



# Reflecting upon Aspects of Subjective Experience and Objective Reality in the Context of a Dance Class

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TEACHING REFLECTION

Module 5

**Master Dance Teacher 3**

*Specialization: Professional Education*

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IT'S NOT WHAT YOU LOOK AT  
THAT MATERS,  
IT'S WHAT YOU SEE

HENRY DAVID THOREAU



## 1. INTRODUCTION

This paper reflects upon aspects of subjective experience and objective reality involved in engaging into action primarily through sensing and thinking. I am mostly looking at two sources of movement generation: guided movement exploration and fixed movement material, both of which are approached under functional and expressive aspects, as well as their intersections.

My interest in this subject comes from a personal struggle related to perceiving the world around me as it exists, and perceiving it as heavily dependent on the interpretation of my subconscious mind. In other words, I am interested in the objectivity and subjectivity involved in an individual's perception of reality, in this paper specifically related to a context of higher education in dance.

I worked with students from the second year of the Bachelor of Arts Dance program of the Palucca University. I was with the group for 3 days, the first two of which served as theoretical and practical preparation for the third day, when the so-called demonstration class took place.

Questions that guided my reflection investigate whether students tend to have a focus on subjectivity – related to oneself being a subject – while exploring their own movement repertoire, as well as by learning and performing someone else's material; or whether there is a tendency towards objectivity or even objectification of the body among dance students in higher education.

The following paper speaks about my personal and professional interests on this subject, presents the participant group with whom I worked and briefly introduces major aspects of the situation in which I applied my class concept. The paper continues with the theoretical foundation of this reflection, in which aspects such as Experiential Learning, cognition, and humans' major senses are acknowledged. Following, I elaborate on the idea of cognitive processes as trigger factors of action, correlating it with inner attention and with learning sequences of fixed movements. After that I speak about my class concept, the goals, content and methodical procedure. Then I speak about its implementation, differentiating the work primarily focused on exploratory activities – related to subjective experience – and the work mostly focused on fixed movements – related to objective reality. Finally, I offer insights about my ongoing research, of which this paper is a constituent part; then follows a conclusion.

## 2. PERSONAL AND PROFESSIONAL INTEREST

My interest in this subject comes from my school years, where, as a student, I had to learn disciplines and prove knowledge acquisition through written and oral tests. During all my years in school I found

it difficult to reproduce the information that was transmitted to me; it was always difficult for me to stay focused on the object of study, to see it through the perspective of my teachers. I found it more interesting to see the object of study through my own perspective, through the Subject that I am.

Today I understand that there was an inner conflict about experiencing the world around me in an objective way. It seemed more interesting to me to see all the details surrounding the objects, to observe their in-between lines, their edges, their contours, their patterns; to look for relationships of colors, shapes and consistency with other objects in my surroundings. It was like giving the object of study my own gaze, giving it life and meaning through my presence and focus of attention.

Dance has given me, since the beginning of my practice, a place where I could live this subjectivity. I approached dance to fulfill my need for expression. In the first years of learning dance I did not focus on the forms, it was more important to me to learn the expressiveness that the forms carry with them; their tones, their texture and consistency, their speed, their size, whether they made me smile or cry, whether they aroused my passion or repulsion.

I learned dance shapes and movements through experiencing dance. A passé pirouette with arms in fifth position, for example, was for me a circular trajectory with my hands going up, and a full circle in space drawn with my knee. In this way I began to identify with contemporary dance, and with the possibility it represented for me to invest in the development of my subjectivity, while not losing sight of the objectivity that is fundamental to dance – its technique, history, vocabulary, repertoire.

My interest in the objectivity of dance increased when I started teaching dance. I felt that my passion for dance and the expressiveness of my moving body was not enough to accomplish the pedagogical endeavor I was aiming for. I realized I needed to acquire practical, objective, concrete knowledge; I needed to learn a specific and efficient vocabulary to communicate to the student my ideas and my knowledge of dance.

I studied the objectivity of classical, modern and contemporary dance, and I am most grateful for the time I invested in it. However, through my teaching practice, today I observe that the relationship of subjectivity and objectivity between students and teachers and their relationship with the object of study is imbalanced. I find that there is an excessive emphasis on what is objective and a depreciation of what is subjective.

This brings me back to the historical period called the Enlightenment, which came about between the end of the 17th century and the 18th century. The Age of Enlightenment was an intellectual and philosophical movement that dominated the world of ideas in Europe. It included a range of ideas centered on the pursuit of happiness and the evidence of the senses as the primary sources of

knowledge. A striking feature of this era is the emphasis on reason in all areas of life (nature, society, religion, individual development).

In contrast to this rather rational and one-sided manner of the Enlightenment, in the ancient Greece, the Greeks sought to implement an aesthetic-sensorial component in all areas of life. The harmony of the so-called psychic forces (drive, will and reason) was then a principle that gained popularity and permeated culture and society.

Similar to the Greeks, I believe in the harmony between reason and emotion. Over the past few years I have been researching ways to bring the focus of my dance teaching practice to the needs of the individual who dances and teaches dance, i.e. to rescue the subjectivity of the practice and integrate it with the objectivity of dance teaching. My research began with the study of Somatic Practices<sup>1</sup> such as Body-Mind Centering<sup>®2</sup>, Amerta Movement<sup>3</sup>, Authentic Movement<sup>4</sup> and Eutonie<sup>5</sup>, which offer ways of seeking harmony between functionality and expressiveness, the dialogue between object and subject.

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<sup>1</sup> Somatic Practice emerged synchronically in different parts of the globe at the turn of the 19<sup>th</sup> to the 20<sup>th</sup> century. "It came as one way to unlock habitual patterns through listening to the body and realigning one's lifestyle (Eddy, 2016)." In Germany, Somatics appeared among "artists and educators including Heinrich Jacoby, Elsa Gindler, Rudolf von Laban and Mary Wigman", who shared ideas of embodiment and were interested in investigating individual expressiveness (Coogan, 2016).

<sup>2</sup> Body-Mind Centering<sup>®</sup> (BMC) is an approach to movement, body, and consciousness developed by Bonnie Bainbridge Cohen. It offers inroads of exploration and ways of experiencing the anatomical, embryological, and developmental foundations of movement and how they relate to our psychophysical processes and wellbeing (Bainbridge Cohen, 2022). Bonnie describes BMC<sup>®</sup> as being "mostly *experiential*, but the other part is that it is theoretical (Bainbridge Cohen, 2015)", so the information either comes from books (anatomy, physiology, embryology and Zen practices), or the practitioners make sense of the experience – a process called *embodied anatomy*. Her method/approach consists of uniquely sophisticated ways of teaching people how to direct their awareness into experiences of the various body systems (Skeletal System, Ligamentous System, Muscular S., Organs S., Endocrine S., Nervous S., Fluid S., Fascial S., Fat and Skin). She works with groups, using verbal suggestions and demonstrations, and she uses hands-on individual work. The effects include healing of trauma associated with specific regions of the body and heightened states of consciousness (Hanlon Johnson, 1995, pg. 183).

<sup>3</sup> Amerta is a Javanese practice of movement created by Suprpto Suryodarmo (Prpto) in 1986 that happens in natural settings for long periods of time.

<sup>4</sup> Authentic Movement is a practice started by Mary Starks Whitehouse in the 1950s that has a therapeutic perspective and therefore integrates improvisation with spontaneous writing.

<sup>5</sup> Eutonie is a method for experiencing the body developed around 1957 by Gerda Alexander that serves to balance tension and maintain or improve mobility. *Eu* is a Greek term meaning "good", "harmonious", "appropriate", and *tonos* stands for "tension" or "mood". The name immediately shows the goal of the method: a harmonious tension (Ferreira de Araujo, 2022, pg. 11). The method consists of a series of principles that aim to guide the practitioner to body sensitivity, offering him possibilities to experience new ways of body awareness, thereby expanding self-confidence. Eutonie exercises change and harmonize, for example, breathing, blood and lymph circulation, metabolism and the tonus of muscle and connective tissue (fascia).

