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There is no copy and paste, but there is resonance and inhabitation: Integrating a contemporary player development framework in football from a complexity sciences perspective

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ABSTRACT

Socio-cultural constraints shape behaviour in complexifying ways. In sport, for example, interconnected constraints play an important role in shaping the way a game is played, coached, and spectated. Here, we contend that player development frameworks in sport cannot be operationalised without careful consideration of the complex ecosystem in which they reside. Concurrently, we highlight issues associated with frameworks designed in isolation from the contexts in which they are introduced for integration, guised as trying to “copy and paste” templates from country to country. As such, there is a need to understand the oft-shrouded socio-cultural dynamics that continuously influence practice in order to maximize the utility of player development frameworks in sport. Ecological dynamics offers a complexity-oriented theoretical lens that supports the evolution of context-dependent player development frameworks. Further, tenets of the Learning in Development Research Framework can show how affordances are not just material invitations but constitute a vital component of a broader socio-cultural form of life. These ideas have the potential to: (1) push against a desire to “copy and paste” what is perceived to be “successful” elsewhere, and (2), guide the integration of player development frameworks by learning to resonate with the nuanced complexities of the broader environment inhabited.

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Introduction

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 environmental constraints can play an important role in shaping the way coaches are trained to design practice and how athletes engage with performance preparation contexts (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 and historical 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, countries, or societies (O'Sullivan et al., 2021).

To exemplify, after qualifying for the World Cup in 2006, Football Federation Australia decided to import a “Dutch model” that, according to Australian Institute of Sport soccer programme chief Steve O'Connor (2013), has been a “failure”. From a practitioner's perspective he noted:

I don't think you can import systems wholesale from one country to another and expect it to work. There are the ways the Dutch do things, the Germans, the French and they have been very successful. But there are all different reasons for that.

Following such sentiments, Professional Footballers Australia published a study in 2020¹ that recommended the country's football policymakers should find a path to recreating a more immersive culture, with particular attention directed towards the social, cultural, and demographic constraints reflective of an “Australian way of life”:

We should not limit our scope to what has worked here in the past or elsewhere in the present. To do so would be to attempt to keep up, rather than get ahead. To regain a competitive advantage, we should get creative and consider new and innovative ways to produce the outputs we want (p. 9)

In this insight paper, we consider this issue from a lens of ecological dynamics. In pursuit of developing “talent” in football, many models have been championed in the popular media² (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

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¹Professional Footballers Australia (2020). Culture amplifies talent. Building a framework for golden generations. https://pfa.net.au/wp-content/uploads/PFA-Golden-Generation-Report_DIGITAL.pdf

²For example, see <https://www.theguardian.com/football/2016/jun/08/iceland-stunning-rise-euro-2016-gylfi-sigurdsson-lars-lagerback>

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RSC Anderlecht for the acquisition and implementation of their youth player development system (LFF, 2019). This approach is 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 et al. (2015) warned against in their study of the top seven football nations, stating that the uncritical application of practice ideas from other successful countries and clubs may be a superficial approach, ignoring the diverse and deeply rooted nature of socio-cultural constraints that shape how the game may be played from locale to locale.

Considering this problematic tendency, it is worth noting a case in point about the adoption of the recently proposed Contemporary Player Learning in Development Framework (see Sullivan et al., 2021), including the notion of shaping skilled intentions (see Vaughan et al., 2021). This particular player development framework evolved through the application of the Learning in Development Research Framework (LDRF) at a professional football club in Sweden. Viewing cultures and performance environments as embedded, evolving complex adaptive systems, the LDRF proposes novel ways of guiding research and action, with the aim to understand human behaviour in the very contexts in which it unfolds. So, *could the ideas proposed in 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?* Yes, but there is a caveat based on recognising the non-linearities of learning, development and performance. As well as the inherent co-adaptative dynamics consisting of multiple interacting components that influence performance in invasion games (McLean et al., 2017; Salmon & McLean, 2020), such a framework is more ontologically valid regarding the complexity of learning *in* development. For example, shaping skilled intentions to guide attention of performers towards dynamic properties of a football environment may be considered an improvement in coaching methodology compared to methods that rely on verbal instruction *about* abstract tactical concepts (Renshaw et al., 2022). This principled approach may be viewed as an improvement in the *why* of coaching practice because it emerges from a valid, research-based 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 and historical vacuum but are deeply entangled within meaningful contexts of a broader societal form of life (Juarrero, 2023). In other words, the deep context-dependency of environmental and task constraints on human endeavours, like learning and development, needs to be carefully considered. This key idea opens up clear links to the ecological notion of *affordances* (Gibson, 1979), extending it to the interconnected socio-material properties of the environment one inhabits (van Dijk & Rietveld, 2017). We 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, accredited for compliance, but oft-with limited understanding and minimal effects on embeddedness, given the dynamics of socio-cultural constraints.

