

# Trans-meaning- a choreographic based methodology for articulating ‘embodied thinking’

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**Abstract** — This paper inquires the phenomenon of ‘embodied thinking’ within the practice of dance and how to transfer such mode of thought to a conceptual domain.

By relating the dancers’ phenomenon of ‘embodied thinking’ with the somatic approach to thought developed by some cognitive scientists, I propose a mode of thought that is not merely embodied but is deriving from the ability of moving. Departing from this approach, I expose the basic concept of *Trans-meaning* - a choreographic based methodology that I’m currently developing in order to investigate how to link such motional awareness of the nature of thought with the formal verbal mode of articulating thought. Finally I conclude by suggesting a reflection on how the nature of movement presents a different ground value for the conscious process of thinking.

In the ARTECH conference I intend to make a short theoretical presentation of the main lines exposed in this paper, illustrated by a brief practical display.

**Index Terms** — Cognitive-metaphors, embodiment, language, movement, sensorial, thought

## I INTRODUCTION

Within an interdisciplinary context Malina highlights the knowledge of the artist as ‘essential in helping us develop the kinds of intuitions, new metaphors, explanatory concepts, and linguistic elements that are needed as we explore new extreme territories’ [1]. Indeed, the artistic practice is currently recognized as an expertise in developing a particular knowledge related to the capacity to remodel the recognized models of the world and activate novel patterns in the brain. During several years working as a dance artist, I’ve whiteness and experienced such realm of knowledge, often referred as kinesthetic intelligence or as a capacity for developing an ‘embodied mode of thinking’. However, due to the difficulty of transducing the *qualia* of dance experience into a verbalized form of thought, I’ve noticed a difficulty of approaching the artistic knowledge from the perspective of a scientific or technological reasoning. Subsequently such means of understanding and relating to the world remain underexplored. Seeking to contribute to the enterprise of recognizing and unfolding the knowledge developed through the practice of dance, in this paper I look into the concept of ‘embodied thinking’ in order to propose a

methodological practice for interconnecting verbal and embodied modes of perceiving thought.

## II THE SOMATIC FOUNDATION OF THOUGHT AND ITS VERBAL CONCEPTUALIZATION

Among other scientist that defend the Embodiment Theory, António Damásio [2] claims that: thought corresponds to the processing of imagery that at an unconscious level derives from somatic perception and our interaction with the environment, which later becomes abstracted into different levels of representation, being language a main groundwork for such abstraction. Maturana and Varela [3] describe thought at a functional level as ‘a mode of operation of the nervous system that reflects functionally its internal anatomical projection onto itself’, in addition, they defend that such functional process of thought is independent of language and language is merely a representation of thought. Also Eugenio Barbara [4] mentions the notion of a functional embodied circular system of thought addressed by the famous anthropologist John Blacking, as thought that does not become a concept, but is present in the circular system mind-hand-stone-mind, like for example the action of the hands when rotating a stick to start a fire or when playing the drum. Accordingly, at a functional level, thought is not approached as a designed articulation of conceptions, but as a recursive mode of operation of the nervous system, ensuing into a multi-sensorial imagery process; i.e. a recursive process of self recognition of the organism’s functional system of perception.

However, at a conscious level, the logic system of thinking is not perceived somatically, but is strongly associated to language. According to the renowned Russian psychologist L. S. Vygotsky [5], language plays a central part not only in the development of thought but also in the historical growth of consciousness as a whole. As we learn to speak, we learn to translate experience through an abstraction of our physical perception; we learn to project and gather meaning of experience through language and therefore the semantic structure of the verbal communication we practice subtly becomes the structure on which we consciously relate to meaning.

Summarizing, although our conscious mode of perceiving and articulating thought happens through verbal language, the foundation of thought derives from an embodied perception, which remains mainly at an unconscious level. Many dancers develop a particular skill to vividly access such unconscious functional level of thought, which is often referred as ‘embodied thinking’. Based on my experience as a dancer and choreographer I would describe ‘embodied thinking’ as the awareness of generating/ articulating sense directly felt as a somatic experience, or in other words, a consciousness of perceiving sense merely from sensing, without the need to recur to the formulation, expression of words. But, how does that happen and what does it imply?

### III THE MOVING NATURE OF ‘EMBODIED THINKING’

#### A. Intensified Sensorial Awareness

Through several technical practices of dance and somatic awareness, the dancer develops an intensified sensorial awareness of the body in movement [6]. Such awareness leads to the dancer’s perception of self not as being *in* movement, but as *becoming movement*. This phenomenon corresponds to what Merleau Ponty [7] describes as the artistic ‘transubstantiating’ experience. Ponty reveals that the artistic act of the painter happens through an embodiment of the colors, forms, light, etc. - the artist’s body transubstantiates with the world through the media of his art. In this sense, also the artistic act of the dancer happens not when he moves but when he becomes movement. Also Sheets-Johnstone reveals the act of dance as a mode of consciousness that exists ‘in movement as a form-in-the-making, which is a sheer form’ [8]. Many dancers recognize this phenomenon as the moment when the ‘dance’ really happens - the ‘moments of dance’. On those moments, the dancer dives his awareness into the physical realm of the sensation of movement, and consciousness becomes completely merged with the experience of movement itself.

