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Movement as the core of physical engagement and understanding

UNIVERSITÀ

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Introduction

One of the enduring enigmas inherent within the realm of sports, games, and physical endeavours lies in the profound rationale behind humanity's deep-seated proclivity to ardently observe, meticulously analyse, and actively partake in them. Despite the passage of time, during which philosophers, journalists, and scholars in sports sciences/kinesiology[1] have toiled unremittingly, a consensus remains elusive regarding the underpinning rationale for the prolonged hours many among devote to spectating televised contests, donning shirts, jerseys, headgear, and adorning countenances with pigments, all whilst deferring other pursuits in the tapestry of existence.

Furthermore, even after an extensive span of contemplation and scholarly investigation, the precise causative factors behind the profound infatuation some harbour for engaging in exercises,

1. In Italy, the scholastic domain concerning corporeal exertion and athletic pursuits is commonly referred to as "Scienze delle attività motorie e sportive", falling within the broader purview of sports sciences and originating from the I.S.E.F. (Istituto Superiore di Educazione Fisica), as expounded by Cereda (2023, p. 31). Conversely, on an international scale, the prevailing terminology employed to delineate a cognate sphere of erudition is *kinesiology*. Despite potential semblances between these two designations, kinesiology is widely embraced across myriad English-speaking nations. In Italy, as per the provisions of D.L. 28 February 2021, n. 36, those individuals who possess a Bachelor's and/or Master's degree in Sports Sciences (degree's class L-22, LM-47, LM-67, LM-68) function in the capacity of a kinesiologist (refer to https://www.gazzettaufficiale.it/eli/id/2021/03/18/21G00043/sg). Within this treatise, the terms kinesiology and sports sciences shall be employed interchangeably to allude to the identical arena of inquiry.

dance, recreational pursuits, or athletic involvement, thereby assigning it a privileged echelon within their life's hierarchy, elude categorical determination. Whether it be the fervent golfer who stealthily absconds to the greens for a cursory "9-hole" escapade, the committed tennis aficionado who monopolises every weekend with spirited matches and high-stakes tournaments, or the indefatigable runner who persists in her relentless journey through rain, snow, or unrelenting heat, all are impelled by an impetus fuelled by motivations and fervours that evade facile explication. This ardour for physical exertion constitutes the driving force behind the global human preoccupation with sports sciences – an academic discipline concerned with the scholarly exploration of corporeal activity.

Throughout the globe, engagement in physical activity encompasses a diverse array of populations, each characterised by their distinctive backgrounds, requisites, and inclinations. This encompasses physical education within educational institutions, sporting activities in clubs, fitness regimens in gyms, dancing in studios, as well as an assortment of outdoor pursuits and associated leisure activities. A pivotal aspect underpinning the participation of individuals in these multifarious forms, expressions, and modalities of physical activity lies in their movement competence.

Hence, it comes as no surprise that the acquisition of movement skills has emerged as a subject of paramount importance for scholars in the field of motor and sports sciences or kinesiology, spanning various disciplines. Traditionally, the domain of movement skill learning has been framed within kinesiology as a cognitive process, predominantly studied under controlled laboratory conditions or experimental settings. Consequently, the acquisition of skills has been predominantly categorised under three common classification systems: the magnitude of the movement, its initiation and termination points, and the stability of the environment in which it occurs (Schmidt & Wrisberg, 2004).

Determining the scale of a movement and the primary musculature involved aids in identifying whether a skill is categorised as

a gross motor skill, as seen in downhill skiing, or a fine motor skill, exemplified by a wrist flick during a throw. Establishing the initiation and termination points of a movement aids in classifying a motor skill as either discrete, such as a jump shot, or continuous, as observed in running. Lastly, characterising a skill based on the stability of the environment in which it is executed allows for the differentiation between open skills, such as playing soccer, and closed skills, like throwing darts.

Given these classification paradigms, researchers embarked on proposing numerous models to elucidate the progression of learners in acquiring movement skills. Fitts and Posner (1967), serving as one of the earliest exemplars, posited a tripartite model of skill acquisition. They contended that learners commence their journey in a cognitive phase, wherein their focal point resides in comprehending the movement conundrum before them and devising strategies for resolution. With dedicated practice, learners should transition to the associative phase, wherein they align their movements with the burgeoning environmental demands. Ultimately, learners ought to attain the autonomous stage, wherein the acquired skill becomes second nature and can be executed with the utmost fluency.

