EDUCATION

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POSITIVIST SCIENCE IN PHYSICAL EDUCATION AND THE PHENOMENOLOGICAL TURN

A CIÊNCIA POSITIVISTA NA EDUCAÇÃO FÍSICA E A GUINADA FENOMENOLÓGICA

LA CIENCIA POSITIVISTA EN LA EDUCACIÓN FÍSICA Y EL GIRO FENOMENOLÓGICO

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ABSTRACT

This text was produced for the Physical Education Methodologies course offered by the Institute of Biosciences at UNESP, Rio Claro Campus, Department of Pedagogy. Beginning with a broader view of science and philosophy in the field, this chapter seeks to compare the psychological theories—developmentalist-constructivist, psychogenetic, and behaviorist—that underpin the psychokinetic, psychomotor, and developmental approaches to Physical Education with the philosophy of Merleau-Ponty, specifically in his work, "Phenomenology of Perception."

Keywords: References. Positivist Science. Physical Education. Phenomenology.

RESUMO

Texto produzido para a disciplina Metodologias da Educação Física oferecido pelo instituto de biociências da UNESP. Campus de Rio Claro Departamento de Pedagogia. Iniciando com uma visão mais ampla da ciência e da filosofia, na área, tem neste capítulo procurar comparar as teorias psicológicas: desenvolvimentista – construtivista, psicogenética e comportamentalista que sustentam as abordagens, psicocinética, psicomotora e desenvolvimentista da Educação Física com a filosofia de Merleau -Ponty, especificamente em sua obra Fenomenologia da Percepção.

Palavras-chave: Referências. Ciência Positivista. Educação Física. Fenomenologia.

RESUMEN

Este texto fue elaborado para el curso de Metodologías de la Educación Física, impartido por el Instituto de Biociencias de la UNESP, Campus Rio Claro, Departamento de Pedagogía. Partiendo de una visión más amplia de la ciencia y la filosofía en este campo, este capítulo busca comparar las teorías psicológicas —desarrollista-constructivista, psicogenética y conductista— que sustentan los enfoques psicocinético, psicomotor y evolutivo de la Educación Física con la filosofía de Merleau-Ponty, específicamente en su obra “Fenomenología de la Percepción”.

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Palabras clave: Referencias. Ciencia Positivista. Educación Física. Fenomenología.

1 INTRODUCTION

This is my moment to contribute to Physical Education. In this essay I try to compare the proposals that the psychokinetic (Le Boulch, 1987), psychomotor (Schmidt, 1993) and developmental (Tani et.all., 1988) approach to learning. With the philosophy of Merleau-Ponty, specifically in his work Phenomenology of Perception, 1971, in the chapter: The Body as Expression and Speech.

The resumption of my academic activities after two and a half years off from premium leave taking care of my late father, I decided to return to teaching and was awarded the discipline of Methodology of Physical Education teaching for the Pedagogy course. So I could not fail to reread that entire framework of content of the psychomotor, psychokinetic and developmental approaches, now with my journey in Phenomenology, during my academic life.

I refer to the studies that, privileged, were given to me with the guidance of Prof. Dr. Joel Martins, at PUC in São Paulo, where I was able to learn, develop, and guide the Qualitative Research of the Situated Phenomenon (Phenomenology). In this text I will make specific use of chapter VI of Merleau-Ponty's work, entitled: The Body as Expression and Speech.

Logically, it would not be possible in a text, in an article and in a class to review all the approaches: developmentalist - constructivist (Psychokinetic) and behaviorist (Psychomotor), it would be unfeasible, impossible, it would even be necessary to have a work. Thus, how to dwell on the entire philosophy of Merleau-Ponty. My intention is much smaller, what I do is compare some moments of these approaches and think about what Merleau-Ponty tells me in his phenomenology of Perception.

The theoretical currents of Educational Psychology that underlie the Psychokinetic, Psychomotor and developmental approaches to Physical Education.

To situate the theoretical currents of Educational Psychology, I turn to Davis (1990), my dear professor in my doctorate at the Catholic University (PUC) of São Paulo in Educational Psychology.

For Davis (1990), philosophers and scientists have created theories: innatists – who stress the importance of endogenous factors environmentalists who attribute immense power to the environment in human development.

Davis (1990) presents the innatist conception in education:

> The basic qualities and capacities of each human being, their personality, their values, habits and beliefs, their way of thinking, their emotional reactions and even their social

conduct, would already be basically ready and in their final form at birth, suffering little qualitative differentiation and almost no transformation throughout existence. (p. 27)

I also turn to a philosopher of recent production. Dalbosco (2021) clarifies this eternal discussion in education between the intellect (reason) and the sensible.

I think the simplest definition we can the innatist stance is the one that defends that the subject already brings ready in its hereditary baggage the structure necessary to understand the world, that is, the standard model of innatism is based on the thesis that Ideas are born with the subject, residing within him and therefore they are prior to experience. Hardly Nowadays we would find an epistemologist or an epistemologist pedagogue who defended this model as defined above. However, as it decisively influenced many forms of traditional pedagogy and still find merged into contemporary educational theories, it is necessary to investigate it at its origin. Its classic model is found in the Menão and the Plato's Phaedo (428-348 B.C.). Although possibly To be part of Plato's Dialogues of Youth, in which the Socrates aporetic is the central figure, Menão justifies a notion of knowledge based on the theory of ideas. No I can address here in detail, obviously, such a topic complex, from the philosophical point of view, as is the theory of ideas. For our purposes, it is enough to summarize two of its various constitutive aspects. Or The first of these is the ontological distinction between two worlds, the intelligible and the sensible. In addition to conceiving them as two worlds apart, one completely separate from the other, Plato attributes ontological primacy to the intelligible world in relation to the sensible. What does this primacy consist of? It means that the intelligible, as it is the source of beauty, of goodness, of truth, in short, because it is the source of the idea of the well, it must be the foundation of the sensible world, which is generally taken as a synonym for what is ugly, evil and wrong; in short, synonymous with that which is imperfect. The characteristic point of this distinction is that the idea of the well resides in another world, in the "upper world", whic determines vertically, from top to bottom, the what is right and wrong, what is good and evil, what is beautiful and ugly of what is found in the "lower" world. This sense, what is imperfect can attain perfection or at least approach it only on the condition that to be guided by it; otherwise, it remains in the state full of imperfection. It is worth mentioning here, since this will have implications important pedagogical aspects, among them, the authoritarian aspect which is presupposed in this hierarchical relationship between intelligible and sensible. This aspect is initially shown to be in the position of supremacy of philosophy in relation to others knowledge and of the philosopher in relation to other professionals. Plato, a convinced defender of the world of ideas, is the even if it will defend, also with a lot of energy, in the Republic, the utopia of the philosopher king, sustaining it in the conviction that the philosopher, by occupying himself with the nous (thought) and, therefore, by developing the capacity reflective above average, it has privileged access to the truth and to the very idea of good. This position results a long tradition, very strong within the history of philosophy, lasting at least until Hegel, who conceives the philosophy as the first science (prima ciência), without to inquire more about the implications of this to think the relationship between philosophy and other areas of knowledge. For better or worse, this tradition ended up legitimizing a arrogant posture of philosophy, placing it beforehand in a position of superiority over the others forms of human knowledge. (p.269 -270)

Dalbosco (2021), in this very recent work, clearly teaches us the primacy of the rational over our emotions, there only in this regard it is already possible to imagine and understand

the great damage that the primacy of the intellect to powerful reason can cause with human education and consequently in what the human being has become. The primacy of reason over emotions, which is really critical reason, of pure reason that made us understand Kant, but which fundamentally of the primacy of the intelligible and over the sensible, ends up translating this mechanical, reductionist, immediate, superficial form that the human being has become and his states of agony in his frustrations, despair, anxiety, depression, disease, and mainly by the repression of this primacy of reason coming from top to bottom in the supreme power of science that is placed in a generalist and quantitative reductionism of explanatory models of a reality often created and that fail to understand in order to dominate and impose a truth that is sometimes false, but which is never true as an unveiling and that dominates society and imposes the political system and always oppressing more and more the human beings without the right to exercise their freedom to be able to change the primacy of reason over the sensible and can no longer transform the world. Everything has become the reproduction of knowledge and no longer the creation of something new.