### 3. TEACHING SITUATION

#### 3.1 Basic Conditions

##### *3.1.1 Place*

The class took place at the campus of the Palucca University of Dance Dresden, in studio number 6. The studio is equipped with a dance floor, bars fixed to the walls and movable bars, mirrors, windows connected to an automatic ventilation system, sound system with blue tooth signal, piano, internet connection, heating system, overhead lighting distributed on the sides and center of the room, wall clock, chairs, flipchart, speakers hanging from the ceiling, television and emergency exit.

##### *3.1.2 Time*

The class took place on Thursday, December 15, 2022 during the regularly scheduled class in Contemporary and Modern Dance (ZT/MT) for the Bachelor 2 group. It had a total duration of 90 minutes – from 14:15 to 15:45.

#### 3.2 Participant Group

The group of 19 students<sup>6</sup> with whom I worked were in their second year of studies in the Bachelor of Arts Dance program at the Palucca University when my class took place.

The majority of these students entered the Palucca University in the Bachelor of Arts Dance program; a relatively small number of these students received their preparatory training in the secondary school program at the Palucca University.

They have different cultural backgrounds, coming from several countries: Cyprus, Germany, Japan, Lithuania, France, Canada, Italy, Australia, Spain and Russia.

The students have different levels of dance experience, especially in the field of contemporary dance. However, they are all proficient in classical ballet.

As for their experience in somatic practices, some of them have had instruction in the Feldenkrais Method, Pilates and Yoga. Besides, some of the teachers for contemporary dance, with whom they have been training since the first year of studies integrate somatic approaches in their teachings.

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<sup>6</sup> For the sake of protecting the students' gender identities, in this paper I will not differentiate between biological males and females.

### 3.3 Other Aspects

The class, object of reflection of this paper, was the third in a series of 3 classes. The first 2 classes were used as conceptual and structural preparation for the last one. Most of the elements addressed in the third class had been previously introduced and explored. The students were given the opportunity to explore the class content individually, in pairs and with the group before the so-called demonstration class took place.

The students had already attended two curricular activities before the demonstration class, i.e. they were already relatively warmed up, physically. They had 90 minutes of classical dance and 90 minutes of repertoire study. After an hour lunch break, my class took place.

The demonstration class was attended by members of the university faculty and recorded on video.

## 4. THEORETICAL FOUNDATION

### 4.1 Experiential Learning

One of the central proposals of my class concept and its ensuing implementation, which is the object of reflection of this paper, is to foster learning through experiencing the content of the class. The experience unfolds through different phases and it is that which generates new knowledge, by the students themselves. This is a principle of pedagogy that stems from the Experiential Learning Theory.

John Dewey is often seen as the proponent of the Experiential Learning Theory. The basis for his theory is “learning by doing”, it focuses on the idea that the best ways to learn things is by actually having experiences; those experiences then stay in the mind and help to retain information and remember facts (WGU, 2020).

Dewey believed that each person is active, inquisitive and wants to explore. An important aspect of his theory is that learning occurs within a social environment; so knowledge, as the object of learning, is socially constructed and based on experiences (Roberts, 2003). Thus, “learning by doing” implies interaction with other people, and working both alone and cooperatively with e.g. peers and teachers.

In his Experiential Learning Theory, the nature of knowledge gains a critical aspect. For him knowledge is what students learn from their experiences, as opposed to the acquisition of information and skills that have been worked out in the past and must be passed on to them (Roberts, 2003). In experiential learning the learner becomes an active participant in the knowledge acquisition process (Horst, 2008).



In Dewey’s conceptual model there is the social environment, and within it there is experience – which depending on the student’s readiness to learn generates learning outcomes. The presence of the teacher is fundamental in this model, who organizes the knowledge into logical content pieces, and who facilitates the actual experiences. The quality of the experience is the most important component of the theory, because that is what will produce new knowledge<sup>7</sup>.

The model implies a cyclical process: Upon completion of an experience, learners have the knowledge and the ability to apply it in other situations. Thus, they have created new knowledge and are at a different level of readiness for continued acquisition and construction of new knowledge.

Next section deals with the terms *subject* and *object*. It presents them as they are commonly used in the grammatical structure of the English language.

4.2 Subject and Object

Approaching the subject and the object within English grammatical parameters, one can say that they have different functions within a sentence. The subject is the 'doer' of the action. For example, take the sentence “We are watching Netflix.” Here, the subject is the pronoun 'we'. Objects are the opposite; instead of doing something (like watching Netflix), they are acted upon; that is to say, they have a subordinate function in relation to the subject.

One can also associate the subject of a sentence with the pronoun (question word) “who”, if it refers to a person; while the object can be associated with the pronoun “what”, if it is not a person. To demonstrate this association, there are the so-called Subject and Object Questions:

In constructing a simple sentence in English, one has three basic pieces: a subject linking to a verb, which in turn connects to an object.

|                |             |               |
|----------------|-------------|---------------|
| Mark           | teaches     | English.      |
| <b>Subject</b> | <b>Verb</b> | <b>Object</b> |

To turn this sentence into a question, you can hide two of its pieces of information: the subject or the object. If the subject is left out, it must be replaced by the pronoun “who”.

|                         |            |         |          |
|-------------------------|------------|---------|----------|
| <b>Subject Question</b> | <u>WHO</u> | Teaches | English? |
|-------------------------|------------|---------|----------|

If one wants to know what Mark does, then one should ask the following question, replacing the Object with the question word “what”:

|                        |             |                   |      |        |
|------------------------|-------------|-------------------|------|--------|
| <b>Object Question</b> | <u>WHAT</u> | does <sup>8</sup> | Mark | teach? |
|------------------------|-------------|-------------------|------|--------|

<sup>7</sup> Also through reflection - another important aspect of Dewey’s theory.

<sup>8</sup> Auxiliary Verb

In general, one can conclude from the definition of subject and object within English grammatical structure that the subject has a primarily central aspect and the object has a peripheral aspect, regardless of whether it is near or far from the subject.

The next section offers the reader ideas concerning the individual perception of the reality existing around oneself, and discusses certain parameters that influence the individual's perception of the world.

### 4.3 Subjectivity and Objectivity

The perception of the world around oneself depends more heavily on one's subconscious mind's interpretation of it than it does on perceiving the world as it actually exists. That is to say, the subjective lens of one's subconscious mind influences one's experience of reality.

Each individual has a subjective experience of the surrounding objective world. This is how 2 people can have a radically different experience of the exact same thing (phenomena, life event, etc.). For example:

Imagine that 2 people, a man and a woman, go out for a walk and it suddenly begins to rain. The man looks up at the sky and curses the rain, while the woman takes off running and jumps in puddle after puddle. Looking at this situation, objectively it is raining, nothing more or nothing less. The rain will continue coming, regardless of how either one or the other person feels about it, and it would have rained whether they were there to experience it or not. The rain exists independently outside of their perception of it. The fact the it is raining is purely objective, but people have their own personal experience of this objective reality, in terms of how it relates to them, and this is what can be called a Subjective Experience (On the mind, 2021).



Thoreau wrote in his book *Walden* (1854<sup>9</sup>) "It is not what you look at that matters, it is what you see." Drawing from Thoreau's quote, the way one feels about the rain exists solely in one's mind and nowhere else. One's subjective experience of the rain is fully based or influenced by personal feelings or opinions one has gathered from one's past experiences.

For instance, imagine that the man walking in the rain is an avid golfer and likes to play golf daily, there is no wonder that the rain has a negative influence on him, because his hobby is interrupted by it, and

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<sup>9</sup> Original Edition

in his mind, he has labeled the rain as a barrier that stands between him and what he wants to be doing. Now imagine that the woman is a meteorologist with ongoing research related directly to rain. To her, rain offers data and insight that she can use on her most current work. So, the first person sees rain as something that takes away his opportunity of playing, while the second person sees it as a research opportunity. In this example, the way the 2 people feel about the rain represents the rain's subjective quality.

