Physical Literacy From Philosophy to Practice

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Abstract

This article aims to give an overview of the philosophical foundations of physical literacy (monism, existentialism, and phenomenology) and to discuss how philosophy can be operationalized in physical education practice. When translated into physical education practice, the physical literacy philosophies give credence to the view that, in schools, physical education should not be considered as a subsidiary subject that is needed merely to refresh the mind for the cognitive subjects. The authors also highlight that the context in which activities take place should be challenging, realistic, and adaptable to the individual preferences and levels of attainment of the different learners. Often, these contexts go beyond the traditional competitive sports context. Drawing on these philosophies, physical education must be learner centered and provide situations in which learners can discover and develop their individual potential to stay motivated, confident, and competent for engagement in physical activities for life.

Keywords: operationalization, physical education, translation

Physical literacy is defined as “the motivation, confidence, physical competence, and knowledge and understanding to value and take responsibility for engagement in physical activities for life” (International Physical Literacy Association [IPLA], 2016). The concept is increasing in popularity in both policy and practice in the fields of sport, health, education, and recreation in several countries around the globe (Haydn-Davies, 2010; Higgs, 2010; Jurbala, 2015; Pot & van Hilvoorde, 2013). Physical literacy probably appeals to practitioners and policymakers in these fields because the terms “physical” and “literacy” both have strong connotations with important policy and developmental topics. However, the increasing use of physical literacy has led to divergent definitions, which are not always consistent with the definition set out by the IPLA (Higgs, 2010; IPLA, 2016; Jurbala, 2015; Shearer et al., 2018; Whitehead, 2001). Although this discussion could be, and has been,

trivialized by a conceptual game, the definition informs practices that have been employed under the name of physical literacy. This leaves room for various practices that are described as promoting physical literacy, but do not necessarily adhere to the original philosophical underpinnings of the concept. For example, practices that emphasize fundamental movement skills without a reference to the learning context and entitled physical literacy do not subscribe to the IPLA definition or entirety of the concept (Canadian Sport for Life, 2016; Pot & van Hilvoorde, 2013). These practices can explained, at least in part, by the critique that physical literacy has a strong philosophical base but lacks a clear translation into practice (Jurbala, 2015; Longmuir & Tremblay, 2016; Whitehead, 2010). Therefore, the aim of this article is to give an overview of the philosophical foundations of physical literacy and discuss how philosophy can indeed be operationalized in practice, with an emphasis on physical education practice.

Concept of Literacy and Philosophies Underpinning Physical Literacy

In this part, a brief overview of the concept of literacy and the underpinning philosophies—monism, existentialism, and phenomenology—are presented. Although these concepts have been elaborated on in more detail in previous publications on physical literacy (Whitehead, 2001, 2010), this article makes a contribution to the literature by explaining the implications of these philosophies for practice. Despite the fact that these concepts are strongly intertwined, for the purpose of clarity, they are discussed separately

Literacy

The term “literacy” has in previous decades been used in various domains, such as health literacy or political literacy. To be literate means having the ability to interact effectively with the world around us (Whitehead, 2017). The U.N. Educational, Scientific, and Cultural Organization (UNESCO) defined literacy in a position paper as “a continuum of learning enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society” (UNESCO Education Sector, 2004, p. 13). In line with the above definition, learning is integral to the development of physical literacy and a goal of physical literacy is to unlock personal potential. Physical literacy is centered on developing embodied potential through productive embodied interactions with the world. Based on the holistic view of human nature, interactions with the world in which the embodied dimension is the focus are crucial for realizing human potential and promoting human flourishing (Durden-Myers, Whitehead, & Pot, 2018). Referring to the human physical dimension as “the body” in discussing physical literacy is felt to perpetuate a dualist approach. The notions of human embodiment or the human embodied dimension are preferred, as these encompass both our body as an instrument, sometimes referred to as the living body, and our body as the perceptuoactional dimension of being, sometimes referred to as the lived body. The lived body is very often overlooked, as this mode of the body, while having an ongoing and significant role in human existence, contributes to human life principally at a preconceptual level. To this end, learners need to be involved in a range of environments and experience meaningful interactions within these contexts to promote the development of a strong embodied sense of self.

