



The *Motor Coordination* as a Creation Device: a somatic approach to contemporary dance

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ABSTRACT – The *Motor Coordination* as a Creation Device: a somatic approach in contemporary dance – This article postulates that Somatic Education integrates similar issues related to perception in both cognitive science and philosophy. It also indicates that somatic approaches can expand their area of action, overcoming their original role in health maintenance and technical improvement, to reside in the field of research and creation in dance. In order to strength the relationship between dance and somatic education, this article seeks to address some principles of Béziers and Piret's *Motor Coordination* study and points out their possible unfolding in research and creation in dance through perception. Keywords: **Motor Coordination. Somatic Approach. Dance. Perception. Creation Process.**

RÉSUMÉ – *Coordination Motrice* en tant que Dispositif de Création: une approche somatique dans la danse contemporaine – L'article part du principe que l'éducation somatique articule des questions relatives aux études de la perception autant dans les sciences cognitives et que dans la philosophie. Le texte indique que les approches somatiques peuvent étendre leur zone d'action et déborder leur fonction initiale de maintien de la santé et d'amélioration de la qualité technique, pour s'introduire dans le domaine de la recherche et de la création en danse. Afin de rapprocher le rapport entre la danse et l'éducation somatique, l'article cherche à aborder certains principes de l'étude de la *Coordination Motrice* de Béziers et Piret et souligner leurs déploiements possibles dans le processus de recherche et de création en danse par la perception.

Mots-clés: **Coordination Motrice. Approche Somatique. Danse. Perception. Processus de Création.**

RESUMO – A *Coordenação Motora* como Dispositivo para a Criação: uma abordagem somática na dança contemporânea – O artigo parte do princípio de que a educação somática articula questões próximas aos estudos da percepção tanto das ciências cognitivas como da filosofia. Indica que as abordagens somáticas podem ampliar sua área de atuação e transbordar sua função inicial de manutenção da saúde e melhora da qualidade técnica para habitar o campo da pesquisa e da criação em dança. A fim de estreitar a relação entre educação somática e dança, busca-se abordar alguns princípios do estudo da *Coordenação Motora* de Béziers e Piret e apontar seus possíveis desdobramentos no processo de investigação e criação em dança via percepção.

Palavras-chave: **Coordenação Motora. Abordagem Somática. Dança. Percepção. Processo de Criação.**

Somatic Education is gaining more space in dance studies, both by allowing different ways of looking at the body and its expressiveness and also by facilitating new ways to approach movement, often diverging from traditional dance techniques that emphasize the construction of homogeneous bodies. Somatic approaches such as Alexander's, Feldenkrais', Eutony, and Body-Mind Centering (BMC) have been inserted in the curriculum of higher education dance courses and in the professional practice of many professionals¹. However, little has been explored in relation to the *Motor Coordination* research by the French physiotherapists Marie-Madeleine Béziers and Suzanne Piret, possibly because it occupies a strictly therapeutic place, aimed at restoring the well-being and bodily health and seeking movement reeducation. Béziers and Piret developed their study on *Motor Coordination* in the 1960's, publishing it for the first time in 1971. It proposes a synthesis of the "[...] movement structure in the human species" (1992, p. 9), and considers movement not as an isolated structure of psychic, emotional, intellectual, and social life. Béziers and Piret have as their object of study the living body, localized in space-time, and not the body as a mechanical structure only.

The *Motor Coordination* is a rich system for motion research because it allows the understanding of the relationships among body parts and how these parts are structured to create cohesion. From motor connections, it provides different ways to build up expressive and space-oriented bodies. The experience provided by the practice and teaching of *Motor Coordination* for dance artists in recent years has enabled us to envision that this approach may prove to be not only a way to promote health and wellness to the body, but also an agent of creativity in dance through experimentation of its principles. The genesis of *Motor Coordination* is the study of the materiality of the body: the living body, in which every human gesture covers motor, mental, emotional and social instances (Béziers; Piret, 1992), where the "[...] attitude of the subject coincides with the subject itself and happens entirely on gesture, originating the automatically expressive value of the whole movement" (Béziers; Piret, 1992, p. 10). In this article, we present the relationship between the *Motor Coordination* and research in dance, reflect on the understanding of perception, from the perspective of cognitive science and the philosophy of

perception, and mention possible reverberations of the concept that the body creates from the experience of its own motor structure. In order to strengthen the understanding regarding Béziers and Piret's study, we describe some of the principles of *Motor Coordination* and its possible outcomes in the creation process in dance, the perception being the guiding aspect of these processes. Some of the ideas presented here are the result of experiments linked to a research group based in the city of Florianópolis, formed by seven artists-researchers from different artistic backgrounds².