In other words, objectivity is personal neutrality; it allows the facts to speak for themselves and not be influenced by the personal values and biases of the individual (Macionis, 20). It can also be interpreted as mind-independent, because it is information that is not being altered based on a feeling or opinion.

Subjectivity on the other hand is judgment based on individual personal impressions (perceptions), feelings and opinions rather than external facts (wordnetweb.princeton.edu). This can be considered mind-dependent, because one is not using a fact, one is using one's personal feeling and opinion based on one's own experiences, taste and tendencies. For instance, if one's favorite color is blue, then one is more likely to buy a blue sweater versus a purple one.

The next section provides an introduction on functional aspects of the human's frontal lobe.

#### 4.4 The Frontal Lobe of the Human Brain

The frontal lobe is part of the brain's cerebral cortex. It consists of two paired lobes: the left and right frontal cortex, which are located directly behind the forehead. The left frontal lobe affects muscles on the right side of the body, and the right frontal lobe controls muscles on the left side of the body (Moawad, 2022).

The frontal lobe plays a key role in voluntary movement, expressive language and in managing higher level executive functions, which refer to a collection of cognitive skills including the capacity to plan, organize, initiate, self-monitor and control one's responses in order to achieve a goal (Queensland Health, 2022).

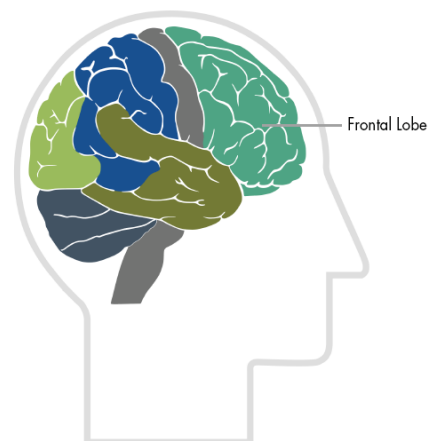


Image: Centre for Neuro Skills®

Some of the many other functions the frontal lobe plays in daily functions include (Moawad, 2022):

- **Speech and language production:** involved in putting thoughts into words;

- **Motor skills:** houses the primary motor cortex, which helps control voluntary movements, including walking and running;
- **Comparing objects:** categorizes and classifies objects and distinguishes one item from another;
- **Forming memories<sup>10</sup>:** research suggests it plays a key role in forming long-term memories;
- **Reward-seeking behavior and motivation:** many of the brain's dopamine<sup>11</sup>-sensitive neurons are in the frontal lobe.

Furthermore, the frontal lobe is involved in spontaneity, judgment, social and sexual behavior, and is considered to be an emotional control center and home to one's personality.

The following section offers a definition of the term cognition, and discusses some its types and uses, as well as its impact on a person's daily life.

#### 4.5 Cognition

Cognition is a term referring to the mental processes involved in gaining knowledge and comprehension. Cognitive processes include thinking, remembering, judging, and problem-solving. These are all functions of the brain that encompass language, imagination, perception, and planning. Along with affect<sup>12</sup> and conation<sup>13</sup>, cognition is one of the three traditionally identified components of mind (Cherry, 2022).

It was believed that human beings' cognition worked like a computer – logically processing information. However, the brain is able to do more than computations, and its way of processing information is not always logical. In fact, many experts argue that it is cognition that makes us truly human, and that everything that comes with it – one's preferences, prejudices, fears, and intuitions – are what make one's individuality.

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<sup>10</sup> The frontal lobe works alongside other brain regions and contributes to overall brain function. Memory formation, for example, depends on sensory input, which depends on numerous areas of the brain (Moawad, 2022).

<sup>11</sup> Dopamine is a brain chemical that supports feelings of reward and motivation.

<sup>12</sup> Affect is referred to as any experience of feeling or emotion, ranging from suffering to happiness. Often described in terms of positive affect or negative affect, both mood and emotion are considered affective states (American Psychological Association, 2023).

<sup>13</sup> Conation is known as the proactive (as opposed to habitual) part of motivation that connects knowledge, affect, drives, desires, and instincts to behavior. The behavioral basis of attitudes is sometimes referred to as the conative component (American Psychological Association, 2023).

#### *4.5.1 History of the Study of Cognition*

Human beings have been studying how they think since ancient times. For instance, the Greek philosophers Plato and Aristotle. They developed different theories and ways of approaching cognition and the mind.

Plato's approach suggested that people understand the world by first identifying basic principles buried deep inside themselves, then using rational thought to create knowledge. This viewpoint is often referred to as Rationalism (Ezebuilo, 2020).

Aristotle, on the other hand, believed that people acquire knowledge through their observations of the world around them. This point of view is often referred to as Empiricism (Sgarbi, 2013).

These are the philosophical origins of the study of cognition. Psychology, however, has also contributed to the research and knowledge outcomes in this area. In the 1960s, a field of study known as Cognitive Psychology was created within psychology (Lachman, Lachman, Butterfield, 1979).

“One of the earliest definitions of cognition was presented in the first textbook on Cognitive Psychology, which was published in 1967. According to Ulric Neisser, a psychologist and the book's author, cognition is ‘those processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used (Cherry, 2022).’”

#### *4.5.2 Types of Cognitive Processes*

Cognitive processes are present in every aspect of human life. At home, school, work, in relationships, etc. There are many different types of cognitive processes which include:

1. Attention, which allows people to focus on a specific stimulus in the environment;
2. Perception, which allows people to take in information through their senses, then utilize this information to respond and interact with the world;
3. Thought, which allows people to engage in decision-making, problem-solving, and higher reasoning;
4. Learning<sup>14</sup>, which requires cognitive processes involved in taking in new information, synthesizing information, and integrating it with prior knowledge;

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<sup>14</sup> To a certain extent.

5. Memory, which allows people to encode, store, and retrieve information; related to how we remember, what we remember, and what we forget;
6. Language and language development, which are cognitive processes that involve the ability to understand and express thoughts through spoken and written words.

#### *4.5.3 Impacts of Cognition on Daily Life*

Cognitive processes impact one's daily life in a wide-range of forms. It affects people's:

1. Perception of reality:

As one takes in sensations from the world around oneself, the information that one sees, hears, tastes, touches, and smells must first be transformed into signals that the brain can understand. The perceptual process allows oneself to take in this sensory information and convert it into a signal that the brain can recognize and act upon (Mather, 2016).

2. Formation of impressions: To make meaning out of incoming information; events are reduced to critical concepts and ideas that one needs.
3. Interaction with the world: "Cognition involves not only the things that go on inside our heads but also how these thoughts and mental processes influence our actions (Schwarzer, 1992)". One's attention to the world around oneself, memories of past events, understanding of language, judgments about reality, and abilities to solve problems; cognitive processes contribute to how one behaves<sup>15</sup> and interacts with one's surrounding environment (Cherry, 2022).

Delving into the realm of human perceptions, the next section introduces the terms Proprioception and Kinesthesia, and elaborates on how they relate to human movement.

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<sup>15</sup> Conative component.

#### 4.6 Proprioception, Kinesthesia and the Perception of Movement

The perception of one's own body is known as *proprioception* and the perception of one's own movement is *kinesthesia*. Proprioception registers muscular tension and bodily position. Kinesthesia registers information regarding speed of movement and whether one is aligned or falling (Green, 1993).

The interoceptors are receptors that pay attention to our inner experience. As such, they build the nervous pathways, which allow us to be “mindful” of our posture and movement. The exteroceptors, on the other hand, are receptors related to the 5 “primary” senses that connect humans to the outer environment, providing information about the body in relation to the physical world. These are: vision, hearing, tasting, smelling and touching.

Our perception of the outer environment relies on these senses, which, combined with the interoceptors, shape our knowledge about the experience of existing in a human body. Somatic practice supports people in becoming more aware of and balancing these perceptions, it helps on the pathway of learning how to listen to bodily sensation as well as interpret the information coming from the external environment, ultimately bringing them together into an integrated experience.