Monism

The concept of physical literacy demands a monist understanding of the human condition (Whitehead, 2010). Monism is a theory that espouses that reality is a whole without independent parts (Stubenberg, 2011). A monist position rejects a Cartesian dualistic view that separates body from mind and person from surroundings. Although monism recognizes the existence of the different dimensions of the human condition, these different dimensions cannot be understood separate from each other. For instance, thinking, feeling, moving, and talking are interwoven and can all be considered embodied (Whitehead, 2001), but are not the product of different entities.

It could be argued that traditional approaches to education are based on a Cartesian view of the world in which physical activities (e.g., physical education, school sports) have the purpose to refresh the mind for the so-called cognitive areas of the curriculum (e.g., mathematics, science, geography), which are often considered the most important. Recent endeavors to demonstrate relationships between physical activity and better performance in the cognitive subjects can also be seen in this light (e.g., Singh, Uijtdewilligen, Twisk, van Mechelen, & Chinapaw, 2012; Tarp et al., 2016). These studies are often used to underpin the importance of physical activity for improving cognitive performance. Herein lies a threat to physical education and physical activity in general, as there may be more efficient ways to increase cognitive performance. A likely effect will be that the appreciation of the physical will continue to lag behind the appreciation of the cognitive. Drawing on a monist view of the human condition, one cannot distinguish between body and mind, or the physical and the cognitive for that matter (Merleau-Ponty, 1968). This means that all human activities must be considered embodied activities, as from a monist perspective, nonphysical activities do not exist. Reasoned from (materialistic) monism, even thinking can be considered an activity of the body or a physical activity, when synaptic activity is interpreted as a physical process. It might be argued that it is more appropriate to use the term “action” or “embodied activities” instead of physical activities (Tamboer, 1992). However, this can spread the net too wide to include everyday habits of washing, dressing, and climbing stairs, all of which are embodied activities. The use of the notion of “physical” can signal that the activity is carried out as an end in itself rather than in the service of extrinsic ends. Dualism can slip in again as the embodied dimension is treated as a machine to be trained and honed in respect of a performance goal (Pot & van Hilvoorde, 2013; Whitehead, 2010). Yet, in physical literacy, developing the embodied dimension is an end in itself. Another important implication of this holistic view of the human is that all activities that are meaningful to a person throughout his or her life should be recognized and encouraged.

Existentialism

Another central tenet of the philosophy underpinning physical literacy is existentialism (Whitehead, 2001). The first basic premise of existentialism is that interactions with the environment form individuals. The second basis is the notion that humans create themselves as they interact with the world (Whitehead, 2001). Individuals thus interact with the world in as many ways as they can. The richer and more varied these interactions are, the more fully the human being realizes its potential (Merleau-Ponty, 1968). This view is closely related to a monist view of the human condition as being inseparable from the world. This means that actions can never be understood (and learned/taught) without a

reference to the context in which they are performed. As such, interacting with the world is a continually changing phenomena, as no two contexts are the same. Each interaction with the environment is structured on the basis of intentionality (Husserl, 1991; Martínková & Parry, 2011). Motor intentionality can be described as "an embodied and concrete way of understanding or being meaningfully directed at 'things' in the surroundings" (Standal & Moe, 2011, p. 267). The surroundings or contexts can be appreciated in terms of affordances that offer action possibilities (Gibson, 1979). Affordances are in evidence in nearly all situations (e.g., the built environment, the arrangements in the physical education classroom, socioeconomic status, family context, culture). Affordances call forth or resonate with certain actions, based on previous experiences. This means that the meaning of an action and the attuning to affordances cannot be isolated from the context and from earlier interactions in similar situations. This also has consequences for learning motor actions, as it means that the learning context has to be meaningful to fully appreciate the action. For instance, catching an egg while knowing it is raw elicits a different motor pattern compared with catching that same egg when being told it is hard boiled. This implies that meaningful interactions within a great variety of contexts should be cultivated in the interests of fostering physical literacy. This, therefore, indicates that the context is as important as the action itself; in fact, understanding the relationship between context and action could be considered the key to meaningful, productive, and effective interactions.

