these ideas out in practice with the coaches that attend these online education meetings

24-02-2021
Pre education meeting to refine the online Prezi that will be central to the clubs coach education
- https://prezi.com/view/QQE2A5ied5hoJH5vO6g3/

This education meeting highlighted for me some challenges we will have with the following education modules. Due to the pandemic people are a bit tired of online meetings.

25-03-2021

This was the first online coach education introducing the Contemporary Player Learning in Development Framework – The AIK Player Development cycle. We started with AIK base and highlighted how we wanted to present and evolve these ideas in a more 'user friendly' manner. To combat the "web meeting fatigue", we delegated 4 coaches to be responsible for a breakout room each to get some reflections on AIK Base.

This was a basic introduction and discussion about AIK's identity and balancing it with research. The opening question to the coaches was about how we develop strong motivated and adaptive skillful players (smokinglir with skruvdubb- elegance with hard work). It was highlighted that we adopt an ecological approach by highlighting the club as a complex system-interaction of parts- development occurs when humans interact with their environment.

16-04-2021

How do we bring our ideas from research (empirical and theoretical) to practice?

We emphasised that learning happens in the midst of developmental changes, hence learning IN development (Adolph, 2019). These ideas are something that coaches must consider. We gave the example of learning in development during growth and maturation periods. Also, understanding WHERE learning in development takes place is essential for coaches, the socio-cultural and historical context.

Spelare visar skickliga intentioner när de lär sig att balansera / jonglera dessa avsikter i spelet

Spela (eller få)

Över

Genom

Runt

Motståndarna

We highlighted that the coaches should endeavour to shape players intentions /rather than shaping intentions through controlling their actions e.g., predetermined passing patterns/game model.
Skillful performance is underpinned by players and teams ability to juggle intentions (see pic above).
We used video material from AIK 2005 and 2009

Grunden för träning

Alla aktiviteter bör innehålla:

Boll

Representativ (Matchlik) information

Motståndare

Riktning

Konsekvens
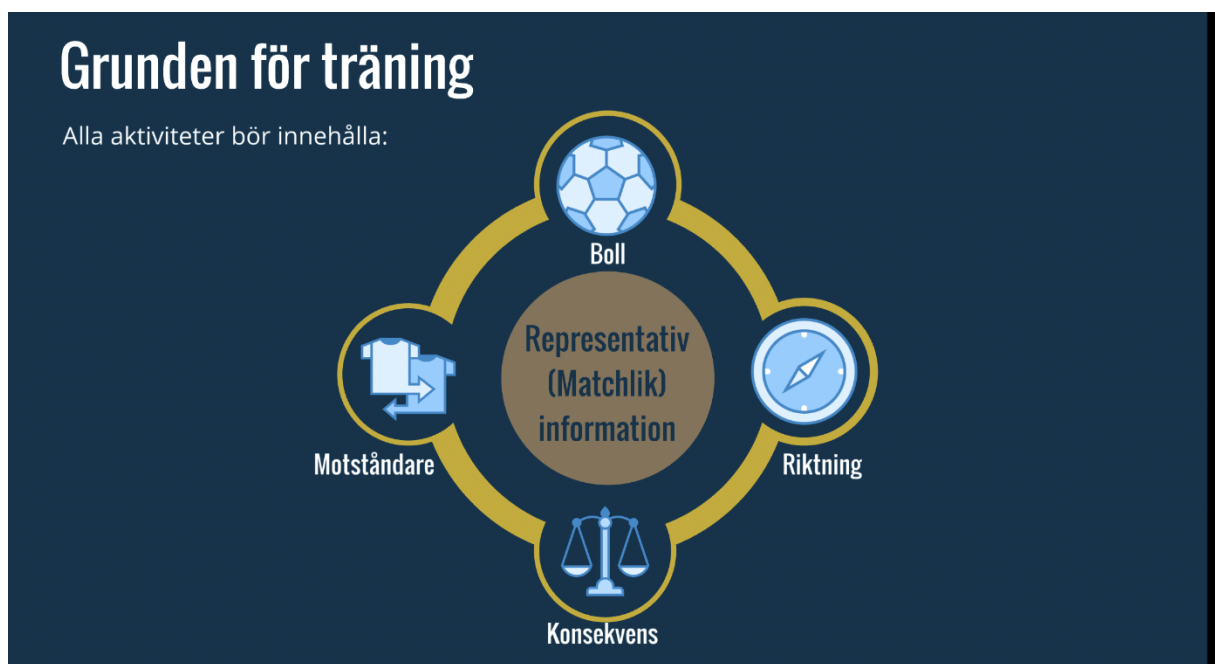
We introduced the Foundations for Task Design Model as a way to guide coaches towards using the principles of a nonlinear pedagogy.