In the tradition of western cultures, science deals only with these five senses (exteroceptors). Nevertheless, in somatic approaches to the *soma*<sup>16</sup>, the sensations of movement and visceral activity<sup>17</sup> are considered to be part of the primary senses.

There are 12 pairs of cranial nerves which process three major types of information: special senses of the head (touch to the head, taste, smell, hearing, and vision); movement of the whole body; and visceral activity. Of all these cranial nerves, the first pair to myelinate<sup>18</sup> are the Vestibular Nerves<sup>19</sup>, which happens in utero by registering the movement of the fetus and its environment (mother). That indicates that the Vestibular Nerves perform the first essential function for survival – the perception of movement (Bainbridge Cohen, 2003, pg. 115).

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<sup>16</sup> The word *soma* originally comes from the Greek and means *body*. However, in somatic education this term means “living body”, emphasizing the soma's alive and changing status as a process, rather than an object (Eddy, 2016).

<sup>17</sup> Through the proprioceptors and kinesthetic receptors – receptors in the bones, joints, ligaments, muscles and fascia. They tell us where each body part is in relation to the other body parts, where each part is in space, and their quality of rest and activity.

<sup>18</sup> Change or maturation of nerve cells, whereby a layer of myelin forms around the axons, which allows the nerve impulses to travel faster.

<sup>19</sup> The (auditory) vestibular nerve, also known as the eighth cranial nerve, is a cranial nerve that transmits sound and equilibrium (balance) information from the inner ear to the brain. The vestibular mechanism located in the inner ear receives information from the proprioceptors and kinesthetic receptors throughout the body, from gravity and the changing external environment.

Bainbridge Cohen states in her article *The Action in Perceiving*<sup>20</sup> that one learns first through the perception of movement. Not only is movement a perception, but as the first perception of learning, it plays an important role in establishing the baseline for our process of perceiving. This original process of perceiving then becomes incorporated into the development of the other perceptions (Bainbridge Cohen, 2003, pg. 115).

Based on Bainbridge Cohen's proposals, the following section addresses the importance of movement to humans' motor and psychological development, and differentiates between Sensing and Perceiving. My goal is to open a discussion about the senses and the individual's interpretation of them (perception), emphasizing them as means by which the movement of the body can be physically initialized, internally experienced, and externally observed.

#### 4.7 Sensing and Perceiving as Cognitive Processes

In BMC®, it is said that Sensing is primarily related to the Nervous System through the perceptions<sup>21</sup>. Yet, Sensing and Perceiving can be differentiated from each other. Sensing is the more mechanical aspect, involving the stimulation of the sensory receptors and the sensory nerves. Perceiving is about one's personal relationship to the incoming information. "We all have sense organs, which are similar, but our perceptions are totally unique. Perception is about how we relate to what we're sensing, and it contains the interweaving of both sensory and motor components (Bainbridge Cohen, 2003, pg. 114)."

There is a fundamental difference between moving from one and moving from the other. "If you are sensing, it is not such an emotional space". Bonnie even states that a lot of the sensing work is an escape from the emotions; "it actually represses emotional integration if it is not balanced (Hanlon Johnson, 1995, pg. 189)."

Before proceeding with this discussion about Sensing and Perceiving, the next section introduces one more parameter for the inquiry about human movement, it deals with Thinking as a cognitive process. The aim is to open one more possibility for reflection on what aspects can be related to the human beings' drive to move, more specifically in the context of dance education.

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<sup>20</sup> Originally published in CG 12:3, Fall 1987.

<sup>21</sup> In BMC®, the mind is perceived as existing throughout the body through nervous system connections (Bainbridge Cohen, 1993, as quoted in Eddy, 2016). In that sense, "by paying attention to the body, one is paying attention to the mind (Eddy, 2016)."



#### 4.8 Thinking as a Cognitive Process: Concepts and Prototypes

René Descartes said: *You think, therefore you are!* Maybe he was right, however it seems to me that *being* is something more complex than just thinking, even though thinking is in itself already complex. So what does it mean to have a thought or to think?

In their most common sense, the terms thought and thinking refer to conscious cognitive processes that can happen independently of sensory stimulation. Their most paradigmatic forms are judging, reasoning, concept formation, problem solving, and deliberation. But other mental processes, like considering an idea, memory, or imagination, are also often included. These processes can happen internally independent of the sensory organs, unlike perception. But when understood in the widest sense, any mental event may be understood as a form of thinking, including perception and unconscious mental processes (Wikipedia, 2023).

“Thinking processes can be thought of as the creation of concepts and prototypes. These function as mental organization of the objective reality (Green, H., 2014).” A compound of individual concepts and prototypes form an individual’s mental set.

“Forming concepts and prototypes is one of the major ways that cognition allows oneself to make sense of the world (Green, H., 2014).” One definition of concept is the mental grouping of similar objects, people, ideas, or events. “Concepts simplify thinking in such a fundamental way that the thinker usually does not have to stop and think about using them, they just are in the mind and pop up whenever one needs them (Green, H., 2014).”

One of the reasons why concepts are useful for human being is because without concepts one would need a unique name for every single object, action, emotion etc., as well as for its nuances and variations. For instance, if someone needs a mat to sit on the floor to stretch, or if someone is feeling sad because he has been abandoned by his husband. The words mat, floor, sadness, husband, as well as sit, stretch, feeling, abandoned, are concepts, even before being nouns and verbs (because the idea of a noun or a verb is also a concept).

“Concepts are often organized by the formation of prototypes, which are mental images or pinnacle examples of a certain thing – object, people, animal, plant, etc. (Green, H., 2014).” For example, if someone hears the word “bird”, the general shape of this type of animal will probably appear in one’s mind, as opposed to the shape of some other type of animal, e.g. an elephant. Bird in this case is a prototype.

“Prototypes also bear with them a principle of resemblance or similarity. If one sees a picture of some ‘crazy’ creature one has never seen before, and yet one notes that it has feathers and a beak, one will

probably file it under the bird category (Green, H., 2014)” because it more closely resembles one’s concept of bird than one’s concept of, for instance, land mammal.

Concepts and prototypes speed up one’s thinking, but they can also constrain one’s thinking and lead to prejudice if one sees something that does not fit one’s prototypes. So, one’s mental set predisposes how one thinks, just as one’s perceptual set predisposes how one perceives (Green, H., 2014).

The following section offers a brief explanation of the Sensory-Motor Loop, whose various stages involve the integration of the cognitive processes of sensing, perceiving, thinking, and acting.

#### 4.9 Sensory-Motor Loop

Traditionally, the Sensory-Motor Loop is a process that can be outlined by the following phases: *Sensory input – Perceptual interpretation – Motor-Planning – Motor response – Sensory feedback – Perceptual interpretation* (Bainbridge Cohen, 2003, pg. 117).

After the reception of the information (sensory aspect), there is a perceptual processing, which compares the new information with all previous experiences and interprets the stimuli. Then there is the planning of the motor response and the motor response itself. Finally, there is the sensory feedback, which provides information about what happened during the response and then one’s interpretation and feelings about what took place.

The following section introduces Jung’s 4 Cognitive Functions, his 2 Attitude-types, and the spectrum formed by the combination of these 6 elements within Jung’s research on human psychology.

### 5. Jung’s Cognitive Functions and Attitude-Types

Swiss psychiatrist Carl Gustav Jung described in his book *Psychological Types* (1921<sup>22</sup>) four Cognitive Functions, also referred to as Psychological Functions, which are particular mental processes within a person’s psyche that are present regardless of common circumstance (Jung, 1971). In his book, he noted four main Psychological Functions: *thinking, feeling, sensing* and *intuiting*. Jung also categorized the functions as either *judging or rational* (thinking and feeling) or *perceiving or non-rational* (intuition and sensation) (Jung, 1971).

Jung defined in depth the four Cognitive Functions – two judging functions and two perceiving functions. The essential characteristics of the four functions are as follows (Schwefel, 2018):

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<sup>22</sup> 1<sup>st</sup> edition.