This appreciation of the relationship between context and action within physical literacy is known as physical competence. Competence refers to the successful deployment of skills in respect to the specific context and experience of a learner. This context is sometimes referred to as environments (Shearer et al., 2018). Physical competence stems from the deployment of embodied capabilities, wherein capabilities are the individual's ability to act. In the context of embodied capabilities, these are often interpreted as motor skills. However, in physical literacy, these capabilities are again termed physical competence. This means that capabilities are a highly individual aspect of development, and whether these abilities are effectively put to practice in a given context determines the level of competence.

Phenomenology

Phenomenology is a style of philosophical reasoning that is closely aligned with existentialism. Central to phenomenology is the view that every learner experiences the world from a unique perspective, as every learner has his/her own unique set of experiences and affordances (Husserl, 1991; Whitehead, 2010). This means that every perception and experience will change as do the learner's understanding and appreciation of the world. Phenomenologists argue that there is no objective perception, as perception is always in the eye of the beholder. In line with this thinking, interactions with the world will also be unique to the individual. Phenomenologists highlight that our embodied dimension should be understood as a perceptuomotor facility that enables the individual to gather information as well as initiate actions. This gathering of information from previous interactions informs both present and future interactions as an action is informed by past experiences, present surroundings/contexts, and future possibilities. Therefore, interactions and, moreover, the nature of those interactions, whether positive, negative, meaningful, or meaningless, will leave an imprint on an individual and color the individual's view of the

world from his/her own unique perspective. Modes of interaction with different aspects of the environment are also defined as capabilities. Capabilities are described by Nussbaum (2000) as “what people are capable of doing and becoming” (p. 18). The human embodied dimension is a significant mode of interactions and can be viewed as a capability. There is little doubt that human embodiment plays a key role in coming to know ourselves as we relate to the world. Although similar embodied capabilities are developed by each individual, on account of the person’s unique range of experiences, the expression of a capability will be particular to the individual.

Implications of Philosophy for Practice

The philosophical underpinnings of physical literacy have significances for fields in which physical activity is taught, practiced, and discussed. One of the contexts in which the fostering of physical literacy stands central is physical education. Although physical literacy extends across the life span, this section considers what the philosophy explained in the previous section means for practice in physical education.

Monism in Practice

First and foremost, any practice based on physical literacy means that there is a full appreciation of the embodied dimension in human development and the human condition. In schools, physical education should therefore not be considered a subject that is needed merely to refresh the mind for the cognitive subjects; rather, developing the embodied potential of students has value in its own right (Whitehead, Durden-Myers, & Pot, 2018). Moreover, developing and using the embodied potential should not be restricted to physical education, but should be embraced throughout all physical activity opportunities in the life of the learner.

As explained in the previous section, from a monist perspective, there is no such thing as nonphysical activity. In a similar vein, it can be argued that one cannot be nonembodied, unless a person is dead. Although this seems like a metaphysical position, it has implications for the practice of physical education. Determining that someone cannot be nonembodied means that a person can also not be physically illiterate, although this idea can be contested (Whitehead, 2017). This means that a person always displays a certain level of embodiment, and that embodied interactions with the world are always taking place. In the practice of physical education, this means that practitioners should appreciate that children have different starting points in different activities. In primary or elementary school, children will differ in their motor development. This means that the activities should be differentiated. For instance, when working on object control, children should be able to choose between fine and gross objects so that the activity matches their level of motor control. Reasoning from a monist perspective also means that thinking about the game, goal setting, motivations, and culture should be appreciated in the physical education lessons. For example, learners can have discussions about what rules could be added to a game of basketball to even the balance between two teams. What follows from this is that assessment should not be based on the attainment of a certain norm or compared with other learners. What can be assessed is the motivation and engagement in pursuing progress on a physical literacy journey, and thus, should be a comparison with earlier

experiences of the individual learner. In practice, this could mean that after performing a movement task, such as climbing a rope, a teacher can ask a learner what he or she wants to improve (i.e., be faster, make more use of the legs, etc.). Assessment should then be centered around the question whether the learner is truly engaged in attempting to reach his/her self-defined goal and the actual reaching of the goal. For example, if the student's goal was to make more use of his or her legs while climbing, does the student explicitly train emphasizing the use of the legs?