Here, it is proposed that pervasive cultures of “copy and paste” in transposing educational, healthcare and sporting

systems are somewhat entangled in assumptions originally revealed in prominent motor learning and control theories, anchored to *ways of knowing* that tend to disregard the contingencies of context and the layered, nested complexities of the environment. We also highlight a worrying trend – an emerging homogenisation of football and coach education through a globalised methodology across football cultures, regardless of context. To mitigate this problem, ecological dynamics is offered as a theoretically appropriate lens in which to support the implementation of contextualised player development frameworks, given its relational scale of analysis (Button et al., 2020). To support this shift, we turn to the main tenets of the previously mentioned Learning in Development Research Framework for sports organisations; namely, its conceptualisation of affordances as embedded in *forms of life* (O’Sullivan et al., 2021; Rietveld & Kiverstein, 2014). Thus, by exemplifying how socio-cultural constraints shape the value directedness of player-environment intentionality (Vaughan et al., 2021), we aim 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 by learning to resonate with the complexities of the broader environments we inhabit.

Ways of knowing

On building towards a theory of direct perception, ecological psychologist James Gibson (1966, 1979) differentiated between *knowledge of* and *knowledge about* the environment. While both knowledge “types” (in)directly influence perception, Gibson (1966) made a distinction between perception of information for affordances (*knowledge of*), and perception based on second-hand information (*knowledge about*). Accordingly, *knowledge about* the environment reflects information typically evident in pictures, symbols or in verbalised responses to questions about things (Woods & Davids, 2021). Comparatively, *knowledge of* the environment is direct, grown by primarily experiencing the coming-into-being of things for oneself (Woods et al., 2021). This distinction is exemplified in differences between knowing a place by reading *about* its topography, perhaps in a map or guidebook, and knowing *of* a place by primarily experiencing its undulations and variegations (Woods & Davids, 2021). The latter is knowledge grown through *dwelling* in an environment, through which one progressively learns to *resonate* with its various rhythms – seeing, hearing, feeling, tasting and smelling things directly (for a nuanced insight, see Woods & Davids, 2021). Here, we highlight how the *copy and pasting* of player development frameworks may inhibit processes of resonance and inhabitation, being synonymous with an over-reliance of *knowledge about* one’s environment, meaning little attention is directed towards the unfolding ebbs and flows of the history and culture of a dynamic society by instead trying to enact what has been documented by another.

The emphasis on *knowledge about* the environment is deeply infused in many coach education programmes and is associated with more traditional modes of communication used by coaches (e.g., over-use of verbal instructions, game models and optimal movement templates) (O’Sullivan et al., 2021; Renshaw

et al., 2022; Vaughan et al., 2021; Woods, 2021). Setting the scale of analysis somewhat exclusively at the individual level, these approaches have arguably created an organismic asymmetry (Dunwoody, 2006), focusing on the “internal mechanics” of the athlete at the expense of how person–environment relations continually shape behaviour (Davids & Araujo, 2010). In such an asymmetric view, the development of skilled behaviour is focused on stabilising internalised models and templates for techniques and strategies, believed to be stored in the brain (Araújo & Davids, 2011). Underpinned by notions of linear causality (Kelso, 1995), and an historically dominant, reductionist interpretation of mind and behaviour (Withagen et al., 2012), this perspective embodies a path dependency of seventeenth-century scientific ideas (i.e., the Cartesian paradigm, see Birhane, 2021; Montuori, 2011).