Returning to our path, the methodologies, it is always good to remember: method is path. For Davis (1992) the Environmentalist conception of Psychology is based on the opposite idea of the innatists, in which special attention is given to action and the means, culture over human conduct.

> ... The environmentalist conception attributed immense power to the environment in human development. Man is conceived as an extremely plastic being, who develops his characteristics according to the conditions present in the environment in which he finds himself. This conception derives from the philosophical current called empiricism, which emphasizes sensory experience as a source of knowledge. Also according to empiricism, certain factors are associated with others, so that it is possible, when identifying such associations, to control them by manipulation. In Psychology, the great defender of the environmentalist position is an American, B. F. Skinner. The theory proposed by him is concerned with explaining the observable behaviors of the subject, disregarding the analysis of other aspects of human conduct such as his reasoning, his desires and fantasies, his feelings. Starting from a conception of science that defends the need to measure, compare, test, experiment, predict and control events in order to explain the object of investigation. Skiner proposes to build a science of behavior. (p. 31)

In this aspect, it can be stated that for Davis (1990) the approaches to Physical Education, discussed here in this text, are all environmentalist, the environment is the determining factor for the knowledge of the skill.

One cannot make a criticism of environmentalist conceptions without carrying out a history of science and human thought and always being attentive to the spirit of the time in which an idea, thought, theory, approach, conceptions emerge

Thus, it is necessary to understand that what commands all current thought is undoubtedly due to the strong emergence of empiricism, a critique of Aristotelian, medieval, merely speculative and abstract syllogistic thought. It was necessary to follow the scientific path and what was given was the available and active experimentalism. He begins to concentrate on the knowledge of nature and sensible perceptions through the control of sensations. In its scientific procedures, in an inductive thinking where particular facts are objects of grouping, experimentation and proof to arrive at general concepts.

Espósito (1997) shows well this tendency of Neopositivism and where it comes from.

> The way of producing knowledge through the scientific method, based on the psychological theories of associationism, extends through the eighteenth and nineteenth centuries with Locke, Berkeley, Hume (England) James and Stuart Mill (USA). It is in the nineteenth century that human behavior, when studied by psychology, begins to be seen from an analytical perspective, and consciousness is described as an additive grouping, a mosaic, a synthetic product of simple elements. In Stuart Mill's expression that portrays this way of seeing, Psychology is close to a mental chemistry. In this century, seeking to establish positivist science, the relations between psychic and physiological phenomena between consciousness and organic stimuli are studied. (p.2)

The cycle of understanding the "spirit of the time", of this history of science and human thought, closes with Espósito op. cit. Returning to the seventeenth century, Descartes in France, who, as if saving something from Aristotelian thoughts, founds rationalism. And in this panorama in which science is done.

> Starting from methodical doubt, affirming the substantiality of the "I" and reason in relation to the external world, the rationalist idealism of Descartes (France 1595-1650) began to prioritize ideas and not things, the "thinking being" and not the "external world". Seeking to establish a universal science, subsidized by mathematics and not by philosophy. Descartes proposes Psychology as a deductive science, a way of thinking that leaves its mark in later centuries and enables the advancement of human knowledge, especially in the realm of exact sciences. (p3)

What follows in the history of philosophy and sciences, for whom he was interested, is Kant, in Germany, who goes on to criticize the pragmatic rationalists, who considered "what follows from the sensible to be a confused notion. Kant faces two tendencies: dogmatic rationalism and empiricism. Arendt (), quoted by Espósito (1997).

> Making the distinction between Vernunft (the faculty of thinking, reason) and Verstand (the faculty of cognition that arises from sensory experience, the intellect), Kant observes that "the concepts of reason serve us to conceive, to understand, just as the concepts of the intellect serve us to apprehend perceptions. This tells us that the

> intellect desires to apprehend what is given to the senses, and reason wants to understand its meaning. Both faculties are interdependent and necessary: no object would be given without sensibility, and on the other hand, nothing would be thought of without understanding. (p.4)

Espósito (1997) also reveals that Kant makes a difference between "a priori" knowledge (judgments that are characterized as necessary) and those that have a posteriori sources in experience. At this point it is possible to understand how science was isolated from philosophy, with Espósito (1997) revealing the end of this story triggering the experimental science of Neo Positivism in the USA. With Logical Positivism and Logical Empiricism, which would be how the author portrays, probability and frequency as an element of certainty.

The primacy of the intelligible over the sensible has been very well clarified. But this is exactly the primacy of all education, or rather of the entire history of human thought, and undoubtedly of the genesis and development of all scientific thought. It is strongly defined when David Hume and John Loocke provide the basis for empiricism and experimentalism.

However, as it could not be otherwise, from time to time this discussion came back to the surface. The superiority of the intellect over feelings was again questioned by Kant in his Critique of Pure Reason. In short, reason and emotion have always been common and natural themes for human beings.

At this point, it is worth making the first divergence between the approaches discussed here so far and phenomenology. So far, what positivism has produced is research that intends to explain the human being, but not to understand it. The innumerable theories produced by these approaches work on a mathematical model of construction and control of facts, through extreme control of everything they observe, which can only result in a reductionism of the issues that involve the human being and his actions in school. Understanding is a human act that requires attribution of meaning, which does not occur in a science in which the separation: subject/object is very strong as in all research produced so far. What happened was that science ceased to be descriptive and became quantitative with generalist pretensions seeking to solve mathematically and quantitatively, with quantification, to reach generalization through explanatory theories.

In the case of environmentalist psychologies, it is that they elevate the environment as the most important in the response of behavior, however they do not situate or do not want to know anything about being in the world with others, but only a response translated into a behavior. But it does not describe the phenomenon of learning. What really occurs in the subjectivity of the object of research that is studied. What occurs when a child overcomes an obstacle, solves a problem, or when the child is learning to read and write. Positivist research from experimental psychology, through behavioral to the most developmental and

interactionist ones, focuses on stimulus and response, but they do not know the subjectivity of all this human action because they simply did not focus on describing this subjectivity of the one who is learning, but only reflect on the result of the action, which they translate as behavior. They focus on external behavior, on human expression, but they do not focus on the understanding of human intersubjectivity.

It would be better to present in more depth the approaches of Physical Education that explain human movement within the limitation of the positivist method and within the vision of a segmented man, a man without a world.

2 THE PSYCHOKINETIC APPROACH TO PHYSICAL EDUCATION:

The Psychokinetic approach in Physical Education, Le Bouch (1987) has its tradition guaranteed in Physical Education. Although in Brazil it has become another practice of Physical Education in schools, as it is essentially learning basic human movements, walking, running, jumping, throwing, grabbing, ball skills. Because she is European, she seems to have come closer to Phenomenology than the others, looking for a musical education, a way of fluidity of movement that would be achieved by rhythm, cadence of movement. However, its source is also Piagetian psychology. Le Bouch, seems to have fallen into oblivion, remained as a legacy that Physical Education preserves in its activity of educating through movement, but in terms of scientific production it was not as apparent as the psychomotor approach.

The psychomotor approach of North American tradition has had a great influence on all Physical Education teachers, especially in the field of science and academic production. Undoubtedly, he was and still is, today, an exponent in the production of research in this approach, following the model of behavioral, developmental, and psychogenetic psychologies. The North American model of motor learning of movements was established in Brazil and in the world.