For the physical education teacher, a monistic perspective can pave the way for establishing and maintaining high standards and standing within an educational environment. For example, if the physical is seen as being as important as the cognitive, or ideally as inseparable elements, then a student's being prepared for a physical education lesson would be just as important as his or her being prepared for mathematics, English, or other lessons. This would mean that there is a clear expectation that students attend and participate fully within all physical education lessons, with this expectation shared across the school. Similarly, if physical education is perceived from the backdrop of a monist perspective, and as valuable as other areas of the curriculum, the prioritizing of other school activities, such as assemblies, trips, examination space, and courses, over physical education should not be permitted. This frequent disruption of continuity in physical education is very damaging to the subject, and cancellations of lessons should be spread across a number of subject areas. To demonstrate the holistic approach in fostering physical literacy and the significant value of work in this area, teaching should encompass demands across different domains, for example, the physical, the cognitive, the esthetic, and the moral. In choreographing a dance, learners will be challenged physically to perform movement routines. They will also be challenged cognitively to solve the problems of the creative task set and esthetically to make judgments about the quality of the final piece. In a competitive game situation, physical challenges will relate to application of movement patterns, whereas cognitive demands will relate to planning set moves and responding to new scenarios presented by the opposition. Issues concerned with fairness (moral domain) will be covered as rules and the infringement of rules discussed. While presented above as somewhat separate demands, the challenges identified will merge together in the learning experience as they are integrally and reciprocally reinforcing. Learners draw from different domains to complete the learning tasks that aim to foster physical literacy.

Existentialism in Practice

The central tenet of existentialism is the essentially interrelated relationship between embodied actions and the environments. This means that within physical education, the environments in which learning takes place should provide a meaningful experience to the learner. For instance, throwing a ball is not meaningful unless it is done with a certain purpose. That purpose can be throwing it as hard and as accurately as possible during a game of baseball, or that purpose can be throwing a ball back forth with a friend while enjoying an afternoon with friends in the park. As these contexts are completely different, the relevant context should be incorporated within the learning of throwing. This can start in school for young children by providing playful activities that are related to activity contexts they might encounter outside of the school. For instance, when teaching tennis in primary or elementary school, the lessons should be based on games that have rules,

techniques, and tactics similar to tennis. Ideally, tennis lessons in high schools should be done on a tennis court with appropriate equipment to provide a meaningful experience. In a similar manner, learning to climb with the aim of being active outdoors should take place outdoors and not in a gymnastics hall. Of course, not all schools have that opportunity, but in that case, the learning situation should match the authentic experience as much as possible. For instance, learning to climb should take place on a variety of equipment in the gymnastics hall, allowing the learner to experience different contexts and respond accordingly.

The practice of physical education should cover opportunities in which a learner can capitalize on his or her potential as far as his or her embodied capabilities, social contexts, and motivation afford that capitalization. This means that the teacher should provide activities and arrangements in the physical education lesson from which the learner can choose options or actions that match their preference, goal, or challenge. This can be done, for instance, by setting up four different activities in the gymnastics hall, each demanding different capabilities (like working together, strategy, fine motor skills, etc.). For instance, in one corner of the gymnastics hall, some students could be engaged in small-sided football games; in another corner, performing a throwing and aiming task; and in another corner, working on agility ladders. Even within these setups, the learners can choose how long they stay on each station, adapt the activities to their learning needs, or create a new area where they design their own activity.

