

Sensing and Feeling as Principles for Restoring Tonus Adaptability in Dance Practitioners

MASTER'S THESIS

Module 10

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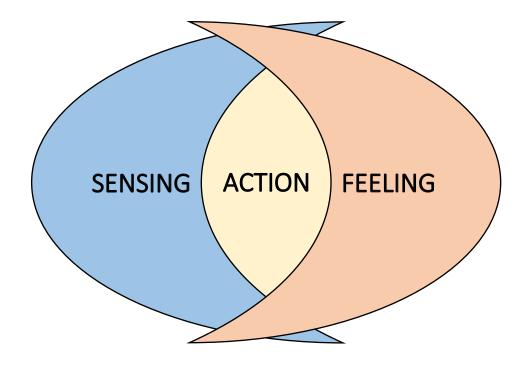
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CONTENTS

1.	INTRODUCTION	5
2.	PARTICIPANT GROUP	6
3.	LEARNING THEORY AND SOMATICS	6
	3.1 EXPERIENTIAL LEARNING	7
	3.2 SOMATIC EDUCATION	8
4.	BONNIE BAINBRIDGE COHEN AND THE BMC® METHOD	9
5.	GERDA ALEXANDER AND THE EUTONIE METHOD	11
6.	TONUS	12
	6.1 TONUS FIXATION	12
	6.2 SYMPTOMS OF TONUS FIXATION IN DANCE STUDENTS	13
	6.3 TONUS REGULATION	14
7.	THE PRIMARY SENSES	15
	7.1 SENSING AND PERCEIVING	16
	7.2 SENSORY-MOTOR LOOP	16
8.	SENSING AND FEELING	17
	8.1 THE FLUID SYSTEM AS SOURCE OF CREATIVITY	18
9.	FORM AND EXPRESSION IN ACTION	19
	9.1 CONTACT IMPROVISATION	20
10.	UNDERLYING PRINCIPLES FOR THE DANCE CLASS	21
11.	CLASS PLANNING	24
	11.1 AIMS AND THEMES	24
	11.2 CLASS STRUCTURE	24
	11.3 PROCEDURE AND TEACHING METHODS	25
	11.4 WORKING WITH MUSIC	26
12.	CONCLUSION	27
13.	REFERENCES	29
	APPENDIX	31
	STATEMENT OF AUTHORSHIP	36

NOTE OF GRATITUDE

I would like to express my gratitude to the Stiftung TANZ for the scholarship that have been granted to me throughout my master's studies. I would also like to thank the professors of the Palucca University of Dance Dresden very much for the knowledge in dance pedagogy that was passed on to me. In particular I would like to thank my mentor Prof. Dr. Jenny Coogan for her precious assistance along the way.



"One of the things that I think is essential with sensing, is that we reach a point where we become conscious and then we let it go, so that the sensing itself is not a motivation; that our motivation is action, based on perception."

Bonnie Bainbridge Cohen

1. INTRODUCTION

This Master's Thesis explores the application of principles stemming from two methods of somatic practice — Body-Mind Centering® and Eutonie. I am primarily looking for ways to address the use of *Sensing* and *Feeling* to deal with Tonus Fixation and Tonus Regulation among dance students in professional education, within a class environment that acknowledges experience as a learning tool.

My interest in this subject comes from my own history of muscle-fascial tension as a dancer, as well as through my observation of other dancers within my dance teaching education and practice. Sitting in the corner of the classroom during a ballet class with students of the Palucca University of Dance Dresden, it caught my attention, how two students in particular related to the floor when jumping. One of them jumped fluidly, moving between the floor and the air with flexibility and efficiency; the other student on the contrary seemed unable to integrate his legs, arms and torso fluidly. I could see his struggle to overcome the gravitational force.

These observations pointed out to me that these dancers use their bodies in very different ways. On one side I see a dancer engaging his whole body efficiently into action, his gestures and impulses supporting body motion, and it seems to me that his energy investment encompasses his body systemically. On the other side I see a dancer using segmented parts of his body, moving without integration¹; his energy investment does not seem to reach his entire body, that is, the energy fed into the system does not move efficiently among its various segments, acting only in isolated parts of his body.

Questions that guide my practice research investigate whether efficient and economical movement may be contingent upon the dancer's ability to adapt tonus; whether engaging into action through *Sensing* and *Feeling* can be differentiated from each other; whether focusing attention consciously on a body part or a body system can modify muscle tonus and if this procedure can release unnecessary tension and contribute to a more efficient and healthier dance practice.

I will be working with students from the second year of the Bachelor of Arts Dance program of the Palucca University. My class will take place on the university's campus on Thursday, December 15, 2022 during the regularly scheduled class in Contemporary and Modern Dance (ZT/MT).

The following concept speaks about the participant group with whom I will be working and briefly introduces major aspects of *Experiential Learning* and *Somatic Education*. The paper continues with an exposition of Bonnie Bainbridge Cohen's *Body-Mind Centering®* (BMC) method, and Gerda Alexander's

¹ Reference: Laban/Bartenieff's *Patterns of Total Body Connectivity* – Breath, Core-Distal, Head-Tail, Upper-Lower, Body-Half, Cross-Lateral (Wahl, 2019, pg. 34).

Eutonie method. Following, I define the term *Tonus* and the concepts of *Tonus Fixation* and *Tonus Regulation* in the sense of *Eutonie*. After that I speak about the primary senses of the human being and introduce the concepts of *Sensing* and *Feeling* in the sense of BMC® as well as the traditional model of the *Sensory-Motor Loop*. Then I speak about the bodily *Fluid System* as a source of creativity, and introduce the practice of *Contact Improvisation* as a strategy to work on *Tonus Adaptability*. Finally, I present my class planning, its aims and structure underpinned with my chosen methodology. This concept concludes with a reflection regarding my expectations for the fulfillment of my aims and objectives during the three-day process of teaching practice as well as about the possibilities of further implementation of Tonus Regulation into the dance technique class.

2. PARTICIPANT GROUP

The group of 19 students² with whom I will be working are currently in their second year of studies in the Bachelor of Arts Dance program at the Palucca University.

