# Exploration of Inter-Subjective Dynamics in Facial Movement/ Expression in Dance Movement Therapy Practice

Sylvain Méret

Master Thesis

CODARTS

Master Thesis Submitted to the Dance Academy CODARTS Rotterdam, In Fulfillment of the Requirements for the Degree of Dance Therapy.

15/01/2014

## Abstract

The focus of this research is, facial movement/expression (FM/E), studied within a mixed group of psychiatric patients. Using a heuristic process, the research question was: “How facial movement/expression may contribute to Dance Movement Therapy (DMT) with psychiatric patients?” The findings led to inquire more deeply into inter-subjective events occurring at the local micro-level of the face.

The research assumption was that FM/E might provide a sensible experience of movement and expression (two components of DMT) as micro local stimulation for developing an awareness of physical and subjective moving perceptions. These inter-sensorial and inter-subjective effects were conceptualized under the term “Forms of Vitality Dynamic” (FVD) coined by the research done on infants by Stern (1985, 2004, 2010). Within this conceptual frame, the “dyadic system” based on pre-verbal communication between baby and mother in their face-to-face attunement was linked to DMT concepts of attuning and mirroring (Beebe & Lachmann, 2014; Chaiklin & Wengrower, 2009).

Vignettes from patients are presented, which describe particular aspects of FVD in relationship to facial activity.

The results show, that patients respond differently to FM/E stimuli, according to their personal history, their personality, and type and progression of their illnesses. The combination of FM/E and their vital expression observed in DMT sessions inducts clinical implication on the perception of vital energy, regulation of affect, social engagement, and attentional patterns. Due to the small scale and heuristic nature of the study, these outcomes need further investigation for generalization.

From the findings and supported by theoretical research, it can be suggested that FM/E and FVD awareness may refine dance therapists’ clinical practice, especially in attuning, mirroring or synchronizing interventions. It can be outlined that the research had beneficial outcome for the therapist-researcher in term of experiential learning for the future development of his practice.

## Key words

Dance Movement Therapy; Facial Movement Expression; Forms of Vitality Dynamic; Heuristic; Attunement; Mirroring; inter-subjectivity, adult psychiatry.

# Table of Contents

## Acknowledgements

- I want to express my sincere gratitude to Dr. Granier, for the unique learning opportunity he gave me during my internship, further I am deeply thankful to the UPT-UF2 units staff: Valerie, Nathalie, Aude, Marie, Brigitte and the team for their help, their knowledge and the passion they demonstrated for their work.

- A special thank to Laureen, and the intern psychiatrists for their support in this research and interest of DMT.

- I also want to express my deep gratitude to all the patients met during this internship. Particularly the patients engaged in these few DMT sessions and present through the pages of this research. My deep appreciation for their curiosity and enthusiasm to explore parts of themselves through movement and dance. I greatly value what they taught me.

- My deep appreciation to my mentor and supervisor Jeannette Mac Donald for her wisdom and expertise.

- I am grateful to all the teachers, including the CODARTS committee and my classmates for this transformative learning experience.

- A big thanks to all people who directly or indirectly laid a piece of illumination along this process. A big Thanks to Vincent Cacialano for English supervision.

- And to my close ones and family for their unconditional support and patience. THANK YOU.

# Chapter 1

## Introduction

Facial movements, facial expression and dance are familiar friends, whether looking at Indian traditional dance forms or at the Maori's war dances. These ancient dance forms certainly understood the inherent power of adding expressive quality through the powerful display of FM/E to their narrative and ceremonies.

However western dance aesthetic values are not showing such richness and the use of FM/E is sparse. Stems of modern dance have attempted to dismiss them, in the case of Merce Cunningham (1919-2009) and the Abstract current; some other lineage rooted them at the core of expressivity with Mary Wigman (1886-1973) and the Expressionist current (Ginot & Michel, 1998).

This situation is similar in the new field of Dance Movement Therapy (DMT), the display of FM/E is reported to be part of many therapeutic DMT processes but its multi-layered complexity and functioning doesn't seem to be acknowledged as such (Dosamantes, 2007; Payne, 2008; Chaiklin & Wengrower, 2009; Tortora, 2010).

This master thesis aims to contribute to expanding the discussion about FM/E potency, as embodied knowledge of the inter-subjective forces that animate dance therapists in their work with patients.

After this introduction, I will present some psychotherapeutic views about this topic from the literature, including an outline of terms used in chapters 4/5/6.

I will introduce the methodology in chapter 3. Chapter 4 presents few vignettes from patients and from my personal experience. Chapter 5 analyses the findings in relationship to relevant literature and chapter 6 renders a final discussion about the research process in its entirety.

### 1. Introducing a metaphor: the music conductor

My interest for choosing this topic stems from one of the main findings of this research, namely the "forms of vitality" taking place in inter-subjective dynamic exchanges between people. I have experienced these dynamic phenomenons on many occasions in my dance career. They played a central role in improvisation performances, and were key in interacting performance with young children and babies (BB performance, 2013). Also representing ways of perceiving, attuning, communicating non-verbally and manifesting intentions in space and time between dancers and audience, in other words they cue how dancers relate to each other when they improvise. However, these phenomenological events are difficult to grasp for many because they inform abstract underlying felt dynamics, rather than significances.

To find a simple understandable example that describes these forms of vitality dynamics (FVD) (Stern, 2010), you can think of a conductor's face and movement dynamics. The way non-verbal communication is displayed between him and the orchestra reflects the exact, although exaggerated, process that I experienced in DMT's attuning and mirroring. However, dance therapists in their search for theoretical validity of their work are well aware of inter-subjective research, including the concept of FVD (Stern, 2010; Tortora, 2011; Vermes, 2011).

## 2. Continuum Movement

I want to introduce briefly the practice of Continuum Movement, which influenced this research for the understanding of micro-movements at the local level.

Founded by dancer Emilie Conrad, Continuum is an on going evolving somatic practice, inquiring about the human bodies biological complexity from the perspective of the fluid system.

Conrad uses FM/E as a way to stimulate bodily tissues and fasciae, their phylogenic structures and their implication in neural activities. During Continuum practices, I experienced differences between FE and micro-movements of the facial muscles. One was related to the feeling of specific sensations such as an emotion, the other was rather related to the moving imbrication and play of connective tissues. The first one would provide emotional narratives, characters and archetypal associations, while the second would generate body dynamic based representations such as anthropomorphic shaping (e.g. “fish lips”). However these two aspects are often intertwined and form a web of connective modalities.

Both result in a deep sense of embodiment and multimodal experiences of FVD. Facial expressions include motion and emotional activity, but not all facial movements are emotionally or socially based. There is a paucity of research in the area, as the literature is limited to the somatic community. This reveals a need for further research in FM on the level of bodily tissues.

My practice of Continuum Movement occurred in parallel to the research process and added a somatic knowledge of “felt” experiencing. I was aware of the possible bias of overlapping different types of phenomenological experiences.

## 3. Moving the research question in the internship

This research took place within two units of a large psychiatric settlement (CHU Toulouse) in France, during a three-week period: The Unit for Hospitalization (UF2) and the Unit for Transitory Psychotherapy (UPT). The pathologies treated in these units ranged from eating disorders, addiction, substance abuse, mood disorders, psychotic disorders for adults and adolescents, impulse control disorders, dissociative disorders, to anxiety disorders (APA, 2000). The therapeutic and theoretical frame there relates to psychoanalytical views.

As part of the main state hospitals, the building includes several services such as general psychiatry, medical psychology, psychotherapy, arts therapy and psychiatric emergency. It functions in partnership with the university of medicine. Future doctors and clinicians do their internships in different units to complete their curriculum. Therefore, as an intern, I could assist every individual’s consult, and be part of all the activities related to these two units. One clinician psychiatrist Doctor Granier manages the two units, in collaboration with a team of interns in psychiatry, plus a psychologist and the staff of nurses and caregivers. He performs both roles of clinician and professor (and supervisor). A team of nurses and caregivers is dedicated to facilitate the arts therapy schedule. They received a short training from specialists, learned on the spot, or pursued the university degree (DU) of arts therapies delivered in two years, and implanted in these same units under the impulse of Dr. Granier.

This arts-therapies unit is the oldest in France, initiated in 1980 by Pr. Escande, currently run by Dr. Granier. The program emphasizes visual arts (painting, sculpting) with a yearly exhibition of patient’s work, and theater (led by a drama-therapist/psychiatrist), gymnastic-relaxation, collage, fairytales lectures, clay

modeling, drumming, singing (led by a music-therapist/psychiatrist) and writing sessions done by the psychologist. There is no dance therapy. The art therapy program is available for the outpatients and the inpatients. This program is recognized as representative of the French field of psychiatric art therapy. There were differences in methodologies, goals, status and theoretical frames between my training at CODARTS following American, British and Dutch professional associations and “psychothérapies médiatisées” (psychotherapeutic mediation) in this French institution associated with La Société Française de Psychopathologie de l'Expression et d'Art-thérapie (SFPE-AT). No individual DMT sessions were possible by the institutions rules, only group practice.

The status of arts therapy in France is not recognized as a profession (ECARTE, 2014). Arts therapists are employed in hospitals and other institutions on the basis of their initial professional qualification (e.g. doctor, nurse, psychologist, specialized teacher, artist) or as artist intervening in hospitals or animator. There are major differences in Europe for the possibility to register in professional associations. In the Netherlands, it is possible under certain conditions to join the Stichting Register Vaktherapeutische Beroepen to be affiliated with governmental organizations depending on the level of one’s diploma, number of hours, supervision, and credits (ECARTE, 2014).

As a DMT trainee, I entered the psychiatric ward like entering an improvised performance: being aware of any facial activity in patients, which could cue a potential ‘dancing encounter’.

I first observed FM/E as general phenomena with both my experiences of micro-movement of the face and of facial expression. I looked at how patients connected with my facial activity and how they responded. I included facial emotional responses, expressive responses or micro-movement responses. I excluded involuntary, idiosyncratic and functional facial events (e.g. chewing, swallowing, yawning or sneezing).

And I asked: How facial movement/expression contributes to DMT’s work with psychiatric patients?

# Chapter 2

## Literature review about facial expression in psychotherapeutic contexts

The focus of this paper is to look at facial movements expression and ways in which this can inform dance therapy practice. My principal focus was to look at the movement responses in the patient's face in relationship to my own facial display and to observe how it affected the larger picture of inter-subjective exchanges. Therefore I delimited the literature with an introduction of the main psychological views on FE, the inclusion of developmental research on facial attunement between mother and baby, the therapeutic aspects of inter-subjectivity and the expression of vitality, neurobiology and neurophysiological theories involving facial movement - emotional responses. Finally, I will present how DMT involves processes that include facial display.

As I entered this literature study, I realized the depth of FM/E's implications and their central role in emotion, biology, recognition and cognitive processes. I excluded branches of biology in relationship to emotional processing, mirror neuron theory, brain imagery, psychiatric medication, psychoanalytic theories and interpretations, transference and counter-transference and brain damaged researches. I excluded as well idiosyncratic, involuntary and functional facial movements as these occurrences are too specific for this frame of research.

### 1. Facial expression (FE) versus facial movement (FM)

The western scientific study of FE begins with Darwin's study of emotions. Outlined in Parkinson (2005), Darwin selected three reasons why particular facial movements may have become associated with specific emotions over the course of our evolution.

1) The "*principle of associated serviceable habits*" describes that facial movements, recognizable as expressing an emotion, served adaptive functions in specific emotional situations (e.g. closing the eyelid to reject a visual input).

2) The "*principle of antithesis*" says that these adaptive patterns became associated with contrasting feeling states as movements "opposite". Like animals facing potentially dangerous assailants, adopting a submissive attitude mismatching from a confrontational attitude. Similarly, human beings tend to discriminate their FM responses towards others showing something different than what they are actually processing.

3) The "*principle of action of the nervous system*" proposes that some emotional facial information derives from neuro-physiological changes accompanying emotional states.

Parkinson (2005) makes a distinction between facial expressions and facial movement, as facial display is not always associated with emotions.

In this paper, I will use both terminologies simultaneously: facial movement/expression (FM/E), as they were both relevant within the research's frame. I will not discuss these differences in this paper, as it goes beyond the scope of this inquiry.

## 2. Main views about FM/E in the field of psychology

The extensive work of Ekman (1999) provides evidences that across cultures, people tend to assign particular emotions to specific facial expressions. It became the theory of basic emotions including happiness, anger, fear, sadness, surprise, and disgust. However, the critique concerning this theory was updated by Barrett (2013) stating that emotions may not be universal physiological responses but concepts we've constructed from various biological signals and stashed memories (Fischer, 2013).

Conversely, Fridlund (1994) argued that the function of FM is to communicate information to others, rather than simply express something. He believed that the content of the communication is not directly about emotion, but concerns "behavioral intentions" or more generally "social motives". For him, the meaning of FM relates to how people are likely to act rather than their current subjective experience.

In addition, Parkinson (2005) describes other theorists, that have attributed a wide range of meanings to FM, including dimensions of affect, components of emotion, appraisals, action tendencies, situational trajectories, devices for conversational management, and indications of direction of attention.

However, these research protocols stayed focused on static facial positions or configurations rather than dynamic facial movements. There is a need to fill this gap, as FM/E are dynamic events (Russell, 1997, 2003)

## 3. Attachment research and affect regulation

Related to developmental research, Attachment theorists emphasize the importance of early attachment between infant and caregiver through pre-verbal cues. Bowlby (1982) describes FE, posture and voice as the essential vehicles of attachment communication between the emerging self (the baby) and the primary object (the mother). In this process, the face (coordinating eye-to-eye messages, micro-movements associated with prosodic vocalizations) with tactile and body gestures, have primacy in signaling affective information between the mother and her child.

Beebe and Lachman's "dyadic system" approach (1992, 2013) defines the ways that both mother and infant co-create their face-to-face communication. This type of communication elicits the infant's most advanced communication capacities and processes of self-regulation and interactive regulation go on simultaneously between each partner (Beebe & Lachmann, 2014). These authors have successfully integrated infant-research on facial mirroring by predicting at 4 months the infant attachment patterns at 1 year, they further their findings into adult treatment on the bases of the concepts of procedural expectancy of self- and interactive contingency (the process of relatedness across time) (Beebe & Lachmann, 2014). By linking the face-to-face dyadic system of procedural communication (referred as *action sequences, including attention processes, facial and vocal emotion such as prosody, intensity, pitch, spatial orientation toward and away from the partner, and touch* (Beebe & Lachmann, 2014, p. 24)) with attachment patterns, Beebe and Lachmann bridge infant-research with psychoanalytical views on adult treatment.