Unsurprisingly, this type of scientific rationalising has bled into sport science support and many of its sub-disciplines, shaping research methods and practical interventions (Vaughan et al., 2019; Woods & Davids, 2022), including approaches to performance analysis (McLean et al., 2017). For example, in developing a model of a football match as a system to better describe and understand the components of football performance, McLean et al. (2017) highlighted a pervasiveness to assess performance of components (e.g., passes, players) in isolation, rather than in continual relation. More recently, this influence of reductionist interpretations was highlighted by Berber et al. (2020) who, while developing models to guide the identification and development of talent, raised issues with the tendency to study player performance attributes in isolation too.

Methodologies predicated on an organismic asymmetry remain focused on this limited epistemological view of knowledge in sports like football, where knowing *about* is prioritised over knowing *of* the environment one inhabits (Vaughan et al., 2021). This not only fragments an inherently complex phenomena, but it risks driving a one-size fits all approach, where frameworks are simply rolled out with little appreciation of the context such frameworks are intended to inform. Directing us towards a more ecological conceptualisation of skilled performance, Aggerholm et al. (2011) concluded that there are wide cultural differences as to what is recognised as “the right way to play the game”, noting that despite unambiguous common objectives, how teams play varies due to distinct socio-cultural constraints.

An ecological dynamics rationale to context-dependent player development frameworks

In contrast to the organismic asymmetries discussed above, ecological dynamics offers a guiding theoretical framework scaled at the individual–environment relation (Button et al., 2020). Blending concepts from ecological psychology (Gibson, 1979) and constraints on dynamical systems (Newell, 1986), ecological dynamics offers an appropriate theoretical lens for supporting context-dependent skill-learning practices (Rothwell et al., 2020; Vaughan et al., 2019). Within this framework, the environment is directly perceived in relation to its functionality, in terms of affordances that provide different opportunities for action

(Seifert et al., 2017). For example, a gap directly perceived on field may afford dribbling for one player but passing for another due to their differing effectivities or action capabilities. Skill learning, thus, can be seen as the establishment of an adaptive, functional fit between a person and the constraints of an environment (Araújo & Davids, 2011; Davids et al., 2013).

Consistent with this rationale, learning can be understood to emerge in the midst of ongoing developmental changes within specific socio-cultural contexts (Adolph, 2019; Flores et al., 2019). Therefore, how coaches design practice tasks 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). In turn, intentionality may be profoundly shaped by socio-cultural and historical tendencies or habits. These insights help us appreciate how “ways of doing”, specific to a geographical location, continually influence how sport practitioners design and implement performance preparation frameworks, along with how players engage with various affordances. This implication highlights the need for a variety of conceptual and methodological approaches to investigate how skill in sport is developed in different parts of the world.

Affordances as relations in a form of life

Extending the *action-scaled* view on affordances, Rietveld and Kiverstein (2014) suggested 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). Gibson (1979) referred to these as *effectivities*. Due to their relational nature, the variety of affordances are as rich and varied as the actions socialised by socio-cultural practices (Ingold, 2011). To account for this rich variability within the human ecological niche, Rietveld and Kiverstein (2014) leaned on Wittgenstein’s (1953) notion of *form of life* to comprehend the myriad of socio-cultural practices available to humans. A form of life consists of values, beliefs, practices and customs that continually shape how people live (Rietveld & Kiverstein, 2014; Wittgenstein, 1953) and can manifest as socio-cultural constraints on normative behaviours (van Dijk & Rietveld, 2017; Vaughan et al., 2019). It is the availability of socio-cultural practices (constituted by beliefs, skills, habits, customs, attitudes) that defines a dominant way of doing in a society, community or organisation (Rietveld & Kiverstein, 2014). This might be conceptualised as something that is deeply acculturated, socially accepted, and oft-taken for granted. Pertinently, affordances are, thus, not just passively situated materially, but are entangled in a particular way of life, anchored to social, cultural and historical significance (Rothwell et al., 2018; Uehara et al., 2021; Vaughan et al., 2021). 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 behaviour, performance, development and learning.