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.

3. LEARNING THEORY AND SOMATICS

Before introducing the central theme of this thesis, which addresses the restoration of tonus adaptability in dance practitioners, I think it is important to situate the reader within the context of

² For the sake of protecting the students' gender identities, in this class concept I will not differentiate between biological males and females.

Experiential Learning and Somatic Education, whereby the methods presented here, BMC® and Eutonie, belong.

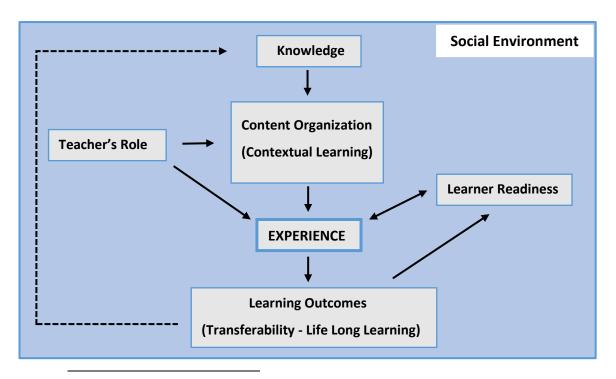
3.1 Experiential Learning

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).

To facilitate a better understanding of Dewey's Philosophy of Experiential Education, a conceptual model³ was developed and is presented below.



³ Retrieved from Roberts' article "An Interpretation of Dewey's Experiential Learning Theory" (2003).

The model is enclosed with a box that represents the social environment. Within this box, the central element is experience, which generates learning outcomes, which in turn influence the students' readiness to learn and their knowledge. 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 knowledge⁴. 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.

Another aspect of Dewey's Experiential Learning Theory is the disruption process. Dewey states that the experience emerges out of a resolution of some problematic within the knowledge (Demetrion, 2011), which requires the disruption of previously acquired knowledge. The newly created knowledge emerges as response to a disruption of the habitual mind stream of the learner (Demetrion, 2011). In other words, new ideas and concepts disrupts the person's psychosomatic⁵ schema, meaning that the person's psychosomatic schema needs to adapt and make room for the new and unfamiliar experiences.

Somatic practices rely on the interconnectivity between sensing, perceiving and feeling from a first person perspective, and can therefore be integrated within an experiential learning context, as dance. The following section offers an introduction of somatic education and some of its practices.

3.2 Somatic Education

Somatic education emerged synchronically in different parts of the globe at the turn of the 19th to the 20th 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).

The term "Somatic" was popularized in the mid-70s. It was coined by Thomas Hanna (1928-1990), a movement theorist who worked on the field of somatic education. 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).

⁴ Also through reflection - another important aspect of Dewey's theory.

⁵ Relating to the interaction of mind and body.

Numerous somatic experts created somatic systems to be practiced in pedagogical and therapeutic settings. These systems describe processes of guiding people to become aware of their own body wisdom. The benefits are wide-ranging from learning about oneself, to releasing of physical tension, to recovery from serious physical or even psychophysical trauma (Eddy, 2016). "You learn to sense where you hold, where living processes are not permitted to function. And when you are aware of the holding – where you are not allowing yourself to function – then it's possible to let go. But you have to sense it (Gindler, 1925, as cited in Eddy, 2016)."

Since the beginning of the 20th century, somatic practices have been influenced by dance – dancers and dance therapists were working somatically and using somatic practices such as Alexander Technique and Feldenkrais in their teaching and choreographic practices. In the mid-70s, six dancers created their own somatic movement system. They are: Anna Halprin, founder of the somatic system *Life/Art Process*; Elaine Summers, founder of the somatic education system *Kinetic Awareness*; Sondra Fraleigh, founder of *East West Somatics*; Bonnie Bainbridge Cohen, creator of *Body-Mind Centering*®; Emilie Conrad, creator of *Continuum*; and Nancy Topf, creator of the *Topf Technique* (Eddy, 2016).

The exchange between somatic education and dance education is particularly important in the present days. Besides the fact that somatic education prevents physical injuries among students and professional dancers, a possible marriage between these two fields would bring a new status for dance and dance pedagogy, a status in which more movement consciousness is involved (Ferreira de Araujo, 2021).

4. BONNIE BAINBRIDGE COHEN AND THE BMC® METHOD

Bonnie was born in Florida in the USA in 1941. She is a movement artist, researcher, educator, and therapist, and the developer of the Body-Mind Centering® (BMC) approach to movement, body, and consciousness. For over 50 years, she has been exploring the anatomical, embryological, and developmental foundations of movement and how they relate to our psychophysical processes and wellbeing (Bainbridge Cohen, 2022).

She describes BMC® as being "mostly *experiential*, but the other part is that it is theoretical (Bainbridge Cohen, 2015)", so the information either comes from books⁶, or the practitioners make sense of the experience – a process called *embodied anatomy*.

9

⁶ Anatomy, physiology, embryology and Zen practices.

Her method consists of uniquely sophisticated ways of teaching people how to direct their awareness into experiences of the various body systems⁷. 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 consciousness⁸ (Hanlon Johnson, 1995, pg. 183).

In BMC®, the information coming from the different body systems is studied separately. Bonnie says:

We go from one system to the other – now we are going into the senses, now we're acknowledging the information from the skeleton, now from the eyes, now from the muscles, now from the organs, from the glands, the brain, the blood, etc. By acknowledging each one, we see that they are channels that can be acknowledged by choice. Once they've been acknowledged consciously, we can utilize that information without it remaining primary (Bainbridge Cohen, 2003, pg. 64).

Bonnie raised a problematic issue; she observed 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. We tend 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 individually9; 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.

In dance practice, this session could be integrated into the warm-up, with the purpose of working on the dancers' sensitivity and proprioceptive perception, or at the end of the training, as a tool to reconnect with the body and the space in the present moment, focusing attention on the total body, reuniting it with the mind and the spirit. Bonnie uses the term "mind of the body." According to her, this "mind of the body" has the ability to sense itself, interpret sensations as perceptions and then form thoughts, feelings, associations, and images from these perceptions (Hartley, 1995, Eddy, 2016).