The dyadic system informs this present study directly, especially how the face plays a central role in the very first months of life as opposed to the whole body engagement, which comes later. Tortora (2010) in her compiling work with children introduced (according to Attachment views) how dance therapists could be informed by the face-to-face dyadic system of procedural communications with DMT Attuning and Mirroring methods.

Complementary, Tronick' neurobehavioral approach showed with the "Still Face" experiment (1975) the implication of facial stimulation in babies' self-regulation (Tronick, 2009). An infant's exposure to "good, bad, and ugly" interactions with the mother, as repeatedly communicated by her facial expressions or lack of expression (i.e., a still-face) has long-term consequences for the infant's confidence and curiosity, or social emotional development, with which to experience and engage with the world (Tronick E. , 2007).

In his compiling work in the field of neuropsychology, Schore (2003) induced that affect regulation is a cornerstone of the attachment theory (Bowlby, 1982). Developmental brain researchers report that ''the dyadic interaction between the newborn and the mother serves as a regulator of the developing individual's internal homeostasis". Furthermore, he states that this first maternal-infant relationship acts as a template for the imprint of neurological circuits in the child's emotion-processing right brain, thereby permanently shaping the individual adaptive (or maladaptive) capacity in later emotional relationships (Schore, 2003, p. 19).

## 4. FM/E, forms of vitality and inter-subjectivity in developmental research

Developmental researchers assume that inter-subjective preverbal exchanges, including FM/E, take place in early development as many studies demonstrated (Meltzoff & Borton, 1979; Stern, 1985; Beebe, 2007, 2013). During these developmental phases, vitality affects (conscious or not) are always present. Apart of connecting our senses, *vitality affects* are the first and most basic forms of interpersonal communication. They take their roots in a multitude of parental acts involving FM/E. The infant is immersed in the basic modality of vitality from the very beginning through facial stimulation in inter-sensorial exchanges. This sensorial modality of affect forms the first, pre-symbolic patterns of interpersonal relatedness, which Stern called implicit relational knowing (2004, p. 242).

According to Stern (1985, 2004), the perpetual movement of vitality affects creates the "core self". His theory of vitality affects, which he developed later as "*forms of vitality dynamic*" (FVD), exposed the inherent connections between motion, intermodal perception, affect and interpersonal attunement (Vermes, 2011).

## 5. A neurobiological view: Poly-vagal theory

The poly-vagal theory (Porges, 2011) offers another approach to look at FM/E activity and issues (e.g. "frozen" or fixed expression) on the based of homeostasis and social engagement. Originating from neurophysiology and phylogeny, this theory primarily focuses on the social engagement system as the result of the autonomic nervous system's (ANS) evolution in mammals becoming social beings. Through the evolution of the brain, defense mechanism (sympathetic function of the ANS) in opposition with homeostatic mechanism (parasympathetic), evolved hierarchically in developing new adaptive mechanisms.

"*The neural pathways for the flight/fight, freeze mechanisms involving heart and lungs activities came to be regulated through evolution by an area of the brain that also controlled the facial muscles. Therefore, after this phylogenic transformation, emotional expressivity, ingestion of food, listening and social interactions were all related to how we regulated our bodies*" (Porges, 2011). Thus, the theory stipulates that socialization, which is biologically associated with parasympathetic functions, can help the body calm down. FM/E are a major component of that system.

The theory gives an insight in terms of therapist-patient facial interactions. Not all patients respond well to facial stimuli. As dance therapists, we often encourage clients to make eye contact. According to this theory, we might check if this is relevant for the patient or if "*their neural system controlling spontaneous eye gaze is turned off. The social engagement system can only be expressed when the nervous system detects the environment as safe*" (Porges, 2006).

Furthermore, the therapist can consciously adjust his own social engagement system by gently mobilizing his facial muscles, making eye contact, modulating his voice, and listening to the patient in order to blunt the sympathetic activity, and thus to be more present, alert and engaged. This perspective may give more options to dance therapists in how to adjust vitality affects quality to non-verbal exchanges (Stern, 1985, 2010). It also complements the "dyadic system" from a somatic oriented perspective (Beebe & Lachmann, 2014).

## 6. Facial expression and psychiatric patients

Like for any other population, social interactions for psychiatric patients involve the perception of emotional information from the faces of other people (Fusar-Poli, et al., 2009). For psychiatric patients, facial emotional processing is peculiar in a range of symptoms of clinical disorders, such as psychosis or depression. The lack of facial features is known as flat or blunt affect. Research showed that schizophrenic and bipolar patients show differences in emotional processing. They both emphasize avolition (e.g. a-motivation), plus restricted affects in schizophrenia and excess emotional reactivity in bipolarity (Delvecchio, Sugranyes, & Frangou, 2012).

Therefor the clinical context of this research has to consider some patients' special needs and the probability of diverse responses in regard to FM/E stimulation. Important to mention, side effects of psychiatric medication includes loss of FE and therefore may influence the circumstances of this study (Chew, Hales, & Yudofsk, 2009).

## 7. Facial movement/expression in dance therapy

In the DMT literature, empirical research that looks at FM/E is not specific, but associated with non-verbal, movement-based interventions such as attuning and mirroring and psychotherapeutic occurrences such as somatic transference and counter-transference, inter-subjective communication and kinesthetic empathy (Dosamantes, 2007; Vermes, 2011; Tortora, 2010).

The face is a body part where many non-verbal cues are being expressed and exchanged between the client and the therapist (Chaiklin & Wengrower, 2009). Since non-verbal and inter-subjective communication stand at the core of DMT practice, the study of FM/E is relevant for dance therapists (Berrol, 2006).

However, we can trace FM/E engagement particularly in mirroring and attuning DMT's core concepts. Marian Chace (1896-1970) was the first dance therapist to introduce her approach to *empathic movement intervention* through group sessions with World War II veterans who had lost their capacity for verbal functioning due to post-traumatic stress (Sandel, Chaiklin, & Lohn, 1993). Chace's patients regained progressively the capacity for self-expression and relationship, beginning with nonverbal communication and interaction through movement. Over time, many of her patients subsequently made marked improvement in regaining their capacity for speech. She extended her work later to the psychiatric population. I outline her debut as it exemplifies the repair of self-expression by stimulating neural pathways engaging whole body movement inclusive of facial display and forms of vitality

expression in a similar context that the face-to-face dyadic system, which pre-set the forthcoming of language.

It has been acknowledged that DMT interventions involving empathic mirroring of movement may alongside facilitate development of the limbic system, including the patient's capacity to read others' facial expressions and to engage in relational interactions with others (Winters, 2008). Mirroring interventions, based on movement synchrony and affective attunement, can create a profound experience of being emotionally connected. In a group, this can lead to significant shifts in decreasing the experience of emotional isolation (Winters, 2008).

## 8. **Conclusion of the literature**

The literature gave a large framework of reference for how to look at the experience of FM/E as a therapist in the dyadic relationship with patients. Most of this research emphasizes the emotional, social, self-regulatory and inter-relational effects of FM/E. The research on mother/baby' face-to-face interaction was enlightening to how DMT processes Attuning and Mirroring awakened fundamental developmental programs. I realized they were many ways of looking at FM/E depending on the field of inquiry and that I could grasp only a little part in this research setting.

# Chapter 3

## Research method

Rooted in qualitative research (Cruz & Berrol, 2004, p. 210), this study strives to invest a heuristic process of self-learning combined with a theoretical framework to answers the research question (Moustakas, 1990).

1. **Heuristic method**

The heuristic method "refers to a process of internal search through which one discovers the nature and meaning of experience and develops methods and procedures for further investigation and analysis" (Moustakas, 1994, p. 9). This fitted my intent to inquire through 'experiential learning'.

The heuristic method consists of four main steps: 1) the Initial Engagement; 2) Immersion; 3) Incubation, Illumination and Explication; and 4) the Creative Synthesis (Moustakas, 1990).

1) I used this method during the initial engagement browsing through the literature review and reflecting upon my history concerning FM/E in my personal life and throughout my artistic work. I found evidence, especially through my aesthetic choices that FE were represented in videos and choreographic material. I realize that FM/E was a theme of interest (following me) since I was born.

2) The immersion phase unfolded as an extension of my desire and curiosity to inquire about the topic. This stage begun during data collection and developed through out the analytical process. Recapitulation of past experiences, literature inputs and developing the topic in explorative choreographic and performance contexts were characteristics (BB performance, 2013). However, I couldn't get a clear direction about how to frame my question.

3) During the Incubation phase, recapitulation of "experiential learning" gathered during the data collection followed while reflecting on the analysis, and opened new doors of unknown occurrences (e.g. sensing force in inter-subjective events, sense of selfhood). My intuitive curiosity to correlate the findings with other fields of research resulted in "*inducting reasoning*" in data analysis and theoretical construct formulations (Cruz & Berrol, 2004, p. 213). The illumination stage came with the reading of "Forms of Vitality, Exploring Dynamic Experience in Psychology, the Arts, Psychotherapy, and Development" by Daniel Stern (2010).

4) In the Explication phase, I found myself limited by a lack of adequate vocabulary to state my findings clearly. Thus, I investigated different fields of research supporting the insights coming from the data analysis. I found theoretical support and most importantly terminology that conceptualized the findings into clearer notions.

I realized the necessity to anchor the phenomenological aspects of the findings into scientific fields, if they already existed. My efforts were related to a lack of theoretical and detailed understandings of DMT fundamental principles forthcoming from the physical biological body itself (found in developmental literature and neurobiology), rather than from psychological theoretical views.

Often, DMT literature acknowledges its lack of scientific evidence, advocating the "felt sense", which is one of the mediums through which DMT operates (Higgens, 2001; Tortora, 2010). As heightened by Stern (2010): "*Practitioners that have been*

*dancers as well as trained clinicians are extremely sensitive to the myriad vitality forms they encounter in their work. They are experts in the realm of dynamics, but rarely call what they do "working with dynamics", although that is exactly what they do better than most*". (Stern, 2010, p. 89)

To summarize my methodical journey: The heuristic approach was undertaken to collect data and set up a phenomenological frame that was overlapped with a steady reviewing of relevant literature. The focus and the questioning have been oscillating as theories were extracted and proposed from the context to inform the reshaping and rewriting of the present material (Cruz & Berrol, 2004). The inputs I got from my thesis supervisors along the writing process generated a change of methodology from heuristic to grounded theory and then back to heuristic, and a particular effort towards the accessibility of the findings as communicable knowledge.

4) The synthesis strives to present the heuristic investigation in light of terms, vocabulary and concepts that might support DMT understanding and practice. A short compiling video was edited to present a sample of the outcome of this research in comprehensive way (Accessible at http://www.youtube.com/watch?v=-77pTmJgKYk).

## Data collection

### 1. Notes

Data was gathered according to the heuristic method of personal experiencing in session notes (SN), personal notes (PN), clinical notes (CN) and supervision notes (SupN) (Moustakas, 1990).

- SN (3 weeks) describe the content of the sessions, a reflective view upon how the patients responded in general to FM/E, and in particular how they responded to the inter-subjective attunement; plus a self-reflective analysis of the counter-transference process when it was identified.

- PN (6 months) contained all the personal reflection and insights around the topic; plus the transcription of embodied experiences of FM/E during the time of data collection, analysis in the different writing stages.

- CN (3 months) are from the patient's medical records.

- SupN (3 months) are the transcription of the supervision sessions occurring during the internship and the 3 weeks of data collection.

### 2. Questionnaire and interviews

(See appendix 1 and 3)

## Data collection in clinical context

The notes and questionnaire (Appendix 1, unused) data were gathered in the clinical setting within three types of art therapy approaches:

- DMT session/relaxation,
- DMT session,
- Drumming / dance expression session.

Two of them were offered weekly in the hospital schedule (Gym/relaxation and Drumming). I had to create one DMT session with a co-therapist (intern psychiatrist) with the agreement of the onsite supervisor.

Traditional DMT interventions such as the "Chacian" circle, mirroring, attuning, movement theme exploration, and verbalization of embodied experiences were at the core of the DMT utilized in the mentioned sessions (Chaiklin & Wengrower, 2009).

## Method analysis

Processing all the acquired data, I was looking at how, which, when, with whom, what kind, and how much of FM/E occurrences were present in the data. I recapitulated them according to my somatic experience. Breaking the data into themes and categories provided a structural frame for some theoretical hypotheses to inform my analysis. The next chapter presents several vignettes to illustrate this further.

In comparison to other body movement analysis like LMA (Bartenieff, 1980), I shifted my focus towards the local micro-movement level of the face. This dimensional perspective gave me the opportunity to look at small, unusual movements. I became aware of FVD occurring on the face's micro-level within my own sensory awareness, and within the inter-subjective dialogue. On the one side it limited my observation on patients' faces and maintained my focus on facial sensations. On the other side these sensations were spreading from local awareness to the whole body, often simultaneously, as it shows in the vignettes' description.

1. **Categories**

Several categories emerged out of the analysis: FM/E in relationship to:

- Communication of information and intent
- Expression of affects
- Inter-subjectivity of non-verbal communication - implicit relational knowing- predictability and expectancy
- Bounding and boundary processes
- Self-regulatory processes
- Experiences of selfhood

2. **Theme**

The experiential learning operant during the research in the ward hold a fundamental, but discrete component: The concept of Form of Vitality Dynamic unifying my subjective experiences of energy (force) exchange, patterns and intentionality during FM/E activity. The theme appeared when I connected the categories horizontally and thus became a part of the illumination phase.

## Considerations on ethics

My onsite supervisor, as the leading professor and psychiatrist, gave permission to proceed in the research process, access to clinical data, questionnaire validation and the consent form according to the institution rules.