Although it is possible to place differences in the Psychokinetic and Psychomotor approaches, such as the proposal and the performance of the two approaches, Psychokinetics linked more to education, concerned with education through movement, and that movement becomes the basis for the learning of other knowledge and Psychomotor, on the other hand, instituting definitions and concepts about what movements are, the skills and concerned with reaching the technique the best way to execute the movement, the most efficient way to execute the movement. What is appropriate here is to state that the Psychokinetic, Psychomotor and Developmental approaches have their theoretical bases in behaviorism and in the psychogenetic psychology of Jean Piaget.

One cannot simply criticize Jean Peaget, first of all it is necessary to understand what in phenomenology translates as the spirit of the time that Jean Piaget lived, since his training at the Jean Jacques Rossead Institute, in the face of a whole experimental Psychology already in progress (1890, Wundt's laboratory is created) and surrounded by the atmosphere of William James, father of pragmatism, with his instrumental education. And also, one cannot fail to remember after all a Darwinian theory already defining the paths of evolution and consequently development. Piaget appears in this cauldron and along with the new school with the exponents Thorndike, Watson, Staley Hall, In Europe the psychology of the child appears next with Geselt in the United States of America, among others such as Janet, Clapared, and Piaget in France.

Having concentrated on this introduction of this text, to situate a brief overview of the spirit of the time, which founded the functionalist, behaviorist, developmentalist, interactionist-constructivist psychologies, seeking to understand the history of science and philosophy, I will then dedicate myself in more detail to the Psychokinetic, Psychomotor and Developmental approaches to Physical Education.

Le Bouch's Psychokinetic approach (1987) is an adaptation of Piaget's psychology, it makes perfect sense that his proposal has, for example, differences from the North American tradition approach to motor learning, another exponent of motor learning Schmidt (1993), which would be a collection of research that takes the learning of movement as motor performance to the extreme, better way to execute, more efficiency in movement, the technique of movement.

The Psychokinetic approach works with a proposal that movement is the means to achieve education, knowing how to perform movement is a means to reach other learning, so movement would be a means to improve the student's commitment to mathematics, writing, reading. **The first part** of his book Le Bouch (1987) exposes the importance of his psychomotor education in primary school, in the **second part** of the book he then exposes his education by movement in the preparatory cycle, presenting the psychomotor bases of learning to read and write with its laterality exercises, and orientation of the body scheme, and how to proceed with children with difficulties, starts to relate writing, manual skill and improvement of the fine praxis of the hand and fingers, relating graphic exercises, for interiorization, segmentary awareness of the upper limb, sitting interiorization, breathing control, continues to show the problems related to reading and writing associating graphs symbology, orientation of space and time, organization of the graphic space based on reference axes. And the perception of time for Le Bouch is achieved by the work on a musical

tempo and the perception of rhythmic structures. He moves on to **the third part** of his book, presenting his Education by the movement in the primary cycle:

The global exercise
Hand-eye coordination
Postural Adjustment and Balance
General Dynamic Coordination and Motor Learning
Perception of the "own body" and structuring of the body schema
Perception of space and spatio-temporal structuring.

Le Bouch follows to present **the fourth part** of his book: education through movement for the middle cycle with its teaching style through problem situations and its educational use. **In the fifth part** of the book, he then presents the way of teaching games and team sports, the "games with rules". Finally, it shows inductive psychomotor education (extreme of cognitivism). **The sixth** and last part is the work he develops with rhythms and music until folk dances.

Le Bouch (1987) focuses on the formation of body image as a development that goes from birth to 6 years old. This theoretical hypothesis is that this body image is then developed by the psychomotor function, an association between the psychic translated as the cognitive and the movement, thus becoming a generalized principle.

Le Bouch op.cit., begins the first part by demonstrating the psychomotor importance in primary school, from six to twelve years old. It starts with body image already with the division of body and mind and then goes on to explore the contributions of psychomotricity in primary school and the difficulties of students and then their psychokinetics to improve attention deficits, and continues with psychokinetics and reading and writing, mathematics, cognitive functions, separating once again the Being in its psychokinetics and the "affective-social" objectives. In the second part of his work Le Bouch, op cit (hereinafter quoting the same work), he presents how psychokinetics can, then, work on the laterality of movement and orientation of the body schema. It refers to the spatial-temporal perceptual problems, posed by the learning of reading and writing. To propose your psychokinetic Physical Education in the different phases of schooling:

Primary Cycle. In which Le Bouch dedicates himself to the education sessions for movement in the preparatory cycle.

What Le Bouch op.cit., in this preparatory cycle, proposes is a form of Physical Education, so called, education through movement. In the first instance, in fact, it is an education of movement, and that from this component of this education of movement the

child could overcome his difficulties in reading, writing and mathematics, that is, what is proposed in a Physical Education

Le Bouch op.cit., begins with the importance of Psychomotor education in primary school, the motor development from 6 to 12 years of age, starting from the theoretical notion of body image, the imaginary body and the image of the operative body.

Image of the body and spatial-temporal structuring. adaptation of distance movement, adjustment of running with different obstacles, agility course, hand-eye coordination (throwing and catching), skills, postural adjustment and balance, (balance, global postural adjustment, suspension, climbing, supports, lifting and carrying and power struggles. It dedicates a chapter to general dynamic coordination and motor learning, throwing, jumping, overcoming obstacles, four-way movement and ground travel, functional games and adjustment to the aquatic element. At this point, Le Bouch, in the work presented here, develops the perception of one's own body and the structuring of the body schema. It is his project of education for pre-school or by him called the primary cycle. The child arrives at a perception of his own body and its structuring of the body scheme. Dividing this chapter to show the importance of the internalization function in the structuring of the body scheme, perception, awareness and knowledge of one's own body (within this awareness presents several possibilities: segmentary awareness exercises of the upper limbs, awareness of the mobility of the body axis on the floor and in an upright posture, awareness of the mobility of the shoulder girdle, arm-trunk independence). Ending this chapter with postural adjustment with mental representation and balance with internalization (awareness of the globality of attitudes, flexibilization of the spine, reinforcement of the tone of the attitude muscles in balance exercises with interiorization). And to finish the chapter, the dissociation of automatism by the performance of the internalization function (throwing situation with impulse runs, high jump situations).

Another extensive chapter on the perception of space and structuring of space-time, to arrive at an education through movement in the **middle cycle**, and what Le Bouch proposes is problem solving, but continues to exercise with movements (athletic jumps, overcoming successive obstacles during the race, running on a flat track, gymnastic jumps, athletic throws, agility on the ground, climbing, lifting and carrying, swimming).

Finally arriving at games with rules and their evolution to team sports.

This education through movement, which Le Bouch proposes, still preserves the tradition of a vision of the human being structured in a separation between body (movement) and reason. A mechanical and reductionist form for the human being, as we will see later when presenting phenomenology in this text. Despite the tendency to use the Cartesian

heritage of body and mind, even so, he seeks to study perception and even dedicate himself to the aspect of music of the rhythms and dances characterized by him as folklore, the dance of the peoples. A greater concern in rhythmic education of movements. What must be called attention is that it is still a psychology that preserves in its genesis, and at its core, the primacy of reason over emotions and of intellect over the sensible and perception.

Le Boulch op cit, for being in France and that is the spirit of the time in which he lives. The war seems to have inspired a certain moment of deepening in the study of perception, however the strong rationalist tradition and the intellect reason over feeling, made it go down the same path of separation from the being that starts to be manipulated, rationalized, because it has the primacy of Cartesian reason and rational has its empire guaranteed in superficial society to analyze and deepen the knowledge of what is happening to the detriment of a logical rational posture and superficial of intending to explain cause and effect relationships, through mathematical models and consumer of an empirical-experimental science, which only controls the facts but knows very little about the phenomenon of learning, of understanding.

