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UEHARA, L <<http://orcid.org/0000-0002-0410-470X>>, BUTTON, C, SAUNDERS, J, ARAÚJO, D, FALCOUS, M and DAVIDS, Keith <<http://orcid.org/0000-0003-1398-6123>>

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Malandragem and Ginga: Socio-cultural-historical constraints on the development of expertise and skills in Brazilian Football

Luiz Uehara^{a*}, Chris Button^a, John Saunders^b, Duarte Araújo^c, Mark Falcous^a, Keith Davids^d

^a*School of Physical Education, Sport and Exercise Sciences, University of Otago, NZ*

^b*School of Exercise Science, Australian Catholic University, Brisbane, AU*

^c*CIPER, Faculdade de Motricidade Humana, Universidade de Lisboa, Portugal*

^d*Sport & Human Performance Research Group, Sheffield Hallam University, UK*

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Malandragem and Ginga: How Mischief, Trickery and Deception Inform Brazilian Football Expertise

Abstract

In an ecological dynamics rationale, the development of expertise in sports is shaped by interactions of personal, task and environmental constraints. A notable outcome of this process is the distinctive performance styles of athletes shaped by socio-cultural-historical constraints. To understand this process, we examined the role of socio-cultural constraints shaping the development of skill in Brazilian football players at the macrosystem level. A range of data sources were inductively generated and analysed through the qualitative interpretative paradigm, including historical contextual analysis, participant observation, and unstructured interviews. Perhaps counter-intuitively, we identified poverty, corruption, and *malandragem* (i.e., cunning) as influential factors that can enrich football expertise. *Malandragem* emerged as a major focus and our findings suggested that behavioural characteristics, such as mischief and deception, are common attributes valued by many elite Brazilian footballers. Our analysis suggests how the value system of *Malandragem* is a product of the socio-cultural constraints primarily influenced by the Mollatos' cultural traditions, historically interacting with particular socio-economic conditions. In Brazil, *Malandragem* can manifest itself through the '*Ginga*' (i.e., body sway) playing style in which footballers move deceptively to gain competitive advantages over opponents. Whilst the theatrical antics of contemporary *Malandros* (i.e., *tricksters and/or streetwise persons*), such as Neymar Junior, are frowned upon by many football critics, we argue that some aspects of being *Malandro* may be contributing 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.

Keywords: Skill; socio-cultural constraints; soccer, Bronfenbrenner's macrosystem, sport, playing style

Introduction

The psychology and sport science literature is replete with diverse theories and approaches purporting to explain how skills and expertise can be best developed in elite athletes. These theories include: the power law of practice (Newell & Rosenbloom, 1981); deliberate practice (see Ericsson, 1996); deliberate play (see Côté & Hay, 2002); teaching games for understanding movement (see Bunker & Thorpe, 1982); game sense (see den Duyn, 1997); small-sided and conditioned games (see Clemente et al., 2014); and the constraints-led approach (see Renshaw et al., 2016). Despite the differences that exist amongst these theoretical orientations, they all share two fundamental similarities: 1) their focus on identifying target tangible variables that can be objectively measured and analysed; 2) their focus of investigation have been primarily centralised at the microsystemic level of practice involving the manipulation of individual and physical environment constraints.

To further expand the scope and enhance the knowledge of the skill acquisition literature, investigations targeting the macro-level of practice are gaining traction (Araujo et al., 2010). Indeed, more research is needed to examine questions such as: what are the socio-cultural and historical environmental constraints that influence the development of specific sport expertise? How is their influence manifested on values and motivations of performers in specific societies and cultures? The challenge is to find valid and reliable ways to conduct studies at a socio-cultural level of analysis, in which their variables are predominantly based on intangible, informal, and even aversive, learning environment constraints.

Contextualised Skill Acquisition Research (CSAR): An Ecological Dynamics Conceptualisation

Our starting point to consider this question on sport expertise originates from the nexus of many different interacting constraints. A series of studies conducted by Uehara and colleagues (1-3), has highlighted the importance of considering the complex, interacting socio-cultural constraints upon the formation of football expertise. To investigate this issue,

Uehara et al. (2014) proposed the Contextualised Skill Acquisition Research (CSAR) framework as an approach specifically designed to explore the intersection of historical and socio-cultural constraints, and acquisition of sport expertise. The foundation of CSAR is based on the philosophical assumption of the interpretive paradigm, the theoretical principles of Bronfenbrenner's bioecological model of human development, and qualitative methods of inquiry. The overarching theoretical foundation proposed for this framework is informed by the perspective of Ecological Dynamics (for detailed information about the CSAR framework, please see Uehara et al., 2016).

Briefly, the conceptualisation of ecological dynamics seeks to describe the emergence of expertise in developing athletes, as a function of interacting task, individual and environmental constraints (4-6). A key contribution supporting the ecological dynamics framework in considering socio-cultural and historical constraints on sport expertise is Bronfenbrenner's bioecological model of human development (7). The bioecological model has been useful in considering human development as a function of the interaction between nature and nurture (8); in other words, between individual and environmental constraints.

In the bioecological model, environmental constraints are composed of four different, but interconnected, systems including the microsystem, the mesosystem, the exosystem, and the macrosystem (3, 6). These interconnected systems show how the interactive dimensions between the person and context are organised under what Bronfenbrenner called "proximal processes," which vary over time (6, 9). The mechanisms underlying the proximal processes "encompasses particular forms of interaction between organism [person] and environment... that operate over time and are posited as the primary mechanism producing human development" (Bronfenbrenner and Morris, 2006, p. 795).

It is important to note here, however, while Bronfenbrenner's bioecological model provides a strong 'socio-cultural' framework for the investigation of human development, it

does not offer the data analytical tools required to investigate processes of skill acquisition (Araújo et al., 2010). Seeking to explain socio-cultural and historical constraints on skill acquisition, as mentioned earlier. This research study relied on tenets of the ecological dynamics framework, seeking to understand how the development of football expertise of Brazilian players may have been shaped by key environmental constraints (10), including the historical, political and socio-cultural-economic constraints of the country (3).

As part of a series of studies conducted by Uehara and colleagues, this investigation also adopted the CSAR framework, implementing the bioecological model to guide identification of relevant environmental constraints that influence the development of football players in Brazil.

Brazilian football is our preferred research vehicle because the unique environment within which Brazilian players develop expertise provides such rich, distinctive and influential constraints. To start with, Brazil is a large and populous country characterised by immense socio-cultural-economic diversity. Arguably, a common passion that seems to obsess Brazilians is association football (11-13). Alongside success, Brazilian footballers have also long been associated with a unique style of playing at a very high standard, which is, playing with *Ginga* (literal meaning: body sway). Academics, sports commentators and journalists have identified, explored, and romanticised the concept of Brazilian football style as graceful, joyful, artistic, flamboyant, expressed with wit and flair (14-16).