⁷ Skeletal System, Ligamentous System, Muscular S., Organs S., Endocrine S., Nervous S., Fluid S., Fascial S., Fat and Skin.

⁸ A person who experiences a high level of awareness tends to be more in control of their thoughts. The ability to pay attention to detail and analyze the activity around you comes with heightened awareness, but this can typically only be achieved during certain states of consciousness.

⁹ It can also be done in pairs or small groups, using touch or voice expression.

5. GERDA ALEXANDER AND THE EUTONIE METHOD

Gerda Alexander was born in Wuppertal, Germany, in 1908. She studied rhythmic education with Otto Blensdorf, who had been a student of Émile Jaques-Dalcroze (1865 – 1950).

Gerda was strongly influenced by the ideas of Dalcroze, whose work was of great importance for a changed relationship to the body. Dalcroze spoke about the inseparable relationship of music, gesture (movement) and its expressivity. He developed a system of rhythmic physical exercises addressing spontaneity and freedom, which found its way into the movement of Reform Pedagogy¹⁰ that emerged in Germany around the end of the 19th century to the first third of the 20th century (Löhning, 1998).

Following a similar approach, Gerda Alexander developed a method for experiencing the body that serves to balance tension and maintain or improve mobility. She called the method Eutonie (1957). *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.

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). The interaction of body and psyche is positively addressed and influenced.

This paper deals with three Eutonie principles, namely Touch, Contact and Transport, which will be presented both in section 10 and in the description of the planned exercises in the appendix.

While Bonnie works a lot with the idea of sensory stimuli and perception¹¹, Gerda talks a lot about muscle tonus and its psychophysical implications. In the next section I will define tonus.

¹⁰ "Reformpädagogik" encompassed a large number of different pedagogical directions that focused on hands-on and individual learning. The different schools strived for a renewal of the established German school system. Many "reformist" pedagogues as Pestalozzi, Maria Montessori, and Rudolf Steiner defended the natural development of the individual's internal forces (drive, will and reason – from Plato), the promotion of creativity and the positive influence of a natural environment. The "reformist" thinking draws parallels with Rousseau's thesis which states that the individual's natural development is the parameter for all educational activity. For reformist pedagogues, the person's peculiarity should not be interpreted as an imperfection, but as an individuality that develops gradually and must be taken seriously. Many types of reform schools still exist today and represent alternatives to the state educational system. For example, the Waldorf School and the Montessori School, and the Pestalozzi School (Ferreira de Araujo, 2021).

¹¹ Sensation occurs when sensory receptors detect sensory stimuli. Perception involves the organization, interpretation, and conscious experience of those sensations.

6. TONUS¹²

Tonus refers to a person's overall muscle-fascial tension ("Grundtonus"). In a healthy person (in the sense of Eutonie) the nuances between relaxation and tension have many gradations, which depend on the person's psycho-physical situation. For instance, in a happy mood one might feel one's body light and vibrant and one easily climb a staircase; on the other hand, in a sad or depressed state one might feel heavy and immobile, so climbing a staircase might require a great deal of effort.

The nuances of tonus are not only related to the emotional state of the individual, they also have a purely physical factor: Tonus reacts to the need for physical strength. For example, a person's muscle-fascial tension adjusts to the heavy load that he wants to lift or to a light glass that he holds in his hands. All that happens unconsciously¹³.

Since these adjustments and regulations depend on the inner attitude of a person to his/her life situation, the original spontaneous reaction and flexibility of the organism can be restricted in the course of one's life. Depending on how a person deals with for example fear, pain and injury on a physical and mental level, it will lead to tonus disorders and tonus fixation (Steinmüller, Schaefer, Fortwängler, 2001, p.59).

6.1 Tonus Fixation

There are different types of tonus fixation. Hypotonia, hypertonia and fixation in a middle level. Hypotonia manifest itself in passivity, sleepiness, flaccidity, lack of emotion and lack of drive; hypertonia manifest itself in overactivity, tension, choleric behavior and restlessness. The fixation in a middle level is very common and greatly restricts the individual in his actions, emotional expression and ability to experience life – for example, people who can carry out basic daily activities, yet find it difficult to experience states of joy or sadness. These symptoms are often called Vegetative Dystonia¹⁴ (Steinmüller, Schaefer, Fortwängler, 2001, p.59).

Bonnie understands tonus fixation as the inhibition of natural functioning, which happens when one is not well integrated with one's bodily natural processes and with the environment (Hanlon Johnson, 1995, pg. 187). For her, the process of integration has a lot to do with the ability of the individual to

¹² Also Tone

¹³ These adjustments happen before the action is taken. Bonnie Bainbrigde Cohen established 2 phases for this process and called them *Preconceived Expectations* and *Active Focusing*, which she includes in the traditional Sensory-Motor Loop model. More about this in section 7.2.

¹⁴ Also Vegetative-vascular dystonia (VVD): a change in the tone of blood vessels of various organs and tissues that occurs due to a malfunction of the autonomic nervous system.

bond with and defend against aspects of one's environment. One can either accept information coming from the external environment or block it out. The way one does this tells a lot about how one is present and engage with the world around oneself, which influences the quality of one's life experiences.

According to Bonnie, the inner ear also plays an important role in establishing basic postural tonus¹⁵ throughout the body.

I feel that our basic postural tonus is an indication of how we are relating to the earth via the pull of gravity. It is reflected in the quality of our movement. Low tonus indicates that we are having difficulty meeting the force of the earth's pull; high tonus indicates that we are over-reacting to the pull of gravity; an even, balanced tonus indicates that we have a comfortable relationship with the earth's force (Bainbridge Cohen, 2003, pg. 117).