In this way, this article shows how Le Boulch's theory op.cit. is an adaptation of Jean Piaget's psychogenetic theory, which explains how it is structured and what the construction of thought Le Bouch proposes the same path for the movement of the body.

For Piaget, the stages of thought cognition are carried out in stages:

Sensorimotor

- Occurs between 0 and 2 years
- Children learn to manipulate objects and acquire knowledge through sensory experiences
- Children learn that objects exist even when they cannot be seen

Pre-operational stage: Occurs between 2 and 7 years.

Concrete operational stage

- Occurs between 7 and 11 years old
- Children process information in a more structured and logical way

Formal operational stage

- Occurs from the age of 12
- Children already have the skills of reflection and abstraction developed
- Children begin to form opinions and concepts on topics such as society

Le Bouch op. cit. describes development in the same way as Piaget's associative intellectualist psychology, in which there are stages of development: the first sensory-motor

psychomotor stage up to the age of 7 is in the same preoperative situation, for Piaget, where formal operative thinking is not yet defined. For Le Bouch, body image has not yet been formed, so the child does not have the ability to move. It should be pointed out here that Le Bouch recognizes that his position is only theoretical.

> We remember that body image is not a function, but a useful concept on the theoretical level, as it serves as a guide to better understand motor development through the various stages. (p.15)

This is the main problem of intellectualist associationist psychologies, they are always concepts, ideas. Let us think, then, of the term body image and look for the perception of one's own body, or the self-body or even the lived body, an expression of phenomenology, but which was also used by Le Bouch op. Cit.

> In fact, one cannot speak of the image of the body until the EGO is unified, individualized, and until the sense of reality is acquired, that is, at the end of the stage of the lived body. (p.16)

However, I find the expression lived body in Le Bouch with a meaning that diverges from Merleau-Ponty's phenomenology. Le Bouch inadvertently uses the expression body-lived as a phase of human development, making it the genesis of all human mobility, as it is the formation of the body image from the preoperative to the operative motor learning phase. However, the lived body, for phenomenology, is the incarnated body, lived in its total existence. His whole life would be his lived body.

To further open up the understanding of the phases of psychomotor development in Le Bouch, let us think about the phases.

The stage of the "perceived body" is the same as the "body schema", as follows:

> Prior to this period, this concept has no foundation, insofar as it describes a perceptual activity whose development will only be possible after the function of interiorization (In note: perceptual function that makes it possible to shift attention from the environment to one's "own body" in order to reach awareness) reaches maturity. (p.16)

The mirror for Le Bouch, is the contact with the body image, the visual image of his body, it becomes the reference where tactile and kinesthetic sensations provide the details to structure the "body schema" that is formed from the relationships between sensory data, resulting from the fusion of the visual image and the coenesthetic image of the body.

The "represented body" phase, the phase of entering primary school, allows the 12-year-old child to have an image of the "operative body" from which he can exercise his availability, both on the outside world and on his own motor skills.

Until the age of six, there is a mental representation, a static reproductive image, formed from the close association between visual data and (kinesthetic) movements. This is the same idea as the cognitivist associationist psychologist. The knowledge, the perception of the body is given by associations.

> The evolution of cognitive functions, contemporaneous with the "phase of concrete operations", will evolve this image of the body from being a reproducer to simply becoming "anticipating". (p. 16)

Note that here is exposed the whole of associative psychology, in which cognition forms the operative phases of movement. The domain of movement becomes a cognitive operation. This is totally different from the sense of the perception of movement for phenomenology. At first, it is already possible to think that associationist psychology starts from structures prior to the movement for it to occur, and only occurs in the different phases of development. Consciousness of movement always has a cognitive and psychomotor sense, in a logical sequence of movements, which differs radically from consciousness for phenomenology, which is always consciousness of something. An awareness of the world with others.

However, when focusing on the acquisition of technique and the best way to execute the movement, the correct way to execute the movement Le Bouch (1987) starts from this image that the subject has of the gesture and in this sense will depend on the phase that is connected to the whole system, linking them to the developmental system of learning by stages, being a construction of thought identically to Piaget.

It is interesting to note that Le Bouch, op. cit., departs a little from Piaget's method of trial and error

> The "trial-and-error" learning that we methodically propose in global coordination exercises, although fundamental to develop and maintain the plasticity of adjustment, is slow, and at a certain stage of development becomes insufficient. (p.40)

Le Bouch op. cit. I was writing about psychokinetics and gestural learning and it is because of this theme, the human gesture, that this article compares how gesture is thought of by Le Bouch's Psychokinetic approach and Merleau-Ponty's Phenomenology.

First, however, it is still necessary to present the approaches to motor learning and developmental in Physical Education.

3 THE APPROACH TO MOTOR LEARNING IN PHYSICAL EDUCATION

The approach to motor learning, Schmidt (1993) has a path contrary to that of Le Bouch's (1987) psychokinetics, that you can improve the cognitive aspects, therefore of reason through or by learning the basic movements of the human being, does not have movement as a means plus an end in itself in its highest performance, so the North American motor approach of Physical Education is the extreme of showing the dominance of reason over the movement, and that this is commanded by reason. Therefore, this approach to North American motor learning focuses on wanting to explain how the human being, in this case the athlete, reaches his maximum performance to the point of becoming a spectacle. In this path remains much more in a behavioral psychology of Skiner, with emphasis on the stimuli of games, sports, in the phase of beginners to professional athletes of high level as performative as possible.

Schmidt's book (1993) begins by defining skill and its applications, its components, its classification up to performance and learning. It is a very long book divided into three parts.

Part I
Principles of human performance
Information processes and decision-making.
Sensory contributions of skillful performance
Production of motor movements and programs
Principles of motor control and precision of motion
Individual differences and motor skills
Part II
Motor learning: concepts and methods
Preparation and Strategies for Practice Planning.
Organizing and Scheduling the Practice
Feedback for skill learning.
Part III
Application of the principles
Integration and Application.

To compare this approach to Phenomenology, I will use the topic treated by her for attention.

4 THE DEVELOPMENTAL APPROACH IN PHYSICAL EDUCATION

The developmental approach to Physical Education is a perspective that is based on motor development and motor learning. It considers the characteristics of each age group and the maturational advances of each individual.

Goals

- Develop basic motor skills such as walking, running, jumping, throwing, and rolling
- Promote the acquisition of motor skills appropriate to age groups
- Develop motor control

Fundamentals

- It is based on knowledge of Motor Behavior
- It is based on the principles of developmental psychology and motor learning

Features

- It divides the phases of growth by chronology, highlighting the particularities of childhood, pre-adolescence and adolescence
- It presents a sequence of motor development and approximate age range for each stage of development
- Its focus is on motor learning processes
- Results in lifelong changes in motor behavior

Gallahue's pyramid is a theoretical model that explains human motor development, from reflexes to specialized motor skills.

Phases of motor development

- **Reflective phase**: Occurs from the mother's womb to the first year of life
- **Rudimentary phase**: Occurs between the first and second year of life
- **Fundamental phase**: Occurs between the second and seventh year of life
- **Specialized phase**: Occurs between the seventh and fourteenth year of life

Model Features

- The model of Gallahue and Ozmun (2005) is known as the hourglass model
- Motor development is a continuous change throughout life
- Each experience influences motor skills
- Heredity, task, and environment also interfere with motor development
- Fundamental movements can be grouped into stabilizers, manipulatives, and locomotors

Model objectives

- Understand the process of motor development
- Provide students with different activities so that they develop a range of motor skills

Davis (1990) uses the representative Vygoski to classify developmental psychology, in which it occurs in a process through which the individual actively builds, in the relationships he establishes with the physical and social environment, his characteristics.

> Unlike other species, human traits are not biologically inherited, but historically formed. From generation to generation, the degree of development achieved by a society is accumulated and transmitted, flowing, from birth, in the perception that the individual builds about reality, including with regard to the explanations of events and phenomena in the natural world. (p.19)

Davis (1990) when presenting the conceptions of development: theoretical currents and repercussions in the school, expresses.

