

Performing (M)otherhood:
Excavating identity and the role of
neuroscience in performance preparation

by

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‘To evoke in oneself a feeling one has one experienced and having evoked it in oneself, then by means of movements, lines, colours, sounds, or forms expressed in words, so to transmit that feeling that others may experience the same feeling - this is the activity of art.’

Tolstoy, 1897

Plagiarism statement

I certify that this assignment/report is my own work, based on my personal study and/or research and that I have acknowledged all material and sources used in its preparation, whether they be books, articles, reports, lecture notes, artistic works, and any other kind of document, electronic or personal communication. I also certify that this assignment/report has not previously been submitted for assessment in any other module and that I have not copied in part or whole or otherwise plagiarised the work of other students and/or persons.

Abstract

This research practice explores the ways in which a dancer/mother experiences changes during parenthood and how these can be used to enrich their expressivity before and while performing on stage.

This research has been developed over the course of two years. Field archaeology has been used metaphorically as methodology and the ‘excavation’ process has been applied for uncovering the changes experienced. In year one, I focused on the layers of myself as a mother: identity, embodiment, kinaesthetic awareness, empathy and love. Through this I understood how my identity evolved, I used dance to bond with my child and the new emotions that motherhood presented to enhance my dance. In year two, I continued exploring motherhood while also engaging with neuroscience as a tool to understand how our thoughts in cooperation with the body movement can be used in order to experience certain emotions. I conducted two experimental workshops with dancers to examine whether emotions can be triggered using visualisation, imagination, and narratives from the participants’ everyday lives. According to the results of these workshops, it is possible to activate and/or enhance emotions which can impact the dancers’ emotional state before performing on stage.

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Glossary

Archaeology	There is no specific definition of archaeology and in fact it is very difficult to define it. One definition is the ‘the scientific study of the material remains of past human life and activities’ (Daniel, 2019).
Field Archaeology	The archaeology that takes place in the fields.
Typology	Dating method and clarification of the archaeological findings according to their characteristics (Bahn and Renfrew, 2001).
Stratigraphy	‘Scientific discipline concerned with the description of rock successions and their interpretation in terms of a general time scale’ (The Editors of Encyclopedia Britannica, 2014).
Laboratory	The laboratory is the name used to describe the workshops I conducted during the second year of my research.
Performance Archaeology	Modified term from the term Theatre Archaeology (Pearson and Thomas, 1994). In this research, this term represents my dance practice.
Loop	Loop is ‘a curved part or shape made when something long and thin (such as a rope or thread) bends so that it touches or crosses over itself’ (www.britannica.com , n.d.). Metaphorically, I am using the word Loop to describe something that has cyclical structure; it starts and finishes with the same task/movement pattern. A performance piece, either

	structured or improvisational and/or a workshop could be like a Loop. In this research the workshops have the structure of a Loop.
Text in frame	Parts of the Excavation Diary.
Neuroscience	The study of the nervous system (Kings College London, 2023).
Nervous system	The system that controls and regulates all the functions of the body (National Cancer Institute, 2019).
Somatic nervous system	The somatic nervous system receives and responds to information associated to the outer environment and our inner operation (Olsen 2020).
Autonomic nervous system (ANS)	The autonomic nervous system is responsible for our internal performance and activates involuntary functions in our nervous system such as heartbeat. It is divided in two systems: The sympathetic nervous system and the parasympathetic nervous system (Olsen, 2020).
Sympathetic nervous system (SNS)	The SNS is mentioned as ‘fight-flight’ system as when it is activated, there are high arousal responses to the body to extreme threatening situations (Ashton, 2013; Weissman and Mendes 2021).
Parasympathetic nervous system (PNS)	The PNS is mentioned as the ‘rest and digest’ system, as when it is activated the relaxation and restoration process in the body take place (Weissman and Mendes 2021).
Dopamine	Dopamine is a neurotransmitter that increases when there are things exciting, pleasurable and in response to any type of reward (Ashton, 2013; Juárez Olguín et al., 2016). Moreover, when dopamine is released

	in the blood, the effects are better focus, motivation, and memory (TEDx Talks, 2017).
Endorphin	Endorphins are the endogenous opioids of the body (Harber and Sutton, 1984; Steinberg and Sykes, 1985). Endorphins are neurotransmitters that work as the morphine drug in the body viz pain management and are associated with natural rewards such as eating, drinking, maternal behaviour (Sprouse-Blum et al., 2010). Specifically, beta-endorphins, ‘exert their analgesic effect by inhibiting the release of GABA, an inhibitory neurotransmitter, resulting in excess production of dopamine’ (Sprouse-Blum et al., 2010, p.70).
Serotonin	Serotonin is a neurotransmitter that halts your neurons from sending messages to the brain in response to unpleasant and threatening situations (Ashton 2013). In other words, serotonin is a neurotransmitter necessary for the formation of the mood (Berger, Gray and Roth, 2009).
Oxytocin	Oxytocin is the ‘love’ hormone, and I would add the ‘bonding hormone;’ is released during childbirth, when breastfeeding, with skin-to-skin interaction, during sexual intercourse, during positive and cordial interactions between humans and between humans and animals (Ashton, 2013; Light, Grewen and Amic, 2005; Uvnas-Moberg, Handlin and Petersson, 2015). Additionally, it has anti-inflammatory effects, it induces anti-stress effects and well-being, and it affects pro

	social behaviours (Ito, Shima, and Yoshioka, 2019; Neumann, 2007; Uvnas-Moberg, Handlin and Petersson, 2015).
Orbitofrontal cortex (OFC)	Region of the brain that is involved in the processing of rewards and punishments (Ocran, 2023).
Anterior insula	‘The anterior insular cortex (AIC) is implicated in a wide range of conditions and behaviours, from bowel distension and orgasm to cigarette craving and maternal love, to decision making and sudden insight’ (Craig, 2009).
Periaqueductal gray (PAG)	‘The periaqueductal gray (PAG) is a key structure in the propagation and modulation of pain, sympathetic responses as well as the learning and action of defensive and aversive behaviours’ (Mokhtar and Singh, 2022).
Striatum	‘The striatum is a deep-brain nucleus that links motivation to motor movements involved in the execution of simple motor tasks as well as more complex cognitive tasks, such as reward processing, decision-making, and social interactions’ (Lorenzetti and Cousijn, 2016).