6.2. Symptoms of Tonus Fixation in Dance Students

Through my pedagogical practice I have observed muscle-fascial tension in various parts of the dancer's body, which I understand to be symptoms of tonus fixation. These are:

- 1. Locked/blocked knies¹⁶
- 2. Hardening of quadriceps¹⁷
- 3. Fixation of the pelvis in one position (immobility/not flexible)
- 4. Shallow breath (malfunctioning of the diaphragm)
- 5. Blocking the natural forward motion of the belly by the inhalation
- 6. Shoulder pulled up or fixed toward the front
- 7. Shoulder blades pulled together toward the spine
- 8. Tense Arms, fixed elbows, tense hands (specially the thumbs)
- 9. Rigid ribcage
- 10. Stiff neck
- 11. Clenching the teeth (tense jaw¹⁸), makes a tight spine

Tonus fixations or the inhibition of natural¹⁹ functioning have 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 tonic fixation are increased.

¹⁵ Postural Tonus is in the sense of BMC[®] the readiness of the muscles to respond.

¹⁶ Because of tense M. quadriceps.

¹⁷ Caused e.g. by initiating the Grand Battement from the quadriceps, instead of working from the deep muscles e.g. M. iliopsoas. Overgrown thighs can be recognized when dancers are standing in 1st position with straight legs.

¹⁸ There is a physiological connection between the jaw and the sacroiliac joint. A forced turn-out can cause excessive pressure on the sacroiliac joint, which in turn can cause tension on the jaw.

¹⁹ Here I would also use the adjective *optimal*.

To exemplify this problem, there are ways of working the body in external rotation (*en dehors*) that triggers a series of tension within the dancer's body. The lack of *en dehors* coming from the hip joint is commonly compensated by the rotation of the knees and ankles. Another example is when there is an excessive investment of muscular strength in the execution of the external rotation. Both compensation and forced turn-out cause systemic imbalance in the body. The way the body commonly finds to solve this problem is through tonus fixation, which in Eutonie means loss of the ability to regulate tone.

6.3. Tonus Regulation

Gerda Alexander understood Tonus Regulation ("Tonusadaption", "Tonusanpassung") as the ability to adapt appropriately to any given current life situation and to react individually. She found out that consciously turning the attention ("Hinwendung") to a body part and feeling its surface and volume changes muscle tone (Steinmüller, Schaefer, Fortwängler, 2001, p.55).

She worked with the real and tactile matter of the body, she differentiated subtle structures²⁰ of the body and experienced how their qualities change through inner attention and perception.

Gerda stated that the tone regulates itself optimally when the willingness (intention) is there to enter into a living relationship with the environment and to engage with empathy in the encounter with tasks, things and people (Steinmüller, Schaefer, Fortwängler, 2001, p.59).

The physical release of tonus fixations removes psychological fixations, for example of depressive or euphoric states. It frees from habitual emotional reactions and opens the way to an expanded ability to experience the entire scale of emotions. Other consequences are the regulation of unconscious breathing, better blood circulation and better sleep.

Bonnie has a similar approach to tone regulation; for her the process of becoming conscious of the body's internal processes, the form and flow of the various bodily systems, can eliminate one's unconscious inhibitions, and one can function normally. She says "once we have removed the obstacles and are functioning efficiently, there's no need to keep looking for obstacles. It's not that we're never going to need to be aware again, but there are moments when we can become wholly active, and not have to monitor our activity (Bainbridge Cohen, 2003, pg. 64)."

²⁰ By *subtle structures*, Gerda Alexander might have wanted to address muscle, fascia, veins and vessels, organs and glands, nerves and other cells.

What Gerda calls *Tonus Regulation*, Bonnie calls simply *Learning*²¹, which addresses our ability to adapt our responses to information based on the context of each situation (Bainbridge Cohen, 2003, pg. 5).

The process of restoring tonus adaptability or normal functionality (in the sense of BMC®) trains bodymind awareness²². It brings action into perception, thereby preventing injuries – through increased consciousness. It also works on efficiency of muscle investment and improves range of motion, since it deals with dissolution of inappropriate tension that restricts motion. Ultimately, tonus regulation enables personal development²³.

Especially for dancers, but generally for every human being, tonus flexibility is the necessary condition for optimal development and availability of movement. A flexible tonus responds immediately with the amount of tonus corresponding to a movement, thereby promoting precise motor innervation; furthermore, it improves the quality of any daily life task, any sports and artistic performance, which gains increased vitality and creative impulses (Alexander, 1989, p.38).

In the search for tools to restore tonus adaptability, I found within the BMC® method an approach to movement (*Action*) that conceptually bridges *Sensing* and *Feeling*. In the next sections I will present Bonnie's concepts surrounding these terms and how they relate to the human being's primary senses.

7. THE PRIMARY SENSES

In the tradition of western cultures, science deals with five senses: touch, taste, smell, hearing and vision. Nevertheless, in the BMC® method, among other somatic approaches, the sensations of movement and visceral activity²⁴ 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

²¹ Bonnie uses the term *Learning* to refer to the quality or spectrum of perception of an individual. She states, "in order to perceive clearly, our attention, concentration, motivation or desire must actively focus us on what it is we are to perceive (Bainbridge Cohen, 2003, pg. 5)". This aspect of perceiving patterns our interpretation of sensory information and is named *Active Focusing* (BMC®). Without it, our perception remains poorly organized.

²² Gerda Alexander uses the word Presence. She understood "being present" as the conscious sensory perception of one's own body and at the same time of the outside world, in the present moment.

²³ Gerda Alexander's basic assumption was that every human being as an individual personality has the ability to develop and grow, to have social relationships and responsibilities and that they have a longing for meaning, self-fulfillment and the expression of their own creativity.

²⁴ 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.

visceral activity. Of all these cranial nerves, the first pair to myelinate²⁵ are the Vestibular Nerves²⁶, 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).

Bonnie states in her article *The Action in Perceiving*²⁷ 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 stablishing 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).

7.1. Sensing and Perceiving

One can differentiate between Sensing and Perceiving. 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)."

7.2. 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

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

²⁵ Change or maturation of nerve cells, whereby a layer of myelin forms around the axons, which allows the nerve impulses to travel faster.

²⁶ 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.

²⁷ Originally published in CG 12:3, Fall 1987.

feedback, which provides information about what happened during the response and then our interpretation and feelings about what took place.