> "The various theories of development presented below are based on different conceptions of man and the way he comes to know. Such theories, as in any scientific study, depend on the existing worldview in a given historical situation and evolve as they show themselves capable or incapable of explaining reality" (p. 26)

The developmental approach to Physical Education Go Tani et. al. (1988) mixes this position of Piaget's and Vygotsky's developmentalist-interactionist psychology, but also presents the biological/physiological aspects of human development, complementing Darwin's theory of evolution, presenting the physiological development and physical growth that would be the basis for sustaining motor activity. Thus, it is on the one hand hand in hand with Piaget and on the other hand with Darwin in the evolution of the physiological mechanisms of human beings. This approach to Physical Education unites Piaget's psychogenetics with human development, relating (cause and effect) physiology and external environment, movement learning and the social.

However, the developmental approach to Physical Education Go Tani et. al. (1988) is also a model of psychology of human behavior in its essence. A psychology that influenced from then on the entire basis of the school. With the foundation of all this developmental psychology of human behavior, the study of stimulus and response in education governed by empirical-experimental science was then passed. Its objective would be to understand the processes that occur in the individual when having a stimulus and producing a response, however, the method used was that of definitions, concepts and principles designed in a mechanistic way and in a reductionism that ended up defining the Being as a pile of organs juxtaposed in a body disconnected from the mind, including, in this mental aspect, cognition separated from motor behavior and even more segmenting the Being into its affective, social, cognitive aspects. Psychologies that treat the Human Being in segments to study it cannot

understand either the stimuli, or even the response, of a movement, much less understand the Human Being as a single Being situated in the world with the others. But the positivist sciences only try to take the opposite path and always want to separate the being into domains, behaviors, aspects, cognitive, affective and social, and motor, in order to study it, end up reducing it and remove it from the world, isolating it in an artificial situation of human behavior, and study the motor aspects separately. In experiments that are mathematical models of solving factual problems of facts created from cause and effect relationships and that contribute little or nothing to understand the human being, at most arrive at explanations that intend to be generalizing.

5 MERLEAU'S PHENOMENOLOGY

Regarding Le Bouch's Psychokinetics and Merleau-Ponty's phenomenology.

At first, the notion of body image, or body image, for Le Bouch, goes a long way, it differs greatly from the notion of perception of the body-self of phenomenology. Le Bouch, will resort to psychoanalysis to show the construction of this body image that can suffer external and internal forces and is established between two forces, the impetus of movement. To expose here the understanding of the unconscious in Freud and Merleau-Ponty, it would be necessary to have one more article. As this one deals with Physical Education and its methodologies to teach and improve human movement, I prefer to concentrate at this moment of putting face to face Le Bouch's Psychokinetics, Merleau-Ponty's phenomenology, to concentrate on his visions of the human gesture.

Le Bouch (1987), in the second chapter of his book on psychomotor education, psychokinetics in school age, divides it into three parts:

A – Psychokinetics as a help to children with school difficulties. Psychomotricity, reading and writing.

a) The functional aspects of learning to read

b) Psychomotor imperatives (body schema and space-time)

Writing is first and foremost a motor learning

This motor learning requires the performance of the internalization function

Perception and mental representation of space in reading and writing.

Lateral dominance and learning to read.

Psychomotricity and Mathematics.

Psychomotricity and cognitive functions.

B – Psychokinetics and "affective-social" objects

Adult attitude and socialization.

Interest of the group work

C – Psychokinetics and gestural learning.

Let us concentrate here on this item to elaborate the vision of gesture in Le Bouch and Merleau-Ponty.

Le Bouch (1987) begins his idea of gesture by citing his other book: Towards the Science of Movement. This book was published in 1987. The work used in this 1987 article is the Portuguese translation, that is, his book Educação Psicomotora. Psychokinetics at school age, the original work is from 1984.

> The purpose of psychomotor education is not the acquisition of gestural skills. However, psychomotor work, as we conceive it, results in a better aptitude for learning, within the respect for the child's development. In particular, at the end of primary schooling between 10 and 12 years of age, the child who has an "image of the operative body" (in note: In the sense given by Piaget: the child is capable of providing himself with an "internalized model" of this or that movement), as a consequence of methodical work aimed at his own body, becomes capable of "secondary learning". (40)

At this point, Le Bouch (1987) moves away from the theory of error, for Piaget, as already mentioned in this article, without delving into it, and goes on to deal with the social imperatives that require the rapid learning of new motor skills, both in professions and in sports. For the author "it sometimes becomes necessary to communicate a type of coded response that responds to a technique."

> In this type of learning, not only is the goal to be achieved fixed, but the "action scheme" (gesture image) is determined in detail. Too early a learning of these gestural forms ends up in training, contradictory to the structuring of the "body schema". On the other hand, when psychomotor education has been well conducted, between the ages of 9 and 12 certain children will be able to arrive at a good "mental representation" of the image of movement which will then be "internalized" and "intelligent learning" becomes possible (in note: It is not inconceivable that the reasonable sports teaching of certain activities, whether in the school club or in the civil club, can draw inspiration from these principles). We do not believe that such an apprenticeship can be conceived for all children in primary school, and it does not seem to us opportune, in the present state of psychomotor education, to place it in the curricula of primary classes. It would be wiser, no doubt, to give the primary school teacher the conditions to guarantee a good psychomotor education and to entrust the Physical Education teachers with the care of continuing it with the learning of "know-how" more techniques. Despite the conception that we have just exposed, which rejects technical learning during secondary schooling, except in exceptional cases, we wanted to particularize the importance we give to these learnings in view of the social insertion of the future adult. (p.40)

It is quite clear a vision of the body, a vision of Physical Education. The vision of a segmented body that thinks and acts. It is simply the associationist psychology of communication and language proposes where up to two machines can communicate. For these psychological and linguistic currents, an understanding is given as a light is turned on. It is clear that movement for Le Bouch is a response of the cognition of something that has been structured in the body, an image recorded in an unconscious that is available and that allows the child to have his operative moment in which he can perform the movements that were previously internalized and recorded as a deposit of images that are available for the movement to be performed.

There is something interesting in this passage from Le Bouch that in a way defines the entire profession of the Physical Education teacher between Bachelor and Bachelor, the first being trained to serve the school the teaching of body images of basic movements, walking, running, jumping, jumping, throwing, grabbing. And the bachelor who will then work with the technical part of the movements, the know-how, the teaching of sport as a movement, the culture of the movement. A position that also defines the content to be taught in school in the face of a developmental psychology of phases of maturation of the body image scheme. See that something that is not in the movement itself. You don't use something rational to walk, run, swim, jump, do a somersault, you adjust your body to the movement and figure out how to execute it. For Le Buch's intelligent learning to occur in a specific movement such as kidney fall in Capoeira, it will only be possible when he experiences the movement of kidney drop itself, because even having the motor base and his body image formed and operative he can have balance, muscle tone, flexibility, motor coordination, perceive the space and time around him and still not be enough to perform a kidney fall Unless he looks, knows the movement and tries to execute it. The body then apprehends movement and does not do so through image associations, as language theories want to impose for the understanding of human communication.

In order to organize this brief study of the view of body, movement, Physical Education in Merleau-Ponty (1971), after rereading the approaches in Physical Education, it is necessary to expose the sequence of responses of Merleau-Ponty's philosophy to the approaches of Physical Education in the opposite way. Starting from the Physiological Developmental, passing through the Psychomotor and ending with the perception of the gesture. Therefore, it will be necessary to go deeper than chapter VI of the phenomenology of perception: The body as expression and speech. In order to understand the human gesture, it would be opportune first to understand the entire first part of the work that deals with The Body. In the first item of this part: The body as an object and mechanistic psychology.