Sporting forms of life, affordances, athlete performance and learning in development

As a concept, “form of life” can be highly influential in understanding how talent development programmes in sport are shaped in different societies, providing insight as to why certain development frameworks may be favoured over others (Rothwell et al., 2018). Illustrating how each sporting context is contained within its own form of life, which may amplify or dampen engagement with some affordances, Winner (2001) explored a rich narrative of Dutch football. As a mirror and expression of its culture, art, 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 none before³ (van Hilvoorde & Stokvis, 2013). In a 2017 interview, Winner describes common ways of being that manifest in normative behaviours and customs of communities:

When you’re incubating inside a culture, when you’re growing up, you oftentimes don’t even know the effect that it’s having on you. Since it’s all around you, you think *this must certainly be normal*. Like you acquire language, you acquire religious assumption and cultural assumptions, ideas about families and men and women, interpersonal and intrapersonal relationships, architecture, space, everything. It’s just part of that. (Das, 2017, para. 17)

A rather worrying consequence of the influence a form of life has was recently highlighted by influential football coach Juanma Lillo.⁴ 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, along with the coach’s omnipotence and desire to control context through reduction (of information present in an environment) and rehearsal (of pre-determined patterns), taking 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 behaviour 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”.

These contrasting, yet compelling examples illustrate how the globalisation of playing style is an emergent socio-cultural artefact (Rossing & Skrubbeltrang, 2019), which embodies the manifestation of the relational environment when playing team sports. More directly, skill learning in development is an interdependent manifestation of the wider environment; a network of interdependencies that includes constraints emerging from

the macrosystem and other socio-cultural contexts and practices (Vaughan, 2020). So, while affordances to support skilled behaviour may be available to players to help them thrive in performance, the socio-cultural practices embedded in the form of life may actually repel their actualisation.

This idea of the wider role of affordances in regulating human behaviour has progressed from the original Gibsonian implication, with fundamental importance for researchers, sports coaches, and practitioners (see O’Sullivan et al., 2023 for an example). Gibson (1979) stressed that affordances are not causes, but possibilities or opportunities for action that exist in an environment as a “manifold of action possibilities” (Withagen et al., 2012, p. 251). However, practitioners also need to be aware of the often taken for granted culturally constituted methods of delivery (Vaughan et al., 2021). For instance, where coaches assume that they “improve” affordances by making them more prominent to players, they may unintentionally narrow attention towards specifically designed ones. Typical examples are the use of “universal constraints” in football where a team must play the ball from one side of the pitch to the other before they can score a goal, or Lillo’s “two touchism” – the instruction to play with two touches. This type of compliance insistence from coaches, that players attend to only those affordances from a variety available in the landscape, deprives them of decision-making and problem-solving opportunities, minimising the coupling of perception and action needed to self-regulate in performance environments. Indeed, practice designs in sport cannot improve utilisation of affordances in learners by making them more prominent (e.g., engineering bigger gaps between defenders in training or specifying how many touches should be taken on the ball). These reductionist ideas in football coaching are aligned with insights of Withagen et al. (2012, p. 253) that performance landscapes could be designed to be more “neutral” to improve exploratory search activity of people during self-regulated learning. They highlighted that many objects and locations in life can have multiple affordances. But, using the example of architecture, designers can also produce objects or locations which are limited in purpose. There may be the same dysfunctional tendency in sport which happens when coaches design practice tasks with deliberately limited outcomes, e.g., “two touchism”, limiting decision-making, problem solving and demanding a lot of technique repetition. Instead, by designing more *neutral* (more open) tasks, coaches can facilitate creativity and innovation in athletes, encouraging them to search, discover and explore affordances which are more diverse in function. Designing practice tasks which are more *neutral* in terms of performance opportunities could better simulate the constraints of a competitive performance environment, encouraging athletes to problem solve, make decisions and seek different affordances in performance.

The Contemporary Player Learning in Development Framework (see O’Sullivan et al., 2021) encourages coaches to

³For an example, see <https://www.thoughtco.com/polders-and-dikes-of-the-netherlands-1435535>