During the internship's data collection, confidentiality, privacy, and anonymity were ensured. Patient's names have been changed in the vignettes. An information letter, based upon the Oxford Research Ethics was designed to inform the participant about the research process. (See Appendix 3)

I tried to remain consistent with the notions of integrity and trustworthiness, as proposed by Bruscia (1998):

- Methodological integrity in being persistent in the continual examination of the research question
- Personal integrity by keeping a sense of curiosity, seriousness and authenticity toward the findings and the people involved in the study
- Interpersonal integrity by establishing a collaborative attitude towards the participants, the institution staff, my thesis supervisors and by prioritizing the therapeutic process over the research
- And finally, aesthetic integrity by linking the findings and the research process with choreographic concepts and ideas about FM/E in the dance art form (e.g. "The end of the tyranny", choreography for KNUA, 2013, appendix 4)

However, I am aware that the criteria of validity and eligibility remain questionable, principally due to the restricted and limited research conditions in terms of time and feasibility. Being a neophyte researcher, I became more aware of the limitation of the collected data as the methodological protocols unfolded and the research question was formulated.

The complex development of re-writing the work several times using different methodologies created uncertainty, confusion and awoke doubts about the outcome of the work in terms of reliability.

Nevertheless, a heuristic process is one of personal experience. I tried to keep the process as genuine, rigorous, conforming to the pursuit of (self)-knowledge, by reflecting towards the original source of data in order to reflect utterly the "felt" experiencing (Moustakas, 1990).

Ethical aspects will be discussed further in chapter 6.

# Chapter 4

## Data Analysis and results

This chapter presents the outcome of the data analysis through a selection of illustrating vignettes, incorporating parts of the notes and informing the categories and the core theme.

### 1. Patient's vignettes

**Jerome:** 30-year old male. Hospitalized for severe anorexia (3 years). Former nurse. Family conflict with divorced parents. Prior to his anorexia he had a normal life, a girlfriend and was a mountain marathon champion. (CN)

**David:** 19-year old male. Admitted couple years prior, for a first acute psychotic episode from toxic (cannabis) consumption after a sentimental break up. His symptoms were loneliness, insomnia, acoustic-verbal and visual hallucinations, persecution and a few suicidal ideas; due to his young age and recent records, there was no diagnosis such as schizophrenia mentioned. (CN)

**Suzy:** 55-year old female, divorced, two children. Anorexia since 1996, hospitalised under constrains by the family. Admitted bedridden and anosognosia (denial) of her condition. (CN)

**Romuald:** 36-year old male. Single, living with his parents. Hospitalised under constrains for behavioural disorders (Tantrum temper, social isolation, erotic-maniac delirium, disorganized speech and behaviour). (CN)

**Carla:** 23-year old female. She was admitted for the second time to the ward for anorexia nervosa when I met her. The first time she stayed for few months, she asked to be re-admitted, as she was not feeling stable enough to be back home in her family. This time she stayed for about three weeks. She had some behavioral problem with her father. She was used to train her body for fitness purposes.

### 2. My own experience of FM/E

- As a beginner in dance therapy.
- In relationship to the patients.
- In the internship environment.

## Jerome and the drumming sessions

*"When I first met Jerome, my impression was like seeing someone that had been shocked. His face was immobile and his eyes were particularly fixed and open. His gaze was intense and empty at the same time. Over time our connection enhanced, I could feel a certain empathic recognition when we greeted each other, some trust and connection, but his social engagement was severely limited, his conversation was quite sporadic, and his facial expressivity almost absent."(PN)*

The next vignette comes from a drumming session

*"I was then walking towards Jerome who was sitting on a chair, playing on a small drum and vaguely gazing towards me. I came closer in order to attune to his playing; I noticed that I was using my face to express the musical moment we were all engaged with. By making eye contact, I was aiming to engage with him into a face-*

*to-face inter-subjective communication, but to my surprise I couldn't sense any clear information visible in his facial responses that he was understanding or able to read my facial cues. Despite my goal to communicate empathically, I perceived a moment of panic in his eyes and some kind of fear. My response was to quickly change my focus to the space, towards the other participants, as this misattunement was creating a certain tension for him and for me. However I was left with a strange feeling of not being understood, and that I might have been perceived like a threat for him".* (SN)

I didn't have the chance to talk with him afterward about this specific moment, therefore I am left with these questions: could Jerome read my facial cues? Did he perceive my non-verbal attempt to communicate with him as threatening?

I realized through the experience with Jerome that the recognition of emotional processing through FE was not the same for everyone. Maybe he was over stimulated by my facial cues or had difficulty to be looked at in the eyes. However I was confronted with a patient that needed a different type of attention when it came to FM/E stimulation. Knowing the poly-vagal theory helped me to find another communicative strategy with him and to not try to force empathy and attunement.

Furthermore, it helped me question *the need to be seen and "how" to be seen*, dear to DMT.

## David

"*I am mirroring with David in DMT session, we begin by initiating the movements from the face through FE or FM in relationship to a sound, I am leading first then we alternate role by non verbal agreement. The resonance tended to increase with the use of the voice, getting sounds and breaths louder, larger movements including more rebounds and weight shifts. He was mainly looking at the lower part of my face (which was very active), and sometimes into my eyes, the same way a young child would attune with the expressive face of the mother, I move my mouth area as I transform my breath into verbal utterances. I feel a certain sense of empowerment coming from this attunement, through the expression of the mouth and eyes gazing, it feels very primitive and powerful. I am surprise to witness how David transforms into a strong and affirmed adolescent showing clear movements organization and a range of effort qualities. However, he seems on the edge within his physical condition as an in-patient; I slow down the rhythm with softer, lighter and sustained movements*". (SN)

What resulted from this session was a strong facial attunement through movement musicality and rhythms' exchanges, enabling non-verbal inter-subjective communication. Rhythms and musicality appeared like typical empathic features emerging from the local level of breath, the mouth area and expressive facial micro-movements. The layering between the movement of the face, the mouth, the breath, and vocal sounds, enhanced a sense of bonding synergy during the attunement process. The sensations of bonding felt amplified as the level of energy increased.

This force was felt like "*riding a horse" (PN),* this image is a good example to describe the attribute and quality of the energy (force) that was exchanged.

I experienced FM/E like a computational "interface" between my inner emotional, cognitive and biological processes and their outer expression. From this local, micro-level, I could sense, shape and control the embodiment of inter-subjective forms to communicate information-intentions to David. My face became a sensitive *interface* wherein I could regulate intention, direction, force and their further expression in

space and time. There was a deep sense of bio-regulation at the end of the session, and David reported feeling calmer and more relaxed.

This inter-subjective communication was possible with him for several reasons: a sense of safety was already established, David was not psychotic at the time of his admission, his psychological structure was strong enough to handle some emotional release (CN).

## Suzy

This vignette comes from a DMT session.

*"Because of the presence of Suzy I take some time to explore the body parts, I suggest that we use our voice and say individually "my" head, "my" shoulders, "my" hands. I start and we all say it together, then I ask each one to lead a body part exploration with the pronoun "my" aloud. It's interesting to see that Suzy begins with touching her belly, then down to her lower leg, thighs and then she remains on her face with "my" cheek, "my" nose, "my" eyebrow…It is interesting to notice that maybe her sense of self might be more present in this area than elsewhere (Sup.N). During this phase of the session my voice and my gaze toward Suzy was holding the whole process. I was feeling that she was using me as "crutches" to be able to go through her process. During these moments I discovered the potency of the voice, the tone, the words, I could push little bit of her limits through my voice with care and she could rely on this energy to confront the sensations of her emaciated body. I was constantly looking at her eyes, communicating, "I see you, I see you, we are going there together, and you're not alone". I have the feeling that she sees the gaze of other as a threat or a judgment. She is very obsessed with beauty and eyes pleasure; it is part of her illness's symptoms. I feel that she is looking for self-approbation. I am using consciously this entrance to try to give her an unconditional and genuine support with my gaze. At the same time I am intending to create "spaces" with my body and my gaze by opening space before her and provide a safe environment keeping a low and soft tone in my voice, gentle but present eye contact. I am trying to guide her small steps into the unknown of letting her body begin to feel and express. Alternating from attentive receptiveness (indirect, sustain, free flow) to reaching and supporting her with FM/E (direct, sustain). It feels like a simple version of attachment, but it had powerful effect that lasted with Suzy the whole time I remained in the ward. At the end of this session she reported spontaneously "I always have loved to dance, it was a dream for me.*" (SN)

For Suzy the session was about maintaining a flow of support coming from both FVD in gazing and voicing, intending to give her a safe and secure space. The presence of FVD helped create a virtual safe space where she could engage without dissociating from a body experience. I was using my gaze, facial movement associated with utterances and words to create a dynamic context that would help her to move from her body image to her sensory body. When the space was created she enjoyed her dance and was very positive about her experience. Suzy needed very specific stimulation. It took me a lot of vital intensity to under-attune with her in a very careful way. This whole process was computed via the micro sensing of facial inputs.

This vignette illustrates the effect of communicating intentional spaces, and supporting safe dynamics through non-verbal facial cues (in association with voice and intention).

## Romuald

In the following DMT session, I am working in mirroring with Romuald, a polite and obedient patient.

"*I am careful using FE with Romuald because I sense a deep merging feeling coming from him. If I look at him too long in the eye, I feel that he is moving out of his body right into mine. At first he is proposing movements, even dance steps, he feels very at ease and enjoy the dance. I feel that I can create a context a little less childish for him, and I start to frown at him, I am checking if he is able to follow me with a contrasting emotion such as slight disagreement. I use my voice and growl a little and to my surprise he is following and responding with stronger weight movement quality*." (SN)

In this instance, it felt useful to engage my FM/E to stimulate Romuald in a different direction than what he was used to. By mis-attuning with him and showing another type of emotion (disagreement), I felt there was an opportunity for Romuald to become familiar in a safe environment with the sensations and body state of this contrasting emotion. His record showed temper tantrums in the past (CN), Romuald seemed bound to express mellowness on one side (the behavior displayed at the hospital) and extreme violence on the other side (at home in the family context). This experience brought the question of emotional regulation, although he looked at first rather quiet and discreet. Secondly it brought the question of the appropriate gazing in relationship to setting boundaries. Part of the therapeutic work was to help him regain a sense of body grounding and setting limits. I felt I had to be very clear and sharp with my facial cues.

During this session, I could experience the oscillating nature of the arousal system, and further, how the inter-subjective modalities of implicit relational knowing moved the arousal system organically towards a search for balance and discrimination, while attuning and mirroring. This was referred as "state transforming" by Stern (1985) as the capacity to transform an arousal state with the contribution of another partner. Specifically using FM/E to match the patient' responses supported a clear ground from where I could maneuver. Further, I could develop more awareness to DMT's concepts of over-attunement, under-attunement and misattunement.

## Carla

In DMT circle/relaxation setting: *"I would ask the patients to move their face in a movement of contraction (all the face muscles contracted toward the middle of the face) and expansion (stretching the face by opening the mouth, pulling the tongue out, widening the eyes, jaw, neck and forehead muscles). Carla would disengage from this specific exercise in the same way that she would not show any emotional expression during a type of exercise implying an emotional response". (SN)*

*"This was particularly visible during a theater session, when the exercise was about to come across the circle towards another patient mimicking, gesturing, and posturing a character. While all the other patients in one way or another, supported by the drama therapist could get along with the task, she would get stuck. The therapist pushed her a little, with no success. As the result, she abruptly left the room in the middle of the session." (SN)*

*"I observed that her need to control her appearance was seriously limiting her creativity, aliveness and playfulness during the art therapies sessions. When we had to present ourselves with a movement or a gesture in a DMT circle, expressing or symbolizing our state of the day, she would execute a gym-squatted position". (SN)*

*"I was sensing Carla as someone rather insecure. I had the feeling she had some "still" image of perfection as a functioning pattern. Her defense mechanisms would express in disengaging, provoking a conflict or leaving the room. There was no emotional adjustment in her behavior in social context, the therapeutic contact always felt "slippery". As a male intern, she would engage with me quite seductively. I strived to look at her during the session with openness and acceptance to encourage her to "being seen"."* (PN)

This vignette shows another feeling associated with gazing in FM/E display: embarrassment. As a beginner in therapy, I was sensitive to the fact that the way my facial expression would have some impact on the patient transference process. This was particularly at stake with Carla. For her, making FM/E or funny faces was not really an option as she was not ready to let go of the control over her appearance. I had to adjust my FE to match her repertoire. As her transference process looked rather seductive, I understood that she couldn't make uncontrolled faces in front of others at this stage of the process.

Some patients, like Carla, appeared "resistant" to feel or express their emotions through FM/E. However by learning how to modulate my facial display in softening the gaze, shortening the duration of eye-to-eye contact, looking indirectly, finding soothing rhythms, nodding with the head or repeating micro-movements in the eyes or mouth area, I could get a sense of the non-verbal cues matching more to this patients' style. It felt like "walking on ice", however, it was a valuable learning experience.

## My own experience of FM/E

### 1. As a beginner in dance therapy

*"As I was learning to be among patients with psychiatric disorders, I noticed that I had to deal with my own emotional responses in relationship to their stories and emotional burden. As a result, it felt helpful to be able to give shapes and expression through my face to these inner feelings. I guess that was like an adaptive attempt to self-regulate my own system. I would use an appropriate facial expression intensity to canalize my inner state and transform it into another signal of expression serving the therapeutic purpose."* (PN)

In this instance the FVD expressed through the face was helping me to transform and canalize internal emotional processes. I became more aware of internal proprioceptive and sensory activities (interoception), and sympathetic sensations like "guts feeling" of danger or un-regulated states coined neuroception by Porges (2011). This awareness helped to make further therapeutic choices with the patients.

*"Along my stay in the ward, I felt that patients in psychiatry are particularly sensitive to mood and emotional behaviors in their surrounding, such as from caregivers, doctors, family members and other patients. By affirming my internal state in giving defined and clear facial expression, I observed that patient could "read" me better. My intention was to let my internal state being visible, but to have a keen awareness of how to control it. In case of tension, I would use my breath to self regulate, and I would be aware of my FE, striving to adjust to the patient' needs. I would use my intention according to my felt sense to regulate the room, creating a safer context, where patients could be held.*" (PN)

In this instance, I realized the value of accessing my internal somatic, emotional and cognitive processes. While I was developing more interoception and neuroception

awareness, I realized it was similar to the state of mind I experienced over the years in improvised dance performances, namely "the inter-subjective influences upon each other and of-over the context". Then I realized how my former experience as a dance improviser was an asset to sense the inter-subjective events partaking in the therapeutic milieu. I am speculating, assuming that FM/E plays a part in creating an engaging context for expression, motion and self-regulation of affects.