1. Introduction

I am Hara Kyriazi; I am a Greek woman, wife, mother, dance artist, archaeologist, scholar. It was October 2022 when my research journey started, and through this dissertation, alongside an online virtual gallery ‘The Flamingo’s pink colour’ (<https://art.kunstmatrix.com/apps/artspaces/dist/index.html?timestamp=1727543654401#/?external=true&uid=113930&exhibition=13363620>) I welcome you into the world of this two-year research journey.

During year one, I was investigating the relationship between motherhood and performing; the ways in which the mother’s identity could be brought into my dance practice. In this broad question, I wanted to explore the notable changes I experienced becoming a mother. Referring to my studies in archaeology, I considered myself as a series of layers such as *embodiment* (Merleau-Ponty (1962 [1945]; Tanaka, 2011; Abercrombie et al., 2000), *identity* (Stern, Bruschweiler-Stern and Freeland, 1998; Susan Leigh Foster, 1992; Mainwaring, 2019; Roche, 2011), *kinaesthetic awareness and empathy* (Susan Leigh Foster, 2011; Sklar, 1994), and *love* (Ruddick, 1980; Gerhardt, 2004). I explored the ways in which my embodied pregnant self, and the understanding of my identity while dancing pregnant and then again with my two-year-old daughter, were sources for my art making. During this research, I found an unspoken way of bonding (Hussain et al., 2018, Bardosono et al., 2017) with my daughter through dance and overcoming difficulties that might arise in our everyday life and importantly, I approached more profound issues such as her stammering (Kyriazi, 2023). In other words, I turned my everyday life into research.

After conducting my year one research, I took all the ‘findings’¹ from this discovery to the ‘laboratory’ for further investigation. In year two, I questioned if I could develop a dance practice or workshop ‘technique’ for triggering emotions in the performer before a dance performance and test this technique on participants, who are not necessarily parents. I wanted the participants to consider their everyday life for inspiration to enlighten their expressivity on stage. I conducted experimental workshops; the foundation of this work was research into neuroscience as a tool to activate and induce emotions in the participants. As stated by Bläsing, Puttke and Schack, ‘science investigates the invisible, art makes us experience it’ (2010, p.241). This is where my research became broader, and spread into a wider context; I worked with people who maybe did not have a family or did not plan to have a family in the future, there is still the potential for a resonance here, as they could understand the dancers/parents in a deeper, more empathetic way. More detailed description on the tools used as well as the participants’ feedback from the workshops are given in chapter 7 and 8.

The online virtual reality gallery ‘The Flamingo’s pink colour’ (<https://art.kunstmatrix.com/apps/artspaces/?external=true&uid=113930&exhibition=13363620>) accompanies and completes the written dissertation It designed to bring forward the practice and encourages the reader to connect with my two-year research project on broader level. I have added the link for the gallery where necessary so the reader can watch/explore it alongside with this dissertation. In the next chapters, I will describe the methodology for the conduction of this research, my thoughts gleaned from neuroscience, the experimental workshops, and the conclusions that arose.

¹ More details about the ‘findings’ in year 1, are in this website <https://danceharak.wixsite.com/my-site-1>

2. Methodology

2.1. Field Archaeology

In year one of my research, I decided to use elements and notions of archaeology as a metaphor to explore my lived experience (Kyriazi, 2023). Having studied archaeology, I believe there are many common elements that archaeology and dance research share, and I decided to use archaeology as a model to conduct my research project. As Alessandra Lopezy Royo (2002) argues, the process of archaeological investigation is a helpful metaphor for dance practice and dance analysis. In my opinion indeed it is. I believe that for dance practice, the dancer is constantly researching/discovering/thinking. As the archaeologist explores the past and tries to re-contextualise, likewise the dance artist conducts an ‘excavation’ with their body and their mind to express something. There are numerous possibilities and maybe numerous answers too. We cannot relive the past thus we cannot be entirely certain of the given answers by archaeologists. The same applies with the dancers in my opinion; they create a narrative that stands for the present but in the future if they revisit their work, the purpose and the meaning of their work might change. In the next chapters, I explain more details about the relationship between archaeological process and the dance research/process identifying my framing and use of this metaphor.

Specifically, I have used the model of field archaeology². In field archaeology, one of the excavation methods emphasises the vertical dimension, digging into deep deposits to discover the stratigraphy³. Stratigraphy provides vital information about the layers of the earth. Archaeologists

² Definition on glossary

³ Definition on glossary

through stratigraphy can date and recognize which layers stayed uninterrupted and which not and the external factors that may have caused the disturbance of the layers (Bahn and Renfrew, 2001).

My research during these two years, has four stages:

1. Finding the field: Setting the purpose of the excavation and trying to answer what is the impact of motherhood on my dance practice
2. Excavate the field
3. Interpretation of findings
4. Publishing the data

In year one, I focused on stages 1 and 2. My main question explored the relationship between motherhood and performing, and the ways in which the changes in the mother's identity could bring about changes and impact my artistic practice. During this excavation, each layer of soil represented layers of myself. I was interested in evaluating the layers and recognizing which of them stayed uninterrupted and why. I was digging downwards, travelling from the present to the past and evaluating the findings.

I created an academic practice framework based on the Practice as Research model (Hanula et al, 2014 in Nelson, 2022) that accommodated the primary questions of my research which I already stated above. Through the application and delivery of the research and upon reflection, I have realised that this model would not work well for the second year of my research. That is because the questions of my research project have shifted in year two: I want to discover if it is possible to create a 'method' turning the banality of our everyday life into inspiration and utilise it as a preparation for stage.