- **Sensation** – refers to perception through the senses, such as absorbing information about the world through touch, taste, sight, etc;
- **Intuition** – refers to background processes of the mind that one may not be aware of, such as unconscious drives or intuitions about the beliefs, desires, and motivations of other people. It is a “knowing” of information;
- **Thinking** – refers to the rational analysis of data and the application of logic to questions in order to draw meaningful conclusions. It is related to intellectual processes (cognition), meaning the use of logical analysis;
- **Feeling** – refers to subjective estimations and the making of decisions about value. The function is still considered rational – a form of assessment, but the object of that assessment is a subjective state. It is making decisions based on feelings and relationships.

Jung introduced the Cognitive Functions with having either an internally focused (*introverted*) or externally focused (*extraverted*) tendency which he called "attitudes". The attitude-types are: Extraversion and Introversion. The difference between Extraversion and Introversion comes from the source of the decisive factor in forming motivation and developing ideas, whether it is objective (i.e. the external environment) or subjective (experienced within the mind) (Wikipedia, 2023).

Extraversion tends to be manifested in outgoing, talkative, energetic behavior, whereas introversion is manifested in more reflective and reserved behavior (Thompson, 2008). Jung defined introversion as an "attitude-type characterized by orientation in life through subjective psychic contents" – "Everyone whose attitude is introverted thinks, feels, and acts in a way that clearly demonstrates that the subject is the chief factor of motivation while the object at most receives only a secondary value (Jung, 1971)"; and extraversion as "an attitude-type characterized by concentration of interest on the external object (Jung, 1995)" – “when the orientation to the object and to objective facts is so predominant that the most frequent and essential decisions and actions are determined by objective relations, one speaks of an extraverted attitude (Jung, 1971).”

Jung proposes that the dominant function, along with the dominant attitude, characterizes consciousness, while its opposite is repressed and characterizes the unconscious. Based on that, the eight outstanding psychological types are: extraverted sensation / introverted sensation; extraverted intuition / introverted intuition; extraverted thinking / introverted thinking; and extraverted feeling / introverted feeling (Wikipedia, 2023). Naturally, all individuals have the potential to use all these different attitudes depending on the context and one’s training and background. Nevertheless, “Jung believed that each person has a dominant function which they prefer to use when thinking and acting (Schwefel, 2018).”

## 6. Cognitive Processes as Triggers of Action

Human movement is both functional and expressive. When one speaks about functional biological processes, one can think of movement as the accomplishment of tasks, which addresses a need, expresses an inner drive, reveals one's intent. One can also speak about cognitive processes and their movement outward response. On the other hand, movement also involves feeling tones and expressive impulses that make it a primary mode of communication<sup>23</sup> (Laban 1975 *Life*, pg. 87, as quoted in Wahl, 2019, pg. 23). For instance, the infant latching to its mother's nipple, the toddler seeking affection then running away again to play, the adult warmly embracing or brutally punching another (Wahl, 2019, pg. 23).

Movement can be approached from either end of this spectrum. Cultures as well as individuals have different preferences for approaching movement from functional or expressive inroads that affect the values placed on movement. For example, one can refer to movement more objectively by addressing its anatomical aspects – “the iliopsoas flexes the femur in the pelvis”; and one can emphasize the subjective aspects of movement expression – “sense into the strength of your warrior pose”, or “her posture made me think she is open to new ideas” (Wahl, 2019, pg. 24).

In this regard, one can engage in action coming from different inroads, e.g. those that are primarily focused on the individual's attention towards his own body, acknowledging anatomical and physiological aspects of his body as well as his emotional states and the way they can be accessed and addressed through movement; and those coming from external pathways, with the focus primarily directed towards the object to which one relates – within a dance context, for example a sequence of fixed movements created by a second person.

The process of sensing and perceiving stimuli coming from within the individual or the environment, which is then integrated into one's system and generates an outgoing reaction, whose outcomes are in turn further sensed and perceived – internally (organism – subjective) and/or externally (environment – objective), represents a pattern that can be verified in the models presented in this paper. The phases of Dewey's Experiential Learning Theory (*experience – disruption of prior knowledge – learning outcomes/construction of new knowledge – ability to apply it in other situations*), the 6 Types of Cognitive Processes (*attention – perception – thought – learning – memory – language development*), the Sensory-Motor Loop (*sensory input – perceptual interpretation – motor-planning – motor response – sensory feedback – perceptual interpretation*), to a certain extent Jung's 4 Cognitive Functions (*thinking, feeling, sensing and intuiting*), and finally his 2 Attitude-types, which open the spectrum of possibilities to reflect on how different individuals relate to the same experience, which

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<sup>23</sup> E.g. communication of an individual's intentions and experiences.

in turn, and in response to the nature of one's subject-object interaction, generates different synthesis of information and integration of the initial stimulus, as well as different movement outcomes and construction of new knowledge.

The next section deals with aspects of engaging into action through inner attention. It brings the 6 Types of Cognitive Processes presented in section 4.3.2, and emphasizes Subjective Experience of the individual (introversion as attitude-type) as state of availability (readiness) for incoming stimuli (motivation factor) and primary trigger of the outward motor response (action).

### 6.1 Working with Inner Attention

Bainbridge Cohen states that “in Somatics there is a lot of tracking though the frontal lobe, which is wonderful, but not necessary all the time.” She invites oneself: “Open the back of your brain to receive the information, and let the front of your brain rest!” She also claims that “we do not have to know where we are through our frontal brain to exist. We simply exist, and receive the information by opening the back of our brain (Bainbridge Cohen, 2021).”

Bainbridge Cohen also raises a problematic issue; she states that as we learn the anatomy of our bodies, we grasp the image of it, but we don't usually have the kinesthesia of it within ourselves. According to her one tends to say “I have this bone or this muscle in me” (Hanlon Johnson, 1995, pg. 186), but it is an intellectual concept, rather than sensing the information coming through viscerally from the proprioceptors of that thing itself.

As an example, a BMC® session can be shaped and developed in the following way: Participants spread out in the room, working individually<sup>24</sup>; the teacher-facilitator guides them through a discovery journey of, for example, the fluid systems; at first lying on the floor, working on directing the attention inwardly to the various systems (blood, lymphatic, cerebral-spinal), then the facilitator invites the participants to allow that emerging sensations gain outer expression, through movements in time and space (Ferreira de Araujo, 2022).

In the case of the Inner Exploration session, the subjective experience of the explorer has a primary function over the objectivity of the framework/guidelines proposed by the exercise itself; that is, the object of the class – its structure, concepts, theoretical content, correlation of ideas, pedagogical construction and development, vocabulary used by the teacher, and the meanings attached to them – serves as facilitator for the participant's experience, which occupies a central place in BMC® practice (also in other somatic practices). In this sense, the participant is not subordinated to the object of the

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<sup>24</sup> It can also be done in pairs or small groups, using touch or voice expression.

class; rather, uses it to embark on a personal inner exploration, in other words, on the subjective aspect of the practice, as well as on his/her subject-quality.

As stated by Jung, "everyone whose attitude is introverted thinks, feels, and acts in a way that clearly demonstrates that the subject is the chief factor of motivation while the object at most receives only a secondary value (Jung, 1971)." In the case of the proposed BMC® exploration session, an individual whose tendencies revolve around subjective psychic contents might feel comfortable and motivated within an open framework of movement research, whilst attitude-types characterized by concentration of interest on the external object might find themselves asking the question: what should we really be doing right now?

Inner Exploration activities address the 6 Types of Cognitive Processes described in this paper. *Attention*: focusing on specific sensory stimuli coming from the facilitator's instructions or from the partner; *Perception*: interpreting auditory information and touch, if the exploration is with contact (with a partner, and always with the floor); *Thought*: consciously or unconsciously planning the motor response to stimuli; *Learning*: through sensory feedback (see Sensory-Motor Loop, section 4.7), taking in new information, synthesizing and integrating new information with previous knowledge; *Memory*: psychosomatic storage of the sensory experience, which can be retrieved in the short and long term; *Language*: when functional aspects of the action (movement) has been incorporated into the system (through sensation), and then exist as acquired psychosomatic knowledge that can be accessed and expressed through written or spoken words, also through drawing.