⁴For further insight, see <https://www.transfermarkt.com/juanma-lillo/profil/trainer/6259>

move away from designing “universal” tasks in favour of more “neutral” task designs that are supportive of athlete functionality. Indeed, a specific feature of our Foundations for Task Design Model (O’Sullivan et al., 2021), supported by the relational concept of shaping skilled intentions (Vaughan et al., 2021), is to design tasks underpinned by neutral affordances. Designing tasks which are more neutral in terms of outcomes could better simulate the constraints of the competitive performance environment and facilitate creativity and adaptability in athlete behaviour. Moreover, neutral tasks foster a sense of inhabitation, in which performers learn to resonate with soliciting affordances in certain situations. To exemplify, picking up subtle variations in wind direction and strength, for example, may guide a sailor to tack in a different direction relative to climatic conditions emergent on another day. Practice designs could include, thus, not just opportunities for action but *invitations* to act, which may be preferred by the performer at varying times of the task. In other words, specific aspects of a practice environment could be designed to include the property of *inviting potential* (Withagen et al., 2012), predisposing players and teams to seek and explore relevant performance tendencies to support active self-regulation.

This coaching approach aligns nicely with ideas of elite practitioners like Lillo and applied scientists like Aggerholm et al. (2011) who, using football as an example, argued that distinct social and cultural phenomena can directly constrain the relevant fields of affordances that stand out. Aggerholm et al. (2011), for example, stated that:

“This cultural and social dimension not only has implications for the way performance is valued and evaluated respectively. It also determines the discursive space of possibilities (*field of affordances*) and opportunities for the players in action. What is acceptable here? What will they say if I risk it and fail? Should I play safe or do I dare to meet the challenge and deceive the opponent in front of me? These questions may be implicit (pre-reflexive) in the course of the action, but the answer to them will determine the existential attitude of the player to the game”. (p. 13, italics added)

We contend that differences (and similarities) in performance and playing styles are substantively based on the congruence and overlap of forms of life, developed under specific socio-cultural constraints. In Dutch football, Winner’s (2001) insights suggest that the playing style (“total football”) originally evolved within a specific socio-cultural context in which players’ perceptual systems and effectivities developed in interactions with an intention to create a diverse range of passing and dribbling opportunities to exploit space. The homogenisation of the game, with everyone using the same methods and tactics, illuminates an intentionality that is re-shaping organisational structures, coaching methodology and education, directly constraining the relevant field of affordances that stand out. This resonance between a form of life and the relevant field of affordances has been explained as the value-directedness of player-environment intentionality (see Vaughan et al., 2021).

Player-environment system intentionality

Woods (2021) described humans as complex, adaptable and intentional organisms that endeavour to maintain an optimal grip on a surrounding landscape of affordances (also see Bruineberg & Rietveld, 2014; Rietveld & Kiverstein, 2014; van Dijk & Rietveld, 2017). In sporting contexts, intentions play a key role as players move through the performance environment, shaping the extent to which a functional fit is maintained in varying situations (Reed, 1996; Rietveld & Kiverstein, 2014; Woods, 2021). Reed (1993) argued that intentions are not intrinsic to an organism but emerge in the organism-environment system, or as asserted by Alicia Juarrero (2023) when considering intentional behaviour, “context is everything”. This highlights what Reed (1993) called embodied intentions; a key concept that has been expanded into that of skilled intentionality – defined as “the selective engagement with multiple affordances simultaneously in a concrete situation” (Rietveld et al., 2018, p. 1). Crucially, the intentionality experienced is value-directed, whereby the resonance between social and cultural aspects of a form of life shapes the relevant field of affordances that stand out in competitive settings (see Vaughan et al., 2021). Value-directedness can be experienced as a socio-cultural constraint when it limits the range of affordances players are responsive to – a phenom elegantly characterised as *unskilled intentionality* (Vaughan et al., 2021).

We can exemplify an ecological account of these dynamics by discussing how an historical-cultural inheritance of player compliance towards prescribed coaching methods can shape a value-directedness towards affordances. In Sweden, the arrival of Bob Houghton and Roy Hodgson⁵ in the early 1970s heralded the introduction of a “teacher-centered” pedagogy that became to be known as the “English model”. Here, the coach had the overall picture of how the game should be organized, with players simply needing to comply with the systematised knowledge *about* football performance that the coach promoted. These practices promoted a value-directedness towards limiting unpredictability (control over context), which continued to be embodied in a deeply rooted path-dependent coach education form of life (O’Sullivan et al., 2023, 2023). This was revealed in the use of theme-based planning that foregrounded predefined patterns and outcomes, “optimal technique under explicit instructions”, and predetermined coaching points that the coach would look for in practice. Foregrounding knowledge *about* the performance context, coaches were prioritising the operational procedures of coaching, which was having an over-constraining influence on player–environment interactions (see O’Sullivan et al., 2021 for a specific example).