And the second item: The experience of the body and classical psychology. And then concentrate on item VI of the first part of the work the body as expression and speech.

Merleau-Ponty simply breaks with Pavlov's physiology and classical reflexology because he can experience the infirmary of a battlefront, and can do his entire master's thesis in the structure of behavior and his doctorate in the phenomenology of Perception, it is, therefore, a rereading of reflexology, any physiological approach to Physical Education and others linked to classical and mechanistic psychologies. It focuses on the study of phantom limbs, amputees who still felt their limbs.

> The progress of the injury of the nervous substance, however, does not destroy one by one the sensible contents made, but makes more and more uncertain the active differentiation of the excitations, which appears as the essential function of the nervous system. In the same way, in the case of non-cortical lesions of tactile sensitivity, if some contents (temperatures) are more fragile and disappear first, it is not because a specific territory, destroyed in the patient, serves us to feel hot and cold – because the specific sensation will be restored if a very long stimulant is applied (...). The central lesions seem to leave the qualities intact and, however, they modify the spatial organization of the data and the perception of the objects. (p.87)

What Merleau-Ponty shows is that lesions change the direction of the stimulus or its intensity, they can respond to a thermal, but not tactile, stimulus.

> Thus excitations of the same sense differ less in the material instrument of which they are used, than in the manner in which the elementary stimuli are spontaneously organized; and this organization is the decisive factor at the level of sensible "qualities" as well as at the level of perception. It is still, and not the specific energy of the apparatus questioned, that causes an excitant to give way to a tactile sensation or a thermal sensation. If a specific region of the skin is aroused several times with a hair, one first has punctual perceptions, clearly distinguished, and each time located at the same point. As the excitement is repeated, the location becomes less precise, the perception spreads through the space, at the same time that the sensation ceases to be specific: it is no longer a contact, it is a burn, sometimes due to the cold, sometimes due to the heat. Later still, the subject believes that the stimulant moves and traces a circle on his skin. In the end, nothing is felt anymore. This means that the "sensible quality", the spatial determinations of the perceived, and even the presence or absence of a perception, are not effects of the actual situation, external to the organism, but represent the way in which it comes to meet the stimuli and refers to them. An excitation is not perceived when it reaches a sensory organ that is not "in accord" with it. The function of the organism in receiving stimuli is, so to speak, to "conceive" a certain form of excitation. The "psychophysical event" is no longer of the type of mundane causality, the brain becomes a place of "formation" (miseen forme) that intervenes even before the cortical stage, and that disturbs, from the entrance of the nervous system, the relations between stimulus and the organism. The excitement is taken and reorganized by transversal functions that make it resemble the perception it is going to arouse. This form that is outlined in the nervous system, this unfolding of a structure, I cannot represent them as a series of processes in the third person, as a transmission of movement or the determination of one variable by another. I cannot take any other notice of this fact. If I guess what it may be, I am left there with the body-object, parts extra parts, and directing myself to the body of which I have the present

> experience, e.g., the manner in which my hand envelops the whole object, anticipating its stimuli and outlining itself the form which rises up towards the world. (p.88)

Here, then, is the reformulation of the entire mechanistic, physiological and behavioral theory, which has hung for centuries in the segmentation of the human being and in his incomprehension in wanting that it is not only the stimulus, but the quality of this stimulus and its form.

It is impossible to show all the clarity of the philosopher when he speaks to us precisely:

> Thus, exteroceptivity requires a donation of form to the stimuli; The consciousness of the body invades the body, the soul spreads everywhere, the behavior invades its central sector. But it might be replied that this "experience of the body" is itself a "representation," a "psychic fact," and that in this sense it is at the end of a chain of physical and physiological events which alone can be attributed to the "real body." My body is not, just like the external bodies, an object which acts upon receptors, and which finally gives place to the consciousness of the body. There is no "interoceptivity" in it, as well as an "exteroceptivity". I cannot find in the body threads which the internal organs send to the brain, and which are instituted by nature to give the soul the opportunity to feel its body. The consciousness of the body and the soul are thus forced, the body becomes again that very clean machine that the ambiguous notion of behavior has been about to make us forget. If, for example, in an amputee, some stimulation replaces that of his leg, on the path from the leg to the brain, the subject will feel a phantom leg, because the soul is immediately united to the brain and to the brain alone. (p.88 and 89)

Now there is no other way. We need to continue this analysis of the Merleau-pontyana phantom member.

> What does modern physiology say about this? Cocaine anesthesia does not suppress the phantom limb, there are phantom limbs without any amputation and soon after brain injuries. Finally, the phantom limb often retains the very position that the royal arm occupied at the time of the wound: a war wounded person still feels in his phantom arm the shrapnel of howitzers that lacerated his royal arm. Should we therefore replace the "peripheral theory" with a "central theory"? But a central theory would gain us nothing if it did not add to the peripheral conditions of the phantom limb anything but celebratory traits. Because a set of celebratory traits could not configure the relations of consciousness that intervene in the phenomenon. It depends, in fact, on "psychic" determinants; An emotion, a circumstance reminiscent of those of the wound, causes a phantom limb to reappear in subjects who did not have it. It happens that the phantom arm, huge after the operation, then retracts to finally swallow itself in the room "with the consent of the patient to accept his mutilation".

It is very difficult not to dwell on the question of the phantom limb and the learning of movement in Physical Education, Merleau-Ponty op.cit., demonstrates how intellectualist and developmental psychologies are on another path.

> The phenomenon of the phantom limb is clarified here by the phenomenon of anosognosia, which visibly demands a psychological explanation. Subjects who systematically ignore their paralyzed right hand and extend their left hand when asked for their right hand, speak, however, of their paralyzed arm as a "long, cold serpent." Is it then to be said that the phantom limb is a memory, a will, or a belief, and, in the absence of a physiological explanation, to give it a psychological explanation? However, no psychological explanation can ignore that the sectioning of sensitive conductors that go in the direction of the brain suppresses the phantom limb. One must therefore understand how psychic determinants and physiological conditions mesh with each other; It is not conceivable how the phantom limb, if it depends on physiological conditions, and if, in this sense, it is the effect of a causality in the third person, it can on the other hand dispense with the history of the patient, his memories, his emotions, his wills. (p.90)

Moving on to the next three pages in Merleau-Ponty op.cit, which also, quickly shows how the authors speak of a "repression" or of an "organic repression" when describing the belief of the phantom limb. To then focus on how the phantom limb occurs in animals, specifically the insects that lose a leg, then I try to give the summary that can elucidate once and for all these physiological and psychological issues of human movement and the phantom limb:

> Let us return to the problem from which we came from. Anosognosia and phantom limb do not admit of a physiological explanation, nor a psychological explanation, nor a mixed explanation, although they can be linked to both sets of conditions. A physiological interpretation would interpret anosognosia and the phantom limb as the simple suppression or simple persistence of interreceptive stimuli. In this hypothesis, anosognosia is the absence of a fragment of the representation of the body that should be given, because the corresponding member is there, the phantom member is the presence of a part of the representation in the body should not be given, because the corresponding member is not there. If a psychological explanation is now given of the phenomena, the phantom limb becomes a memory, a positive judgment or a perception, anosognosia a forgetfulness, a negative judgment or an imperceptiveness. In the first case, the phantom limb is the effective presence of a representation, anosognosia, the absence of a representation. In the second case, the phantom limb is the representation of an effective presence, anosognosia is the representation of an effective absence. In both cases, we do not leave the categories of the objective world where there is no middle between presence and absence. In reality, the anosognosic does not simply import the paralyzed limb, he cannot get away from the disability except because he knows where he would run the risk of finding it, as the subject, in psychoanalysis, knows what he does not want to see before him, without which he could not avoid it so well. We do not understand the absence or death of a friend until we expect an answer from him and when we feel that it will no longer exist, we also avoid first questioning so as not to have to perceive this silence, we move away from