Further, the vignette points out the issue of predictability-expectancy in the therapeutic relationship. FM/E felt like informative non-verbal cues enabling a better perception (more readability) for what was about to come next, and thus favoring a sense of safety.

"*I felt that sensing background states, emotions, or affects and letting them consciously express through my face, contributed to anchor my physical body in the here and now, and was giving me a sense of self-empowerment. However, I don't know if this latest statement came more from the control I experienced over the expression of emotions or from the enactment of the affects themselves that was giving clearer contour to my sense of self*." (PN)

Proprioceptive sensing and expression of affects seemed to take part in self-embodiment, giving dynamic shapes and forms to the expression of the self. This felt experience is related to how my system was aware of these FVD. Being focused on the awareness of dynamics and vitality, and on the *control* over their flow, I began to perceive this phenomenological experience as a sense of self-empowerment (selfhood). The flow of FVD expression could be open (free flow) or reduced (bound flow) and canalized with specific intentions. As a result came a sense of potent embodiment and a secure place to be as a therapist.

**2. In relationship to the patients**

*"As a DMT beginner, my strategy was to acknowledge each patient's presence with my eyes and my face; I added a greeting including their name. I was intending to appraise them with openness and acceptance. My face and my gaze intended to give them a signal that I accepted them and wasn't afraid of their conditions."* (PN)

As a young therapist, entering a psychiatric ward I came to question what I could do or not do concerning facial display in order to make contact with patients. Rapidly I came to sense a certain influence while appraising patients with my face and gaze. Sending them signals (facial cues) of acceptance and acknowledgement over time was a simple intention that shifted the way they perceived my presence. This strategy was to address my own fears of the unknown parameters I had to face concerning their illnesses and possible behaviors. By engaging socially, I felt it helped me to be more emotionally regulated. This last finding directly supports Porges's model of "social engagement" as a self-regulatory modality (Porges, 2011).

However, *"Gazing a little too long, smiling without a real and previous connection with some patients was just creating suspicion and paranoia."* (PN)

In this note, the importance of an authentic and appropriate use of FM/E was critical. A young patient with severe paranoid symptoms couldn't bear at first being looked at directly in the eyes, especially by a young intern. This set the frame to experiment with the oscillation of facial micro-movements, which made me aware of the possibility to create appropriate spatial patterns. I tried "kinesthetic acknowledgement" as a means to create room for two co-existing delimited spaces. That seemed to work fine for him. In this instance, I could get a glimpse about the importance of personal space and the personal notion of safe space.

This following vignette is part of the same drumming session but concerning the group.

"*Patients tend not to look at each other, they concentrate upon their instrument and define a close world around themselves. Their faces show fixed and blurry expressions. I insist that they look at each other to train their eyes and ears for a more efficient attunement and in order to play the music together. I am moving with my eyes in the space, looking for their eyes when I feel that it is possible. When there is a response I use expressions of acknowledgement, validation and encouragement. When I feel that there are no responses, I try to come closer physically in a non-intrusive way in order to connect with their attention."* (SN)

This sample shows that different patients responded differently: some engaged through gaze and facial display, some seemed to be more confortable with kinesthetic sensing.

*"Nevertheless, over the sessions, some patients adopted gazing and eyes acknowledgment, and they were using it later among themselves.*"(SN)

This observation illustrated the possible influence of the use of FM/E as a learning behavior and as a social event.

**3. In the internship environment**

*"At some point I felt that my process of perceiving and acting upon emotion and facial display was deeply influenced by the personality of the psychiatrist. This context helped me to be more in my body, sensing my emotions, gut feelings and the variations of affects. Therefore I was able to perceive more vividly the animate, the vitality dynamics that were expressed in the dual relationship patients-doctor."* (PN)

An important and meaningful variable for this research was the context created by the presence and charisma of the psychiatrist (my on-site supervisor) which showed a rich play of FM/E and FVD. In LMA terminology, his FVD style was springing from indirect, sustained, quiet attentiveness, to explosive, sudden, free flow, unfolding a rich template of emotional dynamics that scared, impressed, froze or provoked patient responses. Most of the time, however, the accuracy and relevancy of his communicative behaviors showed a positive result in the patients' condition.

## Summery of findings

The face was experienced as central to communication and emotional expression; where inter-subjective events could inform possible therapeutic relationship and outcome. The facial body part could be depicted as an interface of micro-events between inner and outer processes.

Forms of vitality dynamics are contingent with facial movement expression display; they were particularly perceived inter-subjectively through micro-movement, intensity-force, and mental or physical space. FM/E's Rhythms and musicality in attunement processes were seen to assist the sensing of empathy and bounding. An intentional awareness of FVD was supporting shared concepts of spaces through implicit relational knowing, and dynamics of safety associated with non-verbal facial cues.

However, FM/E could trigger mismatching in expectancy with patients. FM/E could feel like a suitable entrance to engage with a patient and in some cases it did not, kinesthetic awareness seemed then more appropriate. On the other hand, the therapist's FM/E may maintain a sense of continuity strengthening the therapeutic

milieu throughout the awareness of predictability and expectancy (Tortora, 2010; Beebe, Lachmann, 2014).

FM/E helped to delineate appropriate boundaries by providing non-verbal information about personal space and clarifying intentions. FM/E assisted tracking arousal levels through implicit relational knowing and helped to stimulate or re-direct patient's experience.

Gazing implied FM/E activity in acknowledging, validating the other, but could trigger paranoid affects. Gazing seemed to be connected with attentional personal history (e.g. memories of how we have been looked at; attentional wounding). FE can be related to attentional wounding or transference process; they can trigger negative feeling of shame or embarrassment for instance.

FVD appeared like markers of arousal states enabling possible self-regulation by controlling the intensity of the level of experience. Socially engaging with the patients helped me to maintain a sense of self-regulation. The clinical environment showed influence on the possibilities for the expression of FVD through FM/E.

# Chapter 5

## Combining the findings with the literature: Explication

In this chapter I will discuss and compare the findings of chapter 4 with existing research to enlighten the research question: How facial movement/expression may contribute to Dance Movement Therapy (DMT) with psychiatric patients? I will outline a few propositions about how both empirical and scientific findings contributed to deepen my understanding of DMT clinical practice.

### 1. Theme

The inclusive presence of FVD during FM/E activity represents the core theme. FVD embody what I reported as energy patterns and brought the concept of vitality to the foreground. The literature about vitality has yet to be updated. Stern (1985, 2004, 2010) coined the terminology Forms of Vitality Dynamic after years of researching the non-verbal, inter-subjective occurrences between toddlers and mothers. This author defined FVD as a combination of five dynamic events: movement, force, space, time and intentionality/directionality. His concept brings together four converging lines of thoughts, namely inter- subjectivity, cross and meta-modality, the dynamic features of experience, and a phenomenological focus on subjectivity (Stern, 2010, p. 44).

#### 1.1. Illumination from the literature

To have experienced and appraised FVD, and later identifying them in the literature, represents a large part of this thesis's findings in terms of self-learning. It provided the explanatory frame from which I could understand empirically and conceptually several FM/E phenomena.

The heuristic finding, synthetized through the data collection, suggests that FM/E activity implies a combination of facial micro-movements, related to adaptive and emotional responses, shaped through dynamic characteristics of vitality.

FVD are taking part in all non-verbal attunement exchanges. They embody inter-subjective modalities through which dance therapists operate consciously or unconsciously. The concept of vitality is major for DMT as it involves the act of movement and of feeling alive.

#### 1.2. Explanations with associated literature

By focusing my attention on FM/E and exploiting their modalities to make contact with patients, I experienced a variety of forms of vitality arising from the facial micro level. These animated forms were interpreted and played out through my kinesthetic sensing, my "felt-sense" and through the dynamic interaction with the patients (Homann, 2010; Tortora, 2011; Stern, 2010; Sheets-Johnstone, 2010). They felt like inter-sensory and inter-subjective occurrences based upon qualitative forms of energy exchanges.

These experiences of vitality were new for me in this context, especially because they occurred on the local, micro-level of the face; nevertheless I was aware of their intensity, their kinesthetic patterns and their communicative force.

I first described them in my sessions and personal notes as energetic qualities and energetic patterns. The components of force, form, movement patterns, dynamics of

time and space arose through a combination of perceptive modalities (proprioception, interoception, neuroception, exteroception). As a result, communication with patients seemed to be broadened and clarified in interpersonal exchanges. Besides, the contour of experiences seemed more defined and I observed a rise in vitality.

During the sessions with Suzy, Romuald and David, data concerning vitality was interpreted as increase of vital energy in lower or higher levels of arousal. It was visible in the quality of muscle tone, alertness, and presence to one self and to others, and further in their social engagement. (PN)

Moreover, the expression of FVD felt different than experiencing only an emotion, a neuroceptive (gut feeling of safety) or interoceptive (internal bodily) sensation. It felt like a whole package, containing different layers of information. As Stern mentions: "Vitality is a whole, a Gestalt" (Stern, 2010, p. 5).

I felt precisely that these FVD expressed through my face, my voice and my body were holding a communicative force within specific qualities and intensities of proprioception that supported more corporeality. However, physical muscular intensity was not specifically matching FVD intensity. This effect might be explained through the face micro local level that reacts more sensitively to muscle tension than whole body engagement. Furthermore, the human face could be seen as a computational interface between internal bio-emotional neural processes and the larger context of the human body.

From the micro level perspective of the facial interface, FM/E activity were depicted as:

- An intensification of sensations,
- A concentration of bodily processes,
- A reflection of internal narratives,
- A fractal of biological and neurological activities that expand as well through the whole body; to its tone, posture or ways of moving.

*At the "local level", the scale of analysis becomes more microscopic-gestures and expressions, enabling in a short time to grasp the consciousness of a single whole event* (Stern, 2010). In the literature, the local level is considered less important than the more generalized, abstract and elaborated verbal level. As Stern (2010) stated: "*There is a general tendency to see local-level happening as less clinically important than the motives "behind" them, the larger psychodynamic forces"".* In Continuum Movement somatic approach, micro-movements and local level of bodily tissues have been studied extensively and validate the first order experience of a micro-scale phenomenology in inter-relational contexts (Conrad, 2007).

Based on this experience, I assumed that it was easier for psychiatric patients to engage first through FM/E micro movements than whole body dancing in DMT setting. This assumption was contradicted in the final results with some patients such as Carla or Jerome. Further development needs to be completed to un-validate this assumption.

### 1.3. Vitality in the literature

"Vitality" (Stern, 2010) and "animation" (Sheets-Johnstone, 2010), both describe the same aliveness phenomenon, the "felt" dynamic play of power (forces) that was experienced in my placement and upon which this reflection is based. Both terminologies are vital for DMT practice because they are inherent to movement.

Further, *"Animation tells us why concepts emanating from movement are of vital significance to animate life; it tells us why emotions are dynamic and dynamically-felt bodily feelings that, like movement, are descriptively declinable in terms of force, space, and time; it tells us why emotions and movement are dynamically congruent*" says movement philosopher Sheets-Johnstone (2010)

In this citation, the author explains how movement and emotions both participate in a dynamic process occurring in force, space and time, which is what dance therapists do in their practice.

These authors' conceptualization of vitality and its dynamic expressions are similar to Laban's efforts qualities: flow, weight, time and space (Bartenieff, 1980). Although LMA is the most common observational tool in DMT, it is not the focus here to argue upon the validity of these different approaches.

However, my experiences of FM/E and FVD exchanges, depicted in the vignettes of the previous chapter, felt closer to "tension flow", a terminology issued from LMA but focused on different rhythms observed in infant development. The founder of this approach, Judith Kestenberg talks about "tension flow" describing "*animated movement ranging from high to low levels of intensity of bound and free flow, and reflecting the elastic nature of living tissue*". She opposes it to "neutral flow", a quality of animation found when people are "*exhausted, depressed, engaged in routine "mindless" tasks*". Further, she mentions: "*It is easier to recognized neutral flow in facial expression. An individual may appear dazed, out of it, or unfocused. This is because neutral flow reflects an absence of vitality and a numbing of emotions and thoughts."* (Kestenberg-Amighi J., 1999).

## 2. Reviewing the findings towards synthesis

The following paragraphs expose the heuristic findings in light of recent research in developmental psychology, neurophysiology, neurosciences and DMT, and suggest propositions for further inquiries.

### 2.1. Communicative aspects of FVD in FM/E activity

As Chovil and Fridlund (1991) claimed that:

*"Facial displays are a means by which we communicate with others. They are more likely to be emitted when there is a potential recipient, when they are useful in conveying the particular information, and when that information is pertinent or appropriate to the social interaction".*

As exposed previously, the micro level of FM/E enabled specific forms of vitality that felt highly communicative during the interactions with patients, especially in attuning and mirroring interventions but also in the general context of making contact with patients in non-verbal manners.

According to Ekman (1993), FE is primarily a non-verbal source of communication for *automatic* appraisal of danger or safety. They communicate emotions instantaneously according to survival - welfare programs among humans. Appraising and acknowledging a patient's presence through non-verbal assets felt as important as to communicate with them from a cognitive place.

However from a therapeutic perspective, according to the data collection, individuals responded differently to facial stimuli. While it was a dynamic engaging support for David, it was an unknown territory for Jerome and myself, and could depict a "heighten affective moment" (a negative/positive moment standing out in time)

(Beebe & Lachmann, 2014, p. 38). With the latter, I came to experience “neutral flow” and eventually the “freeze” state as described in the poly-vagal theory. Porges’s work demonstrated that an individual diagnosed with psychiatric disorders may have difficulty to read and integrate strong facial or vocal stimuli; therefore a soft voice, smooth facial expressions, non intrusive gaze may seem more appropriate for their communicative capacities (Porges, 2011). I remained curious about his theory while working with few patients like Jerome, Carla and Suzy. I felt that the vitality forms issued from my face and my voice had to be rather soft, indirect, and carry smooth but precise stimulation with some particular patients.