Relationships between Somatic Education and Dance

Thomas Hanna coined the expression Somatic Education in the mid-1980s to seek a unity among heterogeneous research produced since the early twentieth century. Each of the approaches included in the Somatic field has a distinct way of understanding movement and create a body structure. However, some have common denominators, such as the lack of separation between body and mind, the understanding that the relationship between the subject and the world establishes dysfunctional psychomotor behaviors, and the recognition that the body awareness is a processing maneuver so as to be in the world (Lima, 2010). José Antônio Lima (2010) states that somatic approaches seek to bring about a transformation in the operational mode of the individual, resonating in his way of acting in the world. Under this point of view, the purpose of the various somatic approaches is not limited to offer postural education and physical well-being only, but to propose a non-ordinary way of being oneself and to be self-aware, and thus, to perceive the world and to be in the world. It is important to note another feature of some of the somatic approaches: many were created by professionals in the field of the arts, especially dancers, who suffered injuries not effectively cured by traditional medicine. These professionals sought health recovery by exploring and experimenting in their own body, or found ways to heal their injuries through proprioception research, the perception of self. The resulting theories and the stratification of a method emerged from these researchers practical experience (Strazzacappa, 2009). The emergence of many somatic approaches is intrinsically associated with dancing, inasmuch its creators did not intend to create aesthetics and poetics.

In 1996³, French researcher Sylvie Fortin (1999) pointed out that dance could be nourished by somatic approaches in the issue of injury prevention, by improving technical quality and expanding the expressive capabilities of the dancer. Preventive functions became beacons in the field of action of somatic approaches, in dance as in other forms of performing arts, making these approaches assume only a complementary role in artistic studies and practices.

When we look at the history of dance, we note that, from the late nineteenth to mid twentieth century, great transformations occurred both in the way of understanding dance, as in the language used to create it. The French historian Annie Suquet (2008) suggests the research on perception as pivotal for such transformations. In her essay *The Dancing Body – a laboratory of perception*, the author points out different ways of how dance artists have been appropriating the materiality of the body and the exploration of perception – and proprioception – to create. Émile Jaques-Dalcroze elected muscle experience as the sixth sense, from where variations in tone perception occur. Isadora Duncan investigated the origin of the movement, the emergent will of the body, and Doris Humphrey researched the balance and imbalance of the body through the fall and recovery of movement. By understanding the body as sensitive and thinking matter, without disassociating affection and mobility, dancing today inhabits the realm of perception:

The contemporary dancer does not think of himself as destined to reside in a body wrap that defines him as topography: he lives his corporeality in the manner of a 'multi geographic relationship with himself and the world'⁴, a mobile network of sensory connections that draws a landscape of intensities. The organization of the perceptual sphere determines casual throws of this floating geography, both physical and imaginary. Thus, the unique poetic universes, which the dance of the century originated, could be described as many other perceptive fictions. Choreographic arrangements would be only its spatial and temporal extrapolation (Suquet, 2008, p. 538).

The dance theorist Louppe Laurence (2012) confirms Suquet's statements when stating that even if contemporary dance⁵ shows it is absolutely heterogeneous with regard to languages research, there are some principles or fundamentals that serve as guidelines: working on the specificity of each gesture or body, without a predetermined body

model; creation from the exploration of the materiality of the body and the individual, in order to produce, and not replicate, a gesture or movement; looking for a form that it is not predetermined, but that emerges as a just solution and not merely a spectacular one. In contemporary dance, there is a search for a body that creates from its experience and sensitivity to enlarge its perceptual field (Fortin, 2011) and generates a dance with an embodied perspective.

Today, to research dance, following the propositions of Suquet (2008) and Louppe (2012), is to research perception. But how to research perception to generate poetics, using somatic approaches?