Another influential perspective pertaining to the study of movement skill acquisition within sports sciences derives from the natural sciences, where the tenets of meritorious research are founded upon realism: the notion that genuine knowledge stems from direct observation of objects, bodies, and/or natural phenomena under controlled, objective laboratory conditions. Biomechanics, for instance, drew upon engineering principles to dissect biological systems, structures, and functions that expounded human movement as an outcome of an intricate interplay of levers and pulleys. Exercise physiology emerged from the purview of new anatomists who scrutinised the motion of bodies through the dissection of static cadavers. Additionally, mathematical laws were applied to the human body, giving rise to precise measurements – anthropometry – thereby enhancing the calculation and antic-

ipation of human performance capabilities. Furthermore, motor learning postulated the brain as a computing entity, processing specific inputs to generate desired outputs linked to the essential processes and procedures that facilitate individuals' attainment of proficiency in movement.

To a certain extent, the inclination to turn to the natural sciences for an explanation of bodily movements is comprehensible. It is undoubtedly simpler, for instance, to conceive of movement skill acquisition as a physical endeavour rather than a subject of concern for social scientists. After all, it is the body's musculature, joints, and limbs that are most intimately linked to movement. Conversely, in the context of social theory and movement skill acquisition, issues related to power, politics, and historical influences tend to be overlooked. This oversight arises not only due to perceived irrelevance but also because delving into such areas would require a departure from the conventional methodologies that characterise objective scientific research.

Nonetheless, the acquisition of movement skills typically unfolds in environments shaped by an array of social, cultural, and material forces. This encompassing array may encompass factors such as the movers' and instructors' respective social and cultural backgrounds, the equipment utilised, the conditions of the space being employed, prevailing fashion trends, and societal expectations regarding body size and physical aptitude. Additionally, considerations relating to affordability and accessibility exert a considerable influence over individuals' choices and opportunities to partake in physical activities and cultivate their movement proficiencies.

These matters ought not to be relegated to mere afterthoughts once the primary focus on investigating movement skill acquisition as a physical endeavour has been addressed. Succumbing to such division only results in an overly compartmentalised and fragmented comprehension of movement and skill, hindering the appreciation of the myriad relational dimensions exhibited by a moving body. Aligned with this stance, the purpose of this re-

search book is to explore how concepts derived from social theories spanning from phenomenology to poststructuralism may foster a more comprehensive and all-encompassing understanding of movement. In this regard, this work offers sports sciences scholars hailing from both the natural and social sciences an opportunity to begin recognising movement skill acquisition as an embodied activity deeply embedded within intricate socio-cultural contexts and settings.

It is important to acknowledge that, of course, there aren't pioneers among social theorists to propose that movement skill learning entails a myriad of intricate social processes, encompassing context, gender, social class, and power dynamics. For instance, in their exploration of the socio-cultural history of the moving body, Kerr and Espiner (2022, p. 170) delved into the normative structures that influence sport and movement, whereby the techniques, styles, and types of sporting movements are rarely stable. They further drew upon Pierre Bourdieu's (1984) discourse on how different movement forms can be linked to the accumulation of capital, thus influencing one's status and power. Additionally, they highlighted the interplay of rules and organisational bureaucracy in various movement practices, whether in sports, dance, or fitness, which collectively come to value, celebrate, and reward particular types of movements.

Examining the intersection of gender and movement skill learning, as far back as Eleanor Metheny (1968) demonstrated, sports perceived as masculine, like rugby or boxing, tend to exclude female participation in favour of more elegant, restrained, and aesthetically appealing sports such as figure skating, gymnastics, and racquet games. As it pertains to physical education in schools, Larsson and Quennerstedt (2012) argued that the production of any movement is now an integral part of a complex pedagogical lexicon that defines "correct" movement instruction, assessment protocols, and progressions across a multitude of contexts.

This has engendered the emergence of conflicting viewpoints concerning talent identification and proficiency assessment in

both sports and dance, sparking contentious debates over the definition of functional versus futile movement patterns within fitness and exercise contexts.