Our earlier allusion to Dutch “total football” further illustrates this resonance between a form of life and relevant field of affordances, highlighting a value-directedness of player-environment intentionality towards spaces and their flexible utilisation, through dynamically switching positions. We can also turn to the vibrant example that is Brazilian football. Resonating with cultural significance, the value directedness

⁵For further insight, see https://youtu.be/A_fyF31zMAU?t=159

experienced (player-environment intentionality) towards an affordance of the gap between an opponent's legs invite players to deceive them with a "nutmeg", embodying a way of playing football (playing with "ginga" or panache) that resonates with Brazil's cultural identity (Uehara et al., 2020). This example of *Malandragen* (cunning, mischief, deception) suggests a value system shaped by the socio-cultural constraints mainly influenced by the cultural traditions of the Mulattos in Brazilian society that historically interacted with specific socio-economic conditions (Uehara et al., 2020). Further, the notion of Ginga-Malandro may have contributed to the development of a high level of perceptual-motor and cognitive functioning that has underpinned the Ginga playing style in Brazilian football for many decades (Uehara et al., 2021).

While these contrasting examples provide insights into why certain performance styles are developed in specific regions and why they are valued, it can be argued that both Brazilian and Dutch football have somewhat deviated away from a type of football that became a symbol of their national identity. Indeed, as suggested by Juanma Lillo, recent tendencies towards the globalisation of tactical methods and systems in the early 2000s has created a dogmatic and homogenised game, leaving Dutch and Brazilian football subverted from its origins (Boszik, 2022; Hamilton, 2023a).

A globalised methodology based on linear causality

Lillo's earlier insights are useful in uncovering broad socio-cultural constraints that can shape the value-directedness of player-environment intentionality. The intentionality of a player-environment system is embedded within, and related to, the broader intentionality that characterises a form of life (O'Sullivan et al., 2021). Thus, when Lillo (2022) refers to how the purpose of the game has been subverted by being aimed more at consumers than fans, it could be construed that he is referring to how the game is entrenched in a neoliberal ideology that is recalibrating socio-cultural values (Curran & Hill, 2019; Vaughan et al., 2022). This political shift in ideology is evident in educational institutions and training programmes, replete with assessment and monitoring systems designed to increase pressures to perform, conform, comply and adopt controlling managerial practices that stifle learning and creativity (O'Sullivan et al., 2021; Vaughan et al., 2019). The values embroiled in this ideology are noted by Lillo (2022) on the pitch, where players conform and comply with a globalised methodology. Indeed, many of today's popular methods (e.g., Seirul-lo's Structured Football, Lillo's Positional Play) were originally purported to be founded on key ideas that highlighted player behaviour as emerging from interactions between inter-related complex systems (Seirul-lo, 2000). One only needs to read Lillo's 2011 interview with Sid Lowe to note this.⁶ However, recent cultural trends have seemingly provided fertile ground for the maintenance and reinforcement of an ontological naivety in football (deterministic causality), limiting our *ways of knowing*, subverting these well-intended methods within a globalised methodology.

As these cultural values have implications for the way performance is valued, assessed and evaluated (Aggerholm et al., 2011), the intentionality experienced frames 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; Woods, 2021). For instance, players might experience a directedness towards the positioning and movement of certain teammates in specific situations, soliciting some affordances while overshadowing others (Vaughan et al., 2021). A central pass, as an example, that complies with the game model may overshadow a more inviting opportunity to dribble into space (O'Sullivan et al., 2021). We suggest that this type of methodological imperialism – a globalised copy-paste methodology – risks failing to educate attention towards key environmental properties that can support skilled engagement with multiple, nested affordances. As a brief aside, it is worth noting that versions of this "copy and paste" issue have been reported in other performance domains. For example, Pierce and Telford (2023) severely criticised how Irish outdoor education activities have become McDonaldized. They lamented how providers rely on standardised activities, which commodify scripted experiences, demanding scripted responses, and placing little emphasis on the socio-cultural context and the significance of locale in which learning occurs.