regions of our life where we could find this nothingness, but this means that we guess them. In the same way, the anasognosic puts his paralyzed arm out of the game so as not to feel its loss, but it means that he has a preconscious knowledge. It is true that in the case of the phantom limb the subject seems to be ignorant of his mutilation and counts on his phantom as on his real limb, for he tries to walk with the phantom leg and is not discouraged by a fall. But he describes very well the peculiarities of the phantom leg, for example its particular motor skills, and if he treats it practically as a real limb, it is that, like the normal subject, he does not have the need to walk on the street of a clear and articulated perception of his body; it is enough for him to have it at "his disposal" as an undivided force, and to guess the phantom leg vaguely implies it. The consciousness of the phantom leg thus also becomes equivocal. The amputee feels his leg as I can vividly feel the existence of a friend who is not, however, under my eyes, he has not lost it because he continues to count on it, as Proust can well verify the death of his grandmother without losing it while he was waiting for her on the horizon of his life. The phantom arm is not a representation of the arm, but the equivalent presence of an arm. The refusal of mutilation in the case of the phantom limb or the refusal of the disability in anosognosia, does not take place at the level of tactical consciousness that takes a position explicitly after having considered different possibilities. The desire to have a healthy body or the refusal of the sick body are not formulated by themselves, the experience of the amputated arm as present or of the sick as absent are not of the order of "I think that..." (p.93 and 94)

Indeed, Merleau-Ponty's philosophy extends far, but what he wants to say is also in line with a whole vision of the unconscious that re-signifies the idea of the unconscious no longer in its physical sense that Freud wanted as a negation and what Merleau Ponty shows is not wanting to speak, hides because it does not want to see.

To finish then:

Man concretely taken is not a psyche united to an organism, but this to-and-fro that sometimes allows itself to be corporeal and sometimes directs itself to personal acts. Psychological motives and bodily occasions can be intertwined because it is not a single movement in a living body that is an absolute chance in relation to psychic intentions, nor a single psychic act that has not at least found its germ or its general design in physiological dispositions. It is never a question of the incomprehensible meeting of two causalities, nor of a collision between the order of causes and the order of ends. But by an insensible modification an organic process arrives at a human behavior, an instinctive act turns and becomes a feeling, or conversely a human act awakens and continues absentmindedly as a reflex. Between the psychic and the physiological there may be exchange relations that almost always prevent the definition of a mental disorder as psychic or somatic. The so-called somatic disorder outlines psychic comments on the theme of the organic accident, and the "psychic" disorder is limited to developing the human significance of the bodily event. (p101)

Still at the end of the chapter, Merleau-Ponty comes across an example of the person who is a sick person who feels in his body a second person implanted. It's a man in half of his body, a woman in the other half. How then to distinguish in the symptoms the physiological causes and the psychological motives? How can we simply associate the two explanations

and how can we conceive of a point of junction between the two determinants? In symptoms of this kind, psychic and physical are so inwardly linked that one can no longer think of completing one of the functional domains by the other, and that the two must be taken over by a third. For Merleau-Ponty, it is necessary to move from a knowledge of psychological and physiological facts to a recognition of a psychic event as a vital process inherent to our existence. The author ends his first item of the first part of his book phenomenology of perception: The body as an object of mechanistic physiology with a quotation that states that the psychophysical event can no longer be conceived in the manner of Cartesian physiology and as the continuity of a process in itself and of a cogitatio. "The union of soul and body is not sealed by an arbitrary decree between two external terms, one object, the other subject. It completes itself at every moment in the movement of existence." That is, existence always comes before thought, it is the first way of access, that of physiology, so it is necessary to question existence about itself, Merleau-Ponty ends up addressing psychology.

Merleau Ponty follows the first part of his book The Body with item II The experience of the body and classical psychology. Much briefer than item I, here he seeks to distinguish the human being's own body from other objects, that is, criticizing the classical psychologies that take the body as an object of study. Then he stops to speak of the body as visible and invisible to us. Citing then the passage that Merleau-Ponty positions himself in front of classical psychologies.

> If the description of one's own body in classical psychology already offered all that was necessary to distinguish it from objects, where does it come from that psychologists have not made this distinction, or that they have in no case drawn any philosophical consequences from this fact? For by a natural attempt they placed themselves in a place of impersonal thought to which science referred while it believed it could separate in observations what refers to the situation of the observer and the properties of the absolute object. For the living subject, the body itself could be quite different from all external objects; for the unsituated thought of the psychologist, the experience of the living subject in turn becomes an object, and, far from seeking a new definition of being, it takes its place in the universal being. It was the "psyche", which used to be opposed to the real, but which was treated as a second reality, as an object of science that needed to be subjected to laws. It was postulated that our experience, already invested by physics and biology, should be entirely summed up in objective knowledge when the system of sciences was finished. Since then, the experience of the body has degraded into the "representation" of the body, it was not a phenomenon, it was a psychic fact. In the appearance of life, my visual body contains a vast gap at the level of my head, but biology existed to fill this gap, to explain it by the structure of the eyes, to teach me what the body really was, that I have a retina, a brain, like the other men and corpses I dissect, and that finally the surgeon's instrument would infallibly lay bare, in this indeterminate zone of my head, the exact replica of the anatomical blades. I take my body as an object-subject as capable of "seeing" and "suffering", but these confused representations were part of psychological curiosities, they were samples of a magical thought whose laws are studied by psychology and sociology, which make

them enter, as an object of science, into the system of the true world. The incompleteness of my body, its marginal presentation, its ambiguity as a touching body and a touched body could not therefore be traces of the structure of the body itself, they do not affect its idea, they became the "distinctive characters" of the contents of consciousness that make up our representation of the body, these contents are constant, affective and bizarrely twinned in "double sensations", but with this the representation of the body is a representation like the others, and correlatively the body with an object like the others. Psychologists did not realize that in treating the experience of the body in this way, they were doing, according to science, only differentiating an inevitable problem. The incompleteness of my perception was understood as an incompleteness in fact that resulted from the organization of my sensory apparatuses; the presence of my body was understood as a presence of fact that results from its perpetual action on my nervous receptors, in short, the union of soul and body, supposed by these two explanations, was understood, according to the thought of Descartes, as a union of fact whose possibility of principle could not be established, because the fact, the starting point of knowledge, it was eliminated from its finished results. Now the psychologist could well for a moment, in the manner of the wise, look at his own body through the eyes of another person and see the body of the other, in turn, as an inner mechanic. The contributions of these strange experiences came to erase the structure of his own, and, reciprocally, having lost contact with himself, he became blind to the behavior of the other. In this way he installed himself in a universal thought, repelling both his experience of the other and his particular experience. But as a psychologist he was engaged in a task that took him to himself and could not remain at this point of unconsciousness. For the physical is not the object of which he speaks, nor the chemist, on the contrary, the psychologist was himself, in principle, this fact of which he treated. This representation of the body, this magical experience, which he approached with detachment, was him, he lived it at the same time as he thought about it. (p.106 and 107)

I believe that it was possible to differentiate the vision of the body for Merleau-Ponty and of body image, body schema and the psychology of representations that founds all thought and directs practice in Physical Education. I also intend to focus on the vision of what the human gesture is for Psychokinetics and phenomenology.