However, how does this intensified awareness relate to process of thinking?

#### B. Zooming-in Into The Homeostatic Movements Of The Body

The phenomenon of the dancer ‘becoming movement’ reflects an intensified perception of the breathing process within the torso, abdomen and throughout the skin porous border, as well as the movement of blood flow, the pulse of the heart, or the constant micro-movements of the fascia. His consciousness zooms-in into the micro-movements intrinsic to the body’s functioning system. These movements are part of our homeostasis process, which, according to Damásio [2],

are the constant self-regulation actions required by the organism as a whole to maintain a dynamic survival, and functional equilibrium.

*‘If you were to look closely inside the boundary, life consists of one big change after another, an agitated sea with one high swelling wave following another. But if you look from a distance, the changes smooth out, like when a choppy ocean becomes a glassy surface seen from a plane high in the sky.’ [2]*

In the case of the dancer, he is not merely observing closely as Damásio points out, but, he is experiencing intimately. So, his experience of moving is not merely perceived as movements of displacement but is an amplified experience homeostatic movements.

A well-known paradigm of such homeostatic micro-movements is Steve Paxton’s *Small Dance*. Through the simple artistic proposition of being aware of the small movements occurring within the act of standing, he travels consciousness into the dynamic functional equilibrium of the body. According to José Gil [9], Paxton opens contemplation to an intensified body consciousness by diving into an extra level of awareness of movement - a deeper sensory layer where consciousness enters into a micro-level of perception. This amplified sense of the internal micro-movements of the body generates the perception of a constant pulse - a constant vibratory network of movement working to maintain a homeostatic balance.

#### C. Meaning deriving from the perception of the body’s movement condition

By experiencing the continual motions of the body’s homeostatic process, the dancer gains access to a more vivid perception of what are usually unconscious functional operations of the body. Hence, the main characteristic of what is called the dancers’ ‘embodied thinking’ is not purely a mode of thinking deriving from the perception of the body as a formal entity but an emergence of meaning deriving from the perception of the body’s movement condition.

With the act of exploring movement along with the relations and sensation they imply, the dancer exposes and plays with the bare nature of sense, and undresses the abstracted, conceptual levels of thought. In this way, the notion of thought approached as a somatic operative system for articulating sense relies on a moving nature.

The relationship between thought and movement has been present within some approaches to somatic practices. That is for instance the case of: Mabel E. Todd, who already in 1930 asserted that we are affected in our thinking by our bodily attitudes: ‘everything moves, and in the patterns of movement, life is objectified’ [10]. Also Mary O’Donnell [11] refers to release technique as an ongoing investigation on the interactive relation of mind and body, which impels into an open-ended enquiry into the relationship between

thinking and moving. Furthermore, Erin Manning is currently developing the 'SenseLab' [12], a laboratory that explores the intersections between art practice and philosophy through the matrix of sensing the body in movement.

#### IV TRANS-MEANING – A CHOREOGRAPHIC PRACTICE OF THE THEORY OF COGNITIVE METAPHORS

The 'embodied thinking' expertise of the dancer derives from the intensified perception of movement as a vital condition of the body. He perceives such intrinsic urge and capacity to move as a basic dynamic nature of thought. However, this mode of thinking seems to become blur when transposed to the daily logics based on verbal communication. There seems to be a gap between the formal, coded system of verbal language as our conscious logical system for conceiving and articulating thought and the somatic mode of thinking, directly deriving from sensorial perception and based on a moving nature.

With the purpose to contribute to emerge the somatic origin of thought to a more conscious level and to interrelate these two modes of perceiving thought, I'm currently developing a choreographic base research to which I call *Trans-meaning*. *Trans-meaning* departs from the tacit knowledge achieved with professional contemporary dancers, in combination with researchers from different fields of cognitive science.

##### *A. Cognitive Metaphors And The Sensori-Motor Experience Of Emergent Concepts*

The core of *Trans-meaning* consists in exploring the *Theory of Cognitive Metaphors* from Lakoff and Johnson [13] through the choreographic practice of *Physical Emergent Concepts*. The theory of Cognitive Metaphors Emerging emerges from several studies of Embodied Cognition to claim that the conceptual system built-in our verbal articulation of thought is mainly created through a metaphorical process. According to the authors, the conceptualization of our subjective mind derives mostly from the sensori-motor domain, and metaphors are the cognitive mechanism that allows the transference from the logics and imagery of the sensori-motor domain to the conceptual domain of conscious thought. The concepts that we recognize directly without metaphors are the structural base of conceptual thought, which the authors call *Emergent Concepts*. These are primary concepts funded on systematic correlations with experience, depending on gestalt perception and the sensorial and motor perception. E.g. up, down, open, fall, grab, temperature. In this way, we perceive for example the idea of affection as warmth, and closeness; the notion of control as grasping and being on top; the view of organization as physical structure.