Nonetheless, a more recent, vibrant debate within football provides hope. Boszik (2022) and Hamilton (2023b) have written and debated extensively about the homogenisation of methodologies in world football, methodologies that Juanma Lillo admitted to help create through a concept called "positional play". Characterised by its symmetrical nature, positional play foregrounds a positional rigour that promotes a rationalisation of space, where players align their movement with a pre-planned game model (knowledge about) to achieve performance objectives. However, Lillo's acute self-criticism can be viewed as harsh if we consider how the positional game has been, and continues to be, subverted from its origins to become more and more mechanical (Boszik, 2022). We suggest that contemporary forms of copy and paste "positional play templates" are based on the rationalisation that they provide numerous options in terms of choice, but arguably provide very little in terms of discernible differences between choices. Typical of prescriptive approaches, this can repel or dampen the actualisation of some affordances, diminishing the possibility of more creative, nuanced, generative outcomes. In response, the concept of "relationism" or functional play has (re)entered the debate (Boszik, 2022; Hamilton, 2023b). Essentially, challenging the hegemony of what positional play has become, relationism is predicated on a tactical flexibility, where progression is through functional movements and not through a positional fixation in space. Embedded in the history of Brazil and Argentina, how these countries portray this game of functions, resonates with the nuances of their specific culture and context. Less about your position, but more about how you are moving and relating to others, Brazilian "jogo funcional" evolved through three initial waves capturing peoples imagination at the World Cup finals of 1958, 1970 and 1982. While the

⁶For further insight, see https://issuu.com/73ladro/docs/the-blizzard-issue-one_page_55-64_juanma

context changed from wave to wave, the system evolved and co-adapted but always remained true to the Brazilian game of functions. With globalisation bringing cultures closer, Brazilian football gradually became subverted from its origins (Boszik, 2022). That is until recently, when a potential fourth wave, inspired by the Fluminense of Brazil coach Fernando Diniz, started gaining attention around the world. No more so than at Henrik Rydström's Malmö FF in Sweden. This is an important and rather unexpected fusion considering the previously discussed path-dependent tendencies of Swedish football and coach education (O'Sullivan et al., 2023a, 2023b). Embodying an essential tenet of "relationism", Rydström, together with his players, seems to be fashioning a hybrid style with a clear identity that resonates with the context: possession based with a more patient, short-passing yet inherently adaptive approach. This could be considered an example that illustrates how ideas of "relationism" could be sensitively implemented into other cultures and contexts?

We need to return to 'la nuestra': our game, our values⁷

In 2010, Johnathan Wilson suggested that Argentina's romantic view of the beautiful game may be holding them back. Though, as Wilson (2010) further declared, there is something heroic about Argentina's stubbornness. This heroic romanticism is captured by Boszik (2022) in his analysis of Argentina's 2022 world cup triumph, where he argued that the coach, Scaloni, revitalised the football roots of the Argentine people. Displaying admirable emotional intelligence, Scaloni was able to harness a form of life and exploit historical and socio-cultural tendencies, which invite opportunities to act that resonate with the dispositions of Argentinian footballers. It could be argued that the squad expressed culturally significant values in the way they played, resonating intimately with their passionate fan-base and nurtured by an optimal fit between the action capabilities of players and the shared intentions of the national federation. Our interpretation is that by rebelling against the globalisation and homogenization of "trending" tactical modes, Scaloni fostered opportunities for players inhabiting a complex system to directly perceive affordances in the game, based not on second-hand information, but on their embodied (primary) experience and knowledge of the game.

The ecological nature of learning in development and designing meaningful practice contexts

Given socio-cultural constraints can both illuminate and characterise the value directedness that shapes player-environment intentionality, we would now like to highlight a few points about critically adopting the Contemporary Player Learning in Development Framework. Doing so helps foreground a practical example of what such integration could entail within high performance sport.

- 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 they dwell with-in (Woods & Davids, 2021). To help practitioners become more aware of the extent to which unique socio-cultural constraints continuously shapes their work, the application of the Learning in Development Research Framework (LDRF) could be of use (see O'Sullivan et al., 2023; 2023b; Vaughan et al., 2022). One of the main contentions of this framework is that athlete development should evolve in interaction with the socio-cultural and historical context in which individuals are embedded, which is quite pertinent when we consider the next point.
- *What* coach's guide athlete attention towards (i.e., awareness of spaces, gaps, passing opportunities, defenders balance) and *how* (i.e., pedagogy), is continually shaped by socio-cultural constraints.