### 2.2. Facial movement expression as means for cueing FVD effects

In empathic relationship processes like in David’s sequence, there are differences between mirroring, attuning, matching, synchronizing and other terminologies specifying a particular therapeutic intention for a specific outcome (Tortora, 2011). I experienced these differences over the sessions as different *intentionality* taking *different forms of vitality dynamic expression.*

Tortora (2009) makes a distinction between mirroring as a way to reflect exactly the movement of another and attuning as a way to match specific aspect of a movement sequence without necessarily copying all of its components.

I learned through the self-experiencing of FVD that relational dynamics hold vitality patterns. In this regard, I made a distinction in David’ session, between Mirroring and Attuning.

Mirroring involved an active intention of reflecting the movement quality and shape through a dynamic exchange, moving from the client to the therapist, and back to the client. The perception of this phenomenon became a clearer *vitality pattern,* taking the shape of a loop.

The form of this vitality pattern could be translated as more horizontal, reaching out dynamic characteristic illustrated in words such as *radiating, reflecting, pulling in / pushing out, interfacing…*

The attunement dynamic felt more receptive, matching the patient responses and aligning with their movement qualities and their non-verbal cues. This dynamic felt more sustained, less reflective, with the intention to *be and stay present* to what was occurring on the moment. The shape of this vitality pattern felt rather vertical and like holding centering dynamics illustrated in *adjusting, resonating, matching, finding the core, finding the pitch…*

I suggest that these personal descriptions for mirroring and attuning are reflecting FVD *per say*. Whether they can be seen as universal vitality patterns or only subjective to the ones who experience them, I cannot tell. But what I found informative is that they hold an abstract dynamic “shape” formed by intentionality combined with perceptive inter-subjective layers and laws of movement dynamic representation. They might be termed *Vitality Patterns* as they embody a certain movement (form or shape), an intention or trajectory in time and space and a certain force or intensity. This awareness may give specific information about therapeutic intention and relational knowing in clinical setting.

This empirical description corroborates Stern’s statement that FVD are mental representation (Stern, 2010, p 9).

The vignette with Suzy showed how FM/E could trigger specific inter-subjective dynamics that helped her to move. By focusing my intent on vitality patterns, it felt

possible to create a virtual safe space in front of her so she could step over the threshold of her fear of engagement (Porges, 2011). Further, this dynamic intentional scheme helped me to stay engaged dynamically during the attunement process, in this regard Suzy and I co-created a mutual, bi-directional relationship (Beebe & Lachmann, 2014). Quoting dance therapist Vermes (2011), "*Vitality affects, which connect our senses, are the first and most basic forms of interpersonal communication* and *show us the inherent connections between motion, intermodal perception, affect and interpersonal attunement*".

Coming back to the vignette of Romuald, Suzy, and David, three processes were identified through the data and later compared with the literature as: "under-attunement" and "over-attunement" for a play between matching and voluntary mismatching of FVD, and "synchronizing" with a emphasis on the rhythmical and musical factor (Stern, 1985, 2010).

### 2.3. FM/E as a central element for bio-regulation, empathy and bounding

In David's session, FM/E affected the attunement-synchronization process through the use of the mouth in relationship to breath, vocal sounds, facial sensing and guided my awareness upon the variety of FVD. This moment matched Trevarthen's *"communicative musicality": the duet of movement and sounds between two people expressing motives and intentionality* (Stern, 2010, p. 52). David and I were attuning, mirroring and synchronizing our faces, our breathing rhythms, vocal sounds, movement's qualities and dynamics; however what was communicated between the two of us was done through a variety of FVD. In this regard, FVD embody both the message (information) and the messenger (the medium).

The rhythmical synchronization shared between David and myself, resulted in deeper relaxation and wellbeing. David felt calmer and more regulated, we could deduct in his particular case that synchronizing rhythms may have facilitated affect-regulation processes.

In addition, synchronizing FM and dancing movements with rhythms and musicality seemed to enhance the therapeutic relationship between David and me, adding more bound synergy, therefor providing more trust and support for his social engagement.

A therapeutic goal for DMT is to lead patients toward more biological self-regulatory facility. *"DMT invite patients to experience new combinations of muscular and respiratory activities. They offer an opportunity to record alternatives in the bodily emotional expression within the supportive environment that helps to regulate and modulate emotions."* (Chaiklin, 2009, p. 40)

Although, there is evidence that FM/E is not only an emotional manifestation, they are features through which emotions are expressed (Parkinson, 2005). Neurobiologists have shown that emotions are regulatory processes (Winters, 2008). There are different ways to express emotions, they can be communicated verbally "I am sad", they can be felt internally "I feel sad", they can be acted "I cry to express my sadness" or they can be expressed through FM/E "I let my inter-face express sadness". From this perspective we could assume that a patient being able to express his emotions through the micro-movements of his face might self-regulate better than a patient who is not aware of this biological program to maintain homeostasis. Observing David at the end of the session from a vitality perspective showed that he was more fully present alongside looking more regulated. This hypothesis has to be further researched.

Data showed this sample of patients had different needs concerning affect-regulation. In the literature, FM/E is linked with affect-regulation processes and homeostasis in mother-toddler attunement phases, and evidence shows that FM/E is phylogenetically related to vagal-regulation (Stern, 1985; Porges, 2011). Therefore, depending on their personal history, genes and psychic condition, patient's needs vary from lower facial stimuli to stronger ones; eventually some types of facial stimulus are more appropriate than others.

During patients' interactions, I observed my body self-regulatory processes. I realized that specific micro-movement activities such as consciously breathing a cycle (inhale-exhale), swallowing saliva, widening my facial muscles and my eyes were participating in balancing-regulating the larger atmosphere of the room, including patients. The modulation of particular FM/E and their expression in forms of vitality dynamic, wherein the tone of my voice, the rhythm and depth of my breath, were contributing to hold an environment favoring therapeutic outcome of safety and grounding. I believe from this clinical experience that dance therapists can facilitate balancing "the therapeutic milieu". It correlates with Homann (2010), statement: "*The dance/movement therapist can begin by maintaining a state of receptive relaxation through slow breathing and somatic awareness in his/her own body. This promotes a calm and focused state of awareness that can help the patient feel safe, held and more contained*".

As FVD are expressions of intentionality, it also felt congruent with Schore's (2003) conceptual proposition about the possibility for the therapist to induct affect-regulation to the client from his own somatic awareness.

FM/E are closely related to the context-environment that is taking place as they address social motives and adaptive bodily responses (Parkinson, 2005). I felt that psychiatric patients were particularly sensitive to mood and emotional behaviors in their surrounding (caregivers, doctors, family members and other patients). Therefore, providing accurate and appropriate facial cues in the direction of patients may participate to establish a better therapeutic relationship and strengthening the therapeutic milieu (Tortora, 2011). In this fashion, Betty (2013) proposed an interesting clinical program based upon self-regulatory DMT interventions, including the use of FM/E and informed by the poly-vagal theory. This program was designed for nurses and caregivers in the hospital setting.

### 2.4. "Gazing" – "being seen" in FM/E attentional activity

The awareness of the micro facial level reinforced the presence of FM during sensory activity such as gazing. DMT literature has demonstrated the issues of "being seen" (Tortora, 2011) in a therapeutic context. However, through the study, I came to realize that a range of *ways of gazing* was available and that some added positive value and some triggered negative responses. Those "*ways"* were mediated through specific vitality effects in relationship to a particular intent. I realized that some patients like Jerome or Carla couldn't handle easily *direct, sustained gazing,* a vitality pattern, which could be used to create more bounding in appropriate circumstances. FM/E displays non-verbal information that can induct meanings and interpretations. Depending upon how patients would read these non-verbal cues and if they could read it accurately, matching the original intention, they responded differently to this type of visual stimulus. FM/E and their dynamic enactments can feel threatening for a patient with paranoid symptoms.

Further, FM/E are involved in the perception of attention (i.e. head tilt, widening of the eyes). Caldwell (1999) talks about "attentional wounding". She emphasizes that "*Attention is a profound and crucial form of nourishment for the developing child -a*

*basic need-, and without it, he or she will fail to thrive and grow normally*". When this fails to occur, an unconscious attentional wound can be developed and continue to operate through ones life span.

Therefore, "ways" (as FVD) of looking, seeing, gazing, are rarely neutral, they are performed with specific micro-movement in the face, sometimes accompanied with an emotion but not always. Nevertheless these "ways" of looking are communicating basic information about intentionality for safety, trust, and acceptance; but consequently they might also convey transference process, attachment patterns or traumatic memories.

### 2.5. FM/E in the issue of predictability - expectancy

Another finding about the communicative feature of FM/E was predictability. I did feel that clarity and agency in my own facial display supported my effort to be recognized as a safe interlocutor. Researchers in the field came to the "*profound agreement that the face, along with the voice, body posture and hand gestures, forecast to outside observers what people will do next*." (Azar, 2000)

Beebe and Lachmann (2014, p 3) describe expectancy as the "*action and interaction sequences unfolding from moment-to-moment within the self, within the partner and between the self and partner… expectancies involve anticipation of what will happen as well as memories of what has generally happened in the past*."

The notion of expectancy in the therapist's facial movement expression and their dynamic expression became more explicit to my awareness while responding to the interactive contingencies (degree to which each partner responds to the other) (Beebe, Lachmann, 2014). I intuitively sensed at the time and reflected later that this awareness of contingencies contributed to the development of continuity and consistency in therapeutic relationship.

Beebe and Lachmann assume that expectancies are encoded in a non-verbal, imagistic, acoustic, visceral, or temporal mode of information, and may not be necessarily translated into linguistic forms. This statement clarifies insights that were gained during the DMT sessions and later during the analysis.

These notions have been thoroughly developed by Beebe and Lachmann (2014) in film's microanalysis of their "dyadic system". They demonstrated a baby's capacity to respond in microsecond to internal (self-contingency) or external (interactive contingency) stimulus. They used this conceptual frame to address the issue of expectancy (patterns of expectancy) by bridging it with secure vs insecure attachment in early infancy and their repercussion through life span. I found this body of knowledge particularly crucial for my practice as a DMT.

The question of the dance therapist facial expression or expressivity and its influence on the therapeutic relationship would need greater investigation and go beyond the ambition of this paper. However, this inquiry would be relevant to the field of DMT in further research.

# Chapter 6

## Discussion

In this last part, I want to discuss some of the issues regarding the process and the outcome encountered during this research.

### 1. The effect of FM/E for DMT in a clinical setting

A positive outcome of the research is that the awareness of FM/E influenced my way to intervene with patients as a dance therapist. It influences both, the potential to communicate with them and the possibilities to use facial movement as a resource for therapeutic explorations.

The results show, that patients respond differently to FM/E stimuli, according to their life history, their personality, and the type and progression of their illnesses. From the findings and supported by theoretical research, it could be shared that FM/E and FVD awareness may refine dance therapists' clinical practice, especially in dyadic forms of attuning, mirroring or synchronizing.

As a young DMT, this research gave me a chance to look at the micro local level of the face, as an alternative and complementary view of the larger uses of LMA' efforts qualities (Bartenieff, 1980).

### 2. The issue of blending theory and practice in the process of researching

Prior to the research process, I had somatic experiences with FM/E activity, its implications in the body through the emotional level of affects, and local micro-movements stimulation, both coming from my experience in performing arts and in Continuum Movement. My goal for the data collection was to dive into a phenomenological inquiry (as a heuristic process) during the internship, paying attention to the non-verbal, inter-subjective mechanisms occurring in DMT practice. I engaged my "felt-sense" (proprioception, interoception, exteroception and neuroception) to conceptualize the phenomenon I perceived, including the awareness of implicit relational knowing. But I knew only a few of those words.

Further, I learned from the literature that what I was experiencing had been studied and theorized in different research areas. I noticed that the blending of self-experiencing with outer theoretical research holds the danger of shifting the phenomenological experiences into one trend. Associating different paradigms, might distort the findings. I strived to remain as close as possible to my own interpretation of the data during the inclusion of theoretical terminology, and to render a personal view.

### 3. Issue of personal learning as both dance therapist and researcher

I realize that good research needs clarity about the clinical terrain in order to adjust to a proper research methodology. Inquiring a question before having experienced the research context was a difficult task for me. Mostly because I needed to experience the "milieu" before I was able to articulate mental reasoning. I realized I was more inclined to clarify embodied phenomena (for myself as a beginner working in therapy),

and to elaborate a deeper understanding of my practice of DMT, rather than to manipulate linguistic data. This realization seems to be shared among dance therapists (Cruz & Berrol, 2004, p 12).

However, this process gave me the opportunity to include a body of literature in my understanding of DMT principles in both reflective (from my training) and clinical (from my internships practices) ways. The DMT supervision I received at the time particularly helped for understanding and integrating my first order experiences (felt-experience), and thus enhanced sensitively the linkage with further literature explorations.

In the final phase, I struggled to communicate with an external reader in simple but consequent ways about the findings. I came up with editing a short video of the opera singer Leontyne Price demonstrating her mastery of performing for her public to exemplify the relationship between FVD and facial expression. I linked it with the "still face" experiment representing the dyadic system in early infancy. Price's relationship to her audience mirrors the early inter-subjective exchanges between the mother and her baby. This video freed me from the linguistic paradigm by combining "felt experiencing" (for the viewer) and theoretical explanation; it assumes a creative synthesis function.

### 4. Organizational and ethical issues

Organizational and ethical issues of combining therapist-researcher were particularly complex (Cruz & Berrol, 2004, p 16). The fact that DMT is not a recognized profession in France gave no support to a proper full practice of DMT in the placement. I had to adjust to a rather rich but limited structure. Further, the organizational agenda was too compressed and too short to be able to do the internship, writing a research proposal and collecting the data. Research should be done under the conditions of a reasonable agenda, with a relevant number of sessions, and a well-known clinical terrain. None of these requirements were given due to practical reasons. These conditions affected the research process and limited the data collection. Since I didn't have a specific question but a curiosity for inquiring FM/E prior to the internship for the previous mentioned reasons, the writing of the research proposal happened almost at the same time as the data collection, which confused and rushed the definition process.

Besides that, I had to wear two hats at once: therapist in training and researcher. Because I had to focus on the practice first, it limited my capability in the research role. I felt that I lacked resources, objectivity and distance. However I value my personal process as one of a pursuit of self-knowledge. I developed observational skills and comprehension about FM/E and FVD that I didn't have beforehand, in this sense I validate as the first investigator the depth of the process (Moustaka, 1990, p 32).