03-05-2021
On-field coach education with teams born 2012
Introducing the concepts of task design being informed by the Foundations for tax design model and coaching interventions informed by Shaping Skilled intentions.

https://www.youtube.com/watch?v=411KUEGnCi0

I am finding that breakdown games (see video link) are a useful way for coaches to gain insight in to how they can manipulate constraints (e.g., starting positions, overloads with time constraints, ball feed etc.)

The session in the video is designed by Sten, a parent coach who has become less prescriptive in his coaching. This session provided good opportunities for me to discuss with other coaches how we can manipulate task designs to shape players intentions.

Sten: We do everything with the ball. Ok the first ten minutes is lots of work with the ball, changing direction etc. but the rest is game based.

Mark: How do you design game based.

Sten: Well, if we have access to a goal or goals then we play bigger number 5v5. If we don't, we play 1v1, 2v2, 3v3. The kids like having competitive games.

11-05-2021

Player Learning in Development Framework

Online coach education

Focus on how coaches work with their design.

Anpassning till vad vi observerar ...

I det här exemplet "man-man markerar" försvararna utan avsikt att stoppa P att spela genom till T.
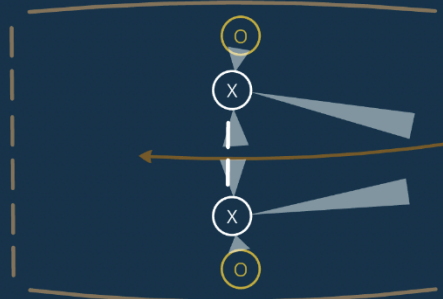
A good discussion in the breakout rooms on what coaches should be observing

Vincent: One coach spoke about the coaching points they prepare for a session. This is what they look for in the session and coach around that

Mark: Isn't this just what they have been doing on coach education courses?

Vincent: I guess so. But are you shaping intentions or controlling actions? That was where the discussion went.

Various typical tasks designs, for example limiting touches, training overloads etc were debated through the lens of the Foundations for Task Design Model and a central question was are these types of designs promoting unskilled intentionality

Appendix 5: Presentation of match preparation and training session designs at the academy utilising the Player development Cycle (Foundations for Task Design Model and the Shaping Skilled Intentions Model).

05-10-2021

Coaches were asked to present their recent training and match preparation sessions with the purpose of nurturing both global-to-local and local-to-global synergies. More directly, how they used their *knowledge about* the game to design practice tasks that guided player search and exploration, to develop players *knowledge of* the game. From the coach's perspective, the aim of practice task design was to help players embody skilled intentions that reveal nested affordances from moment to moment as they coordinate their movements both on and off the ball. From the players perspective, the aim of the practice task was to play through, around and over the opposition in possession and prevent the opposition from doing the same when recovering the ball.

Here, Coach K describes *knowledge about* the opposition, gained from scouting, in relation to the team's match preparation:
Coach K: They wanted us to play outside [around], so it was easy for us to play on the wings, but it was crowded between them [through]. So, our priority (in match preparation and in the game) was to threaten/provoke through and over and then it would be easier to exploit through, around or over. This was to put them out of balance so that they couldn't dictate that we only play the wings.

U19

Figure 1 Ragnar match preparation

U16 Coach A presented his ideas for attacking structure (against a low defensive line) that he is working together on with the players in training and match preparation. The focus was on designing tasks where players could create and exploit an imbalance in the opponents defensive organization by guiding their attention to opportunities that the opponents invite for playing through, round or over.

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Attacking play
Structure
Create and exploit imbalance to advance as soon as possible

Opportunities opponents invite/we create
- Through
- Over
- Around

U13/U14 Coach C presented different sized games from 4v4 to 7v7. He provided the following reason for choice of

Coach C: As this is the youngest age group in the academy, I really want to place a focus on local interactions (local to global) as opposed to a general game model (global to local)
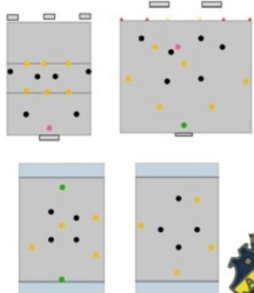

Build up play
The Base
- Ensure possibilities to play through, round and over
- Attacking structure and numerative/positional overload
- Develop skills that make build up easier

To work on
- How the team threatens away from the centre, threaten behind and around opponents backline. (offensive structure, create space)
- Increase intensity in order to establish possibilities

27-10-2021

Example of on-field coach education with the 8-12 age groups
Educational video clip capturing age groups from u8-u19 at AIK youth football- how to utilise the principle concepts of the Player Development Cycle in practice and competition
https://www.youtube.com/watch?v=-_v0GvaLspY