On this note, our specific central question of interest is: What are the unique socio-cultural and historical environment constraints that enable the development of high-calibre of perceptual motor skills (i.e., *Ginga*) of Brazilian football players?

To consider this question, and highlight the relevance of this macrosystemic level of analysis, this study aims to examine the influence of *Malandragem* (i.e., cunning) as one of the key socio-cultural constraints that informs the acquisition of skill and expertise (i.e.,

Ginga) of football players in Brazilian society. Next, we outline the multi-methodological approach used in this study, then we delineate the CSAR framework by aligning key concepts in ecological dynamics and the bioecological model.

Methodology

Researcher as a Tool and as a Bricoleur

Using the ontology of interpretivism, the direct and active involvement of researchers is a key characteristic. As a Brazilian himself, the first author acknowledged that his personal, cultural, and historical experiences inevitably shaped how he approached fieldwork, interacted with participants, and interpreted findings. To make sense of participants' understanding of how football players in Brazil acquire relevant perceptual-motor skills, the first author inductively explored their perceived experiences, views and subsequently attempted to develop a coherent pattern of meanings from their insights. In doing so, his secondary aim was to develop a methodological and epistemological framework for investigating effects of socio-cultural-historical constraints on skill acquisition.

In effect, the first author acted as a *bricoleur*. In qualitative research terms, a bricoleur draws coherently from multi-disciplinary perspectives, distinct theoretical and philosophical orientations, and various methods of inquiry in order to interpret a complex phenomenon generated by complex variables, such as those evidenced in socio-cultural studies (see Denzin et al., 2005).

Bricolage supports an adequate multi-method approach that can inform the parameters of interpretive inquiry. In the context of Brazilian football these parameters include music, dancing, social inequalities, education, and even corruption, each of which are embedded in Brazilian culture. These socio-cultural constraints are important because they might affect skill acquisition within Brazilian football, leading players to infuse their movement coordination processes with unique characteristics such as the idea of playing with *ginga*

(sway), flamboyance and flair. Thus, his principal challenge is how to analyse and integrate these constraints that anecdotally have been at the root of the development of the skills of Brazilian football players.

To effectively conduct such an analysis, it was necessary to employ a multi-qualitative approach that offers suitable theoretical and methodological insights to excavate linkages between socio-cultural environmental forces and cultural and corporeal practices of Brazilian footballers. Further, interpretive analyses have to be historically contextualised so that meaningful interpretations of the acquisition of expertise in football in Brazil can be made. Contextualised skill acquisition research requires a bricolage that intertwines epistemological and methodological concepts from the following: Bronfenbrenner's bioecological model of human development, ethnography, and the coherence theory of truth.

Ethnographic Strategy of Inquiry

In its most basic sense, ethnography refers to a 'sketch' of life in its everyday lived context. Ethnographic strategies are influenced by Paul Willis' (2000) notion of '*the ethnographic imagination*', which involves the subjectivity and bias of the researchers; practical criticism, rather than being only descriptive; and analysis of lived everyday culture from different sources. As Willis (2000) pointed out '... [the] ethnographic imagination is relevant to the production of all kinds of intellectual work. Non-field-based writing and intellectual work can certainly inform the crafts and methods of ethnography' (p. 113). Thus, under the umbrella of the ethnographic imagination, methods of data collection and analysis consider 'the importance of maintaining a sense of the investigator's history, subjectivity and theoretical positioning as a vital resource for the understanding of, and respect for, those under study' (Willis, 2000, p. 113).

The ethnographic methods employed in this study were: historical contextual analysis (conducted prior to and after field-work in Brazil); participant-observation, and unstructured

interviews (both during field-work in Brazil). These three methods are complementary and interrelated meaning that they do not follow a one-way linear path in the analysis. Rather, it was a nonlinear, non-sequential research process based on the notion of *reflexivity* described by Dowling (2008). From this view, the first author reflexively moves back and forth between the methods, theories and paradigms in order to adjust and in turn enhance the quality of empirical procedures. Each of these methods are discussed below beginning with contextual analysis which is predominantly informed by written texts (document analysis) regarding the social history of Brazilian football as well as the broader history of the country.

Historical Contextual Analysis

Contextual analysis investigates the socio-cultural context in which a phenomenon has been historically constructed. The historical, economic, political, socio-cultural contexts in which acquisition of Brazilian football expertise occurs is significant for this investigation. Indeed, the *historical contextual analysis* was required to reconstruct a number of socio-cultural and political-economic sites of articulation – that is, how these pressures and contexts interact to shape patterns – within Brazilian football in order to inform the participant observation and interview methods. From a methodological viewpoint, such analysis has been useful in informing what data should be collected in the field. In contrast, given the exploratory nature of the present research, emerging data from fieldwork may also be used to inform what should be added or changed in the contextual analysis as the research study proceeds.

Participant Observation

Fieldwork in the form of participant-observations, or sometimes only observations, was performed in São Paulo, Brazil in 2011. Through relevant contacts as a former player in this region, the first author gained access to a professional football club called Paulista FC, a football pelada in a favela called Vila Ana, and to a football youth team affiliated with São

Paulo FC. Regarding the latter, the ethnographic study was primarily based on interviews and informal conversations with coaches, but access to the club was permitted for a day to observe a training session. Given the strict conditions of gaining access to the establishment of São Paulo Football Club, the first author was fortunate and privileged to be able to observe and talk to highly qualified coaches. He also took notes from children playing informal football in parks and streets of his hometown Jundiaí.

The parameters used around the chosen locations for data collection were based on contemporary commentaries regarding the '*History of Brazilian football*', which shows that many successful players emerged from underprivileged suburbs around Brazil. Before they were scouted and sent to a club, they used to make and improvise their own playing fields, whether they were on the street, waste ground, or beach (see Goldblatt, 2006; Taylor, 1998).

To be able to scrutinise the topic thoroughly, the first author was prepared to collect data from whatever sources and whoever provided an opportunity, be it from structured or non-structured settings, professional or non-professional people related to football. However, fieldwork data collection was limited by the funding available and also by accessibility. In this sense, growing up in the city of Jundiaí, São Paulo province, he was privileged to gain access to football professionals and clubs in the local area that would not have occurred in other regions. There, he started with two key *gatekeepers* (i.e. contacts) who helped to “open the door” to this world by introducing him to the right people. Through a *snowball sampling technique* (i.e. one person indicates other(s)), accessibility was further expanded (see Patton, 2002).

Open-Ended Unstructured Interview

Concurrently with the participant observation fieldwork, a *face to face, unstructured interview technique* was undertaken. In order to maximise the exploration of this topic, the first author asked open-ended questions, eliciting the views and opinions of participants (see

Denzin et al., 2005; Patton, 2002). As noted earlier, such topics and lines of questioning were informed by the historical-context analysis performed prior to the field work in Brazil. As an example, when the topic of socio-cultural factors such as dance and poverty was brought into the discussion, Uehara then probed: “Tell me about how you perceive the relationship between dance and Brazilian football?” Depending on the response received, he could be more specific and probe further: “Tell me how you perceive the effect of samba on the development of skills of Brazilian football players?” As such the broad macro-level dimension of samba as a socio-cultural constraint in Brazil can be explicitly linked with each individual’s lived skill experiences.