Each somatic approach has a specific way of understanding and dealing with corporeality, referring to a particular way of working: Alexander's technique and Eutony, for example, propose a construction technique of very subtle tone – the gesture is accomplished by the smallest possible use of effort, being the economy of force itself one of the themes of these approaches. BMC approaches the body through systems: skeletal, muscular, organic, endocrine, tendinous, and nervous, while reflecting on the perception and the senses. Each mode of dealing with the body evokes its modes of perception; different ways of organizing and sensitizing the body result in different ways of self-perception and, therefore, different ways to relate to the world. Thus, each somatic approach will possibly provide, when investigated, a different creative process.

Béziers and Piret's *Motor Coordination* proposes a unique way of sensitizing the body, not working from a proposition of a relaxed or submissive state, but from the body structure, unlike most existing somatic practices. It requests a tone, and this active, conscious muscular action is seeking to “[...] very subtly differentiate the sensations of the muscles, the muscle bundles, skin stretching, the minimum nuances of sense perception, states of equilibrium the degree of tension” (1992, p. 150). It fosters a variety of nuanced and detailed perceptions, while providing an attentive and embodied presence. The *Motor Coordination* shows it can be a possible agent for building up living, embodied, relational, and perceptual states through activation of muscle tone corporeality.

The *Motor Coordination* under the Perspective of Perception

To address the relationship between dance and perception, we propose a notion of perception by intertwining aspects of the *Motor Coordination* to viewpoints in philosophy and cognitive sciences today, setting the body in motion as our horizon. In its everyday sense, motor coordination is defined as the set of tension between muscles, bones, and joints, an organization for the movement that allows the body to structure itself autonomously to, thus, relate to the environment. Béziers and Piret (1992) postulate that the body is not only a tool or a mechanical structure isolated from psychological and emotional life that enables the movement, but a living body, the body as the instance of a relationship situated in space-time, a *mind-embodied* (Meyer, 2011). It affects and is affected, molds and is molded, structures and is structured through living, through experience. The construction of knowledge occurs through experience, and is felt by the body as a whole (Béziers; Piret, 1992). Based on this understanding, the physical therapists had developed extensive research on body mechanics and kinesiology, trying to understand how the body appropriates its materiality and organizes itself, and how body architecture deals with different ways of relating to space, creates *habitus*⁶ and therefore a specific way of moving. First of all, the *Motor Coordination* investigates the perception of both oneself and the environment.

In Béziers and Piret's conception (1992), perception comprises three notions: the notion of structure or proprioception – the sense of self in a given context, as best defines the French researcher Hubert Godard (2010); the notion of passage – the experience of space-time; and the notion of relationship – whether with another person, object or environment. These three aspects are not understood separately but overlap, creating layers of sensations and perceptions that coexist in the gesture experienced at every moment.

The notion of structure is realized through the organization of proprioception. It combines three aspects: the relationship between awareness of body parts, the perception of the state of tension in the body, and the feeling of the skin as container. The composition of these perceptions provides the body the awareness of an organized, autonomous, complex, and multiple unit, and thus “[...]”

the condition of the being is perceived as capable of a relationship, because it provides an inner knowledge of what is the relationship between different elements” (Béziers; Piret, 1992, p. 31). The notion of structure contemplates the principles of unity of coordination, inhibition of action, and perpetual motion⁷.

For physical therapists, the gesture⁸ is not felt only mechanically, but has always an orientation and a rhythm: the gesture describes its shape in space and has a defined duration – thus space-time and mechanics are intrinsically connected (Béziers; Piret, 1992). Therefore, the notion of passage presents itself as essential. The body experiences the external space, adapting, building up, and transforming from it and with it. This notion is based on the space-time principle.

Just as the senses adapt to external vibrations, the body adapts to the tensions of another body. Béziers and Piret understand that the manner that leads a person to be modified to relate to another, allows, at the same time, self-knowledge and knowledge of the other, knowledge of being and living, knowledge of their own possibilities, “[...] all physical behavior, all sets of motions, work with another; both are based on the relationship they produce” (1992, p. 146). It is through the action of the movement, the action on the form, on the quality of tensions, on the perception of experiences, that body structures and perceptions are transformed. The notion of relationship is based on the principles of vectors and balance of the body, aspects that are best described in the *Principles of Motor Coordination*.