In year two, I developed the questions which focused on self and my lived experience broadening to other dancers in the field. I choose to focus on the different identities of a dancer i.e., the different roles that each person has in their lives such as dancer, scholar, partner, parent etc. Hence, how the individual can use these identities as source inspiration to perform on stage in a more expressive way. The changes and the emotions that these different identities bring to the individual. Therefore, I am reworking the metaphor of archaeology, from concerning my identity to a wider field of dancers' identity. I will learn from the process of exploring the layer of the 'mother's identity' (Stern, Bruschiweiler-Stern and Freeland, 1998) and the layer 'dancer's identity' (Susan Leigh Foster, 1992; Mainwaring, 2019; Roche, 2011) and extend this understanding to other dancers. I will consider the other areas of research in year one as findings; such as the finding 'embodiment' (Merleau-Ponty, 1962 [1945]; Tanaka, 2011; Abercrombie et al., 2000), the finding 'habitus' (Bourdieu, 1984; Wainwright, Williams and Turner, 2005; 2006; Navarro, 2006) and the finding 'love' (Ruddick, 1980; Liston, 2008; Gerhardt, 2004).

Below I explain the methodology process in the second year of my research, and I unpack the term love in more detail as love was the most important finding of my excavation.

2.2. Year two- The post-excavation process

2.2.1. Documentation based on the Excavation Diary

In year two, I focused on stages 3 and 4; interpretation of the findings and publishing the data. A method that I used in the second year is the excavation diary. In an excavation, the archaeologist must keep a diary of the excavation every day, which should be as detailed as possible for the next generations of archaeologists that will excavate the same field (Bahn and Renfrew, 2001). Bahn and Renfrew (2001) also mention that archaeology is expensive and

destructive, thus it must be preorganised with care, precision and detail. ‘Detail! We archaeologists love it.’ (Fagan, 2016, p.106). In my opinion, dance artists also love detail and documentation. I believe when dancers create a piece, they try to be as clear as possible for communicating their meaning. Also, the journey for the creation of their dance piece is full of documentation to gather the necessary information and sources of inspiration.

The excavation diary might be used as an original practice of documentation for research. Writing parts of the research as a diary, the reader can better understand why archaeology works as a useful model for conducting dance research especially in this case; ‘the task of the archaeologist is to describe, to relate, to interpret’ (Miller and Bordes, 1972, p.139). Parts of the diary are present in the written dissertation as framed text and the online gallery (<https://art.kunstmatrix.com/apps/artspaces/?external=true&uid=113930&exhibition=13363620>) with dates when the text has been written.

2.2.2. Care

(Ruddick, 1980; Malhotra and Misra, 2015; D’Olimpio, 2019) about the findings is vital for the archaeological process but also for conducting this kind of research. As a woman, I consider ethics as this research was primarily for myself and to tell my truth hence, I need to be careful and precise. As a mother and artist, I care about my family and my own place within family/work/life. I am responsible for raising my children and whatever I am exploring must be done with care in order to keep myself and family mentally and physically safe. Care also must be one of the basic elements for human beings and for the creation of the society. Therefore, it can be said that care is a practice itself (Ruddick, 1986). My actions through my practice require ethos. During the conduction of this project, I was dancing with Michaela. I consider her as a human being, and not

only as my child, who needs to be respected despite her young age and her capability to provide consent or not for participating in this project. The same applied for the conduction of the workshops. My actions resulted in an effect on the participants and how they felt after their participation. As Tronto (1993) argues, the good intention is not enough for achieving ethos, but it should be accompanied by practice and the result of this on the others.⁴ (Tronto 1993, cited in Maio, 2018)

2.2.3. ‘Laboratories’

In this Practice as Research based model (Hanula et al, 2014 in Nelson, 2022), as previously mentioned, I have conducted workshops which I named ‘Laboratories’⁵ and were created to bring questions forward material concerning the practice. The workshops were devised on a thorough review of neuroscience, emotions, feelings, embodiment, and movement exploration, details of which are on chapters 7 and 8.

In this research project, as mentioned above, I shifted my focus from myself to other individuals which worked as a small community for experimenting. I considered the importance of learning as part of a community thus I have applied the techniques I used on myself to other dancers. Wenger (1998) recognises four elements of learning which create a theory of learning; meaning (experiencing the learning in a meaningful way), practice (learning as doing), community (learning as part of community, as belonging), and identity (learning as becoming, knowledge changes who we are) (Wenger, 1998 as cited in Graven, 2003). According to Lave and Wenger

⁴ Tronto (1993) developed a four stages model of care; recognition of need, willingness to respond to a need, direct action, reaction to the care process. (Tronto 1993 cited in Maio, 2018)

⁵ Visual material from the workshops on the online Gallery
<https://art.kunstmatrix.com/apps/artspaces/?external=true&uid=113930&exhibition=13363620>

(1991), it is important ‘shifting the analytic focus from the individual as learner to learning as participation in the social world’ (p.185).

2.2.4. Improvisation

Improvisation is a useful tool for year one and year two of my research. Wright (2018) argued that improvisation allows the mind to think without overanalyse the movements of the body. I could not agree more therefore, during the workshops, guided and free improvisation were used so the dancers did not have the time to overthink their movement but rather let their subconscious speak. The improvisational tasks were based on Olsen’s (2020) ideas and were reworked according to the workshop’s demands. One example is the improvisational task: Visualization, imagery, imagination. Olsen (2020) suggests an imaginative journey and guides the participants in arriving to an imagery situated place, they are asked to look around the place, remember what they see and exit by climbing up stairs and exiting through an imagery door. I changed the parameters of this task to fit my own research and details of which you can find on chapter 7.