Throughout the writing of this paper I struggled with defining the research question and the methodological framework. At the end the flexibility of a heuristic process permitted to re-own the work.

## Conclusion and further research

The answer to the research question is that FM/E may be contributing to DMT practice in several ways: through informative, communicative, expressive, vital, and regulatory functions. A potential therapeutic use could be to reproduce the dyadic system aiming for the repair of attachment or attentional wounding. Although the study showed that playing with FM/E was critical for some patients with paranoid symptoms and some anorectics. The dance therapist can evaluate the degree of interactive contingency, shift levels of arousal and induce regulatory actions.

FVD provided a frame for understanding inter-subjective events associated with facial activity and how they are fundamental mediums through which dance therapists operate.

To extend the findings of this inquiry:

- Conscious FM/E embodiment may enable *differentiating*, *controlling*, and *defining* the contour of an experience of vitality.

- Sensory awareness of FVD might offer to patients, feedbacks of how he/she is alive and how he/she might *own* their embodied awareness to further exercising control over it (Caldwell, 1995).

- DMT can contribute to experience forms of vitality dynamic more vividly than any other therapy.

- These experiences may ground physical and mental awareness, in the here and now, of the movements and forces that animate our emotions, intentions and actions.

Possible weaknesses of this study:

- The final results are not entirely related toward the psychiatric population: The creative synthesis is an attempt to share, with a larger population of therapist and artists, a developmental perspective about Forms of Vitality Dynamic through facial expression.

- This study was done in a limited time frame with a limited group of participants. It would need longer research, larger sample, and specific research protocols to study FM/E in a clinical setting (e.g. video of dance therapist/patient facial interactions).

If I had to pursue this study again, I will look closely at how each patient responded to facial stimuli, depending on their diagnoses, and systematically analyze similarities and differences. And in a second study, how psychiatric patients respond to forms of vitality dynamics according to their disorders. I would isolate as well the process of the therapist (heuristic approach) and of the client (systemic approach) (Higgens, 2001).

Keeping the dyadic system in mind, further research could investigate how DMT may generate self-regulatory bioprocesses through conscious display of FM/E and FVD exchanges in the vein of attachment theorists (Beebe & Lachmann, 2014); or how the stimulation of facial activity in a DMT setting may affect the vagal regulation system toward homeostatic states as suggested by the poly-vagal theory (Porges, 2011).

# Bibliography


Adolphs, R. (2008). Fear, Faces, and the Human Amygdala. *Current Opinion in Neurobiology , 18* (2), 166-172.

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders DSM-IV* (4th ed.).

Azar, B. (2000). What's in a face? Do facial expressions reflect inner feelings? Or are they social devices for influencing others? *American psychological association , 31* (1).

Bartenieff, I. (1980). *Body movement: Coping with the environment.* New York: Gordon & Breach Science Publishers.

BB performance. (2013, 04 2). *BB (Wonderland Collectief) tijdens Babelut Festival 2013.* Retrieved 11 10, 2013, from http://www.youtube.com: http://www.youtube.com/watch?v=V333gIezo9Y

Beebe, B. (2007). A Relational Systems Approach to Infant Research and Adult Treatment. In C. a. L., *On Intersubjective Theories: The Implicit and the Explicit in Interpersonal Relations.* EDS.

Beebe, B., & Lachmann, M. F. (2014). *The Origins of Attachment, Infant Research and Adult Treatment.* New-York: Routledge.

Berrol, C. F. (2006). Neuroscience meets dance/movement therapy: Mirror neurons, the therapeutic process and empathy. *The Arts in Psychotherapy , 33*, 302-315.

Betty, A. (2013). Taming Tidal Waves: A Dance/Movement Therapy Approach to Supporting Emotion Regulation in Maltreated Children. *American journal of dance therapy , 35*, 39–59 .

Bowlby, J. (1982). *Attachment and loss* (Vol. 1). New York: Basic Books.

Buckwalter, M. (2010). *Composing while Dancing: An Improviser's Companion* (1 edition ed.). University of Wisconsin Press.

Caldwell, C. (1995). Attending to Attention, developing a training model. *Journal of Transpersonal Psychology* , 9-10.

Caldwell, C. (2007). Bottom up Defense Strategies, our animal inheritance. Boulder: Moving cycle institute.

Chaiklin, S., & Wengrower, H. (2009). *The art and science of dance /movement therapy Life is dance.* Routledge.

Chew, H. R., Hales, E. R., & Yudofsk, C. S. (2009). *What Your Patients Need to Know about Psychiatric Medications.* Arlington: American Psychiatric Publication.

collective, O. (2013). *BB.* Retrieved from http://www.youtube.com/watch?v=V333gIezo9Y

Conducting Functions, O. K. (2013, 01 1). *Conducting Functions Video Ozawa Karajan.* Retrieved 11 10, 2013, from http://www.youtube.com: http://www.youtube.com/watch?v=iQCG7XH9fkw

Conrad, E. (2007). *Life on Land: The Story of Continuum, the World-Renowned Self-Discovery and Movement Method.* North Atlantic Books.

Cruz, R. F., & Berrol, C. F. (2004). *Dance/movement therapists in action, a working guide to research options.* Springfield, Illinois: Charles C Thomas.

Damasio, A. (1999). *The Feeling of What Happens: Body and Emotion in the Making of Consciousness.* Mariner Books.

Damasio, A. (1994). *Descartes' Error: Emotion, Reason, and the Human Brain.* Penguin Books.

Davis, M. (1981). Movement Characteristics of Hospitalized Psychiatric Patients. *American Journal of Dance Therapy , 4* (1), 52-71.

Delvecchio, G. S. (2012). Evidence of diagnostic specificity in the neural correlates of facial affect processing in bipolar disorder and schizophrenia: a meta-analysis of functional imaging studies. *Psychological Medicine* , 1-17.

Dosamantes, E. (2007). Somatic transference and countertransference in Psychoanalytic Intersubjective Dance/Movement Therapy. *Journal of American Dance Therapy , 28* (2), 73-89.

Dulicai, D. (2002). Dance/Movement Therapy and Neurology Conference The Wisconsin Chapter of the American Dance Therapy Association and the University of Wisconsin, Madison, April 21, 2001. *American Journal of Dance Therapy , 24*.

ECARTE. (2014, january). *France, Résumé of the professional and educational contexts of the arts therapies.* Retrieved january 6, 2014, from http://www.ecarte.info: http://www.ecarte.info/membership/directory/france.htm

Ekman, P. (1999). Basic emotions. In T. D. Power, *Handbook of Cognition and Emotion.* Sussex: John Wiley & Sons, Ltd.

Ekman, P. (1993). Facial Expression and Emotion. *American Psychological Association , 48* (4), 376-379.

Fischer, S. (2013, july). *About Face.* Retrieved january 5, 2014, from http://www.bostonmagazine.com/: http://www.bostonmagazine.com/news/article/2013/06/25/emotions-facial-expressions-not-related/

Fridlund, A. (1994). *Human Facial Expression: An Evolutionary View.* San Diego: Academic Press.

Fusar-Poli, P. P. (2009). Functional atlas of emotional faces processing: a voxel-based meta-analysis of 105 functional magnetic resonance imaging studies. *Journal of Psychiatry and Neuroscience , 34* (6), 418-32.

Gallese, V. &. (2010). The bodily-self as power for action. *Neuropsychologia , 48*, 746-755.

Gallese, V. (2009). Mirror Neurons, Embodied Simulation, and the Neural Basis of Social Identification. *Psychoanalytic Dialogues , 19*, 519-536.

Gelder, B. d. (2006). Towards the neurobiology of emotional body language. *NATURE REVIEWS | NEUROSCIENCE , 7*, 242-248.

Gentis, B. (2007). *Engaging the movement of life.* Berkeley: North Atlantic books.

Ginot, I., & Michel, M. (1998). *La danse au XXe siècle.* Larousse.

Gray, A. (2012). Staying present: The body and culture. *Somatic Psychotherapy Today* , 35-38.

Gur, E. R. (2006). Flat Affect in Schizophrenia: Relation to Emotion Processing and Neurocognitive Measures. *Schizophrenia Bulletin , 32* (2), 279-287.

Gur, E. R. (2007). Limbic Activation Associated With Misidentification of Fearful Faces and Flat Affect in Schizophrenia. *ARCHIVE GENERALE PSYCHIATRY , 64*.

Higgens, L. (2001). On the value of conducting dance/movement therapy research . *The Arts in Psychotherapy , 28*, 191–195 .

Hindi, F. S. (2012). How Attention to Interoception Can Inform Dance/ Movement Therapy . *American journal of dance therapy , 34*, 129–140 .

Homann, K. B. (2010). Embodied Concepts of Neurobiology in Dance/Movement Therapy Practice. *American Journal of Dance Therapy , 32*, 80-99.

Homann, K. B. (2010). Ripples of Change: Somatic and Psychic Transformation in Therapist and Patient Through Dance/Movement Therapy. *American Journal of Dance Therapy , 32*, 130-136.

Kestenberg-Amighi J., L. S. (1999). *The meaning of movement: Developmental and clinical perspectives of the Kestenberg Movement Profile. .* New York: Brunner-Routledge.

LeDoux, J. (1998). *The emotional brain: The mysterious underpinnings of emotional life.* New York: Simon & Schuster.

Moustakas, C. (1990). *Heuristic research: Design, methodology, and applications.* Newbury Park, CA: Sage Publications.

Parkinson, B. (2005). Do Facial Movements Express Emotions or Communicate Motives? *Personality and Social Psychology Review , 9* (4), 278–311.

Payne, H. (2008). *Dance Movement Therapy, Theory, research and practice.* London: Routledge.

Porges, S. W. (2011). *The polyvagal theory, neurophysiological fondations of emotions, attachment, communication, self-regulation.* New York: W.W. Norton & Company.

Robertson, D. (2010, 11 30). *TEDxStLouis - David Robertson - The Art of Conducting?* Retrieved 11 10, 2013, from http://www.youtube.com: http://www.youtube.com/watch?v=xKak7V6aI1I

Russell, J. &.-D. (1997). *The Psychology of Facial Expression.* New York: Cambridge University Press.

Samaritter, R. (2009). The use of metaphors in dance movement therapy. *Body, Movement and Dance in Psychotherapy* , 33-43.

Samaritter, R., & Payne, H. (2013). Kinaesthetic intersubjectivity: A dance informed contribution to self-other relatedness and shared experience in non-verbal

psychotherapy with an example from autism. *The Arts in Psychotherapy , 40*, 143-150.

Sandel, S., Chaiklin, S., & Lohn, A. (1993). *Foundations of dance/movement therapy: The life and work of Marian Chace.* Columbia: Marian Chace Memorial Foundation.

Schore, J. R. (2008). Modern Attachment Theory: The Central Role of Affect Regulation in Development and Treatment . *Clinical Social Work Journal , 36*, 9-20.

Schore, N. A. (2003). *Affect regulation & the Repair of the Self.* New-York: W.W Norton & Company.

Sheets-Johnstone, M. (2010). Kinesthetic experience: understanding movement inside and out. *Body, Movement and Dance in Psychotherapy , 5* (2), 111-127 .

Stanley, S. A. (2010). Facing the Trauma: How the Face Reveals and Processes Unexpressed Suffering. *The USA Body Psychotherapy Journal , 9*, 5-14.

Stern, D. N. (2010). *Forms of vitality: exxploring dynamic experience in psychology, the arts, psychotherapy and development.* New York: Oxford university Press.

Stern, D. N. (1985). *the Interpersonal world of the infant.* New-York: basic Books.

Tortora, S. (2010). *The dancing dialogue, using the communicative power of movement with young children.* Baltimore: Brookes Publishing and Co.

Tortora, S. (2011). The Need to Be Seen: From Winnicott to the Mirror Neuron System, Dance/Movement Therapy Comes of Age. *American journal of dance therapy , 33*, 4–17 .

Tronick, E. (2009, 11 30). *Still Face Experiment: Dr. Edward Tronick.* Retrieved 01 06, 2014, from http://www.youtube.com/: http://www.youtube.com/watch?v=apzXGEbZht0

Tronick, E. (2007). *The Neurobehavioral and Social-Emotional Development of Infants and Children.* Norton & Company.

Varela, F. J. (1991). *The embodied mind.* Cambridge: MA: MIT Press.

Vermes, K. (2011). Intersensory and intersubjective attunement: Philosophical approach to a central element of dance movement psychotherapy. *Body, Movement and Dance in Psychotherapy , 6* (1), 31-42.

Winters, A. F. (2008). Emotion, Embodiment, and Mirror Neurons in Dance/ Movement Therapy: A Connection Across Disciplines . *American journal of dance therapy , 30*, 84–105 .

# Appendix 1

### Questionnaire

A participatory and anonymous semi-structured questionnaire accompanied with a consent form was handed to the patients-participants after the sessions. The questions were related to facial and somatic experiencing, emotional expression, attentional focus, transference and social engagement. (See appendix, questionnaire and charts)

The questionnaire aimed at gathering data about the patient's experience in relationship to:

- Their own FM/E and emotions experiencing,
- Their experience of the therapist FE and gestural non-verbal communication,
- Their sense of social engagement easiness.