However, although *Emergent Concepts* are the base for perceiving meaning deriving from the sensorial and motor systems of perception, when their connotation is transferred to the domain of conceptual ideas, a large part of its somatic logics, sensitivity and inference slips into an unconscious level. Maybe due to such slip into the unconscious, the perception of its vivid, somatic gist, which develops within a system characterized as organic, adaptative, interactive and dynamic, becomes diminished, and such concepts are accommodated to a formal, fixed logic pertained by the agency of verbal language. As a consequence, the conceptualization process of primary concepts becomes remote and disarticulated from the kinaesthetic intelligence system. Furthermore this mode of intelligence, since it is unconsciously apprehended and not exercised becomes blurring, mystic and disengaged from the conceptual domain of language. It is therefore critical to exercise such sensorial and kinaesthetic intelligence as the basic system for generating sense and producing meaning.

##### *B. Main Working Lines*

Faced with this problematic, the choreographic practice of *Trans-meaning* inverts the common conscious mode of conceptualizing meaning. This methodology doesn't look into abstract and subjective notions to try to conceptualize their meaning, but it explores the physicality and sensorial perception of *Emergent Concepts*, approaching meaning as the sensitive perception of a relation or physical event. This methodology navigates through three layers:

- 1) Departs from the physical and choreographic exploration of specific emergent physical concepts like: fall, grab, and resistance, where each concept becomes a 'physical proposition with its own internal necessity' [14]. It interrelates physical and writing practices.

- 2) Mapping the previous explorative work focusing on diverse mode of action of each concept, physical forces involved, sensorial spectrums, interactive effects and affective experiences. This phase attempts to create a systematic mode of approaching to the physic-organic logics intrinsic to the referred physical exploration.

- 3) Transpose the organic logic of the sensory-motor practice of each emergent concept into the conceptual notions that they integrate.

#### V THE VALUE GROUND OF 'EMBODIED MOTION THINKING'

If movement is the dynamic condition for generating sense and therefore the basic operative system of thought, what is the added value of exploring the nature of movement as the setup from where we relate to reality? To approach such question I would start by inquiring: what is intrinsic to the occurrence of movement? Newton's three physical laws of motion

give us a basic scientific response. But how are those notions experienced in the body? A very basic experience can be perceived within the act of standing. The act of supporting our weight by standing 'still' implies two opposite forces with an equal value: the force of gravity and an equal value of the opposite force of our body mass. This complementarity of opposite forces is becoming an essential principle of several contemporary dance techniques, implying for example that a bodily force directed to the front requires the control of a backwards direction, in order to jump one need to previously perform force towards the floor, an extension implies a contraction. The physical experiential practice of this notion entails that movement is generated by the potential of our body mass to play with the tension of opposite forces. Therefore, one may say that the nature of movement is paradoxical, once it exists within the tension created by contradictory forces; it lives from the variance of dualities. As a consequence, thinking from within a motional awareness draws a very different value ground than the thought conceived from the static perspective of formal language: in static understanding of the world there is a permanent conflict between the duality of formal oppositions; while in a motional understanding this conflict is the drive of becoming alive. The body lives as a motion condition and so, it needs dualities as the paradoxical condition for movement.

## VI CONCLUDING

Although our conscious mode of perceiving and articulating thought happens through verbal language, several studies of cognitive science demonstrate that the foundation of thought is originated through an embodied perception, which mainly remains at an unconscious level. With the practice of dance, the dancer gains access to such unconscious functionality of thought, which is often referred as 'embodied thinking'. Here I discuss that the awareness of 'embodied thinking' acquired by the dancer is not merely a mode of thinking deriving from the perception of the body as a formal entity but from the perception of the homeostatic movement condition intrinsic to the living body functionality. Sense is generated from the body's both capacity and condition for moving. Within the nature of moving the dancer perceives a bare foundation of sense, and so he undresses the abstracted, conceptual levels of thought. In this way, the notion of 'embodied thinking' relies on a moving nature. This nature, since it is deeply built-in as a basic survival process, becomes unconscious, covered by all other levels of abstraction and conceptualization. Based on the theory of Cognitive Metaphors, the work of *Trans-meaning* concerns a choreographic based methodology to bring such

operation to a more conscious level and interconnect it with the verbal mode of articulating thought.

Furthermore, by looking into the paradoxical nature of movement, one could approach the process of articulating thought as the actualization of movement potentiated by the tension of a net of opposing forces. In this way I finalize by proposing contemplation on: how would a conscious process of articulating meaning as a relational embodied network of forces alter our groundwork of values and patterns of thinking?

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