Appendix 6: Extra training example
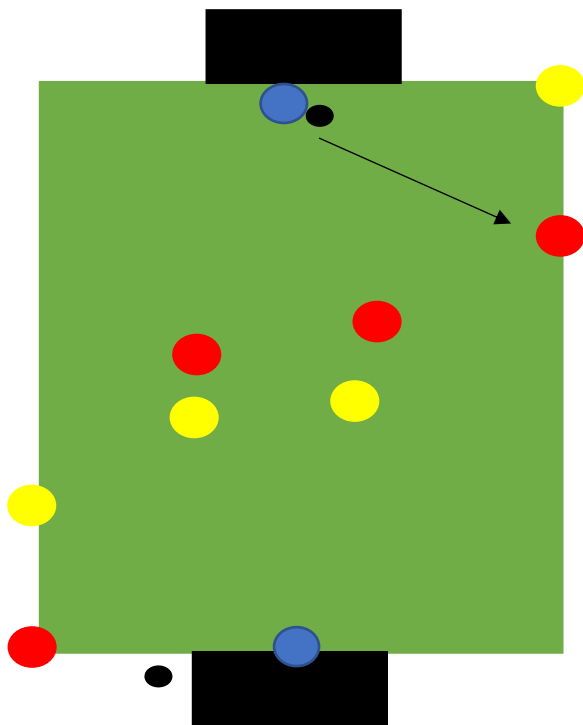
Intention with task-design
- Exploit gaps/space (can you play round, through or over)
- Minimise opponents possibilities to exploit gaps/space (can you prevent the opponent from playing through, around or over)

Task design
Goalkeeper plays the ball to red and a temporary 3v2 situation begins (yellow recovering defender). When a goal is scored, or the ball goes out of play, the game begins again with the goalkeeper at the other end passing the ball to yellow.

Manipulation of task constraints
- Adjust pitch size
- Adjust starting positions of player

Video link:
https://www.youtube.com/watch?v=UCZ4fH_O0Zk

Appendix 7: Coach comments on SvFF UEFA B task design (28 October, 2021) when being examined through the lens of the Foundations for Task Design Model and Shaping Skilled Intentions.

28-10-2021

Game design-middle/big sized game
What?
Attacking: Build-up of play, width

Why?
Exploit width and pull apart opponent's team parts

How?
Invite depth behind: Switch play from one side to the other

Practice
Organization
2 goalkeepers, 16 outfield players, pitch size 50x60m with 2 goals, balls, cones vests
Instructions
Mark out 2 squares with cones at the long sides of the pitch.
Play 8v8 with goal keepers
The ball must first have been in both squares before a team can score a goal

Summary
Refer to what, why and how

Coach B

I think the focus ends up wrong here.
Already under "Why?" becomes the first problem for me, the focus is on utilizing the breadth of the pitch. In other words, a focus on the size of the pitch instead of the goal, gaps between opponents, etc. For example, to move the opponent to one side (attract), to create conditions for attacking the other (where the space is).
Number two is, as I said, that the instructions/rule force the players to switch the play for the sake of switching the play. Not based on relevant information, i.e., use space on the opposite side (Due to no possibility to play through or around on the same side). Should we not advance if we have the opportunity?
What could have been done instead is to create a super clear intention in defending teams not to allow play to go through or around. This means that they will have to move a lot to close the possibilities to play forward. That is, the opportunity opens for the attacking team to quickly move the ball to the opposite side where the space is (to score).

Coach C

When I sit down and design an exercise, it is important for me to try to make the challenge representative of the nature of the game. That the players are presented with challenges that do not conflict with the basic intentions of the game football and other invasion games, i.e., you want to advance towards goals and get past the opponents when you have the ball

possession and vice versa when the team tries to recapture the ball. The challenge of the exercise is to reinforce and promote certain aspects of this, rather than working towards it.

When I see the example from SvFF's Coach Training UEFA B, it is clear that the rule works against this, the nature of the game. Situations that offer you to advance towards the goal and get past opponents are not allowed as you need to get to both squares first. This leads the players, in order to solve the task, to search for information that is not representative of the game of football. You attack in a non- representative way and defend in a non-representative way. With this, the learning you want takes place on the wrong grounds. For me, it is a clear artifact of a traditional coaching paradigm where one separates complex phenomena that should not be separated, a reductionist perspective.

There is a difference between an action and an interaction. In SvFF's exercise, the act of switching the play is separated from representative information, it appears from this perspective that it is enough that the action of "switching the play" takes place for you to practice it / learn. It is enough that the ball goes from one side to the other.

I argue that there is a difference between the act of switching the play, just playing the ball from one side to the other, and the interaction of switching the play, the team takes advantage of an opportunity to play around the opponents.(meaning/value)
One separates the game from its context while the other keeps it connected to the environment and is something that occurs naturally. Since SvFF's example separates the game from representative information, you can just as easily stand without an opponent and "switch the play", if that is the purpose.

The challenges that players are exposed to in training must be representative of the game. Players must carry the same intentions as they do in a match to search and act on the same sources of information. Then we ensure that learning takes place on good foundations.