Given the open-ended nature of this study, the amount of data collection required to make this study coherent was based on the parameters of ‘*point of saturation*’ or the point where new information no longer emerges (Lincoln & Guba, 1985). This is important because, if the amount of data is insufficient, then important information may be missed, providing an incomplete exploration of the topic. On the other hand, if data were oversaturated, then redundant information will be displayed (see Patton, 2002).

Evaluation in the Form of the Coherence Theory of Truth

Having described some of the methods that can be used to conduct a contextualised skill acquisition research study, the next task is to explain how the quality of the research can be evaluated. Paradigmatic differences that influence the way that research is conducted result in different ways of evaluating the quality and adequacy of research. With regard to the evaluation of the positivist research paradigm, key gauges are validity and reliability. Validity is the degree to which a test or instrument measures what it purports to measure, whereas reliability refers to acceptable agreement between repeated tests made under similar conditions (Thomas & Nelson, 2001). In order to achieve valid and reliable research, positivists adhere to a correspondence theory of truth, by which ‘true statements are those

that are judged to have accurately reflected the qualities and characteristics of what are out there' (Sparkes, 1994, 23). Thus, 'reality' can be understood by the correct application of formalised methods, such as, highly structured questionnaires, essential in ensuring validity and reliability. This application permits the separation of personal opinions from the object of study (Sparkes, 1992).

In qualitative research, evaluation criteria are underpinned by the interpretive paradigm, in which validity and reliability are substantively reframed in a subjective epistemology. That is, the researcher is observing and interviewing participants in their natural settings, and given that he or she is the main data recording and analytical tool, there are no direct reliability and validity coefficients for the individual researcher (see Donmoyer, 2008; Miller, 2008).

In order to evaluate research, interpretivists adhere to a coherence theory of truth whereby "the basis of truth or trustworthiness is social agreement; what is judged true or trustworthy is what we can agree, conditioned by time and place, is true or trustworthy" (Sparkes, 1992, p. 30). Within a coherence theory of truth, one event can have many co-existing interpretations so that a richer and broader view of a culture is given (Sparkes, 1994). However, this multiple interpretation might be challenging for researchers studying culture to agree on the most correct interpretation (Sparkes, 1994, p. 14). Such a problem falls within the ontology of relativism, which generally challenges the notion of the legitimacy of a single reality or absolute truth. From a relativist researcher's point of view, truth of a phenomenon is subjectively constructed by the writer and ultimately, critically evaluated by readers of the research.

Despite these issues, the coherence theory of truth is best equipped for purposes of the interpretive paradigm and qualitative philosophical assumptions of this research approach. In applying the coherent theory of truth as an attempt to ensure the quality and adequacy of

research, this approach draws upon an eclectic body of theoretical informants and research strategies, including the concept of contextualisation, ethnographic strategy of inquiry highlighted by methods of participant observation and interviews, and the bricoleur as the main research instrument.

The credibility of the research study can be enhanced by contextualising a phenomenon, in this case Brazilian football, back and forth in time and viewing it from different contexts and perspectives. In this work, we explore and articulate its complex linkages and generate one or multiple-interpretations of the phenomenon. Subsequently, agreements about the truth underlying the development of expertise of Brazilian football players rely on how coherently and consistently we can interpret the findings. However, none of the interpretations are assumed to be value-free or uninfluenced by the writer and reader's assumptions and background.

To further enhance the quality and adequacy of the research under the proposed coherence theory of truth, it will be important to understand a phenomenon from the local people's perspective. Such a negotiation is what Saukko (2005) calls dialogic validity. To achieve this aim, we have read and interpreted various texts, but have also paid close attention to Brazilian football culture as a contested terrain (Hall, 2002). Our study draws on an ethnographic strategy of inquiry in which we were not only observing but also participating in the local meaning of life in Brazilian football culture. In addition, through unstructured open-ended interviews, participants' voices and interpretations were dialogically considered (Davis, 2008).

Additionally, under the scope of coherence theory of truth, this research will ensure credibility by drawing from the notion of reflexivity. According to Dowling (2008), reflexivity can be described as '...qualitative researchers' engagement of continuous examination and explanation of how they have influenced a research project (p. 747)'. With

this in mind, throughout the development of this project we have continuously questioned the methodological decisions undertaken so that, if necessary, we can adjust the research focus without detriment to purpose. Under this parameter, the proposed multi-methodological “contextualised skill acquisition research” approach has emerged.

Finally, in order to make the notion of reflexivity meaningful, it is crucial to take into consideration one of the key aspects of qualitative methods of inquiry: the researcher him/herself. As can be seen, researchers have a key role in making ontological, epistemological and methodological decisions, and their experience and background inevitably influences the analysis and interpretation of the research. The role and background of the researcher has to be acknowledged in advance so readers can engage in the interpretation of the practice and beliefs of others, and make their own conclusions about ‘validity’. Accordingly, the first author has reflected, examined, and as highlighted earlier, explained how his Brazilian background and subsequent experience living overseas may influence the way that he has dialogically/dialectically gather and interpret this research.

Analytical procedures

Guided by the qualitative analytical steps proposed by Creswell (2009), we prepared and organised all raw data according to their sources. We read all of the transcripts in order to have a general sense of the information and to reflect upon the common findings and their meanings. Interviews were transcribed and field notes were typed. Both materials were then translated from Portuguese to English. Although the first author was mainly responsible for the translation, a Brazilian academic teacher (Flavia Rubini), who has worked as a Portuguese Lecturer for the Department of Languages at the first author’s institution, also helped with the translation. Flavia went through the relevant raw data and then corrected the translation when necessary. Then we turned to coding the data to extract relevant information

that matched the purpose of this thesis. Our initial analysis of the interview transcripts promptly indicated four key constraints that fit the contextual dimension of the bioecological model (delineated in the present chapter).

These four constraints were: pelada (pickup games played in unconventional learning environment conditions), home (delineated under the notion of family support), federated clubs (discussed under the view of training system), and poverty. Based on their roles and significance, we have respectively organised these constraints with the first three ecological, nested systems of Bronfenbrenner's model. First, pelada was categorised as a microsystem as it provides activities, roles, and interpersonal experiences in a setting where Brazilian children can readily and directly engage with the physical as well as socio-cultural constraints offered by pelada (Bronfenbrenner, 1979). Second, home (family support) and federated clubs (training system) were organised under the mesosystem component of the bioecological model because the mesosystem comprises the interrelations amongst two or more settings (e.g., home and federated clubs) in which Brazilian children actively participate and transit from one setting to another. Finally, poverty has been categorised as an exosystem due to the fact that it refers to one or more environmental settings or contexts that do not involve the developing person as an active participant, but has an influence on person's behaviour and development. In other words, developing children are not responsible for the financial situation of their family nor do they directly participate in selecting the type of job their parents have. However, a resultant financial situation indirectly influences processes with the immediate settings. As an example, in football, a lower income family may not be able to provide access to appropriate facilities nor provide adequate equipment and sportswear for their child. As a consequence, the child has to learn skills in bare feet, in unconventional conditions and facilities such as the ones provided in pelada (Uehara et al., 2016).