With divergent perspectives on what constitutes appropriate and refined forms of movement, inevitably, decisions arise pertaining to the allocation of resources for individuals to partake in physical activity. For instance, the realm of youth sports has witnessed an increasing prevalence of drop-out rates and de-selection among participants, owing to coaches' reliance on perceived effective and accurate movement capability assessments. Simultaneously, physical education grapples with the challenge of establishing itself as a pertinent component of schools' curricula offerings, hindered by its long-standing association with game-based approaches.

Significantly, all these perspectives, decisions, and consequences that influence the understanding of the moving body within society are inherently intertwined with various mechanisms and power relations. For instance, Michel Foucault's (1991) concept of anatomy-politics has found application among numerous scholars within sports, exercise, dance, and physical education to elucidate the means through which bodies can be rendered docile by deploying specific techniques and instruments employed by coaches, instructors, and teachers.

A fascinating dichotomy emerges when contrasting the stringent and rational control prevalent in the practices of movement skill learning across most contexts with the significance attributed to the aesthetics of movement. In such instances, attributes like nimbleness, smoothness, creativity, and grace can take centre stage, to the extent that a less triumphant athlete possessing a "silky touch", or "flair" may be revered over a more successful athlete lacking a distinct or individual style. To explicate this phenomenon, Kerr and Espiner (2022) draw upon Judith Butler's (1990) notion of performativity. According to their argument, within highly codified domains like sports and certain types of dances, wherein individual expression is often discouraged, But-

ler's perspective posits that variation, transformation, and mutation always remain viable possibilities. When such spontaneous and surprising movements do manifest, they stand out as disruptions to the established norms of proper movement within the given activity.

Simultaneously, the admiration for moves exuding flair can sometimes take on a racialized tone, whereby athletes or dancers of colour are admired for their so-called "non-thinking" spontaneity. This admiration is coupled with a degree of judgement regarding certain movement capabilities being deemed "natural" or "learned". This dynamic, in turn, engenders intriguing reflections on the predictability versus unpredictability of movement and the specific qualities, both in terms of movement itself and the movers embodying it, that are most highly prized. In this regard, it can be argued that movement possesses the power to elicit responses within individuals and groups, serving as an organising principle of social life and a productive force in the constitution of desiring sport subjects (Pringle, 2009, p. 213).

Undoubtedly, the proliferation and establishment of diverse movement forms have long been intricately tied to the evolving fabric of society and the multifaceted challenges presented by various social dynamics, including industrialization and urbanisation. Nevertheless, the focus of this research book diverges somewhat from the discourse of most social theorists regarding the moving body, wherein the actual practice of movement often garners scant attention. Instead, it is sought to prioritise the "doing of movement" as a prominent aspect within every account.

While it's explored the ways in which power, politics, and historical influences may shape and impact movement practices, it's not considered them as external structural forces that unilaterally impose preconceived meanings on the execution of movement, as has been the prevailing approach in most of the movement research informed by social theory. Rather, the interest lies in movement itself and how any movement, whether in the context of sports, fitness, dance, or education, engenders a series of actions

that ripple across the entirety of its respective movement landscape, eliciting reciprocal effects. It is the exploration of these diverse "doings" that the aim of the research presented in this work profoundly addresses.

Put in a different light, the objective of this work was to demonstrate how the act of movement, encompassing the bodily execution of specific skills or actions by muscles, joints, and limbs, derives its essence not only from physical phenomena but also from social influences. In essence, each chapter, while crafting the contribution for this essay, pondered a fundamental question: How do the physical and social realms synergize to engender movement and the acquisition of movement skills? Accordingly, in the chapters presented in this research book, each argument deliberately explored an aspect or domain of movement and movement skill learning not merely as a focal point to illustrate a social concept or ideological construction but rather in a manner that endows movement itself with the potential to shape and inform various relationships, whether it pertains to the dynamic between movers and instructors, students and teachers, or researchers and their participants. To expound upon this pivotal matter and to contemplate its implications for the future of kinesiology as a discipline that unites the physical and social realms in the study of movement, the premise and focal point of each chapter will now be elucidated in the order of their appearance.

The significance of physical activity encounters in human existence is often overlooked unintentionally due to their omnipresence. Nevertheless, they form the foundation on which the structure of kinesiological investigation is built.

In the first chapter, readers are introduced to the captivating world of kinesiology. This involves exploring its focus on bodily participation and familiarizing oneself with its examination from three different perspectives: the realm of physical activity experience, the knowledge embedded in physical activity research, and the understanding cultivated through professional involvement with physical activity.