It is possible to align *Motor Coordination* to studies of perception in contemporary Cognitive Sciences and Philosophy, because Béziers and Piret’s approach recognizes the motor-sensory system as a sensory organ that lies in space-time, as well as conceives the body as a receiver of environmental signals, and also considers the body in its materiality, a constituent of the relationship with the world.

Béziers and Piret consolidated their studies in the 1960s and, from then on, much has been done on the topic perception. Some physical therapy principles, as an example of the understanding of the motor system as a sensory organ, have gained more visibility on the scientific and philosophical agenda of the 21st century, with important intersections with dance studies.

Louppe (2012) places the body as a relational field that knows, thinks, and expresses itself, which can be directly correlated to what the French psychologist and neurophysiologist Alain Berthoz calls embodied cognition. Berthoz (2000) has been developing studies that position the motor sense as a sixth sense, together with vision, hearing, touch, taste, and smell. The motor sense is a combination of the muscle, joint, and vestibular systems. We have sensors localized in muscles, tendons, and joints, in a set called muscular and joint system. The vestibular system is composed of five sensors, localized in each internal ear, responsible for the perception of the body's position in space, for the rotation and horizontality of the head related to gravity, for the sense of equilibrium and body inclination in space, for the perception of acceleration (speed change), and the perception of movement; its action is intrinsically linked to vision (Berthoz, 2001). Berthoz (2001) also asserts that all sensory devices are linked to motor signals – perception is not the result of action but is organized by it. There is no hierarchy or temporal separation between acting and perceiving.

For the researcher, the brain works as a biological simulator; it formulates hypothesis and foresees actions very quickly, using as reference the body memory of previous experiences. When using this sensory memory, it can predict its action. The moving body mass produces sensations captured by the nervous system uninterruptedly, creating a type of a complex cognitive map, a kind of library of possibilities such that the brain foreknows and anticipates probable actions that may emerge in accordance with what is required from the environment (Berthoz, 2000).

The American philosopher Alva Noë (2004) shares the same assertion when saying that perception is something that we do actively by engaging the body, by exercising the motor-sensorial skills: what is perceived is determined by what is done, by what is known how to be done or by what is capable of being done. Perception, according to the philosopher, is a type of body skill: we enact our perceptual experience (Noë, 2012). Béziers and Piret define perception similarly by saying that motion perception results from acting and experiencing yourself, requiring “[...] an effort of the person in space-time, an act of personality” (1992, p. 145). Perception here is understood as a device that acts as a mediator between the person and the experience in the

environment: each person experiences the world in accordance with his/her sensorimotor skills.

These concepts can be easily transported to the experience of the body in dance: when broadening our perceptual capacity, we are creating a collection of sensory knowledge, traces, and memories that will be revisited and reworked according to the need of every action, at every moment.

Louppe points to the epistemological rupture operated by contemporary dance in the early twentieth century as yet poorly perceived, and stresses that it is from this break that “[...] another consciousness and perception of the world may emerge” (2012, p. 21). This renewal of perception described by Louppe offers clues to think of consonances between contemporary dance and studies of perception. An approach to perception as present in *Motor Coordination* may add specific qualities in dance research, by dilating perceptual experience and working, firstly, the organic conditions that make up the poetics (Louppe, 2012) emergence. Turning to the anatomical and kinesthetic foundations governing the movement – the basis of *Motor Coordination* – can be a breeding ground for this development.

Principles of the *Motor Coordination*

The *Motor Coordination* is based on some principles that can serve as the foundation for research in dance, as they are fundamental to the training and construction of the body that experiences, creates environments, dances. They can be handled either concretely, objectively embodied in the experimentation, or as metaphors. To give clarity to these principles and their relationship to dance, it is pertinent to explain better each of them.