2.2.5. Typology

An additional method that I used to interpret the data from the workshops is typology. Typology is a dating method and is a clarification of the ceramic findings according to their characteristics. In typology, the findings are categorised according to their shape and their decoration. According to the Darwin theory of evolution, the changes in the technique of the findings are gradual and evolutionary (Bahn and Renfrew, 2001). Therefore, in the 19th century, archaeologists accepted this theory and adjusted it to their way of dating the findings; ‘the similar matches the similar’ (Bahn and Renfrew, 2001, p.120). As indicated by Miller and Bordes (1972), typology is ‘primarily a way of description’ (p.139). This method is not only a dating method for

the findings but a method that represents the significance and the strategies of the society in ‘its (re)production of itself’ (Sørensen, 2021, p.189). Hence, it gives a glance of the society’s principles, ethics, choices. This fact was an interesting one that made typology an ideal method to use for interpretation of the workshops’ data. As previously mentioned, the workshops were considered as an ephemeral, small community which I became part of, and it provided me with new knowledge. In these workshops, I considered the participants as ceramic findings and new knowledge came through, as I was not aware of who would attend the workshops, and it is not possible to account for everything⁶.

2.2.6. Anecdotes

Finally, I explored the use of anecdotes⁷ from my everyday life (Lawler, 2008; Baraitser 2009; Pert 1997). I have chosen to add parts of my personal diary so that I can help the reader enter my world and experience my reality. My anecdotes are similar to the excavation diary. The anecdotes are a way to deliver personal knowledge that exists outside of the academic language and create empathy. If I achieve to reach the reader on a personal level, then they can relate with my project, and they might find it interesting for their dance practice. Post excavation and in the laboratory, I am aiming to find these practical ways of utilising everyday life situations as a tool for a more expressive performance. My final goal is to communicate my experience with the dance world and may aid other dance artists who have/had/will have a similar range of experience as me.

In the next chapters I will share my writing practice, to bring forward aspects of my personal/lived experience to live and contextualise critically these experiences in relation to the

⁶ More details on the Conclusion

⁷ Examples on the Online Gallery

<https://art.kunstmatrix.com/apps/artspaces/dist/index.html?timestamp=1727085795366#/?external=true&uid=113930&exhibition=13363620>

overall study. This approach will be designed to help the reader have a contact with this metaphor and a clearer image of my thought process.

Saturday 1st July 2023

The layers have been examined and evaluated. I will pay attention on identity and 'habitus'. According to Pickard and Ehnold-Danailov (2023), a pregnant dancer or mother experiences a loss of identity because of the disruption of the well-known 'habitus'. In relation to my own experience, I do not necessarily think this applies to me. Therefore, I will use the notion of a new identity instead of loss. Through my 'excavation' in year one, I realised that my new identity did not get lost. Contrariwise, the formation of the new identity shapes who I am, and it is valuable for every single act of mine. Additionally, all the ideas for the research emerged because of these new formations. It was through this research that I understood myself better and I appreciated even more my understanding of self. Also, I will add that the 'habitus' is not disrupted rather than it is gaining new elements which are all in my experience precious. As Stern, Bruscheiler-Stern and Freeland (1998) argue the mother is kind of the same person but with new elements; therefore, this new and valuable knowledge is accompanied by practical ways that need to be discovered, in relation to this study, the dancer could benefit from this in their own dance practice.

Sunday 30th July 2023

Through thorough evaluation of the layer 'identity' it was decided in August 2023, the finding 'love' to be taken to the laboratory for further investigation. This finding was the strongest of all. It was proven that 'Hara', who is under investigation, is using 'love' in her everyday life and it is the strongest and profound element of her identity. After close investigation, the conduction of experiments has been decided in the interest of finding out if 'love' could be a useful tool for individuals in the present as well for their performing practice. For the conduction of the experiments, the field of neuroscience (Vander Elst et al., 2023; Bläsing, Puttke and Schack, 2010) was deemed appropriate to be used, as the intention of this research is to examine what the individual feels bodily when they experience 'love'. In other words, what happens in our brain and in our body when we love. If the experiments are successful, it will be suggested that the individuals could apply some elements of Hara's technique in the present.

3. The elements of neuroscience

The application of neuroscience was an addition in year two. I believe it is vital to explain the nervous system, since this was an important consideration when developing exercises for the experimental workshops, before describing the procedure that took place in the 'laboratories'. I will then describe the role of emotions and feelings, love and the 'laboratories'.

The nervous system consists of the somatic and the autonomic nervous system. The somatic nervous system receives and responds to information associated with the outer

environment and our inner operation, whereas the autonomic nervous system is responsible for our internal performance (Olsen, 2020). The autonomic nervous system (ANS) activates involuntary functions in the nervous system such as heartbeat, digestion etc. and is an important part of human emotion (Bankenahally and Krovvidi, 2016; Makovac et al., 2015). The ANS is divided into two systems: the sympathetic nervous system (SNS) and the parasympathetic nervous system (PNS) which are responsible for the individual to efficiently cope with the exogenic and endogenic stressors environment (Cerritelli et al., 2021; Laurie Kelly McCorry, 2007; Weissman and Mendes, 2021). The SNS is mentioned as ‘fight-flight’ system as when it is activated, there are high arousal responses to the body to extreme threatening situations (Ashton, 2013; Weissman and Mendes 2021). The PNS is mentioned as the ‘rest and digest’ system, as when it is activated the relaxation and restoration process in the body takes place (Weissman and Mendes 2021).

In this study, I focused on the parasympathetic nervous system. Specifically, I wanted to find ways to trigger the parasympathetic response (PNS), so the dancer feels relaxed, comfortable, and ready to dive into the performance’s world and communicate it with the audience. I focused on neurotransmitters and hormones: dopamine, oxytocin, serotonin, and endorphins⁸. These neurotransmitters and hormones are the ‘happy chemistry’ in our brain because when they are released in the body, the individual feels positive (Watson, 2021). Some ways to induce these neurotransmitters and hormones are vigorous exercise, dance, meditation, listening to music, singing, hugging, laughing to name a few (Watson, 2021; Dreisoerner et al., 2021). To achieve the triggering of the parasympathetic response, I created guided improvisational tasks⁹ and set

⁸ More details about these neurotransmitters and hormones can be found on the Glossary

⁹ More details on chapter 7

exercises and use of touch in related areas based on Peter's Levine techniques found on the website, Somatic Experiencing® International (2024).