We will now endeavour to outline some aspects of these ideas within a practical example captured within the first author's ongoing programme of research. This is *not* intended to offer a methodology to be *applied* in practice, but to highlight how a contemporary player learning in development framework emerges *in practice*.

A case example at AIK football

Grounded at AIK youth football, this case illustrates how a match plan can be employed without overly-constraining the search of players, thereby nurturing both global-to-local and local-to-global synergies. Through applying the LDRF to guide research and adapt strategies to designing practical applications, both O'Sullivan et al. (2021, 2023) and Vaughan et al. (2022) illustrated how the broader intentionality of an ecology shaped coach behaviours (and subsequently player development) when designing and delivering practices at the club. Shaped by previous interactions with the form of life, coaches embodied a cultural inheritance that placed value on the utilisation of deterministic knowledge *about* approaches (e.g., pre-determined passing patterns), rather than the search for emergent in-game solutions. The overarching intentionality in the ecology created an inherent tendency towards limiting unpredictability, which shaped how coaches were implementing a game model by prioritising the control of player actions over shaping skilled intentions. For example, while players were taking up the "correct" position (displaying knowledge *about* performance) in compliance with a pre-planned game model, it did not necessarily imply that they could self-

⁷See https://medium.com/@Jozsef_Boszik/o-mais-belo-futebol-da-terra-o-que-somos-porque-nos-destru%C3%ADmos-245714a70112

regulate their co-positioning (based on knowledge of the performance context) in relation to continuously emerging local interactions (O'Sullivan et al., 2023). Recognising the need to help coaches shape player intentions that become progressively skilled by educating their attention towards environmental properties, the Foundation for Task Design Model and the notion of shaping skilled intentions, was proposed (O'Sullivan et al., 2021; Vaughan et al., 2021).

By adopting the Foundations for Task Design Model during weekly match preparation, coaches were still able to use their knowledge *about* the game to design practice tasks that guided player search and exploration. Though, to develop players knowledge *of* the game, coaches were encouraged to shape skilled intentions to educate players' attention to information *in* 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.

To further exemplify these ideas, it is worth briefly touching on an example in the lead into a game. Specifically, scouting had revealed that a certain opposition appeared comfortable defending wide areas, even inviting their opponents to attack these areas. Here, Coach K describes the knowledge *about* the opposition in relation to 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 them [through]. 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.

Coach K endeavoured to create shared intentions that invite opportunities in the performance environment. In this case, the practice design aimed to simulate the defensive intentions (positioning-movements-orientations) of the opposition. Intentions were carefully educated throughout the team by outlining what may unfold in certain situations. Crucially, however, Coach K did not instruct what should or must be done, which supports the players' direct perception of affordances in the game, while dampening a reliance on tactical guesswork *about* the game. Thus, in educating intention, Coach K concurrently educated attention towards the perception of key affordances that invite opportunities for action that may be 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 and balancing nested intentions of playing through, around or over defences.

This example highlights the nuanced balance needed between providing adaptive structures that provide an over-arching constraint on player behaviour, without trivialising opportunities for direct and primary experience. In other words, instead of the game model *dictating* player

behaviour, it was used to *shape* player intentions (individually and collectively), educating attention to information in the game which could be used to support football interactions.

Conclusion

The idea that each sporting context is contained within its own form of life highlights that skills have histories. 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 & Collins, 2013; 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, we contended here that contemporary player development frameworks cannot emerge in isolation of context. Rather, 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 programmes. For example, we need to be aware of the recent "globalised" trend related to the homogenisation of football and coach education. We suggested here that the LDRF can support this endeavour, as it offers the potential to: (i) illuminate the complexities of intertwined unique constraints across interacting systems that continually shape the ecological niche at a sports organization, and (ii), guide the implementation of contemporary player development frameworks.

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 (Vaughan et al., 2021; Rothwell et al., 2018; O'Sullivan et al., 2021). 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.

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