Coordination Unit

According to Béziers and Piret (1992), all movement happens through the coordination units. The Coordination Unit is a group formed by two spherical joints⁹, at opposite extremities, which are put under tension by diverging the direction of their rotations by the action of multi-joint muscles (motion conductors). The body is composed of several coordination units (such as arms, legs, trunk,

hands, and feet), each being related and affecting the next unit by promoting one unit of total tension. This torsional tension triggers a movement of flexion-extension, thereby generating a tension balance between the flexor and extensor muscles, while establishing a path for transmission of continuous and dynamic perpetual force that runs through the body in elliptical shape, similar to the Moebius ring¹⁰. All the work in the *Motor Coordination* is based primarily on the experience of these coordination units. One can work out a unit slowly and meticulously, observing the path of tension created by the joint opposition, a work of almost invisible micro movements. When structuring one unit, one begins to access the next unit and, therefore, gradually realizes the unity of tension in the whole body. This research, then, begins to be explored in larger movements that may require more or less force depending on the movement goal.

The work on the opposition and transmission tension proposed by the coordinating units allows the dancing body to change its shape in a very particular way. When rotating the body to a great extent, e.g., as in the projection of arms in space, the articular spaces are enlarged, allowing strength and mobility simultaneously. The movement is an uninterrupted continuum, and the action itself is transformed into another action. This experimentation of the tension path may not necessarily be caused by the intentionality of the dancer to manipulate his/her way to get from one action to another, from one gesture to another, as in this case, the action of twisting. Instead, driving into this torsion opposition, the body starts to operate by muscular action itself, since the bone and the muscle shape one another, and twisting in opposition is part of its structure.

The embodied experience of the opposition can also bring about more abstract research, as in the case of the research group based in *Motor Coordination* of which we are part. Once we experienced this subject in the body, the following questions emerged: what is an opposition between bodies? What is an opposition of action? These questions served as triggers to reflect on what is the opposite of a gesture and what is the opposite of a form, resulting in the idea of ambivalence, i.e., the body construction of simultaneously different and conflicting states, which provide several layers of meanings.

It is important to point out that, if there was not experimentation on the materiality of the body, such poetic propositions would probably not have emerged.

Action Inhibition

The *Motor Coordination* makes wide use of gesture inhibition, utilizing isometric¹¹ work to do so. In this type of work, performed by the gravitational muscles, tension is gradually modulated so that it becomes possible to see how each micro movement affects the perception of oneself. Godard (1995) suggests that the gravitational muscles are responsible for the perception of bodily states, whether emotional or affective; therefore, the gradual, slow, and conscious work on muscle tone causes the body to realize its different states and to develop skills to deal with them.

The *not doing*, the *inhibiting of the action* as a gesture enables the body to manage its intensities and, above all, supports an awareness and a state of pulsating and alive presence. It also provides the experimentation of the potentiality that this gesture might have.

Perpetual Movement – the eights of Motor Coordination

From the perspective of the *Motor Coordination*, when the body is in an organized state, the tonus of the muscle fascicle and fiber begins to build a path of propagation of tension that promotes optimal stretching of muscles and bone and joint decompression. This path also generates a dynamic and uninterrupted motion, with an elliptical form (Béziers; Piret, 1992). This elliptical and uninterrupted movement feature can be found in coordination units (described above), in the pelvic and scapular girdles, and in the skull. One can then realize that the *eights* occur throughout the body and in different directions, each one connected to its adjacent *eight*.

The work with the *eights* coordination causes the movement of the body never to stop, providing a dynamic body quality in waves that propagate without interruption. These actions massage the viscera, mobilize the fascia, and make the muscles work like rubber bands in an uninterrupted game of tension propagation.

Motor Space-time

Space is not given *a priori*; it builds itself around the particularities of each body. Godard (2010) uses the term imaginary space in the sense of not being a topographical space, but a space engineered by subjectivity; Béziers and Piret have termed this field in which the body acts motor space (1992, p. 30). The pace and the duration of each gesture also happen in a particular way in each body, what physical therapists have termed motor time.

The motor space-time will manage the way of experiencing the outer space-time, revealing the relationship between body and environment. For this relationship to be established, Béziers and Piret affirm the need that these two instances have something in common, either by similarity – when “[...] sensibility is modeled to the object¹²” (1992, p. 145) – or by complementarity – when the body complements the object, earning both a common form. The authors add:

Space exploration entails a change in body shape to match the shape of the object. The discovery of different forms, the different movements of the body, is parallel to the discovery of the shapes and orientations of outer space. Therefore, these notions come to consciousness without intellectual reflection [...]. It is the spontaneous spatial awareness that enables us to conceptualize the outer space. The gestures that indicate forms, directions, and dimensions in space rely on the motor notion [...]. Motility, given the capacity it allows the body as a form of reference to perceive the space and time from the external environment, can be considered a true sense organ for space-time (Béziers; Piret, 1992, p. 145).