My decision about triggering the parasympathetic response came after dealing with Michaela's stammering. In year one, the stammering became a challenge of my everyday life. Baraitser (2008), characterises stammering as the interruption of the interruption. Therefore, through my dance practice, I tried to make Michaela feel more comfortable and secure so her speech will be uninterrupted. In order to do this, I created a relaxed and happy environment before dancing with her and while dancing together and her speech indeed was improving. Outside of the parameters of this project, I have continued a practice with Michaela, that continues to work with her movement and speech patterns. I believe that when an individual feels positive, their brain and body are full of emotions and feelings. In the next chapter we will dive into the world of emotions and feelings.

4. The role of emotions and feelings

During my research project, it was important to explore emotions and feelings because I am discovering and analysing my new identity and the impact that this identity has on my dance practice. Therefore, the protagonists of this discovery/analysis are emotions and feelings. We all constantly experience feelings and emotions, whether stronger or weaker. Hence, they are a major part of our everyday life, and they do have a profound impact on us.

According to Damasio (1999), there is a difference in the definition of emotions and feelings. Feelings describe the personal mental experience of an emotion and emotion represents

the collection of reactions, and they are observable by others (Damasio, 1999). In this research, Damasio's (1999) argument is acceptable and for convenience the term emotions are used.

Since archaeology has been the core methodology used in this research, I wondered if archaeology did explore emotions and why. According to Tarlow (2000), the study of emotion in the past is both essential and achievable. Tarlow (2000) mentions four reasons why the study of emotions in archaeology is important; firstly, emotion is not natural or pre cultural, emotion is central in human experience and in the structure of society. Secondly, to make sense of the people's motivations we need to remember that they were thinking human beings with feelings and lastly 'critical awareness of the variability of emotion denaturalizes some of our present emotional values. This has important political implications' (Tarlow, 2000 p.718). In the present, emotion concepts are vital for the understanding of our society, as through them the behaviours, the acts, the attitudes, and the intentions of other individuals are being comprehended (Niedenthal et al., 2009). Moreover, comprehending emotions can help us better understand our behaviours. Therefore, the research of emotions is vital in the present and past. For this particular research, I am researching primarily myself, my personal life, and my intentions. My emotions in the present but also in the past. 'The personal is political' a term coined by Carol Hanisch in 1968, captures the reason why studying emotions was vital for this research. Also, in general reading other people's stories is valuable for personal understanding and deepening of knowledge (Lee, 2007).

There are studies from neuroscientists such as Antonio Damasio (1994;1999), Joseph LeDoux (1998) and Jaak Panksepp (1998), who are exploring emotions neuroscientifically (Gerhardt, 2004). In other words, what happens in our bodies when emotions are present. Candance Pert, the mother of neuroscience, has made an innovative discovery about emotions; when we experience emotions, we experience a cocktail of neuropeptides, and this happens to the

whole body and not only in the brain (Pert, 1997). According to this, we should pay attention to our feelings ‘because they are a vital signalling system within each body and in its communications with others’ (Gerhardt, 2004, p. 111). Edwin Blalock (1984) argued that the brain could communicate with the immune system using neuropeptides such as serotonin. The immune system has a ‘sixth sense’ role to identify things that the body cannot smell, touch, hear, taste, and see (Blalock, 1984). In other words, a feeling that takes place in an individual’s mind can trigger reactions to the immune system via neurotransmitters.

The research of emotions is important to be explored in art as well. As stated by Camurri, Lagerlöf and Volpe, (2003), ‘body motions contain a high degree of flexibility that makes it a challenging task to uncover cues that are conveying emotional content’ (p.214). I found it fascinating that dancers must express what they feel internally through their bodies and their movements. This in fact demands great difficulty. I believe one generally feels and has emotions every day, on a varying scale of intensity. Due to the great demand and the difficulty that arises for the dance performers to express emotions on stage, I was wondering if there are ways to utilise the strong feelings and emotions from our everyday life on stage. The next chapter is about love. My strongest mental state now.

5. Love

I always thought of love as an emotion, but research argues otherwise (Burunat, 2016; Fisher et al., 2016; Joycelee, 2015). According to Burunat, (2016), love is a physiological motivation like hunger, thirst, and sleep. Young (2009) states love is an emergent property of a cocktail of ancient neuropeptides and neurotransmitters. Additionally, love could be ‘a desire to enter, maintain, or expand a close, connected, and ongoing relationship with another person or

other entity' (Reis and Aron, 2008, p.80). Damasio (1999), argues that love is a complex state of mental conditions and behaviours. What takes place in our bodies when we love is 'a collection of feedforward and feedback loops in which some of the loops are purely chemical' (Damasio, 1999)

However you define love, I believe its power cannot be underestimated. Love can make the individual the happiest person on earth but also can cause some negatives feelings such as fear and social judgments and even can be responsible for unfortunate incidents such as suicide (Burunat,2016; Edwards, 2015). In this research, maternal love was a dominant element; is the most powerful reason for a mother's behaviour and is crucial for the support of the mother during the exhausting schedule of raising her little ones (Kikuchi and Noriuchi, 2016). In my opinion, maternal love is unconditional, and I believe that this is the best phrase which summarises the strong element of maternal love.

According to Sara Ruddick, a feminist writer and a philosopher, maternal thinking begins with love which 'for most mothers is as intense, confusing, ambivalent, and poignantly sweet as any they will experience' (Ruddick, 1980 p.344). Specifically, Ruddick speaks about Attentive Love inspired by Simone Weil's and Iris Murdoch's thoughts; 'for all three, attentive love is an antidote to a prevalent force in our world' (Liston, 2008, p.388). During my excavation, the finding of 'love' was the most valuable of all the other findings. In the laboratory the finding 'love' will be investigated biologically. What does the individual experience bodily when they experience love?