Additionally, two other codes were identified at the macro-system level, i.e., dance (samba/capoeira), and malandragem. But before exploring these further, the rationale for choosing the macrosystem as the ecological nested system to categorise these constraints relies on the fact that they are cultural events that have consistently been part of the Brazilian society (for further details on definitions of Bronfenbrenner's nested system see Bronfenbrenner, 1979, 2005).

To reinforce the quality of this investigation, we first performed a pilot study in which the first author practised interviews and codification before he left New Zealand for Brazil. To enhance trustworthiness, a Brazilian academic fellow (Daniel Aldabe) who works as a lecturer for the University of Otago, Department of Physiotherapy acted as a peer examiner ...“for the purpose of exploring aspects of inquiry that might otherwise remain only implicit within the inquirer's mind” (Lincoln, et al., 1985, p. 308). In addition, member checking has also been employed so that participants had the opportunity to check my interpretation to ensure accuracy, fairness, and completeness (see Patton, 2002). All the codifications were based on the principles of point of saturation as well as on rich information, that is, information that can add value to the analyses.

Malandragem: A Macro-level of Practice

Describing Malandragem:

Malandragem is a noun in the Portuguese language that, literarily, translated to English means ‘cunning’. The adjective of *Malandragem* is *Malandro* (for male) and *Malandra* (for female), which in the English language describes a ‘trickster’ as being a streetwise person or a person who possesses cunning as well as malice (17). While *Malandragem* is a type of behaviour that can be observed in both males and females, for the purpose of this research study on male Brazilian footballers we refer to it mainly as a male adjective (i.e., *Malandro*).

On this note, an interesting question for future research is to consider whether *Malandragem* can be observed in the playing style of female Brazilian footballers.

It is important to note that the present study goes beyond the analysis of *Malandragem* as examining ‘cunning actions’ only. Here, we discuss and reframe *Malandragem* as actions that sit somewhere on a continuum between the behavioural realm of “being cunning” and “being deceptive”. While being cunning in certain contexts may involve maladaptive and ‘illegal’ behaviours (those that break the rules), moving with deception on the other hand is about using legitimate perceptual-motor skills to deceive the opposition, to gain a competitive advantage with sharp and efficient football actions such as dribbling, feinting, and disguise in passing.

Deception in team games is an essential part of a player’s skill set in using movements to cause opponents (and referees) to perceive and utilise misleading information for decision-making and coordinating actions onfield. Deception can result in opponents utilising less relevant (termed ‘non-specifying’) affordances (termed possibilities for action by James Gibson (18)) which differ from those used by the *Malandro*. Utilisation of non-specifying affordances by a deceived opponent can lead to poor decisions, opening up space onfield and buying a player with the ball time to achieve goal-directed actions like dribbling into dangerous areas of the field, shooting at goal and passing unopposed to a teammate in a shooting position. Under these contexts, *Malandragem* sits closer to the deception side of the spectrum of intentions, rather than its use for ‘devious’ purposes known as the ‘dark arts’ of football such as getting another player sent off by the referee or breaking up the game when the opposition want to build attacking momentum.

Contextualising Malandragem as a socio-historical constraint

The Brazilian history of *Malandragem* can be traced back to the 1880s when slavery was abolished. Traumatized and impoverished from years of slavery many individuals could not obtain regular work and were drawn into undervalued activities to survive. Some accepted jobs for poor wages, but without qualifications and places to live, ex-slaves were often rejected by the public and were shunned and forced to live on the outskirts of cities, forming the first favelas (or shanty towns) (19). Due to a range of socio-economic complexities and struggles such as corruption, unemployment and inequalities, *Malandragem* gained traction as a common form of socio-cultural navigation in communities and as a tool for seeking individual justice (19). That is, by living under constant oppressive forces, individual *Malandro* had to adapt to manipulating people, deceiving unreliable authorities, and bypass laws simply to survive and guarantee their well-being. Yet, despite this apparently egocentric and malicious nature, an individual who used *Malandragem* was not necessarily regarded as selfish, but often viewed as being resourceful to provide for the people around him.

Often, *Malandragem* was deployed as an intellectual resource by individuals (i.e., *Malandros*) of little social influence or the socially disadvantaged. A popular Brazilian saying that best summarises this idea of *Malandro* is: 'I like to get an advantage in everything'. Such a slogan was immortalized in a catchphrase of former Brazilian soccer player Gérson de Oliveira Nunes in a cigarette TV commercial (20). The point is that *Malandros* are by no means lacking in intellectual resource, rather that they use their 'street-smarts' to gain advantages where they may not have been readily apparent.

However, in Brazilian society when *Malandragem* is used to take advantage in a way that harms others, then it connotes a negative image of the *Malandro*, who is condemned as an anti-hero. This type of *Malandragem* has been commonly associated with the behaviours of corrupt politicians in Brazil (21). In contrast, when the individual *Malandro* uses *Malandragem* as a tool for gaining justice against the corrupt socio-political system,

countering a system which indulges the rich and oppresses the poor, then the *Malandro* is portrayed in a more positive light. A classic example of this type of hero is Pedro Malasartes, a famous character in Brazilian folk tales. Of humble origin, the cunning Malasartes is full of gimmicks. He can fool all who cross his path and always outperforms the powerful, greedy, or vain. In some tales, Malasartes appears as a humble hero who redeems justice. In other tales, the *Malandro* is simply trying to survive (22, 23).

Therefore, the construct of the *Malandro* lifestyle has become significant to Brazilian national identity as a folk hero, or, perhaps an anti-hero who can survive in society by living on his wits. Under this context, the popularity of *Malandragem* increased and was eventually embraced by the bourgeoisie or by those of better social positions, becoming therefore, a locus of Brazilian national culture (24). Today, it is common to see *Malandragem* as a theme in Brazilian folklore, literature, cinema, music, and in sports, including within the national sport of football (24).

Malandragem and Dexterity in Football:

Under the context of elite football alone, there is a plethora of examples that can be used to illustrate the notion of players being cunning, deceptive, or mischievous: that is, being *Malandro*. Perhaps the most notorious example, in a negative sense, is about *simulation* or diving to gain a competitive advantage, such as being awarded a free kick or penalty, which has become an endemic behaviour of many players in the professional game. Unsurprisingly, such accusations are further reinforced when famous players behave as such, infamously demonstrated in the 2018 World Cup by the Brazilian star footballer Neymar Junior (25, 26). However, while players from different nations are associated with inclinations for diving, much of the blame seems to have been directed by the media towards players with Latin heritage, implicating the culture of those societies in South America and Southern Europe (27).