The *Motor Coordination* proposes that one experiences the same gesture in different plans and different relations to the space, to acquire the ability to notice a change in the shape of this gesture. This experiment affects the way we perceive and capture the space in a two-way street: when trying new forms of movement in the motor space, one discovers new forms and directions on the environment (Béziers; Piret, 1992), as the perception and interaction with the environment give rise to different ways of moving. Working with objects in space is also used widely, either in favor of a gesture or as an action opposing force; different ways of using objects require different efforts and spatial configurations.

Working objectively and conscientiously with relations of force, direction, plans, and temporal duration is not unknown in dance: Laban had already suggested these actions. However, the method that *Motor Coordination* proposes, which uses different objects with different weights, sizes, textures, and shapes makes perception more diverse and accurate. For example, the way of handling different objects differs entirely: the speed of handling a golf ball is completely different from handling a large ball (like a Pilates ball). The duration of time of each action is also distinguished: handling each object carries with it its own time. The experiments extend the range of body modulations, providing a perceptual enhancement, which controls various ways to link up with the space. The idea of shaping up the space ceases to be an abstract or imaginative experience, taking clearer contours.

Body Vectors – structure and dynamics

The *Motor Coordination* conceives two force lines or vectors acting on the body, one structuring and the other dynamic.

The structuring vector indicates a relationship of the body itself by the grouping and concentration of the body on itself, curling, straightening, and coming back into balance. The actions of curling and straightening up occur by structuring the straight system (Béziers; Piret, 1992). In general, the straight system consists of two spheres – skull and pelvic girdle – which are connected by two axes – posterior (the spinal column and extensor muscles) and anterior (composed of the lower jaw, hyoid, sternum, and pubis and flexor) muscles. Its movement has an elliptical shape and comprises the approximation and the separation between the spheres of the skull and the pelvic girdle through the action of the two axes. The anterior axis is responsible for bending (flexion) and the posterior axis for straightening (extension).

The opposition, or antagonism, between the skull and the pelvic girdle is supported both by a good organization of the muscles of these spheres and the tonic balance between the muscles of the two axes. Muscular forces that oppose and balance each other ensure mobility to the vertebrae, while stabilizing the trunk. This stability should not be understood as stiffness, but as support for movement (Béziers; Piret, 1992).

The body work on the dynamic vector stems from the support of the straight system (structuring vector) to create a new opposition, now in torsion, which causes the ellipse to twist on itself. In this movement, muscular action takes place laterally by means of the cross system (in particular by the action of the oblique abdominal muscles) in a reciprocating motion; when one side bends, extension happens in the other, changing the shape of the straight system and creating a contralateral contrast between the skull and the pelvis (Bézières; Piret, 1992).

Experiencing the muscle chains responsible for each action allows the body to establish another way of doing things. The body perception that its relationship with itself – flexion and extension – can be sustained by the straight system destabilizes the common way of doing this action, proposing another way of managing itself. The perceived support of the abdominal muscles pressing the organs and stabilizing the verticality of the body can provide accurate perceptual stimuli and generate states based on motility, on the materiality of the body. Understanding, by means of the bodily action, that the establishment of relations with the other – the cross system – depends, firstly, on establishing a relationship with itself – the straight system – opens the real prospect that the relationship with the world happens initially by the perception of oneself: by experiencing oneself, one can experience and perceive the other. In dance, the principle of, first, understand oneself and then enter into a relationship with another body is paramount to the constitution of accurate bodily listening.

Equilibrium

The body is a unique and dynamic volume when in motion, a whole that is shaped and organized, finding balance at each moment. Thus, the search for balance is found in the dynamics between imbalance and balance; equilibrium is supported by instability (Bézières; Piret, 1992). The game between balance and imbalance has its genesis in the immanence of change, in the immanence of another form, and the immanence of another body.