In this research, I explore love through neuroscience. Based on fMRI scans on mothers' brains (Kikuchi and Noriuchi, 2016), limited specific brain areas that were associated with maternal love were discovered. These areas are the orbitofrontal cortex (OFC) and anterior insula,

the periaqueductal gray (PAG), and the striatum. The OFC is a key factor for the reward system. The reward system is activated when dopamine is being induced. The other chemical induced when a mother loves her infant is oxytocin (Kikuchi and Noriuchi, 2016).

In romantic love, the same chemicals are activated in our brain as in maternal love (Edwards, 2015). In my opinion, maternal love is endless and lasts forever. The fascinating fact though is that romantic love can also last forever. According to a study at Stony Brook University in New York in 2011, long-term married couples had the same dopamine activity in their brain areas as recently in love couples (Edwards, 2015).

We all have been loved by someone and loved something or someone. Love is an integral element of our lives and is a radical one as well ¹⁰. According to the above information, people who are not necessarily mothers can relate to my research. In this research project, I have used improvisational tasks which had the purpose to stimulate the feeling of love¹¹ through imagination. The next chapter is about the preparation of the experimental workshops.

¹⁰ More content on 'love' can be found on the online Gallery
<https://art.kunstmatrix.com/apps/artspaces/?external=true&uid=113930&exhibition=13363620>

¹¹ More details on chapter 7

6. The laboratory equipment

Sunday 24th April 2024

The decision of the structure of the workshop and the methods for the workshop has been made:

- *Loop structure*
- *Methods are storytelling, imagination/visualization, improvisation, writing as a way of reflection*

In this section I will endeavour to form the link between storytelling, imagery, and neuroscience in order to provide a backdrop to the research and development for the content of the workshops; the purpose of which was to induce emotions in the dancers using diverse influences from neuroscience. Hence, I weave through the landscapes of narrative, memory, imagery, and neuroscience linking my understanding of the above with my research.

In year one through my ongoing practice research with my daughter Michaela, I discovered the Loop¹² (Kyriazi, 2023). The Loop is the outcome of improvisational moments I had with Michaela, a way to bond with my child while dancing. After watching the films we created during this research, I realised that there was a pattern each time, subconsciously, me and Michaela were repeating. At the start we were mirroring each other, running through the space, using the floor, and pausing, mirroring again, pauses, standing up and running again. When I was improvising by

¹² Definition on glossary

myself without Michaela a loop was taking place too. This repetitive movement loop shifted me in my practice, moving through improvisational states, from concentration, lapsing and into movement again. For me, the shape of the circle represents continuity, security, hug, integration. Continuity in the feelings and the emotions, in the feeling of love, in our life routine. As Nind, Sadhbh O'Dwyer and Marta Cristina Azaola, (2024) state, the circle is a useful metaphor for qualitative research and represents belonging, non-hierarchical dialogue. I believe that this 'democratic' dialogue was necessary when dancing with Michaela and it enhanced ethics as well. Due to the above explanation and due to the need for further investigation of this Loop in year two, I structured the workshops based on the Loop. The loop structure is complemented by four key methods: storytelling, imagination /visualisation, improvisation and writing as a way of reflection.

Storytelling was an interesting method for me to use since my whole research journey started from my personal story. Moreover, storytelling is a vital way for individuals to communicate and make sense of the world (Leung and Fong, 2011; Garcia Rodriguez, 2016). Stories are a familiar type of communication and pleasurable for most people, they can evoke emotions and help people to better remember (Levit, 2009). When an individual shares stories, they make it easier for the listener to identify with them and feel more empathy compared to other types of communication (TEDx Talks, 2017). Recalling memories through storytelling can evoke emotions similarly to when processing an object or a situation with our senses. (Damasio, 1999).

Moreover, storytelling is a terrific way to induce specific neurotransmitters and hormones in the brain since it places people in a constant state of expectation (TEDx Talks, 2017). According to David JP Philips, you can induce oxytocin as well as serotonin through storytelling and the result is that the individual becomes more creative, more relaxed, and more focused (TEDx Talks, 2017). I believe, in dance this is important and beneficial. When the dancer is relaxed and focused,

they are more prepared mentally to enter the piece's world and exit safely. The dancers are humans and most of us have a complicated inner world and a challenging life routine. Maybe sometimes we need some help, some 'tricks' to accomplish our purpose.

In this research, I used writing as a way of reflection during the workshops and the inspiration came from the book Siegel, D.D. and Payne Bryson, D.T. (2011) *The Whole-brain Child*. In this book the authors talk about the technique 'Name it to tame it: Telling stories to calm down big emotions.' This technique mentions the power of retelling stories, so the child makes sense of what they feel and deals with their strong emotions. Siegel, D.D. and Payne Bryson, D.T. (2011) talk about the right and the left hemisphere of the brain. The right hemisphere is responsible for the raw emotions, the bodily sensations, the personal memories whereas the left side is responsible for the logic, it makes sense of the individual's feelings and puts things in order (Siegel and Bryson, 2011). This book refers to children, but I adjusted this idea to adults; I am using storytelling as a way to activate both the right and left hemispheres of the brain and reflection through journaling to aid the individual in making sense of what they feel and name their emotions (Siegel and Bryson, 2011).