In addressing this issue, Roher (27) conducted notational analysis of games from the English Premier League following insinuations from former English professional footballer Michael Owen that players from South America, Spain and Italy “go to ground” too easily (28). The results show that, in comparison to English midfielders and strikers, South American, Italians, and Spanish players of the same positions tend to receive more fouls by immediate defenders, mainly because of their high proficiency in controlling and manipulating the ball, thereby creating affordances (invitations or opportunities) for defenders’ actions like illegal tackles and fouls (29). Arguably, this may be one out of many other reasons for players of these nationalities to fall to the ground more often.

However, as explained above, the early roots of *Malandragem* were not defined by deviant behaviours solely for individual gain, but instead by challenging socio-economic circumstances that demanded novel, adaptive and creative (29) solutions, often for the benefit of others (i.e. family, friends).

In the ecological dynamics literature, it is interesting to note how this connotation of *Malandragem* is aligned with Nikolai Bernstein’s (30) conception of ‘dexterity’ to describe skilled behaviour. According to Bernstein (30), dexterity involves “finding a motor solution for any situation and in any condition” (p. 21)... where... “demand for dexterity is not in the movements themselves but in [adapting to] the surrounding conditions” (p. 23).

Malandro as a Macrosystem that Enhances Brazilian Footballer’s Skills and Expertise

Interpreting the individualised interactions of *Malandragem* in Brazilian football culture from an ecological perspective, the outermost level of the nested system is the macrosystem which embraces all the possible linkages amongst microsystems, mesosystems and exosystems (see Figure 1). The macrosystem was defined by Bronfenbrenner (7) as ‘the overarching pattern of micro, meso, and exosystems characteristics of a given culture, subculture or other broader

social context' (p. 150). The macrosystem level includes a range of putative influences (such as political, economic, and sociocultural) upon the developing individual, which are undeniably present, but rarely considered within the context of motor learning. For example, the broad macrosystem dimension in sport may help to describe and interpret historical playing styles, cultures and stratifications that characterise certain sports and nations such as in New Zealand rugby union, Australian rules football, Indian cricket, and American basketball, or Brazilian football (4). These socio-cultural and historical constraints on performance and related behaviours can create a 'form of life' which Wittgenstein (31) proposed to frame the values, beliefs, attitudes and philosophies underpinning the acquisition of skills and expertise in a specific society, community, or organisational setting (32).

In the case of Brazilian football, the *Malandro* (tricky player) with his/her *Malandragem* (cunning) abilities may connote not only a negative image (anti-hero) as explained earlier, but also a positive one (hero) as explained by Mr CL:

In football you create game situations where you want to go out to one side and come out the other side. You make your opponent think you will do something and you do something else. That is what you can call *Maladragem* or malice in a positive sense. (Interview, December 31, 2010)

Here, Mr CL indicates that being *Malandro* in a positive way is about using perceptual-motor skills as a strategy to deceive the opposition and create opportunities to gain a positive advantage onfield. In this sense it may be using body movements to apparently move in a predictable way and then to feint and change direction to create a player overload or to move into space. Similarly, Mr MG agrees that *Malandragem* is about deceiving the opposition with skills; it is about being unpredictable at all levels including subverting the laws of the game to gain advantage. In his view, this is what makes football special. He argues:

The truth is, the passion in football is the passion generated by seeing players taking the risks of doing something new or unexpected to overcome the opposition or of breaking the rules without being noticed. The game is always hierarchical in a sense that it will always have a team that is stronger than the other, as in life. Thus, if one uses lawful means or not to deceive, including deceiving the referee, it is ok as it is part of the game. In this case one is so *Malandro* that even the referee could not see any form of infractions. (Interview, February 8, 2011)

Here, it is interesting to note Mr MG's point of view about illicit tricks. In his view, being *Malandro*, undertaking borderline infringements of the laws is just part of the skill set of high-level players. Arguably, such competitive behaviours are more acceptable in Brazil, where they have been historically influenced by the *Malandro* culture, than in other societies. Historically the Anglo-Saxon influences in Europe seems to advocate the notion of fair-play (perhaps a legacy of the French Pierre de Coubertin, the founder of the modern Olympic Games (33) or the upper class influence in maintaining amateurism in newly organised English football in the late 1800s) rather than being sneakily deceptive for self-gain.

In continuing with this topic, yet moving away from illicit tricks, Mr VL provides a revealing comment in which he connects the notion of *Malandragem* with scanning for perceptual information, rapid thinking, anticipation, decision making, problem solving and exploiting space and time. He argues:

I lived in a very rough neighbourhood full of crime. We played *pelada* every day on the streets. We had players at various levels of skills and age. I was about 6 years old. So everybody knows that football has 17 rules, but in our street there is only one rule: if no blood no foul. Under this context you create certain malice [trickery] for the rest of your life. For example, I knew that if I bumped into a 15 year old boy I would break myself up, so I had to look over my shoulders all the time and anticipate the moves to avoid physical contact. In doing so, you develop

quick thinking and the notion of searching for space and time to play. (Interview, February 16, 2011)

Here, Mr VL reveals how his *Malandro being* emerged as a form of self-preservation within the context of the *pelada* games he played in his youth – to avoid injury he was forced to act and think with speed, awareness and guile. From a socio-cultural point of view associated with the notion of skill acquisition, it can be argued that Mr VL's statement captures qualities of the 'good *Malandro*', whom he identified as quick thinker with great perceptive-action skills.

Historically, such a quick thinker would be the Brazilian mulatto who overcomes prejudice and manages a certain social mobility through favours conquered with *Ginga* and *Malandragem* (34). On this note, as further explained below, *Ginga* as a football playing style is almost synonymous with *Malandragem*, in a sense of successfully find solutions under challenging circumstances.

Ginga: The movement embedded in Malandragem

Mr VL describes a *Malandro* using *Ginga* (i.e., body sway) to sway from one side to the other in order to deceive the opposition. Ultimately, it is a skill of perceiving and acting, enhancing uncertainty about one's own behaviour, creating and improvising on sport:

In my view, *Ginga* is synonymous with improvisation...*Ginga* is not only about the way that one executes movement, it is also about astutely perceiving what is going on around. It is about being smart and cunning enough to anticipate what is going to happen and make decisions accordingly. (February 16, 2011)

Thus, in Brazilian society, a typical *Malandro* deceives the opposition with *Ginga*, which are deft and atypical body movement coordination patterns. These actions include elements of

surprise, craftiness, shrewdness, and readiness, which are highly valued in the realm of Brazilian football culture.