The equilibrium in *Motor Coordination* is based on the relationship between opposing forces. One is the game between weight and force: gravity and bones act as a force that pulls the body to the

ground, while muscles that exert traction pull it up; it is not a game against gravity, but with gravity. The balance then results in “[...] a way of reverse organization” (Béziers; Piret, 1992, p. 124). The other force ensues in the game between the flexor and the extensor muscles. The balance of the flexor and the extensor muscles constitutes the continuous kinetic transit between a stretching relationship, in which both are elongated, and a force-length relationship, where both are simultaneously in an equivalent working position. Equilibrium is not fixed, but a continuous kinetic game.

The *Motor Coordination* proposes, at all levels (low, medium, and high) and in different ways (whether standing, sitting or lying down), the material experience of this immanence when it puts the body concretely in constant imbalance. The use of unstable surfaces such as foams, balance boards, balls, and micro-objects forces the body to experience instability and to find unusual ways to sustain itself in imbalance, to support itself in the edge. Staying in these destabilizing states may potentiate the emergence of different perceptions and states, supporting the possibility of constant becoming.

Final Considerations

Dance can be created in several ways – through an idea, a concept, a song, an exercise; in all of them the body is always implicated through physical and sensory experience, as it has already been pointed by the researcher Ciane Fernandes (2007). Somatic approaches already have a clear role in dance pedagogy, but how to implement such a practice in the creation process? How to create dance from the body, to have the body as a creative source? This question opens room for an endless number of answers that this article does not intend to provide. But clues can be offered.

The philosopher Michel Bernard points out that, in contemporary art, the understanding of the body as signifier and stable is not current anymore – on the contrary, creation comes from a work on emerging instinctual forces of the body itself and the research on their intensities and instabilities, resulting from the live and unique experience of the body in relation to the world. The artistic production today invests in the body differentiation, i.e., the deconstruction of serialization of homogeneous body models imposed

by the prevailing social structure, and in the affirmation of sensitive, unstable, and specific materiality of each body. Quoting Ehrenzweig, Bernard asserts that the artistic production reveals and deconstructs the body as “[...] sensitive, unstable, and random materiality” (2001, p. 20). In this way, the artist is invited to an endless wandering trip aiming to modulate intensity and articulate meanings that intertwine perpetually, and thus create constant differentiations. Other skills are required from the artist, different from a purely morphological, signifier, and unified body – a body capable of generating micro perceptions, micro differences, and distortions affecting its own functionality. Through somatic approaches, one can generate ways of exploring emerging corporealities¹³, by managing body becomings, with the possible bodies that can hatch from one’s perception in the environment.

If somatic approaches are ways of dealing with perception, one can understand them as ethics of the body. In his course on Spinoza, Deleuze (2009) points out that, nowadays, what is meant by ethics takes another name: ethology. When speaking of an ethology of humans, Deleuze situates it as the practical science of ways of being – not as a general way of covering mankind as a whole, but the singular, particular modes of each individual. Ethics here is understood as the power to act of each one, of what each one is capable. According to the French philosopher, in the ethics proposed by Spinoza the following questions can be found: *what can I do? What am I capable of doing? What do I do?* There is no moral judgment, but a verification, in quantitative scale, of the potentialities of each individual – his/her degree of power – of what he/she is able to endure and what he/she is able to do. Bringing Nietzsche to the discussion, Deleuze claims that power is not what one wants, it is what one has: *what can a body do? What can this body do?*

Each somatic approach has an ethics, a way of doing, connected to the sensitive and perceptive processes of the body, not looking to offer right or easy answers, but to provide mechanisms for experimentation. These approaches deal with the transformation of the perception of the body itself and the transformation of the relationship of this body with the world and, as a consequence, the transformation of the mode of action of this body in the world. And if the artist carries with him/herself the work intensities, sensory

assemblages, and the potential of a state of continual becoming, it would not be at all surprising to ally the somatic approach to research and creation in art.