6 THE BODY AS MERLEAU-PONTY EXPRESSION AND SPEECH.

Returning to this chapter of the book of the phenomenology of Perception is always very pleasurable and rewarding. I had already carefully pored over this chapter from my published article Lima (1991), in which I deal with the limitation of language and human discourse. In this article I develop this chapter of the body as expression and speech, trying to show that the body does not have a decoded language ready to be used. The body has its speech and this is not speech. I also turn to Heidegger to understand the idea of logos and discourse as "apophantic" truth, which arises. Speech allows something to be seen. The body, therefore, does not have a language, but a logos, a discourse that reveals and hides the meaning of Being. In this article, he showed the limitation of language in the face of human discourse, supporting Merlea-Ponty's assertion that the body has a speech, not

articulated in words from the gesture that all human communication is made. I ended that article by showing the difficulty of conveying an idea or thought in words. This time taking the source from Capra is an undated work, which shows the difficulty of a physicist revealing his theory to others as well as of Hindu philosophy to transmit his knowledge, through a language of contradictions. So, to end this text, I invite you to another brief reflection on the body as expression and speech.

Merleau-Ponty (1971) resumes by stating that he recognizes for the body a unity distinct from that of the object of science. Then he will again stick to the intentionality and awareness of speech and will dwell for a long time on the origin of speech in the child.

> The possession of language is first understood as the simple effective existence of "verbal images", that is, of traces left in us by the words spoken and heard. Whether these traits are bodily or deposited in an "unconscious psyche" does not matter much, and in both cases the conception of language is the same as follows: there is no "speaking subject". That the stimuli capable of provoking the articulation of the word, or that the states of consciousness cause, by virtue of the acquired associations, the appearance of the convenient verbal image, in both cases speech is located in a circuit of phenomena in the third person, there is no one who speaks, there is a flow of words that are produced without any intention of speaking governing them.

The reading of the continues with the author presenting the theory of aphasia or the true aphasia that comes with the disturbances of intelligence. Also, the author makes us think of automatic language that is effectively a motor phenomenon in the third person, an intentional language. The author makes us understand that in aphasia, which is this phenomenon in the third person, an intentional language, the individuality of the "verbal image" is effectively dissociated. What the patient with aphasia lost was not a stock or arsenal of words, but the way to use them. Let us see in the words of the philosopher.

> The same word, which remains available to the patient on the level of automatic language, is removed from him on the level of gratuitous language: the same patient who finds the word "no" without difficulty in order to refuse the doctor's questions, that is, when it means a current and lived denial, is unable to utter it when it is an exercise without affective and vital interest. Behind the word, an attitude, a function of speech that conditions the patient. The word is distinguished as an instrument of action and as a means of disinterested denomination. (p.185 and 186)

Ending the class and the text, let's talk about the gesture, before remembering Le Bouch already presented here in this text in his item;

C – Psychokinetics and gestural learning.

Let us concentrate here on this item to elaborate the vision of gesture in Le Bouch and Merleau-Ponty.

Le Bouch (1987) begins his idea of gesture by citing his other book: Towards the Science of Movement. This book was published in 1987. The work used in this 1987 article is the Portuguese translation, that is, his book Educação Psicomotora. Psychokinetics at school age, the original work is from 1984.

> The purpose of psychomotor education is not the acquisition of gestural skills. However, psychomotor work, as we conceive it, results in a better aptitude for learning, within the respect for the child's development. In particular, at the end of primary schooling between 10 and 12 years of age, the child who has an "image of the operative body" (in note: In the sense given by Piaget: the child is capable of providing himself with an "internalized model" of this or that movement), as a consequence of methodical work aimed at his own body, becomes capable of "secondary learning". (40)

Merleau-Ponty (1971) shows us that there is no thought behind the gesture. Gestures are pre-verbal elements, they appear before the word and the word explains it. Gestural communication is made and the emphasis is not on language, but on the expression of the body. For Merleau-Ponty, I do not have a physical body and an intellect that commands this body through representations of images of the body itself. For Ponty, I am body, I am space, I am time, I am movement. Therefore, gesture is action, movement. Speech is a gesture. Recalling my early writings by Merleau-Ponty. (Lima, 1991)

The expression of mental states in gestures, such as expression of desire, frustration, worry, anger, pleasure, joy, etc., provides a paradigm that a sign is, let's say like Merleau-Ponty, the physical incarnation. The Flesh, for Merleau-Ponty, is an element and not an Aristotelian substance. The expression of a meaning is strictly inseparable from bodily expressions. An expression of anger or threat does not transmit a pure thought from one mind to another, one does not see in the attitude of anger a psychic condition hidden behind the gesture, on the contrary one can read anger in the gesture from the beginning. The gesture also does not make me think of anger because anger itself already has a meaning in me. Merleau-Ponty gives the example of colors and sounds that are pure noens, the color is perceived at first, but some shades confuse the perception of some people. (p. 14)

But the best and most pleasurable thing is to review each word expressed by Merleau-Ponty in his understanding of the human gesture:

> Modern psychology has shown well that the spectator does not seek in himself and in his intimate experience the meaning of the gestures of which he is a witness. Whether it is a gesture of anger or threat, I have no need, in order to understand it, to remember the feelings I felt when I performed the same gestures on my own. I know very little about the mimicry of anger from within, and therefore association by resemblance or reasoning by analogy would lack a decisive element – and, moreover, I do not perceive

anger or threat as a psychic fact hidden behind the gesture, I read anger in the gesture, the gesture does not make me think of anger, it is anger itself. (p. 195)

What the philosopher reports is that the meaning of the gesture is already the gesture itself, breaking with the intellectualist cognitive psychological theories that think of a body image and the gesture as being an intellectual, cognitive process and in this way executing a gesture would be a representation, which would depend on words definitions to be understood a gesture by its spectator. For Merleau-Ponty it makes us understand the aspect of culture engraved in us.

> The word is a true gesture and contains its meaning as the gesture contains its own. It is what makes communication possible. In order for me to understand the words of the other, it is evidently necessary that their vocabulary and syntax are already "known" to me. But this does not mean that words act by arousing in me "representations" that would be associated with them and whose set would end up reproducing in me the original "representation" of the speaker. (p.194)

Merleau-Poty (1971) clarifies that the gesture is not a response to a cognitive and intellectual process, as well as dwelling in depth on how the spectator of the gesture perceives the gesture and that it is also not necessary to have an intellectuality and logical reasoning that needs to translate the gesture. The gesture is its expression and what its meaning hides, culture reveals as something already present.

> The meaning of the gestures is not given, but understood, that is, taken up again by an act of the spectator. The whole difficulty lies in conceiving this act well and not confusing it with an operation of knowledge. Communication or the understanding of gestures is obtained through the reciprocity of my intentions and the gestures of the other, of my gestures and of the intentions legible in the conduct of the other. Everything happens as if the other's intention inhabited my body or as if my intentions inhabited yours. (p.195)

Merleau-Ponty (1971), makes us think about everything at the same time. However, from what it was possible to bring to light of Merleau-Pontyan understanding, I end this article with the vision of communication and the word.

> It is not with "representations" or with a thought that I communicate first, but with a speaking subject, with a certain style of being and with the "world" that he aims at. In the same way that intention means that you have moved the word of the other is not an explicit thought, but a certain lack that seeks to be fulfilled, in the same way the resumption by me of this intention is not an operation of my thought, but a synchronic modulation of my existence, a transformation of my being. We live in a world where the word is instituted. For all these banal words, we have in us meanings already formed. They arouse in us only second thoughts, these in turn are translated into other

> words which do not require any real effort of expression from us and will not ask our listeners for any effort of understanding. The linguistic world seems to go on its own. The linguistic and intersubjective world no longer surprises us, we no longer distinguish it from the world itself, and it is within a world that is already spoken and speaking that we reflect. (p. 194)

To understand that the body does not have a prior language, that all the meaning of the gesture is culturally given, and that it can only be understood, contextualized and situated in the world, and that it is given to our understanding. This differentiated view of the body, of movement, of communication, of gesture that this philosopher brings us, allows us to say that it is up to Physical Education professionals, pedagogues and all those who use the body as an educational form, to reread the views of the approaches exposed in this text so that a new meaning emerges for what is taught and what is learned in Physical Education.

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