The notion of playing with *Ginga* has a long history in the Brazilian football as Gilberto Freyre (35), a Brazilian social scientist and writer first described the initial concept of football *Ginga* in 1938 as:

Our style of playing football seems to contrast to the European style because of a set of characteristics such as surprise, craftiness, shrewdness, readiness, and I shall even say individual brilliance and spontaneity, all of which express our ‘mulattoism’...Our passes...our tricks...that something which is related to dance, to capoeira, mark the Brazilian style of football, which rounds and sweetens the game the British invented, the game which they and other Europeans play in such an acute and angular way – all this seems to express...the flamboyant and at the same time shrewd mulattoism, which can today be detected in every true affirmation of Brazil. (p. 282)

Here, it is interesting to note how the analysis of a preferred football performance style can contribute to the understanding of cultural identity. For instance, Freyre begins to define the Brazilian football style as a product of black culture (mulattoism). Later, Freyre referred to mulatto and black players’ such as Leonidas da Silva, Garrincha and Pelé’s ethnicity to demonstrate how their historical-cultural traditions influenced more global sociological phenomena such as a typical Brazilian football style (36). Indeed, football with *Ginga* has become a locus of national identity in Brazil, a sport that has given many working class people a chance of social mobility and pleasure (14, 37, 38).

After the infamous defeat to Germany by 7 – 1 in the 2014 Fifa World Cup, followed by losing in the 2015 Copa America quarterfinals to Paraguay, many criticisms and debates alike featured demands to bring back the Brazilian traditional way of playing football. Pelé, for instance, said: ‘Brazil needs individual *Ginga* to return to their former best’ (39).

But what does Pelé mean by playing with *Ginga*? As described above, *Ginga* (pronounced in English *jinga*), is a term that literally means *sway* (17). From a movement science perspective, however, *Ginga* can be defined as a holistic fluid movement of the body joints, especially between the ankles, knees, and hips, which together with the ball, is used to deceive the opposition in an elegant style, be it when controlling, dribbling, or passing the ball. In truth, it is a high level of expertise of perceptual-motor skills. Indeed, *Ginga* encapsulates all of the traits attributed to the Brazilian style of playing in which the *craque* (superstar) is capable of displaying aesthetic body movement coordination combined with the ability to improvise and create unexpected moves and plays (40).

Through a series of popular Nike advertisements, the Brazilian football *Ginga* style has been commercialised around the world as '*joga bonito*', two Portuguese words that translated to English mean 'play beautifully' (see YouTube for many video clips on *joga bonito*, e.g., <https://www.youtube.com/watch?v=fRHtq2DTdhk>). Different from the pragmatic, functional style of playing football, *joga bonito* combines creativity with athleticism, adding an artistic element to football. As sociologist Rory Miller (16) elucidates, *joga bonito* is "the sporting expression of other key elements of Brazilian popular culture, *samba* and *capoeira*... a style of football that [is] not only world-beating but also entrancing for spectators to watch" (p. 8).

In addition, to delve into this unique style of Brazilian footballers, a film documentary entitled "Ginga: The Soul of Brazilian Football" was produced and released in 2006 by O2 Filmes (41). Divided into ten chapters, the film focuses on the relationship between *Ginga* and broader contexts of Brazilian society such as geographic, economic, and socio-cultural aspects. The main characters are eight diverse people, including males and females who come from different social classes, ethnic backgrounds, and geographic regions in Brazil. Several prominent Brazilians players such as the iconic futsal player Falcão were interviewed for this documentary. In conclusion, the film implies that *Ginga* is embedded in almost every mundane

aspect of everyday life for Brazilians, including the way that they walk, talk, socialise and function. As a result, this style of ‘sway’ has arguably been incorporated into the way that Brazilians play football.

This *Ginga-Malandragem* link is a key constraint aligned to what James Gibson (18) referred to as perception-action coupling. These ideas imply that, the more perceptually attuned a player is to key informational sources to regulate expert soccer actions, the more successful a player will be. An expert player is highly capable of perceiving information available in the game, using techniques like scanning for visual exploration of the environment, so that he/she can act upon it (42). An expert player also has the ability to act or move around in an efficient, fluid manner in order to perceive what is going on in the game. In this sense, the process underlying perception-action coupling is reciprocal: highly skilled perception of information is used to regulate actions, and actions provide perceptual information to be picked up and used by performers in sport (43).

Certainly, the level of expertise of perception-action coupling is not limited to Brazilian players. Many other countries have players with high levels of perception-action coupling. However, the difference is that Brazilian players often do it with a *Ginga* style which many critics associate with an aesthetically pleasing way of functioning in a football performance environment (14-16).

Discussion

In inductively exploring the present investigation under the scope of the CSAR framework significant findings have revealed the key constraints on footballers’ skilled behaviours that have emerged from the socio-cultural, political and historical context of Brazil.

Our interpretative analysis shows that *Malandragem* is one example of the macro level socio-cultural constraints (7, 9) that have shaped the skills of Brazilian footballers. Such

a way of playing has been categorised as *Ginga*, a culturally-valued style which alludes to playing football with flamboyance, sway, and cunning, demanding a high level and integration of perceptual-motor and cognitive skills during performance. In other words, the Brazilian football style has been categorised with a number of key features such as *Malandro* who uses *Malandragem*, which encompasses elements of body sway, flamboyance, creativity, and improvisation. The Brazilian poet and anthropologist Antonio Risério (44) further articulated these football features with a clear and concise summary:

The Brazilian people reinvented football by playing with corporeal intelligence acquired from their ethno cultural formation. At the base, it involves samba and capoeira with rhythm and *Malandragem*. It is not by chance that we can use the same word - and of African origin: *Ginga* - to speak of meandering body movements of samba, capoeira and football players.

This point of articulation guides us back to a key message emphasised in this article revealing that even apparently aversive socio-cultural constraints have played an important role on the development of expertise of Brazilian football players. Thus, the globally-recognised Brazilian style of football is a product of the socio-cultural constraints primarily influenced by the Mollato group's cultural traditions interacting with particular socio-cultural-economic conditions.

However, the idea of *Malandragem* is entangled with a hotly debated topic in the football literature; simulation or exaggerated diving to gain an advantage during play (i.e. getting an opponent booked or sent off and earning a free kick or penalty). Simulation has evoked controversy over notable high-profile Brazilian players for many years, such as Neymar Junior for his feigning injury in the 2018 FIFA World Cup held in Russia (26). It has particularly been subject to culturally-laden interpretations by Anglo-Saxon media in UK, Australia, New Zealand and USA. For example, during the 2014

FIFA World Cup held in Brazil the US business Newspaper The Wall Street Journal featured an article entitled 'The World Cup Flopping Rankings' (June 27th, 2014). Appearing in its topical, irreverent 'The Count' column, the author Geoff Foster (45) addressed "the amount of time players spend embellishing injuries" and offered data and world rankings. Some (nations) it noted, "embellish all the time, some hardly at all". In addressing this, and with a derisory tone, the author offered "a comprehensive empirical study aimed at determining . . . which World Cup participant nation is the floppiest". This criterion was assessed by calculating 'writhing time' – the time, excluding serious injuries that necessitated missing a future game or necessitated a substitution, that was taken up by "rolling around in pain, crumpling into a foetal position or lying lifeless on the pitch as the referee stopped the match". The team "most commonly seen in anguish" was Brazil with 17 incidents of writhing' in two games, with Bosnia and Herzegovina featuring the least (just 2). The article, widely cited in popular media across the Anglosphere was interesting in making explicit national differences in 'writhing' behaviours, which are implicitly mocked as illegitimate. What the Wall Street Journal article's superficial treatment omits is the varying cultural contexts which shape and pattern how these playing behaviours are understood and contextualised.