Matching physical education to the individual students also means that the socioeconomic possibilities of learners should be recognized when introducing them to physical activity opportunities as behavior is more complex than the possession of skills to execute certain movements (Pot, 2014). For instance, a child might learn the skills of cricket during physical education, but if parents are not interested in physical activity and know nothing about the world of cricket, or there are few opportunities to participate in cricket in the local area, it is very unlikely that the child will participate in cricket outside school and throughout life. Moreover, there are mechanisms in certain sports that can exclude some children from participating (Collins & Kay, 2014). When considering ways to engage more children in physical activity, it is important to recognize the influence of these so-called social affordances (Kaufmann & Clément, 2007) that may or may not facilitate sport participation in the long run. These arguments also hold for engagement in activities outside of the competitive sports context. Learning to enjoy walking in the forest can only be capitalized on when there are opportunities to go to a forest and time to enjoy this environment.

Within the field of physical education, there are several ways of ensuring a holistic, meaningful experience. For instance, when the focus in physical education is on overcoming movement challenges, a child may be given the objective to get from one side of the field to the other side using all the materials available. In this way, the activity is not aimed at skill development, but the activity taps into the child's creativity, problem-solving skills, cooperation, self-regulation, and reflections, which may be beneficial for motivation (Zimmerman, 2008). In addition, the child can decide for him/herself what route to take and materials to use based on his/her own abilities. A very significant goal of this approach is that children become motivated and confident to engage in such a challenge. Developing movement patterns is an essential part of all teaching to foster physical literacy, but this

focus alone does not constitute the sum total of the work. To ensure progress on an individual's physical literacy journey, attention also needs to be paid to such areas as devolving responsibility to the learners, helping them to appreciate the nature of movement, and supporting them in developing self-evaluation skills to reflect on their progress and set their own goals. Clusters of demands such as these have the potential to provide situations in which learners have holistic and meaningful experiences.

There are also game-based approaches to teaching within physical education that take their starting point in the games that are derived from sports instead of through skill drilling, such as teaching games for understanding (Thorpe, Bunker, & Almond, 1986), game sense (Light, 2012), and sport education (Siedentop, Hastie, & van der Mars, 2011). Evidence suggests that children's enjoyment and motivation are higher when skills are learned during games without an explicit focus on the skill learning itself, compared with a skill-centered approach (Allison & Thorpe, 1997; Harvey & Jarrett, 2014; Perlman, 2012). In other words, context-rich approaches in physical education in a wide variety of physical activity contexts that go way beyond a competitive sports context are needed to develop physical literacy in an existentialist framework. This does not mean that we need completely new gymnastic halls, as equipment in regular gymnastic halls provide possibilities to form a context-rich environment. In short, what it does mean is that physical education activities that promote progress in relation to developing motivation, confidence, physical competence, or knowledge and understanding in a range of environments are to be encouraged. Moreover, encouraging the individual to value physical activity by fostering meaningful interactions within physical activity is the goal of physical education when underpinned by physical literacy. The role of the physical education teacher is critical in achieving this goal. How the teacher constructs the learning environment, climate, and relationship with the class and individual students is central to creating positive learning experiences. This is captured very eloquently by Ginott (1972):

I am the decisive element in the classroom. It is my personal approach that creates the climate. It is my daily mood that makes the weather. As a teacher, I possess tremendous power to make a child's life miserable or joyous. I can be a tool of torture or an instrument of inspiration. I can humiliate or humor, hurt or heal. In all situations, it is my response that decides whether a crisis will be escalated or deescalated, and a child humanized or dehumanized. (pp. 15–16)

The physical education teacher has a tremendous opportunity to help shape the experiences and interactions students have within physical education lessons and extracurricular opportunities. It is then hoped that these opportunities will go on to inform a lifetime of engagement in physical activity.

Phenomenology in Practice

Phenomenologists hold that there is no one objective way to view the world. This has several important consequences for designing activities and devising methods to chart progress on a learner's physical literacy journey.