The genesis of *Motor Coordination* is in the restoration or maintenance of body health. However, to enclose it to this field of work shows a poor strategy, generating a limited use of its potential. Béziers and Piret propose a personal experience, based on the body structure itself, in the space-time and relative to the world, favoring the establishment of more perceptive and more alert states. An attention that occurs in the individual and, at the same time, is distributed through space, creating links and establishing relationships with the environment. Research on each of its principles – unities of coordination, inhibition of action, perpetual motion, motor space-time, vectors of the body and balance – produces a singular mode of operation of the body, supported by the construction of a tonus, an organization of effort for movement. The force work is distributed through the body as a whole; there are no fixed points of tension, but a precise and exact structure that seeks mobility. The torsion in opposition, tension transmission, muscle tone balance – either in extension or flexion or the transition between them – and the use of purposeful muscle tone encourages a vigorous, powerful and intense action, which allows the emergence of a mode of alert and available perception, effectively supported by experience and the perception of movement, thus constituting a body available for immediate action-perception.

The research on poetics in dance stems from the knowledge and wisdom of the body and also of active observation of the function of movement and its purposes (Louppe, 2012). Thus, the option of working with the *Motor Coordination* in dance research seems prolific, because its field of action is implicated in these issues. Even if they are not yet very popular, its principles are not unknown to this art form and can complement and condense the dance experience, bringing not only specific qualities to the expression of body movement, as well as other ways of the artist's relationship with the his own body, with space-time and with each other.

Composing this somatic study with other procedures in dance – as the studies in composition, improvisation, and drama –, in order to consolidate the experience of the body in a state of dance, can



provide a fertile ground for creation. It is in the relation of the body with itself, the body with the other, the body with objects, and the body with the world that the shared experience of sensibility in the performing arts occurs.

Notes

¹ For example, we mention the artists and teachers Marila Velloso, from the School of Dance Arts of Paraná (FAP), and Lela Queiroz, from the Federal University of Bahia (UFBA), whose research is based on the Body-Mind Centering (BMC). Cinthia Kunifas, also teaching at FAP, investigates the Alexander technique in its creative unfolding. The dance course at the Federal University of Rio Grande do Sul (UFRGS) has two teachers researching on the somatic education: Suzi Weber and Monica Dantas.

² Collectively, we propose a procedure that originates from the meticulous exploration of the principles of *Motor Coordination* through exercises that prioritize the experience of proprioception, and next trying them on guided improvisations, in order to investigate the possible reverberations that this mode of activating perception has in creative practices. As we researched each of these principles, we seek to establish correlations with other principles, and, from that, the actions become more complex compositions. By working in this way, perceptual experience becomes the foundation for our research.

³ Article written in 1996 and only translated into Portuguese in 1999 (see references)

⁴ Annie Suquet inserts in the text a footnote including the following reference: “Godard, H. ‘The founder imbalance’. Art. Cit., 1993, p. 139” (2008, p. 538).

⁵ Louppe (2012) understands contemporary dance as the one produced in the 20th century, without making an exaggerated distinction between modern and contemporary dance.

⁶ *Habitus* in the sense that Bourdieu (2002) outlined, as a mediating concept that helps to break the duality between individual and society by revealing that events external to the body are internalized at the same time as they are expressed by the individual.

⁷ These principles are better developed in the *Principles of Motor Coordination*.

⁸ Béziers and Piret prefer to use the word *gesture* instead of *bodily action* or *movement*, as it comprises the human dimension of action and its expressive character.

⁹ Joints that associate, in the same movement, the three directions of space.

¹⁰ Ciane Fernandes, referring to Rudolf Laban, points out that the time of the body is not linear, but rather a “[...] three-dimensional backward inter-relationship”, like the Moebius ring. Thus, it is not the time of consecutive development, but a constant reunion: “The way the various body structures connect and organize themselves, tying each other, follows this three-dimensional shape or complex variations of it” (2006, p. 2).

¹¹ Isometric exercises consist in sustaining a balanced muscle contraction between agonist and antagonist muscles, a contraction in two joint directions. Due to the equilibrium of tension, movement does not occur.

¹² The authors exemplify: “The sensitivity of the ear is modeled by the vibrations of the instrument. [...] The listener perceives the music, knows it because the vibrations of his/her ear become the same of the instrument – because music became himself/herself. Thus, shapes and time, characteristics of external objects, are introduced inside the individual.

Motricity reproduces the same scheme, the same mechanism, when the hand bends over the object to adopt its shape” (Béziers; Piret, 1992, p. 145).

¹³ Corporeality, in Bernard’s concept (2001), is something that is much more connected to the idea of a structure, or a plot, that sustains the sensoriality and the materiality and malleability inherent to it.

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