The pattern of our *Malandragem* analysis, expressed in the light of *Ginga* movement, fits under the umbrella of the conceptualisation of behaviour underpinned by the ecological dynamic framework. For instance, within motor learning it has been consistently reported that skill and expertise emerges from the interaction of key constraints such task, individual and environment constraints (e.g., physical as well as socio-cultural environment constraints). Expertise development is further enhanced by what Gibson (1979) postulated as perception-action coupling, which, applying to our *Malandragem-Ginga* constraints, can be reflected in the high calibre of perceptual motor

skill of Brazilian players. In addition, the creative, improvisation, and adaptability required to play with *ginga-malandro* characteristics are aligned with Nikolai Bernstein's (30) notion of 'dexterity' to describe skilled functional behaviours, adapted to different surrounding conditions.

While Bronfenbrenner's bioecological model of human development has added important theoretical and methodological values to guide data collection and organisation of material, it has proved challenging to apply this model as a whole to the data generated. From the micro to macrosystemic levels of the bioecological model, our research have generated, in an inductive manner, data that fits each of these systems, but for logistical reasons the analysis had to be fragmented in a linear manner with results presented in isolation such as the case of *Malandragem*.

Due to limited funding resources, data generated through the methods of interviews and participant observations were mainly collected in the region of São Paulo city where the first author grew up playing football. However, as per our contextual analysis, *Malandragem* is not limited to one region, but to Brazil as a whole.

Implications: Ginga-Malandragem and the Intelligent Sports Performer

It is worth re-emphasising that being cunning to achieve a task goal seems to be, to a certain extent, acceptable in Brazil even under the means of transgressing established set of rules and norms. However, it is also worth noting how this ideal of the *Ginga-Malandro* is aligned with the notion of an 'intelligent performer' in physical education and sports coaching (46).

Around the globe, official government publications, national education standards, professional bodies and curriculum documents in physical education have promoted the need for developing problem-solving, decision-making and thinking skills in physical education activities. In defining a physically literate person, three main

dimensions of learning, psychomotor, cognitive, and affective, have been referenced in the UK's the National Curriculum Physical Education (NCPE) (47), the National Association for Sport and Physical Education in the USA (48), and the Queensland Physical Education Senior Syllabus (49). For example, there are glimpses of the *Malandro* in the description of the 'intelligent performer' by the Studies Authority in Queensland, Australia (p. 3) that:

Intelligent performance is characterised by high levels of cognitive functioning, using both rational and creative thought. Students are decision makers engaged in the active construction of meaning through processing information related to their personal experience and to the study of physical activity.

The document also proposes that "For students to be intelligent performers, they must be able to do more than just reproduce physical responses." (p. 11), emphasising the need for skill adaptations, creativity and flair in movements. In other words, an important goal of contemporary physical education curricula is to progress students beyond the mindless reproduction of physical responses or movement templates to the development of the 'intelligent performer', a dexterous individual (30) who can exploit skill adaptation (50), who has the ability to perceive information to regulate actions and make strategic decisions in complex and dynamic performance contexts.

Therefore, successfully performing in team games like football requires the 'intelligent performer' to be challenged beyond mere action template imitation and repetition to critically interpret emerging events and actions in a performance environment play and make his/her own decisions to solve game-related problems.

To finalise, we conclude that, under the aversive context in which our data relate to, the whole process involving *Malandragem* and football can best be captured in one word, that is, *Ginga*. In turn, playing with *Ginga* means play with a high calibre of perceptual-motor

expertise, creativity and trickery, and adaptability. However, we acknowledge that the development of intelligent football players with high level of perceptual-motor skill is intrinsically associated to the physical as well as to the socio-cultural constraints of the nation in question. As such, Malandragem with Ginga behaviours may be well suited for the development of expertise of Brazilian football players but comparably useless for the development of players of other nations. On this note, future research could further explore the relationship between socio-cultural constraints and development of football expertise in other countries such as “fair play” in England or “efficiency” in Germany.

References

1. Uehara L, Button C, Davids K. Sport expertise development and the constraints-led approach: a review exemplified by the case of Brazilian soccer. *Conexões*. 2019;17(0190001):1-20.
2. Uehara L, Button C, Araújo D, Renshaw I, Davids K, Falcous M. The role of informal, unstructured practice in developing football expertise: The case of Brazilian pelada. *Journal of Expertise*. 2018.
3. Uehara L, Button C, Falcous M, Davids K. Contextualised skill acquisition research: A new framework to study the development of sport expertise. *Physical Education & Sport Pedagogy*. 2016;21(2):153-68.
4. Button C, Seifert L, Chow J-Y, Araújo D, Davids K. *Dynamics of Skill Acquisition* 2nd edition. Human Kinetics UK. 2 ed. UK: Human Kinetics; 2020.
5. Renshaw I, Chow J-Y. A constraint-led approach to sport and physical education pedagogy. *Physical Education and Sport Pedagogy*. 2019;24(2):103-16.
6. Araújo D, Fonseca C, Davids K, Garganta J, Volossovitch A, Brandao R, et al. The role of ecological constraints on expertise development. *Talent Development & Excellence*. 2010;2(2):165-79.
7. Bronfenbrenner U. Bioecological theory of human development. In: Bronfenbrenner U, editor. *Making human being human: Bioecological perspectives on human development*. Thousand Oaks, CA: Sage Publication, Inc.; 2005.
8. Krebs RJ. Bronfenbrenner's bioecological theory of human development and the process of development of sports talent. *International Journal of Sport Psychology*. 2009;40(1):108-35.
9. Bronfenbrenner U, Morris P. The bioecological model of human development. In: Damon W, Lerner RM, editors. *Handbook of child psychology: Vol 1 Theoretical models of human development*. 6 ed. New York: John Wiley; 2006. p. 793-828.
10. Newell KM. Constraints on the development of coordination. In: Wade MG, Whiting HTA, editors. *Motor Development in Children: Aspects of coordination and control*. Dordrecht, Netherlands: Martinus Nijhoff; 1986. p. 341-60.
11. Lever J. *Soccer madness: Brazil's passion for the world's most popular sport*. Long Grove, Illinois: Waveland Press; 1995.
12. Mason T. *Passion of the people? Football in South America*. London: Verso; 1995.