The following section addresses aspects of learning and executing a sequence of fixed movement material, emphasizing imitation of objective reality (extraversion as attitude-type) as primary motivational factor for the external motor response (action).

## 6.2 Working with Fixed Movement Material

The previous section begins with a statement by Bainbridge Cohen about the use of front and rear regions of the brain in the intake of information and following outward reaction. Cohen invites her pupils to open their perception to the back brain areas and let the frontal areas rest. I believe what Cohen suggests is to reduce the interpretation of incoming stimuli, staying more objectively focused on them – on what one sees or feels, e.g. the external shapes that are captured by the eyes or the sensations and emotions that are experienced internally.

Physiologically, while the frontal lobe is involved in reasoning, motor control, planning and coordinating movement, and the parietal lobe is responsible for higher-level cognitive functioning and

involved in processing information from the body's senses<sup>25</sup>, the temporal lobe, which is located on the side of the head, is associated with hearing, memory, emotion, and some aspects of language, and the occipital lobe, located at the very back of the brain, is responsible for interpreting incoming visual information.

In short, the temporal lobe is responsible for interpreting sounds and language, and the occipital lobe is responsible for visual processing. In terms of evolution of the human species, these lobes appeared in the human brain structure before the more frontal lobes (parietal and frontal). They were (and still are) important for the survival of the species, granting it the ability to recognize danger through sight and hearing, in a very fundamental way – objectively – yet without the potential for insight, judgement, and sophisticated interpretation that is particular to the frontal lobes.

One definition of objectivity is: The perception of the world as it actually exists. This implies, according to my interpretation, interpreting the world “without” the influence of one's own subjective experience of reality. On the one hand, by keeping oneself within a spectrum of cognition that makes use of concepts and prototypes previously incorporated into the cerebral cortex (frontal areas of the brain), transforming incoming information, reducing it, elaborating it, storing it and retrieving it for new use; on the other hand, by using the back regions of the brain and its most fundamental functions (interpretation of auditory and visual stimuli), keeping oneself true to the incoming stimuli, in a primarily objective way.

Working with fixed movement material tends to stimulate both the front and back regions of the brain. The eyes see a shape and the brain codifies and decodifies the information, which is recognized by the individual as the new information is matched with acquired/existing knowledge. The process of interpreting visual stimuli goes as follows:

The pupils of your eyes are like windows, allowing light from the world in front of them to enter the eye. Inside, at the back of each eye, is a patch of incredibly sophisticated cells known as retina. The retinal cells take what one sees and turn those images into a highly detailed coded message, which travels along the optic nerves toward the brain and then travels within the brain optic tracts (Rehman, Khalili, 2022).

The coded signals reach the occipital lobe, whose main job is decoding the messages sent from the eyes and turning that information into forms that the rest of your brain can use. The

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<sup>25</sup> The parietal lobe contains the somatosensory cortex, which is essential for processing sensory information from across the body, such as touch, temperature, and pain.

information recognized by the occipital lobe then reaches the temporal lobe, which in turn understands it as language and processes its content (Rehman, Khalili, 2022).

However, to learn a movement sequence created by a second person involves communication between several other areas of the cerebral cortex. Functions related to standing, balancing on one and two legs, spatial relations, perception of chronological time, interpretation of sound stimuli – musical and speech symbols – ability to process new information while retaining previously processed information, dealing with technical difficulties (dance skills) and even with physical limitations (anatomical, particular to the individual, or due to injury or illness), processing the content of the shapes and also the narrative meaning attached to them by the creator.

Once all this information (related to a learned movement sequence) has been integrated into the nervous system, it means that the functional (sensory) aspect of the action has been incorporated into the system, and now exists as acquired psychosomatic knowledge that can be accessed (Bainbridge Cohen, 2003). Then, supporting functionality comes expressivity, providing sophisticated meaning, expressive tones, vitality and the potential for adaptation – responsiveness to the present moment. As Rudolf von Laban said, movement will encompass a larger spectrum of possibilities, integrating the two ends of the function-expression polarity (Wahl, 2019, pg. 25).

## 7. REFLECTION OF A SELF-PLANNED AND CONDUCTED TEACHING UNIT

### 7.1 Class Concept

The class concept explores the application of principles stemming from two methods of somatic practice – Body-Mind Centering® and Eutonie. I was primarily looking for ways to address the use of *Sensing* and *Feeling* to deal with Tonus Fixation<sup>26</sup> and Tonus Regulation<sup>27</sup> among dance students in professional education.

Furthermore, the concept was grounded in the Experiential Learning Theory proposed by John Dewey<sup>28</sup> at the turn of the 19th to the 20th century. As introduced in section 4.1, his theory is based upon the notion that learning occurs most effectively through having experiences.

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<sup>26</sup> Tonus Fixation is the inhibition of natural functioning. It has a physical root and a psychic root. Working the body inappropriately or without due awareness can cause these symptoms, and if the dancer's emotional state is disturbed, the chances of the appearance of Tonus Fixation are increased.

<sup>27</sup> According to Gerda Alexander, Tonus Regulation is when the body-mind restores its ability to adapt appropriately to any given current life situation and to react individually. She found out that consciously turning the attention to a body part and feeling its surface and volume changes muscle tone (Steinmüller, Schaefer, Fortwängler, 2001, p.55).

<sup>28</sup> Among others.



### 7.1.1 Goals

The goals of the demonstration class was to offer the students several ways to access and deal with Tonus Fixation and Tonus Regulation (Ferreira de Araujo, 2022, pg. 12), focusing primarily on conscious bodywork and efficient use of muscle-fascial tonus, applied in solo dancing and partnering.

I aimed to investigate muscle-fascial tonus and its ability to adapt to different situations, i.e. exercises that were proposed to the dancers. The qualities of movement that I was looking for move between primarily form-oriented and fluid, having as parameters the functionality and the expressiveness of movement.

### 7.1.2 Content

Three principles of the Eutonie method were introduced, namely *Touch*, *Transport* and *Contact*; as well as the Body-Mind Centering® (BMC) method and its exploration of movement arising from the Nervous and Fluid Systems of the human body.

Furthermore, the classes explored the idea that Sensing is linked to the Nervous System and Feeling to the Fluid System (in the sense of BMC®). Students were offered several exploratory activities with the goal of accessing these systems and addressing the perception of internal and external stimuli, the connection with one's emotions, and the use of these sources for movement exploration (triggers of action).

### 7.1.3 Methodical Procedure

The class was designed to provide students with various ways of connecting to and balancing primarily two movement producing factors: Sensing and Feeling<sup>29</sup>. I drew on pedagogical dynamics that derive from Dewey's Experiential Learning Theory<sup>30</sup>, i.e. I facilitated experiences with the goal of generating new embodied knowledge.

The table below outlines the class structure that was implemented in the demonstration class. There was a total of 8 class activities.

### 7.1.4 Table of Activities

|   | ACTIVITY         | TITEL                |
|---|------------------|----------------------|
| 1 | Tonus Adaptation | <i>“Foam Roller”</i> |

<sup>29</sup> The idea of integrating the *thinking* factor (one of the 4 Cognitive Functions proposed by Carl Gustav Jung) emerged after the class demonstration. The lack of focus on this cognitive function in the structure of my class concept was the initial impulse to write the present reflection.

<sup>30</sup> See conceptual model about Dewey's Philosophy of Experiential Education in section 4.1.

|   |                |  |
|---|----------------|--|
| 2 | Warm-up        | <b><i>“Rocking”</i></b>                          |
| 3 | Exploration 1  | <b><i>“Kinesthetic Flow”</i></b>                 |
| 4 | Set Phrase 1   | <b><i>“Waves and Spirals”</i></b> [left + right] |
| 5 | Set Phrase 2   | <b><i>“China”</i></b> [right + left]             |
| 6 | Floor Crossing | <b><i>“The Arc of Force”</i></b>                 |
| 7 | Exploration 2  | <b><i>“Gymnastic Ball”</i></b>                   |
| 8 | Exploration 3  | <b><i>“Partnering”</i></b>                       |

## 7.2 Implementation

I believe that all the activities proposed to the students have the potential to be approached from either end of the function-expression polarity, as well as the gradations that exist between them. However, each activity proposes a particular emphasis to movement that tends more to one side or the other, according to the way I have conceived them.