Bonnie puts two other phases preceding this model. According to her, since our interpretation of movement is dependent upon all of our previous experiences of movement, we develop co-called *Preconceived Expectations* based upon how we have perceived similar information in our past experiences. These expectations then precede new sensory input. The second phase that Bonnie integrates to the traditional model is called *Pre-motor Focusing*²⁸ (or Active Focusing). It is based upon our ability to direct or focus our sense organs – a motor act. It is the active decision of what stimulation you will take in, which is considered to be unconscious, based upon previous experience (Bainbridge Cohen, 2003, pg. 117).

Based upon Bonnies' proposals, in the following section I make a correlation between Perceiving and the Nervous System, and Feeling and the Fluid System. My goal is to locate ways by which they are connected to the outward motor response (Action).

8. SENSING AND FEELING

In BMC®, it is said that Sensing is primarily related to the Nervous System through the perceptions²⁹, whereas Feeling is related to the Fluid System including the circulatory, lymphatic and cerebral-spinal

SENSING
Nervous S.
Perception
Fluid S.
Emotion

Functionality - Tonus
Adaptability - Respiration

fluids.

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. But if you are feeling, then you get the emotions." 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)."

One tends to become one-sided, focusing more on one than the other, when in fact it is a question of

²⁸ E.g. it is demonstrated by a dog directing its ears toward incoming sound.

 $^{^{29}}$ 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)."

balance (see illustration on the left³⁰). Bonnie speaks about restoring tonus adaptability (or normal functionality) in terms of balancing the use of the senses and the fluid system, so one can support the other. On the one hand we have the development of the senses as a supporting structure for the emotions, and on the other we have the fluid system providing breathing – respiration for the senses.

That underlines the importance of the blood circulation, which is the carrier of oxygen to all the cells and the taker of wastes out of the system (Hanlon Johnson, 1995, pg. 190). By Sensing, we release muscular restriction, which releases the blood; the breath follows. "When you feel that deep breath, something has been repatterned into the nervous system (Hanlon Johnson, 1995, pg. 191)."

The next section deals with how Bonnie understands and correlates the fluid system with feelings, emotions, and the creative potential of human beings.

8.1. The Fluid System as Source of Creativity

"The fluids are the transportation system of the body. They underlie presence and transformation and play a major role in the overall counterbalancing of tension and relaxation, rest and action (Bainbridge Cohen, 2003, pg. 67)."

All the fluids in the body are essentially one fluid that changes properties and characteristics as it passes through different membranes, flows through different channels and interacts with different substances. We identify the major fluids as *cellular*³¹, *intercellular*³² (or tissue or interstitial), blood, lymph³³, cerebrospinal³⁴ (CSF) and synovial³⁵ (Bainbridge Cohen, 2003, pg. 67).

According to Bonnie, moving from the fluids is related to feeling, flow, and the ability to adapt. She speaks about the importance of approaching movement with a certain "mind", and she points out that we usually keep the same "mind" throughout all of our exploration. For example, "some people might feel things more through the bones, another person more through the muscles, some say they are

³⁰ Ferreira de Araujo

³¹ *Cellular fluid* is the fluid within the cell. Through its membrane, the cell takes in and absorbs nutrients for its growth and maintenance and returns the by-products into the surrounding *intercellular fluid*.

³² The intercellular fluid, which is in a gel-like state, is a basic component of the connective tissues which appear throughout the body to connect, support and bind all the body structures together.

³³ The lymph is the fluid of the lymphatic system. The lymph vessels originate in the intercellular fluid and serve to pick up large protein molecules and foreign substances within the tissue fluid and to transport them to strategic lymph nodes and other lymphatic tissues (spleens, tonsils, etc.).

³⁴ The cerebrospinal fluid (CSF) is the fluid of the nervous system. As there is no lymph in the central nervous system (CNS), the CSF provides a cleansing function there. It also plays an important shock-absorbing function.

³⁵ The synovial fluid is the fluid of the skeletal system and is produced in the synovial membranes of the joints. It keeps the joints lubricated and nourished.

more into the senses (Hanlon Johnson, 1995, pg. 188)." However, by approaching everything with the same mind, you are constantly initiating activity from the same place. For instance, if you are working with sensing you will initiate movement from your perceptual system, in particular the weight perceptors and the movement perceptors. Bonnie says that when this is the case, inevitably the fluids will serve as a counterbalance to the perceptions and the nervous system.

In this example the fluids are the support, and the perceptual system is the mover. However, "there comes a time when you want the perception to go quiet, to become the support, and let the fluids become the mover. That's when you go into simply moving, without sensing anymore, trusting that the senses have gone unconscious and will support you (Hanlon Johnson, 1995, pg. 188)."

That means going back into the emotions, but still having the Perception as a supporting structure that provides an underlying organization and insight. Then creativity takes over.

Because creativity is not in the Nervous System, except to put together and organize what has been experienced. It is through the Fluids that we have new experiences and then the Nervous System goes and 'get it', then we can write it down, reproduce it and pass it on as a form. And yet, when form already exists, the Fluids keep energizing the form, so it doesn't become mechanical, so they are both in dialogue, Nervous and Fluid System (Bainbridge Cohen, 2015).

Seeking balance between these systems, the next section offers other perspectives on the interplay between form and expressivity.

9. FORM AND EXPRESSION IN 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. 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).

There are yet other aspects about movement. Movement also involves feeling tones and expressive impulses that make it a primary mode of communication³⁶ (Laban 1975 Life, pg. 87, as quoted in 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

³⁶ E.g. communication of an individual's intentions and experiences.

values placed on movement. For example, one can refer to movement more anatomically – "the iliopsoas flexes the femur in the pelvis"; and one can emphasize the expressive aspects of movement – "sense into the strength of your warrior pose", or "her posture made me think she is open to new ideas" (Wahl, 2019, pg. 24).

From a BMC® perspective, one can engage in action coming both from Sensing (form or function) and Feeling (expression). Nevertheless, Bonnie points out the importance of balancing these two sources or triggers of movement.