### Interviews

Next to these data, three interviews were conducted to gather data about FE in specific samples. A consent form was delivered and signed by the three participants. (See appendix)

1) Interview with an improvisation and movement teacher,

2) With an individual diagnosed with schizophrenia,

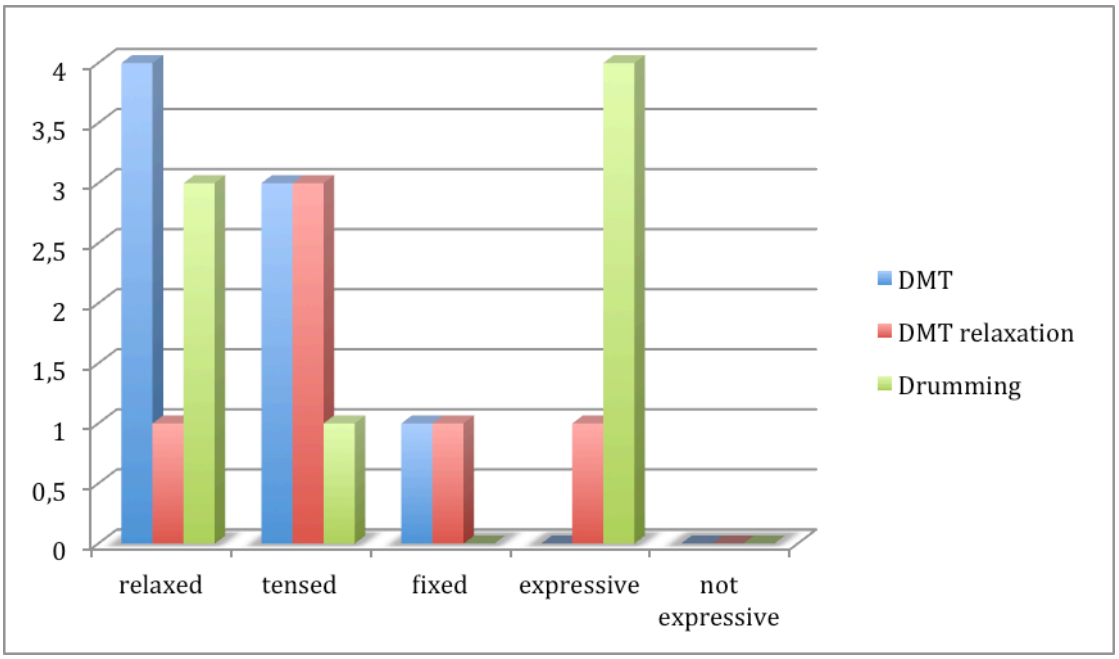
3) With a psychomotor-dance therapist.

The questionnaire and the interviews weren't used in the data analysis. They helped give a broader view over the nature of data and to measure the distance between personal experiencing and external sources. To a certain extent they were interconnecting sources during the axial coding. This stayed on a superficial level, since the data formulating the categories from the notes took a greater focus.

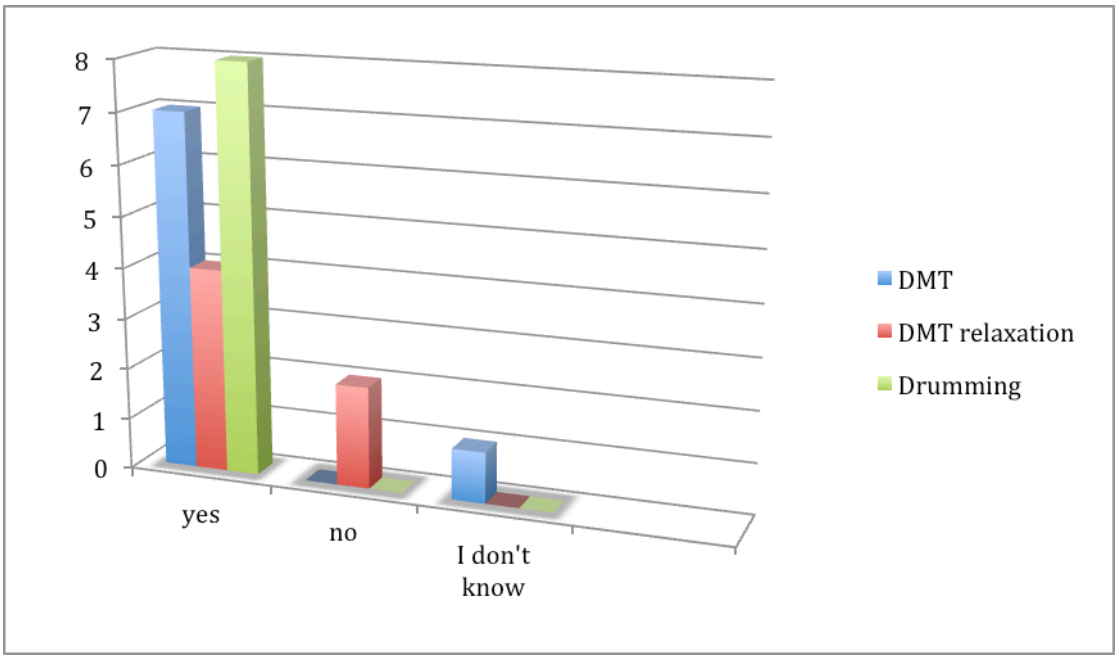
## QUESTIONNAIRE

**CHU Casselardit, Toulouse. UPT-UF2, Psychiatry, arts therapies units**

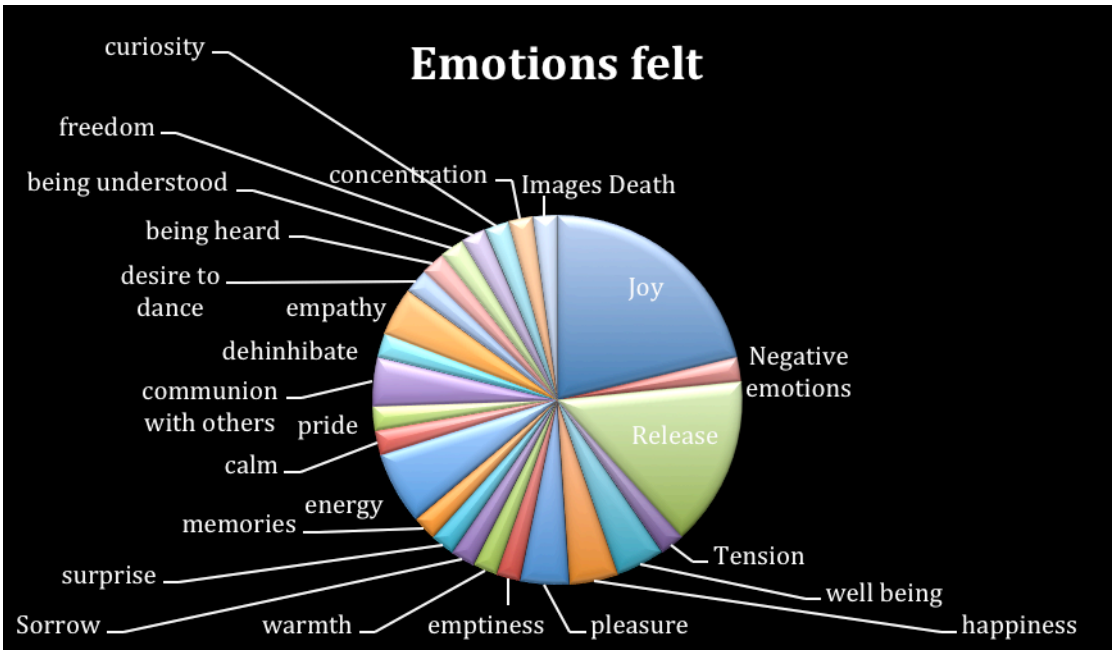
1. Do you usually feel you face as:

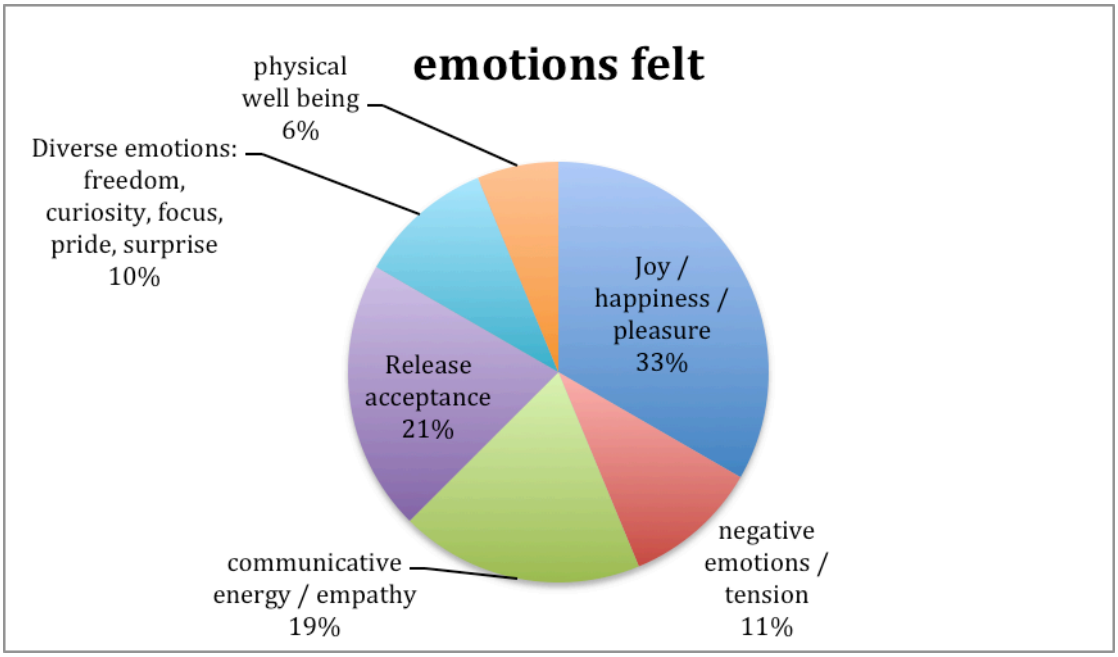



2. Did you feel some emotions during this session?

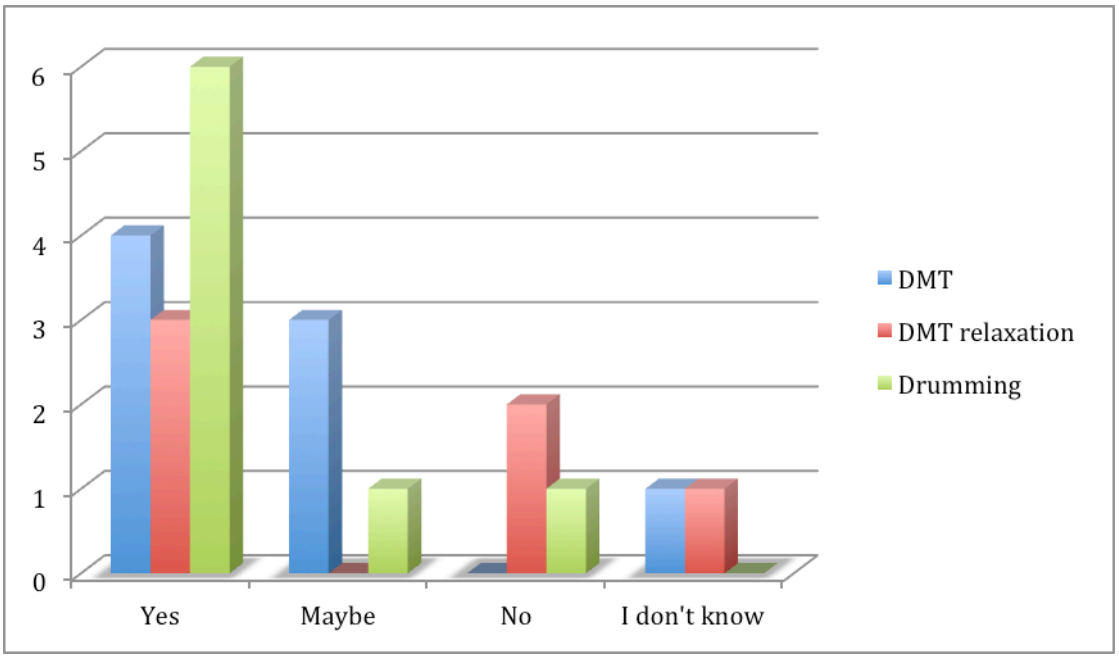


3. If yes, could you describe them?

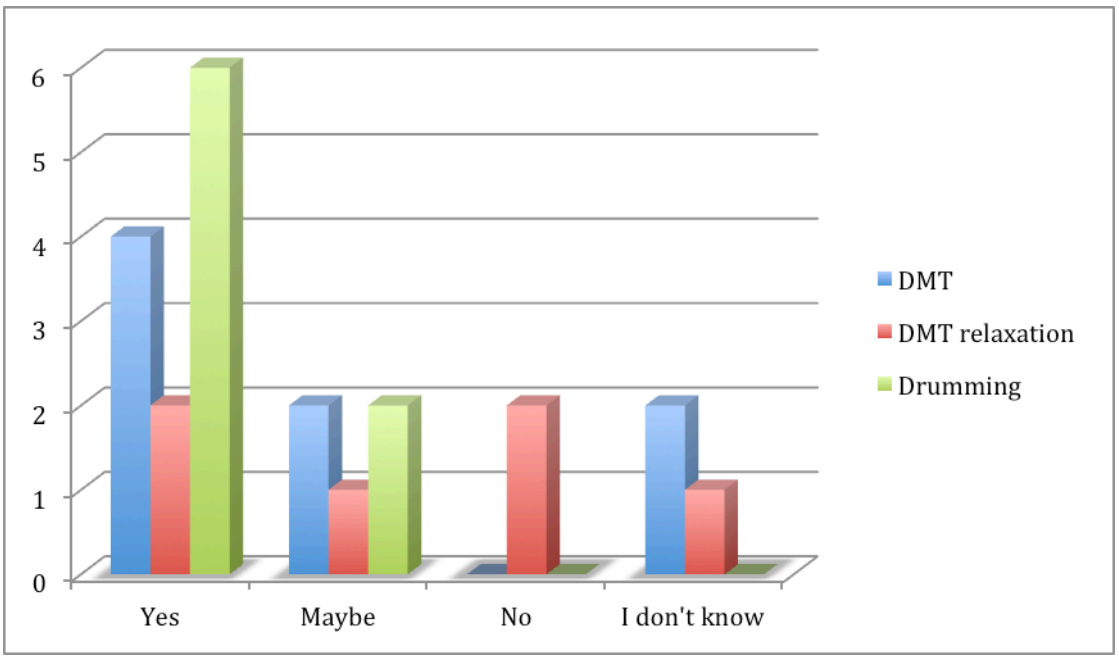


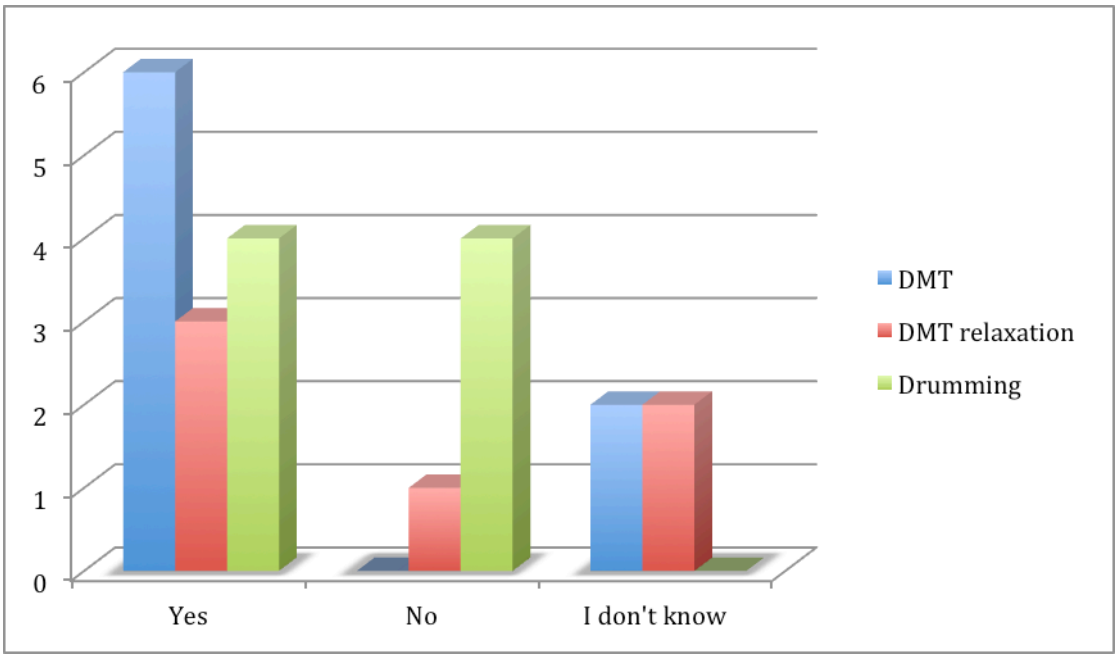
4. Were these emotions expressed throughout your body?



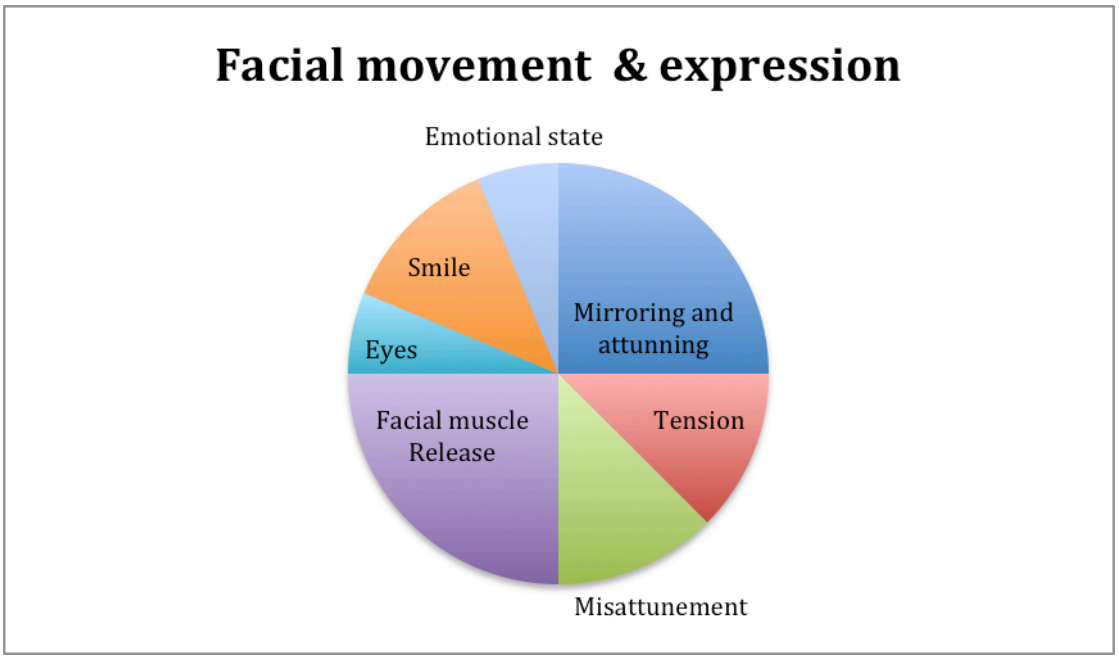

5. Were these emotions expressed through your face?



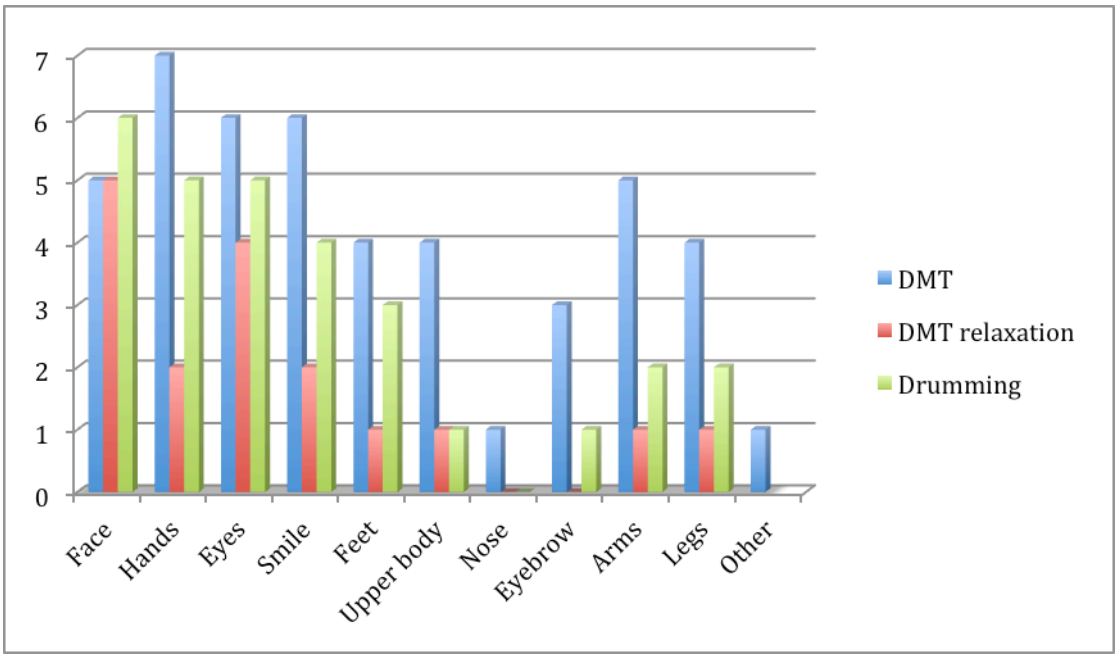
6. Did you pay attention to the movements or facial expression in your face during this session?



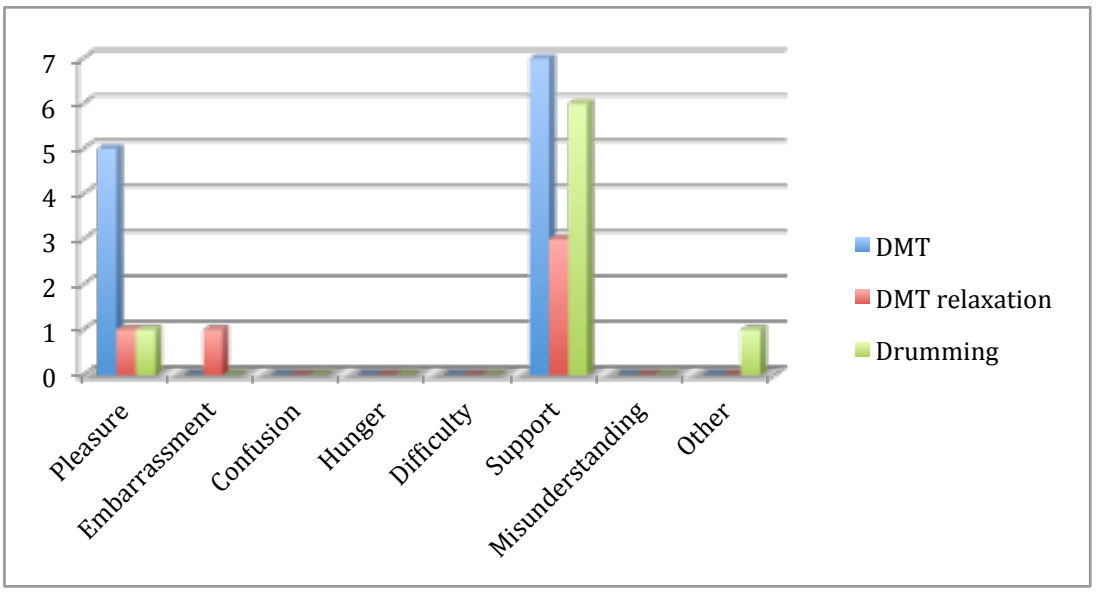

7. If yes, could you describe them?



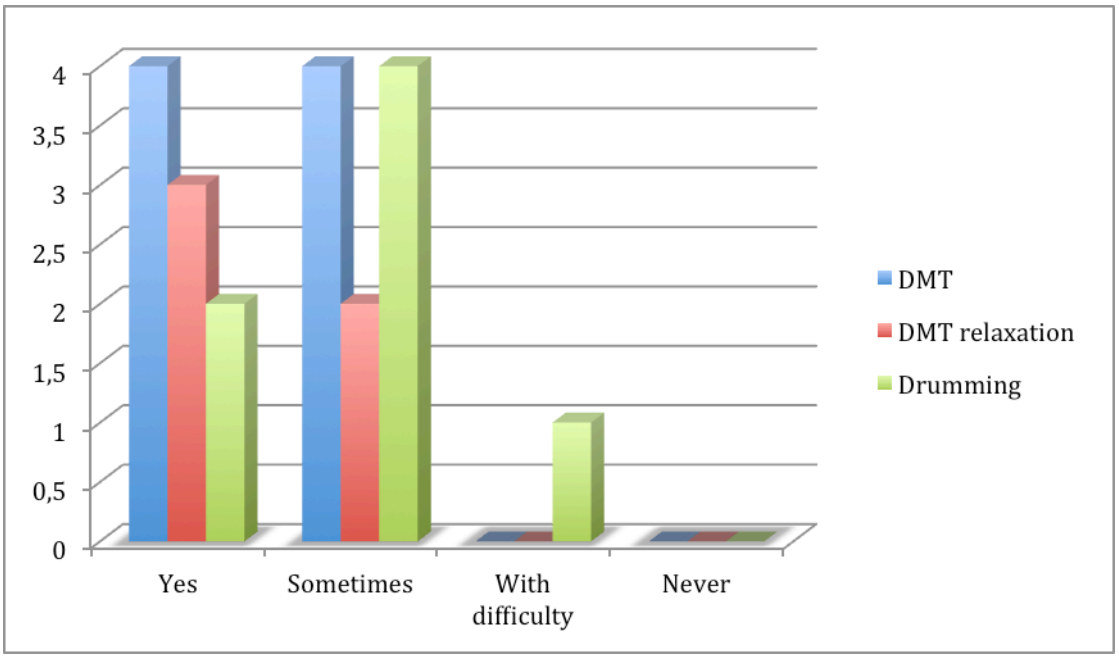
8. During the session did you rather observed the therapist's movements such as:




9. What do you feel when the therapist uses facial expression to communicate with you?



10. Do you usually communicate easily with others?



# Appendix 2

**INSTRUCTION TO RESEARCH PARTICIPANTS**

Date:

Dear

Thank you for your interest in my dissertation research on the experience of facial expression and facial movements. I value the unique contribution that you can make to my study and I am excited about your participation in it. The purpose of this letter is to reiterate some of the things we have discussed and to secure your signature on the participation-release, which you will find, attached.

The research model I am using is a qualitative one through which I am seeking comprehensive depictions or descriptions of your experience. In this way I hope to illuminate or answer my question: “Movement explorations of how the use of facial expressions may facilitate DMT interventions in inpatient psychiatric clients: a heuristic study.”

Through your participation as a co-researcher, I hope to understand the essence of the phenomenon as it reveals itself in your experience. You will be asked to recall specific episodes or events in your life in which you experienced the phenomenon we are investigating. I am seeking for vivid, accurate, and comprehensive portrayals of what these experiences were like for you, your thoughts, feeling and behaviors as well as situation, events, places or people connected with your experience.

I value your participation and thank you for the commitment of time, energy and effort. If you have may further questions before signing the release form or if there is a problem with the date and time of our meeting, I can be reached at sylvainmeret21@gmail.com.

Sincerely,

# Appendix 3

## PARTICIPATION-RELEASE AGREEMENT INTERVIEWS

I agree to participate in a research study of “how the use of facial expressions may facilitate DMT interventions in inpatient psychiatric clients: a heuristic study” as described in the attached narrative. I understand the purpose and nature of this study and am participating voluntarily. I grant permission for the data to be used in the process of completing a Master degree, including a dissertation or any other future publication. I understand that my name and other demographic information, which might identify me, will not be used.

I agree to meet for an initial interview of half to two hours and I also grant permission for the tape recording of the interview(s).

Research participant Primary researcher

# Appendix 4

## Creative and artistic resources related to Facial Movement Expression and Forms of Vitality co-inspiring the research

- Forms of Vitality in the Arts and Therapy (creative synthesis) http://www.youtube.com/watch?v=-77pTmJgKYk
- "The Last Cappuccino", Xiamen, China 28/12/2013 choreographic work collaboration dance/video https://www.youtube.com/watch?v=_qQWfH2Wa8A
- "The end of the Tyranny" Seoul, S. Korea 24/05/2013 choreographic work with K-ARTS university of dance https://www.youtube.com/watch?v=tH-9eRziU9Y
- "The dreamer and the observer" Amsterdam 24/07/2012 solo improvisation with musician A. Genovesi https://www.youtube.com/watch?v=MIKN2VIB1QA