13. Miller RM, Crolley L, editors. *Football in the Americas: Fútbol, futebol, soccer*. London: Institute for the Study of Americas; 2007.
14. Bellos A. *Futebol: The Brazilian way of life*. London: Bloomsbury Publishing; 2002.
15. Filho M. *O negro no futebol brasileiro [The black in brazilian football]*. 4 ed. Rio de Janeiro: Muad; 2003.
16. Miller RM. Introduction. In: Miller RM, Crolley L, editors. *Football in the Americas: Fútbol, futebol, soccer*. London: Institute for the study of the Americas; 2007.
17. Whitlam J, Davies V, Harland M. *Collins portuguese dictionary: English-portuguese portuguese-english*. 1 ed. New York: HarperCollins; 1991.
18. Gibson JJ. *The ecological approach to visual perception*. Boston, MA: Houghton Mifflin; 1979.
19. DaMatta R. *O que faz o brasil, Brasil? [What makes brazil, Brazil?]*. Rio de Janeiro: Rocco; 1984.
20. Gurovitz H. *Viva a lei de Gérson [Living the law of Gérson]*. *Super Interessante*. 2004;197.
21. Passarelli V. *Brasil piora no ranking de corrupção em 2019, diz Transparência Internacional. [Brazil worsens corruption ranking in 2019, says Transparency International]*. Estadão. 2020.
22. Britannica Escola. Pedro Malasartes. Retrieved from: <https://escola.britannica.com.br/artigo/Pedro-Malasartes/483447>. 5 de outubro de 2019 2019 [
23. Terto A. Jesuíta Barbosa: 'Pedro Malasartes é o retrato do brasileiro'. [Jesuit Barbosa: 'Pedro Malasartes is the portrait of the Brazilian']. Huffpost (blog) Retrieved from <https://www.huffpostbrasil.com/2017/08/03/jesuita-barbosa-pedro-malasartes-e-o-retrato-do-brasileiro-a-23063939/>. 2017.
24. Rocha G. Eis o malandro na praça outra vez: A fundação da discursividade malandra no Brasil dos anos 70 [Here is it the trickster in the square again: The discourse of malandro in Brasil in the 70s]. *SCRIPTA*. 2006;10(19):108-21.
25. ABC News. World Cup: Diving Neymar rolls out of social media and into Mexican league football. Retrieved from: <https://www.abc.net.au/news/2018-07-10/world-cup-neymar-diving-challenge/9962638> AU: ABC News; 2018 [
26. Spencer J. 'Good footballer... even better actor': Football fans mock Brazil star Neymar for his extravagant diving and writhing antics after being stamped on during his side's World Cup win over Mexico. Retrieved from: <https://www.dailymail.co.uk/sport/sportsnews/article-5911741/Football-fans-mock-Neymar-extravagant-diving-writhing-antics.html>. Daily Mail. 2018.
27. Roher D. The Harvard Sports Analysis Collective [Internet]2012.
28. Smith B, Ornstein D. Michael Owen blames foreign players for diving increase. BBC Sport Retrieved from <https://www.bbc.com/sport/football/19905197>. 2012.
29. Morris PH, Lewis D. Tackling diving: The perception of deceptive intentions in association football (soccer). *Journal of Nonverbal Behavior*. 2010;34(1):1-13.
30. Bernstein NA. "On dexterity and its development". In: Latash M, Turvey MT, editors. *Dexterity and its development*. Mahwah, N.J.: LEA; 1996. p. 2-244.
31. Wittgenstein L. *Philosophical investigations*. Oxford, UK: Blackwell; 1953.
32. Rothwell M, Davids K, Stone J. Harnessing socio-cultural constraints on athlete development to create a form of life. *Journal of Expertise*. 2018;1:94-102.
33. Hirthler G. Celebrating Pierre de Coubertin: the French genius of sport who founded the modern Olympic Games 2019 [Available from: <https://www.olympic.org/news/celebrating-pierre-de-coubertin-the-french-genius-of-sport-who-founded-the-modern-olympic-games>.

34. Schwarcz L. Complexo do Zé Carioca: Notas sobre uma identidade mestiça e malandra [Complex Zé Carioca: Notes on a mestizo and cunning identity]. Revista Brasileira de Ciências Sociais. 1995;10(29):49-63.
35. Goldblatt D. The ball is round: A global history of football. London: Penguin; 2006.
36. Freyre G. Sobrados e mucambos [The mansions and the shanties] 2ed. Rio de Janeiro: Global Editora; 1951.
37. Ascher N. Revista usp: Dossie do futebol [Usp magazine: Football dossier]. 22. Sao Paulo: Universidade de Sao Paulo; 1994.
38. Rocha J. Brazil in focus: A guide to the people, politics and culture. New York & London Interlink Books & LAB; 2000.
39. Hirshey D. Pele says Brazil need individual *ginga* to return to their former best 2016 [Available from: <http://www.espnfc.com.au/brazil/story/2868330/pele-says-brazil-need-individual-%3Ci%3Eginga%3C-i%3E-to-return-to-their-former-best>].
40. Soares AJ, Lovisolo HR. Futebol: A construção histórica do estilo nacional [Football: The historical construction of the nacional style]. Rev Bras Cienc Esporte. 2003;25(1):129-43.
41. Levine H, Machado M, Alves T. Ginga: The soul of Brazilian football [DVD]. Brazil: Aztec International Entertainment 2005.
42. Seifert L, Button C, Davids K. Key properties of expert movement systems in sport. Sports Medicine. 2013;43(3):167-78.
43. Seifert L, Papet V, Strafford B, Coughlan E, Davids K. Skill transfer, expertise and talent development: An ecological dynamics perspective. Movement & Sport Sciences - Science & Motricité. 2019.
44. Fernandes B. Uma entrevista com o poeta e antropólogo Antonio Risério [An interview with poet and anthropologist Antonio Risério]. Terra Magazine. 2007.
45. Foster G. The World Cup Flopping Rankings. The Wall Street Journal. 2014.
46. Moy B, Renshaw I, Davids K, Brymer E. Preservice teachers implementing a nonlinear physical education pedagogy. Physical Education and Sport Pedagogy 2019.
47. Education. Df. National curriculum in England: Physical education programmes of study 2013 [Available from: <https://www.gov.uk/government/publications/national-curriculum-in-england-physical-education-programmes-of-study>].
48. Opportunity to learn: Guidelines for high school physical education. In: USA NAfSaPE, editor. 3 ed. Reston, VA: NASPE; 2009.
49. Physical Education Senior Syllabus. In: Authority QS, editor. Spring Hill, Brisbane: State of Queensland; 2010.
50. Araújo D, Davids K. What exactly is acquired during skill acquisition? Journal of Consciousness Studies. 2011;18(3-4):7-23.