What often happens is that once we become aware of perception (sensing aspect), we forget about the action. For instance, instead of eating, what becomes important is how the food tastes and what the texture is; or instead of just walking, what becomes important is how I am walking, how the bones are falling. All of that is important, but there is a time to just simply walk, or simply eat for nourishment (Bainbridge Cohen, 2003, pg. 64).

When Bonnie talks about just walking or eating, she implies 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. Then, supporting functionality comes expressivity, providing meaning, expressive tones, vitality and the potential for adaptation – responsiveness to the present moment.

Maybe that is also what Laban intended to say as he spoke about approaching movement from a larger perspective, integrating the two ends of the function-expression polarity – for example, by using functional knowledge to develop expressive abilities, or working expressively to achieve new functional skills (Wahl, 2019, pg. 25).

9.1 Contact Improvisation

Contact Improvisation³⁷ (CI) seems to be a great tool to experience the encounter of these two poles. As one improvises with a partner one is called upon to act while one is sensing. Bonnie looks at CI as a tool for training one's perceptions and openness towards having options of response³⁸. She analyses the dynamics of CI in terms of Sensory-Motor Loop as follows:

³⁷ American dancer and choreographer Steve Paxton, Nancy Stark Smith and a myriad of collaborators originated Contact Improvisation. Since 1972 it developed into a form of improvised partner dancing, involving the exploration of one's body in relationship to others' by using the fundamentals of sharing weight, touch, and movement awareness.

³⁸ In terms of Tonus Regulation, that is what Gerda Alexander was addressing (Eutonie) – the possibility of choosing, as opposed to being stuck in one pattern of responsiveness, either on a physical or psychological level.

Opening to the possibilities and directing the attention towards a goal (*Preconceived expectations* and *Active focusing*) – Sensitivity involved in the act (*Sensory input*) – Awareness involved (*Perceptual interpretation*) – Ability to respond (*Motor planning* and *Motor response*) – And to feel successful in yourself and in your communication with your partner (*Sensory feedback* and *Perceptual interpretation*) (Bainbridge Cohen, 2003, pg. 118).

According to Bonnie, the ultimate goal of coming together in a contact improvisation is breaking out of sensing and simply acting. That will happen when "we reach a point where we become conscious of sensing and then we let it go, so that the sensing itself is not a motivation", the motivation is then action, based on perception (Bainbridge Cohen, 2003, pg. 63).

10. UNDERLYING PRINCIPLES FOR THE DANCE CLASS

Listed below is a compilation of 4 principles and their respective methods and strategies for implementation in the dance class, with the purpose of accessing and addressing the dancer's Tonus Fixation. These principles can be used either as exercises, per se, or as general guidelines within somatic dance practice.

I have not made a distinction of usage regarding the qualities of Sensing and Feeling because I believe that this distinction is not absolute³⁹ – since sensory perception, of both outer and inner space, will always be present. The Action arising from Sensing or Feeling is contingent upon how attention is directed – moving from the senses accesses more functional qualities of movement, whereas moving from the fluids (emotions) accesses greater expressiveness. Both paths lead to movement and restoration of tonus adaptability.

1. Turning the Attention to the Inside Space

- a. Bones, muscles and fascia, organs⁴⁰
 - i. attuning to the different qualities that each body structure offers
- b. Body fluids
 - i. sensing the arterial and venous blood, the synovial fluid (joints), the cerebrospinal fluid, the lymph⁴¹
- c. Breath

-

³⁹ This means that there is a line of intersection between Sensing and Feeling that accompanies the experimentation intended through the proposed exercises, even though it is known that both poles can, to a certain extent, be explored separately.

⁴⁰ Reference: Body-Mind Centering®

⁴¹Lymph is the fluid that flows through the lymphatic system, a system composed of lymph vessels (channels) and intervening lymph nodes whose function, like the venous system, is to return fluid from the tissues to the central circulation.

- i. attuning to the gas exchange within the alveoli
- ii. sensing the breath as it moves the ribcage and the abdominal cavity
- iii. attuning to the contraction and relaxation of the diaphragm
- iv. attuning to the expansion and relaxation of the pelvic floor
- d. Letting yourself be touched by external objects⁴²
 - i. stepping or lying on objects that provide surfaces with different qualities and consistencies, that stimulate sensory awareness of skin, muscles, fascial tissues and bones; the motor system is called upon to react⁴³
 - soft and hard balls, thick and thin bamboo sticks, pillows, tubes and foam rollers
- e. Noticing what you notice44
 - i. notice whether there is tension somewhere in the body (Proprioception⁴⁵)
 - ii. sense the spatial distribution or organization of your limbs, one in relation to the other
- f. Patterns of Total Body Connectivity⁴⁶
 - i. exploring the fundamental patterns of human movement
 - 1. Core-Distal (also Navel Radiation, as in BMC®)
 - 2. Head-Tail
 - 3. Upper-Lower (also Homologous Pattern)
 - 4. Body-Half (also Homolateral)
 - 5. Cross-Lateral (also Contralateral)

2. Transition to the Outside Space

- a. Awareness of the clothes you are wearing⁴⁷
 - i. two ways: let yourself be touched by the clothes, plus go on and touch⁴⁸ your clothes with your whole skin (haptic sense)
- b. Sensing the air around you
 - i. the air pressure: whether it is light or heavy
 - ii. the air temperature: cold, comfortable, warm, too warm
 - iii. whether it is dry or humid
- c. Noticing what you notice
 - i. attending to the 5 senses⁴⁹
 - 1. vision, hearing, tasting, smelling and touching
 - a. what do you hear? what do you smell?
- d. Sensing gravity in sitting or standing
 - 1. sensing the quality and consistency of the floor surface
 - 2. sensing body weight; sensing the pull of gravity and the force that acts back on you, traveling upwards⁵⁰

⁴³ This principle is called *Touch*. The exercise develops surface and deep sensibility, it has a regulating effect on tone and stimulates the autonomic nervous system. *Touch* makes the outer body boundary conscious and strengthens the sense of one's own identity (Steinmüller, Schaefer, Fortwängler, 2001, p.61).

⁴⁵ Proprioception is possible because of the existence of interoceptors, which are receptors that pay attention to our inner experience.