The way a student senses and interprets the content of a given exercise follows psychological patterns governed by different attitude-types, as stated in Jung’s model, which represent the individual readiness to the reception of sensory input – based on what Bainbridge Cohen calls *Preconceived Expectations* (Bainbridge Cohen, 2003, pg. 117, as quoted in Ferreira de Araujo, 2022). These expectations precede new sensory input and govern behavior (conative component<sup>31</sup>). In this reflection I differentiate such polarity as follows: between Subjective Experience and Objective Reality.

Concerning these two aspects of the subjectivity-objectivity spectrum, as well as their gradation, the next 2 sections offer a reflection on how I perceive the students' relationship with the proposed class material, after which there is a statement about the achieved outcomes.

### 7.2.1 Exploratory Activities and Subjective Experience

Out of the eight conducted activities, six fall mainly into this category.

#### Tonus Adaptation “Foam Roller”

This was the introductory activity of the class. The focus was on addressing the nervous system – basically aiming at the perception of one's inner experience, emphasizing inner attention. Thus, it had the approach to subjectivity/subjective experience as primary characteristic.

I observed that the students engaged in this experience. I noticed the relaxation of their nervous system being manifested through the body of most of the students – attentive, quiet and present. The

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<sup>31</sup> See footnote in section 4.5.

focus on inner processes of the body was a well received invitation; even those who, in the course of the class, had shown a tendency toward extraverted attitude were now immersed in inner exploration.

#### Warm-up “Rocking”

The main focus was on the body's fluid system; the primary intention was to take the body out of a state of deep sensitivity – sensing body weight in contact with the floor (focus of the first exercise), and gradually transfer the students' attention to muscular action, without losing contact with the experience of the nervous system (sensing).

At minute 10, where the transition to this activity occurred, I noticed that the students were still immersed in their own inner experience, and showed some resistance (or just unwillingness) to proceed, to engage their body in action. I then spontaneously introduced directives where the musculature could be more directly addressed: through *foldings* and *unfoldings*. They then arrived on their feet. This new transition worked well, since the students were able to redirect their attention to muscular action in a matter of seconds, without losing the sensitivity worked on in the introductory activity.

In the course of the exploration, I noticed that some students lost the sensitivity of the ground and their bodies, they emphasized the action itself, the production of movement, the “what” instead of the “how” or “why”; in other words, they moved away from the subject and towards the object.

#### Exploration 1 “Kinesthetic Flow”

At minute 15 everyone was standing up and the new activity started, still focusing on the bodily fluid system. The students were paying attention to me, they listened to the guidelines of the exercise; I also noticed that their state of bodily presence was attentive, sensitive, and yet they were no longer sleepy, but active – without restlessness.

This activity was focused entirely on subjective experience. For the first time in this class, a certain conflict of attitude-types (according to Jung) was made evident to me. The guideline of the exercise was to explore the fluid quality of the body, opening up sensitivity to the body's fluids and organs. After my first explanation, I noticed that the students mostly moved their body in a primarily articulated manner, emphasizing what I call the articulated quality of movement (bones and joints). I observed again, and this time more clearly, that the students were looking for form, shape, rather than sensation, i.e. they directed their attention to the object once more, rather than focusing on the subject.

Reflecting on the difficulty the students had in experiencing the subjective quality of the exercise, I realize that my guidelines prior to the movement exploration were not clear enough. However, I also

consider the concepts and prototypes that are part of the mental set of these students; such concepts and prototypes govern the predispositions of how a piece of information given by the speaker (sender) is perceived by its receiver. Thus, it is possible that I used the unsuitable vocabulary for this specific group of students, and that the same vocabulary would have resulted in effective communication with other students.

The exploration grew in intensity, speed, and drive. The students were immersed in it. However, I perceived an emphasis primarily on articulated movements; the sensitivity to the fluidity of the bodily tissues was lacking. Again the focus remained on objectivity, rather than the subjectivity, which was the focus of the exercise.

One last observation about the subjectivity involved in this exploration of the bodily fluids, now regarding the students' comments after the movement exploration. They talked about their need to understand my proposal. I can imagine that the desire to understand was connected to a *thinking* process that took place parallel to the movement exploration. However, cognitive processes (referring to the mental processes involved in gaining comprehension) involve several aspects, and *thinking* is only one of them. Perceiving stimuli coming from the interoceptors (kinesthetic sense), for example, is also a cognitive process, which in this activity represents the research path that fits my proposal.

#### Floor Crossing “The Arc of Force”

Around minute 60 we started this new exploration activity focused on the encounter of the forces *gravity* and *counterpressure*<sup>32</sup>. The invitation to the students was to direct their perception inwards, to connect to the proprioception of the body.

I could notice that the students were available for this shift of attention (before this activity they had performed two sequences of fixed movements, which were more outwardly focused), they allowed themselves to be guided by my directives. During the first phase of the exercise – crawling – I could see the Arc of Force in their body, the steady and supple contact with the floor. However, as the activity developed, gained more range of motion, variations of dynamics and displacement around the room, I noticed the difficulty of some students to integrate the mobility of the spine to the movement (lack of work directed to the connectivity of the various parts of the body – upper, lower, right, left, front, back – as well as the connectivity of the 6 limbs to the gravitational center of the body); I noticed students with either overstretched spine or with accentuated lumbar curvature.

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<sup>32</sup> Vector of force that reacts to the gravitational vector, and travels in the opposite direction to it.

## Exploration 2 “Gymnastic Ball”

After five minutes exploring the Arc of Force, we transitioned to working with the gymnastic balls, focusing mainly on sensing body weight – on the feet and on the contact point with the ball – as well as sensing the fluids of the body (as explored earlier in the "Kinesthetic Flow" activity). I noticed that the students had fun as they bounced, sitting on the ball – I experienced it as a moment of playful, relaxed exploration; it seemed to me that most students were not thinking as much as they were sensing and having fun. This was a very important moment for my class reflection, as it tells me that these students are able to open themselves up to experience the present moment, as opposed to constantly searching in their frontal lobes for known concepts and prototypes, old references through which the present could be objectively "experienced". Well, at this point I noticed them really present, relaxed, sensitive.

We then kept working sitting on the ball, rolling the pelvis to initiate movement and seeking the upward chain reaction, towards the spine. Then, with more movement amplitude of trunk and legs, using gestures with the arms in opposition to the legs, fluidly seeking the balance of forces on the rolling point between dancer and the ball. Here I noticed a variation in the students' attitude: some continued to "play", that is, explore my directives in a spontaneous (relaxed) and extremely productive way; other students tended to shut themselves off from exploring the mobility of the pelvis and its connectivity with the upper and lower body. That is, there were students immersed in their subjective experience – I noticed many smiles coming from these students; other students, though, were in a certain way "lost", without knowing exactly what they should be doing or searching for. In this case, I don't even speak of objectivity, because I imagine that in their cerebral cortex there was not exactly a concept or prototype to which they could refer, and understand what the exercise was about.

## Exploration 3 “Partnering”

This activity is located on an interface, representing the point of encounter between subject and object, subjectivity and objectivity. I elaborate on it only in the next section.

### *7.2.2 Fixed Movement Material and Objective Reality*

Learning and executing a sequence of movements uses primarily the frontal lobe of the human cerebral cortex, which is responsible for the ability to plan, organize, and move voluntarily. Many of the frontal lobe functions are addressed here: for example muscle control, comparing objects (categorizing, classifying, distinguishing one movement from another), memorizing movements and their relation to space and music, even the feeling of reward (effect of the release of the hormone dopamine) and resulting feelings of motivation.

Out of the 8 conducted activities, 3 fall mainly into this category.