First, it means that the starting point in considering promoting physical literacy in physical education should be the experience of the individual learner. Every learner should be recognized as unique and with individual abilities, preferences, and experiences. Apart from the pedagogical consequences of this perspective (e.g., greeting all the children individually at the start of the class), this implies that activities should be differentiated. That is, activities should be designed with different levels of complexity to cater for all learners to match their previous experience or physical competence. This could also include game-based approaches in which there is room for individual variations. Every learner will be at a different place in their physical literacy journey, and learning needs to be individualized as much as possible. As appropriate, learners should choose their own level of complexity in an activity. For example, when working from the idea of responding to a movement, learning a task such as a gymnastics vault in a high school physical education class, a learner might choose to try to master a simpler challenge such as the approach or landing, or perhaps take on a fine-tuning challenge such as conducting a vault from a higher box. This setup is similar to the inclusion style of teaching (Mosston & Ashworth, 2008). Alternatively, a learner might create a novel context in which to perform the movement, which is similar to the divergent discovery teaching styles (Mosston & Ashworth, 2008). This approach to pedagogy lends itself well to co-construction, divergent and discovery pedagogical methods, and strategies to encourage personalized learning through explorations of learning by the individual. The activity context should accommodate children with different abilities (including those with what are sometimes referred to as disabilities) to ensure that all have positive experiences that enable them to make progress, feel satisfied, and have a rewarding experience.

Another consequence for physical education when coming from a phenomenological perspective is that there is no objective standard to work toward. An appreciation of unique perceptions means that there is no absolute level of proficiency a child should achieve, rather a relative level of proficiency. Therefore, the focus in physical education should be on individual progress and developing the motivation, confidence, competence, and knowledge and understanding of being active across a wide range of contexts. Assessment should, therefore, not focus on attaining a certain level of proficiency in certain skills (Cools, de Martelaer, Samaey, & Andries, 2009). Given the demand for accountability in physical education (Feingold, 2013), assessment based on physical literacy can be centered on charting the progress of a learner's physical literacy journey (Whitehead, 2010). In addition, where possible, learning objectives and/or assessment criteria should be co-constructed. For example, in primary or elementary school, for instance, children can be asked what they want to learn during physical education. Learners in high school could be asked what the role of physical activity is in their life and how they want to work on that during the semester. Reflection with the learners on the attainment of their goals could then be the form of assessment after the lessons.

From a phenomenological perspective, physical education should consider the totality of its impact on the individual, although it comprises numerous interactions of physical activities, lessons, units and schemes, and units of work over a number of years. The net result of these interactions and experiences should leave the individual with a unique perspective of physical activity, and more importantly, a perspective that values and wishes to pursue engagement in physical activity for life and reflects positively on the whole of their physical education experiences.

Conclusions

The starting point for this article was that one of the critiques of physical literacy is that the rich philosophical base is appealing, yet too esoteric for many practitioners (Jurbala, 2015; Longmuir & Tremblay, 2016; Whitehead, 2010). One reaction could be to ignore the philosophical underpinnings and make use of the concept in a way that suits the opportunity (Jurbala, 2015; Pot & van Hilvoorde, 2013). However, the philosophical basis, founded on monism, existentialism, and phenomenology, has profound implications for what can be considered practice inspired by physical literacy. This influences what is being valued in physical education and in an active life across the life span. Without the holistic focus of physical literacy, attention might be limited to improving physical health and movement skill, instead of fostering people's pleasure in being active and so adding to their quality of life.

What can be taken home from this article is that activity contexts based on physical literacy, including physical education, should be inclusive, diverse, context rich, and have an eye for the individual. Physical literacy provides a justification for the intrinsic value of being motivated, confident, physically competent, and knowledgeable in relation to being active throughout life. Ultimately, this participation should contribute to human flourishing (Durden-Myers et al., 2018). Although these aspects might be harder to account for with policymakers, the question is whether we should value easy-to-measure aspects (such as movement skills or athletic attainment) or attempt to measure what is really valued in physical literacy (cf. Biesta, 2010). It may be no surprise that investigating valid and reliable ways to chart the physical literacy journey is one of the main challenges in physical literacy for the coming years (Longmuir & Tremblay, 2016). Another challenge will be the extent to which the definition of physical literacy (Whitehead, 2010) becomes embedded within school physical education. In addition, omitting or failing to appreciate the philosophical principles of physical literacy within practice considerably limits the potential of physical literacy and perhaps the effectiveness physical literacy may have in improving the state and status of physical education, especially concerning promoting lifelong engagement in physical activity. Linking philosophy to practice is a worthy investment in promoting physical literacy inspired practice.

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