⁴⁸ Awareness is directed outward

⁴⁹ The receptors that connect humans to the outer environment are called exteroceptors. They provide information about the body in relation to the physical world.

⁵⁰ Our own weight follows gravity and acts as pressure on the floor on which we stand, lie or sit. A solid floor opposes this pressure with resistance, which acts back on the body in accordance with the law of force

⁴² Reference: Eutonie Method

⁴⁴ Reference: Elsa Gindler

⁴⁶ Reference: Laban/Bartenieff System

⁴⁷ Reference: Eutonie Method

- 3. yielding: releasing into the ground
- 4. welcoming the force⁵¹ that the earth gives back to the body
- e. Pressure generates counterpressure
 - i. in various positions on the floor, sitting and standing, we apply active⁵² pressure from various parts of the body, to the floor, wall or other stable object. If the object cannot be moved, the body will move
 - 1. use the counterpressure to push and roll

3. Reaching out Beyond one's Kinesphere

- a. Expanding the attention outwardly
 - i. to the walls and ceiling
 - ii. to objects filling the space
 - 1. shoes, water bottles, backpacks, chairs, piano, mirror, loudspeaker
 - iii. to the presence of people around
 - 1. both ways: letting yourself be touched by the room and the people, and letting them come to you (through awareness/attention)

4. Seeking Contact

- a. Turning to the objects in the room with curiosity. Go on and touch them! Our haptic sense grasps and comprehends the object in its form and quality.
- b. Establish contact with other participants, first through spatial distances, then with physical contact⁵³. Experience leading and being-led relationships⁵⁴.
 - i. Partnering
 - 1. Working with a partner requires a great deal of tonus adaptation. One partner moves his body axis out of vertical alignment (while standing) and the other partner applies resistance to this movement. A balance of forces results when this resistance corresponds to the counterpressure of gravity acting on the first partner. If the basic tonus ("Grundtonus") corresponding to the transmission of force⁵⁵ is maintained, the skeletal axis remains stable and the motor musculature is free to move. Through their shared actions, both partners are in an arc of tension in which tonus and force, range of motion and rhythm flow (Steinmüller, Schaefer, Fortwängler, 2001, p.67).

transmission. When standing, this force is transmitted from the foot bones; when sitting, it is transmitted from the ischial tuberosities through the entire skeletal structure to the crown of the head. This transmission of force through the skeleton is what Gerda Alexander calls Transport. It causes the body to straighten against gravity and triggers the innervation and toning of the reflex muscles involved in standing upright. Unnecessary muscle activity and tension are released (Steinmüller, Schaefer, Fortwängler, 2001, p.66).

⁵² Bonnie speaks about just letting go, dropping, allowing to happen, as opposed to actively taking action.

⁵¹ Counterpressure

⁵³ What you touch, also touches you.

⁵⁴ Contact is a Eutonie principle. It is an internal movement toward something. The tonus adapts in anticipation to the intended movement or encounter. Within the Sensory-Motor Loop model proposed by Bonnie, this would happen within the first and second phases: Preconceived Expectations and Active Focusing.

⁵⁵ From the heels to the crown of the head – the principle that Gerda Alexander calls *Transport*.

11. CLASS PLANNING

11.1 Aims and Themes

I aim to investigate muscle-fascial tonus and its ability to adapt to different situations that are proposed through the exercises that I will offer to the dancers. The qualities of movement that I am looking for move between primarily form-oriented and fluid, having as parameters the functionality and the expressiveness of movement.

I will share with students concepts of somatic practice such as the Eutonie's principles of Touch, Transport and Contact. I will address the BMC® method and its approach to movement, for example, tuning to sensation through solo dancing. I will work with external tools – foam roller and gymnastic ball, and I will offer students exploratory movement activities in pairs.

I am interested in observing whether students are able to differentiate between moving with a focus on sensation and on feeling – the former intends to generate meaning in terms of form, and the latter has a focus on the expressiveness of these forms.

Through these methods and strategies I aim to focus on the sensitivity of the skin to the floor, of weight resisting or yielding to the force of to gravity, and of the breath to movement. I will ultimately look for ways in which contact with a partner can be a great creative source for the creation of movement, and how meeting and working with a partner supports, provokes, and inspires creativity and expression in dancing.

11.2 Class Structure

The appendix lists 3 tables containing all the exercises planned to be given in the 3 days of classes. This includes a title for each part and the corresponding description, references to what I am looking after with each exercise, and an instructional and inspirational guidance for the musician.

The order of the exercises presented on the tables follows the development I wish to attain along the 3 days of classes, which culminates on the performance of learned material and the exploration of movement qualities inspired by the idea of moving primarily from Sensing and from Feeling.

Not all exercises will be repeated everyday. Some exercises may be left out of the class if the time is not sufficient to cover everything that has been planned in the class concept of the specific day. The order of the exercises might as well be changed during the course of the classes if there is a need for such adaptation.

11.3 Procedure and Teaching Methods

The classes are designed to provide students with various ways of connecting to and balancing primarily two movement producing factors: Sensing and Feeling. I will draw on pedagogical dynamics that derive from Dewey's Experiential Learning Theory⁵⁶, i.e. I will facilitate experiences with the goal of generating new embodied knowledge. In addition, I will work with the idea of interpretation of sensory, emotional, and kinesthetic information as a way of producing meaning.

It starts with a group warm-up: Through spoken language I will introduce and guide the students through an exploratory activity inspired, among others, by BMC® and the Eutonie principle of "Touch". Major aspects that will be addressed are breathing, muscle-fascial release, that are triggered by the autonomic nervous system (tonus adaptation), and awareness of the forces of gravity and counterpressure.

I want to remark that the group will already have done a ballet class, meaning that they have already trained their bodies. My class, however, begins with a warm-up. I deem it essential that a warming up in my class happens, as it offers the dancers a method of shifting their awareness to the level of perceiving their bodies. The focus of a ballet class can be a lot outwardly directed, for this reason a warm-up will serve to turn the focus of the student to more internal aspects of their body experience. I could call it attention-shift rather than warm-up.