### Set Phrase 1 “Waves and Spirals”

I observed that the majority of the students engaged with this activity in a spontaneous way, and did not need any special, clearer or more concrete verbal guidance from me. The fact that I showed the sequence, together with some verbal directives from the dance vocabulary (swing, rond de jambe, etc.), kept the students' attention, their interest in the class material, and I believe it sustained their will and desire to stay in class, as if they could learn or practice something important to them there. A possible reason for this satisfaction on the students' side might be my clear demonstration of the proposed movement – which possibly left few gaps for misunderstanding the movement proposal.

The sequence of movement was associated with fixed and exact counts. This is another aspect that captured the attention and interest of the students, as I observed their concern and desire to know it accurately; I also observed students individually counting quietly (practicing).

The reason for such a change of attitude towards the class material can be traced back to the dichotomy between introversion and extraversion. In this specific case the focus of the activity was on the object (movement sequence), which had essentially articulated movements. The fact that the majority of the students showed more interest and self-confidence here tells me about the preferences and predispositions of the general dance public, those who learn dance nowadays, and about the kind of thoughts that form their mental set – object-oriented, where decisions and actions are determined by objective relationships.

### Set Phrase 2 “China”

At minute 40, we began the second sequence of fixed movements. Right at the beginning I observed students physically recalling parts of the sequence (they had already learned it the day before), which tells me that these students were already positively tuned to this moment of the class, and to that which the class would be offering them. I then asked if they were "with me"; the class answered in unison that yes, they were.

I observed that the quality of the students' attention to this sequence of fixed movements differed greatly from that of the exercises involving subjective exploration. Here I did not see question marks on their face, despite the fact that many of them had difficulty learning the sequence; it seems to me that technical difficulty (or quality) related to learning an object stimulates them, that it is worthy of investing time, as well as physical and mental effort. On the other hand, activities with emphasis on the search for movement without a determined shape do not seem to stimulate the cognition, affect and conation of the students (the three traditionally identified components of mind), at least not to the same extent.

Another aspect that I associate with my observation about the tendency of this specific group of students to show more interest in exercises focused primarily on objectivity is the cultivation of a certain group feeling (team spirit). It seems to me that there is a common desire of the group to dance together, in unison, and for this to happen it is necessary that each of its members knows the sequence in its smallest details. The students asked several questions about the technical details of the sequence – how to start, develop and finish the movements, aspects of the movement quality, their locomotion in space and the musical markings; all in order for them to feel the excitement of dancing together, I believe.

### Exploration 3 “Partnering”

The main proposal of this exploration was to apply the concept of the Arc of Force (the somatosensory experience of the students which emerged from working with the gymnastic ball), this time with a partner. I explained the general idea of the exercise, whereby a dancer offers his counterpressure and stability to his partner, receiving in return his partner's counterpressure and stability – bridging the Arc of Force. I noticed that one student reacted to my explanation with a smile and a general body expression of satisfaction – I imagine that this student at this point understood something about partnering dynamics that she felt was important for her technical development or even something that made her feel good.

First the guideline was to explore the rolling point between the two partners, then to add gestures and greater mobility, e.g. range of motion, where one partner then becomes more supportive than the other, then switching roles.

For me partnering/sharing weight lies exactly on the point of contact between objectivity and subjectivity; it is like walking on muddy soil, it is necessary to be sensing all the time in order not to slip and fall; at the same time there is the possibility of expressivity, of using expressive gestures while trying to remain in balance, supported by the ground.

I could notice such approximation between subjectivity and objectivity in the students' exploration. Generally speaking, they were open to listen to each other (body in relation to gravity) and kept themselves faithful to their own subjectivity, the will to express themselves, while they shared weight with their partner. There were many moments of exploratory evolution, especially in the second part of the exercise, where one partner was more supportive than the other, offering the possibility of greater security in the face of the gravitational force during the subjective exploration of their subconscious mind. These moments were for me very beautiful to watch; I had the impression that the students were immersed in exploring the possibilities that sharing weight can offer them.

### 7.2.3 Achieved Outcomes

The partial outcomes throughout the preparatory classes as well as the final result on the demonstration class indicate that, to some extent, the students were able to integrate the principles of somatic work – aiming at restoring tonus adaptability, range of motion, body awareness – which was the main purpose of my class concept. The demonstration class was structured in 3 main parts: inner attention, dance phrases, and sharing weight.

The first part does not seem to me to have succeeded in the way it could have. I believe it is due to a certain lack of openness on the part of the students, many of whom were concerned with understanding my proposal and missed the opportunity to experience it from the point of view of their own subjectivity. Nevertheless, there has been good outcomes on students' body awareness.

After the activity using the Foam Roller, students spoke of having felt more sensitivity in their backs; they interpreted it as a sensation of "opening". The exploration of the Fluid System partially had good results: Despite the directives about searching for subjective qualities related to moving from the bodily fluids, students tended to fall back into producing movement, repeating movement patterns that are well known to their nervous system, e.g. somatosensory system.

In the two fixed movement sequences I noticed a qualitative increase in the execution of the movements. Most students performed them within the musical structure (counts) and the specificities that I had indicated. Phrase "Waves": focus on clarity of shapes and transitions, as well as the idea of counterpoints (emphasizing linearity and range of motion); phrase "China": focus on yielding-pushing-rolling, as well as the alignment and flexibility between the pelvis, ribcage and head.

The series of exercises focusing on the "Arc-of-force", the "Gymnastic Ball", and the "Partnering" seemed successful to me. In short, while the first two parts of the demonstration class focused respectively on subjectivity (inner exploration) and objectivity (dance phrases), in this last part of the class, the students slowly approximated such extremes until it was possible to experience both qualities of attention simultaneously, or within a spectrum where their extremes could no longer be distinguished from each other, according to my perception of it.

### 7.3 Ongoing Research

My class concept, along with its implementation and the present reflection represent to me a research continuum about movement and its different aspects, i.e. engaging in action coming from different inroads; for instance, those that are primarily focused on the individual's attention towards one's own body (as a subject), and those coming from external pathways, with the focus primarily directed towards the object to which one relates.



This research does not end with this paper, it continues every day, when I enter a classroom to teach dance, or at an improvisation session where I dance, at dance projects, workshops, or even walking through the city streets, observing pedestrians and passers-by. This is a project of study that I carry with me and which I am very pleased and happy to share with the reader.

## 8. CONCLUSION

Implementing my class concept with the group of students from the higher education course in dance at the Palucca University involved me in several aspects, among which are: According to my personal and professional point of view, I noticed a certain rigor on the students' side regarding the function that I occupied within the group during the 3 classes, that of the teacher, especially on the third day, during the demonstration class; a rigor about the knowledge that they should effectively learn during the 90 minutes of each class. I believe that the positive side of this is that the students clearly demonstrated their intention to understand my proposal – I felt positively challenged to provide more information than I had planned. On the other hand, however, I noticed that such attitude resulted in an emotional detachment between teacher and student, a place where the object of study is more valued than both subjects.

Generally speaking, I observe a tendency towards the objectification of Experience in dance education. Such reflection is based on my observation of the students' openness towards the proposed class content, as well as on the achieved results. I could confirm Jung's model, which states that the individual, whose tendencies revolve around subjective psychic contents might feel comfortable and motivated within an open framework of movement research, whilst attitude-types characterized by concentration of interest on the external object might find themselves asking the question: what should we really be doing right now? This question tells me about the individuals' need to seek understanding (specialized function of the frontal lobe of the human brain), as opposed to being open to experience the unknown, and connect with rear areas of the brain, responsible for perceiving objective experience, instead of actively seeking the objectification of Experience.

I conclude that there is a difficulty among students in making their senses available to receive and perceive visual, auditory, tactile stimuli as they objectively exist, and to use them as means to experience their own subjectivity as well as their objectivity. I feel the need to remind students that their mental set (grouping of concepts and prototypes) exists as a support for Experience, it should not primarily lead it, hold it back, constrain it, suffocate it, confine it in a box without doors and windows – the box called rational thought (one type of cognitive process).

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