Adrien Olsen is an educator, a writer, a performer, and a professor of Emerita dance (Andrea Olsen, n.d.). Olsen is the author of the book Olsen, A. (2020) *BodyStories A Guide to Experiential Anatomy*. I found the ideas in this book quite helpful for the improvisational tasks I wanted to use for the experimental workshops I designed as part of this research. Olsen analyses thoroughly how the approach and awareness of the body's anatomy can help the dancer move differently. As the dancer is aware of what is happening inside them and not only outside them, they also connect their body with their mind. They gain knowledge of their body, and they return to themselves (Olsen, 2020). According to Olsen (2020), imagination exercises are useful in

affecting the neuromuscular system in bodywork. Furthermore, imagination ‘can allow your fantasy to play and your nervous system to respond; it gives the opportunity for you to experience various body images and sensations without the confines of reality’ (Olsen, 2020, p.123). I found that idea quite an interesting one in terms of the quality of the movement and the emotion that the movement can cause to the dancer. Therefore, in this research I have decided to utilise imagination as a method. My improvisational tasks contained imagination; I asked the participants to imagine, visualise, travel with their minds somewhere outside the studio and I was checking on their reactions and comments after the tasks¹³. The next chapter contains the description of the context of the workshops and an analysis of the use of imagination.

7. In the Laboratory 1

Sunday 5th May 2024 Oxford. At the Old Fire Station Theatre, four hours long workshop with seven participants attending, age range 20-40 years old¹⁴.

In this section, I will outline and describe the details of the workshops to understand the methods, the context, and the ideas that emerged. The first part of the workshop had two stages; the first stage was ‘Getting to know each other’ and the second stage was ‘Getting closer’. Firstly, we started by introducing ourselves. The participants at the workshop were not professional dancers; however, 5 people out of the 7 were advanced level dancers. I had explained to them the procedure of the workshop and what the questions of that experiment were. After the initial introduction section, I explained the content of this opening exercise; they should choose a

¹³ More details on chapter 7

¹⁴ More visual material on the online Gallery

<https://art.kunstmatrix.com/apps/artspaces/?external=true&uid=113930&exhibition=13363620>

personal story to share with the rest of the group and then create a short dance phrase and perform it one by one in front of the rest of the participants. As stated above, the workshop had a circular structure which means that it started and finished with the same task. Thus, the first task of the participants was to create and share a solo and their last task was to reshare their initial solo at the end of the workshop after the tasks. I suggested to the participants to carefully select a personal story they wanted to share with the rest of the group. The focus of this work was not to share traumatic stories, as I am not equipped to support the participants in this way, and ethically and artistically I was steering the process in a particular direction. I chose to do this as my research was concerning how the dancers can aid and enhance their expressivity on stage and not healing traumas through dance. However, if any of the participants needed space, there was a room ready for them where they could go and calm down.

After a short warm-up, I gave them some time to prepare their dance phrases. Most of the participants shared personal stories that had a happy/positive ending and were decisive for their lives. This fact came after discussing their stories with the rest of the group and me. Some of the participants shared their story before dancing their solo and others after having performed their solo. The participants had the chance to choose their own music. Some of them performed with no music. I have decided to provide them with the option to choose their own music as this idea comes from my personal practice. Specifically, when I am preparing for a performance, I choose to listen to music that I enjoy. Furthermore, I have noticed other dancers while they are preparing to get on stage, that they usually wear headphones while warming up and practising their piece. From one point of view, this is it because they want some music while they prepare their bodies. On the other point of view, I believe their music of choice prepares them mentally as well.

In this research, I wanted the dancers to use their own choreographic language therefore we did not spend any time practising on dance technique as the workshops were experimental and not technique workshops. After each person's sharing, there was time for the rest of the group to write down some comments about the sharings they watched and if the performer managed to pass emotional information to the audience. I offered to the participants the freedom to write down their comments in their own way of journaling and did not give any advice to the participants on the writing task; That was the end of stage 1: 'Getting to know each other'.

Stage 2, 'Getting closer', was designed to help the participants feel more comfortable with the space and the rest of the people. They were in twos, and they had to share a story with the person in front of them and then try to repeat the story in first person as if it were theirs (Shi, 2021). Youran Shi (2021) conducted research about first-person narrative and how storytelling promotes empathy. According to Shi (2021), this task increases empathy since one person simulates the psychological experience and state of another person. Since dance is 'an intrinsically motivating activity, which offers opportunities for psychological growth and self-actualization' (Aujila & Farrer 2015, p.2) it was necessary to try out some tasks that help the participants increase their empathy. When an individual feels comfortable and secure, they can better express their thoughts, feelings, and needs (Kyriazi, 2023). For that reason, it was particularly important to experiment with some tasks to increase empathy. Similarly, another task that focused on increasing empathy and reinforcing belonging was to share a story that very few people know and feel proud of with the rest of the group (<https://www.fearlessculture.design/blog-posts/exercises-to-promote-psychological-safety-in-your-organization>).

The second part of the workshop 'Building joy' was built on kinetic movement. I led with an energetic warm-up and afterwards I created a series of exercises to make the participants

increase their heart rate and workout through some contemporary dance technique-based set combinations and cardio exercises. The hormones and neurotransmitters that I wanted to trigger, are released after exercising and make the individual feel pleasant (Uvnas-Moberg, Handlin and Petersson, 2015; Ashton, 2013; Farhud, Malmir and Khanahmadi, 2014; TEDx Talks, 2017). My intention to induce positive feelings in the participants had not been revealed to them. I offered the freedom to the participants to choose any personal story they wanted to communicate without mentioning the positive or negative content. My thoughts around this decision were that I did not want to guide them to my initial intention which I explained already to avoid any biases they might appear.

The set exercises had some specific movements that the therapists use to make their patients feel secure in the space before starting their therapy session. These movements were based on the Somatic Experiencing® method of Peter Levin (2024). One example is placing the right hand under the left arm on the side of the heart. Another example is, touching with the one hand the forehead and with the other hand the chest while remaining in this position for a while.

After the cardio exercises, we moved on with four improvisational tasks which, as mentioned above, were based on Olsen (2020) practice, and were reworked according to the workshop's demands. The first improvisational task was 'Visualisation, Imagery, Imagination'; This task had three parts; The first one is 'Your perfect dance', the second was 'Observation' and the third was 'My loved ones'. The first task was inviting the participants to visualise themselves dancing their newly created solo as perfectly as possible. Some comments about this task were:

‘I think that gave me a lot of confidence...I could embody what I felt like was right for me and I did not feel worried about how I looked. I felt confident in what I had to share.’