After the warm-up I will work on fixed phrases, with all students facing one direction. There can be a total of 3 phrases along the 3 days of classes, each one with a specific focus. For the transmission of the movement material, I will use demonstration as well as spoken language⁵⁷, in which I will use dance vocabulary and words with abstract meaning, since I intend to generate ideas of conceptualized movement, as by speaking of *tendus*, and to generate images of movement quality, as by speaking of *brushing* or *drawing*.

Between set phrases, there will be sections of exploratory activity, where I will introduce BMC® ideas of engaging into action through Sensing and Feeling. On the first day I will focus primarily on action starting from Sensing; on the second and third days I will start with Sensing and transition to exploring Feeling as a movement producing tool; then I will move on to focusing on both sources simultaneously.

In order to slowly integrate the ideas of moving from Sensing and moving from Feeling, other class activities are planned; for instance, *Crossing the Floor* exercises and an exploration using *Touch* in pairs.

⁵⁶ See conceptual model about Dewey's Philosophy of Experiential Education in section 3.1.

⁵⁷ I will speak the English language, amongst specific dance terms in French.

Another aspect is the integration of two external tools: foam roller and gymnastic ball. On the first day I intend to finish the class with a practice lying on the foam roller to foster body awareness; on the second and third days I intend to work with the ball in a way that addresses weight transfer dynamics, the fluid system of the body, and the so-called *Arc-of-force*⁵⁸ as a preparation for Partnering.

There will also be a Partnering session with the intention of implementing the embodied knowledge that has been developed throughout the experienced activities: sensing, feeling, kinesthetic listening, gravity, counterpressure, arc-of-force, etc., ultimately awareness.

As for the use of the mirror, it will not be a relevant tool for this class, since it is based on self-awareness and self-orientation, for both active exploration and fixed material.

Between all class sections I will ask the students whether they have questions or want to make a personal statement about their momentary state of "body-mind", and at the end of each class I will ask if anyone would like to give feedback regarding my teaching and the class material.

11.4 Working with Music

The class will be accompanied by a co-répétiteur. In the appendix I have integrated into the class planning tables some key words that serve as guidance and inspiration for the musician.

I believe that the auditory stimuli generated by music help to create an environment that facilitates dance learning processes – e.g. students' readiness to learn and explore. I hope that music can support the activities that will be proposed to the students, which include fixed time exercises, in which the music is essentially metrical in character; and moments of movement exploration, in which the music can have a concealed metric, with multiple sounds, randomly combined according to the taste and interpretation of the musician.

For the beginning and ending of the classes – warm-up and cool-down, I would like to have atmospheric sounds, e.g. calm, peaceful, steady tones, with a slight *crescendo* in tempo and intensity for the warm-up, and a slight *decrescendo* for the cool-down. The intention is to invite the students to turn their attention to their breathing and body sensations, to prepare their body and mind for the class, as well as to encourage them to rest after the class.

For the sequences of fixed movement material, it is very important that the students feel the precision of the metric. These are moments, in which my intent is to work on movement functionality,

⁵⁸ See description in the section 10.

addressing primarily the nervous system and its sensing ability, supported by the fluidity and elasticity of the fascial tissues, and at the same time the weight and strength of the muscular tissues.

In the exploratory activities, I look for a fluid musical dynamic, with slow, sustained and prolonged tempi, as well as a transition to faster, more energetic tempi, with musical accents and ornaments. The intention is to foster movement expressiveness in the students. The bodily fluid systems will be the basis of the movement research, supported by the nervous system, which organizes and shapes the action. In terms of musical quality, for these activities I am interested in a soundscape that can be interpreted by listeners as ocean waves, movement of the tides, water.

I believe that working with live music is a matter of cooperative work, so in this sense I am open for ideas and impulses coming from the musician. I should also add that this will be my second experience working with live music. I am excited to see the outcome of the work.

12. CONCLUSION

I believe that tonus fixation is a real problem in dance education. Students are commonly unaware of this until it starts to get in the way of the development of their dance skills, or when it leads to pain and injury.

As Tonus Fixation is anchored in the autonomic nervous system⁵⁹, it is not very supportive to address the problem through local treatment. Instead, it needs to be treated systemically. The exercises I present in this paper propose the establishment of conscious contact with a person's inner and outer space. They foster awareness of the self, the three-dimensionality of the ground on which one lies, sits and stands, the fine nuances in quality present in the objects surrounding oneself, and they encourage a state of openness towards the people one share life with.

The Eutonie principles of *Touch, Transport* and *Contact* can be a way to deepen in the art of improvisation, to find new ways of dancing, connected to the ability of using kinesthesia⁶⁰, haptic perception, vision, hearing, the connection with one's emotions, and with one's acquired knowledge, in solo dancing and in partnering.

⁵⁹ The autonomic nervous system (ANS) is formerly referred to as the vegetative nervous system. The autonomic nerves system is our brain's most elementary survival system, its two branches regulating arousal throughout the body. Roughly speaking, the sympathetic nervous system (SNS) uses chemicals like adrenaline to fuel the body and brain to take action, while the parasympathetic nervous system (PNS) uses acetylcholine to help regulate basic body functions like digestion, wound healing and sleep. When we're at our best, these two systems work closely together to keep us in an optimal state of engagement with our environment and with ourselves (Van der Kolk, 2014, pg. 266).

⁶⁰ Sense of movement.

In Experiential Learning, the teacher's primary goal is to facilitate embodied experiences that foster the creation of new knowledge. The process of experimenting and thus having one's own experiences ultimately addresses systemically the problem of tonus fixation, that can cause regulation of the autonomic nervous system, that in turn can restore the adaptability of tonus.

I firmly believe that the principles and pedagogical strategies sourced from Eutonie and Body Mind Centering® that were presented in this concept, as well as the use of tools like the foam roller and the gymnastic ball are worthy of implementation in dance education with the ultimate goal of supporting the development of individual consciousness. I intend to continue my research in the field of Somatics and its intersections with dance, especially in university settings. My intention is to offer a contribution to the body of knowledge that has been accumulated in this field of practice and to offer a personal contribution to the production and dissemination of new knowledge.

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