(Participant, 2024)

‘I think I will keep the feeling of confidence and empowerment performing my perfect dance.’ (Participant, 2024)

The second part of this task was the ‘Observation’. In this task they had to imagine which parts of their body needed to be relaxed and which had to be triggered. They mentioned that after this task, they realised that specific parts of their body were in tension unnecessarily. Therefore, they relaxed these body parts, and their movement changed. Although the workshop was not a technique workshop, I noticed that their movements were lengthened, and it helped the quality of their technique.

‘I have actually realised that I can now relax my upper body...outside of the emotional part this really helped me to dance better towards the end’ (Participant, 2024)

Last improvisational task of the ‘Visualisation, Imagery, Imagination’ was ‘My loved ones.’ In this task the participants had to visualise a journey, walk, climb up some stairs and reach a room where their favourite people were. There, they had the chance to talk to their favourite people, hug them and later they had to leave that place and come back to the theatre. They left the space by walking slowly back and entering the door of the theatre. After this imaginative journey they were asked to dance their solo and notice any changes. The participants found that task quite emotional.

They have mentioned that after this task, they brought more love into their dance, they felt more pleasant after ‘seeing’ their dear ones.

‘I felt quite emotional thinking of my loved ones...’ (Participant, 2024)

‘It gave a purpose to that performance. It gave me a broader sense of connecting to something important outside of myself’ (Participant, 2024)

The fourth and last improvisational task that was used is ‘Putting on different masks of different emotions’. I have decided for this task to use one song, which is quite energetic and lively, the *Don’t stop me now* from Queen (1979). In this task the participants had to improvise, and I was giving instructions for different emotions. The emotions I have used were anger, sadness, disgust, and happiness. In this task, the participants mentioned that the music really affected the way they could embody an emotion. For example, one participant found it challenging to embody sadness while listening to such a lively song.

‘Music really shifts the mood and triggers emotions’ (Participants, 2024)

At the end of the second part of the workshop, the participants reshared their initial solo once more. They had the chance to write down any differences they realised and experienced compared to the first time.

The third and last part of the workshop was an open discussion with the group and the filling out of some questionnaires about their experience. Shön (1987), suggested the ‘reflective practicum’ in which the reflective learning appears through the alternation between action and reflection (Shön, 1987 as cited in Bruno and Dell’Aversana, 2018). According to this method, the groups become central facilitators to the reflective practicum. (Shön, 1987 as cited in Bruno and Dell’Aversana, 2018). The participants were reflecting on and from the practice.

Their experience was that they enjoyed the day, felt connected, understood, and were encouraged to express their emotions and not hide them. All gave positive feedback; in a scale 1-5 (1: No difference 2: Some difference 3: Quite different 4: Very different 5: Extremely different),

participants were asked to rate how different¹⁵ they felt after performing their phrase after the tasks and described their emotions. Four people felt very different, one quite different and two people felt some difference. All the participants said that after the tasks, they felt more confident, more aware of the movements, less urgency to finish their phrases and braver to push their emotions to the limits. At the end of the workshop, two participants felt emotional especially after a specific task, one felt quite proud and grateful, two felt inspired and encouraged to keep dancing, one participant felt happy and empowered.

‘I had a wonderful experience today. I felt like both my body and mind opened up over the course of the session, breaking the glass and allowing me to dance/express myself more freely.’ (Participant, 2024)

‘I feel great! I feel happy and I want to dance more. I’m feeling empowered for the rest of the day and excited to keep dancing and feeling and creating and sharing in the future’ (Participant, 2024)

One participant mentioned they felt more confident, less worried about what and how they were doing, but they think there is a level of bias there. This note is acceptable and is a note that must be considered for similar workshops in the future.

One remarkably interesting point of the day was that all the participants who attended the workshop including myself were non-British. They were people who either visited Oxford for a brief period or people from abroad who have been living in Oxford for quite a long time now. There were some similarities in the shared personal stories, those of the immigration which all

¹⁵ The word different here means in terms of expressivity and feeling of their dance. How they experienced their dance somatically, mentally and emotionally.

could relate to. The reasons for migration are many and sometimes complex. Some people choose to migrate, and others follow the path of migration under unforeseeable situations. Despite this reason, in my opinion, most of the time there is the feeling of not belonging anywhere completely. That was a topic that was mentioned during the workshop and almost all the participants agreed that wherever you are there is always something/someone missing. Nirmala, Kumar, and Virupaksha (2014), mention that research shows that migration is a liable factor for the development of mental health issues. Some factors that could cause the migrant mental health issues are language difficulties, difficulty in adjusting to the unfamiliar environment, language barriers, unpleasant experiences etc. (Nirmala, Kumar, and Virupaksha, 2014).

8. In the Laboratory 2

Friday 7th June 2024, London. At the Rambert School of Ballet and Contemporary Dance, an hour and a half long workshop with 15 first-year students attending¹⁶.

Due to the time limit in this workshop, there was the need to select which tasks from the first workshop I thought were more successful in inducing emotions. This workshop had two parts; part 1 was 'Getting to know each other' and the second part was 'Building joy'. I have explained to the students how the journey of this research started and that they had to share a personal story with the rest of the group and create a short dance phrase.

After a short warm up, I gave them time to think about their story and start creating their dance phrases. As in experimental workshop 1, I have made clear to the participants that they must

¹⁶ More visual material on the online Gallery
<https://art.kunstmatrix.com/apps/artspaces/?external=true&uid=113930&exhibition=13363620>

not share a traumatic personal story. Instead of sharing their dance solos individually, I have decided to have two groups due to time limitation. One group was watching, and the other group was sharing their solos. I asked the participants to share their story verbally one by one before sharing it kinetically. The second part, 'Building joy,' started with a series of cardio exercises. After the end of this task, we moved on to improvisation. The first task again was the 'Visualisation, imagery, imagination,' which had 3 parts:

1. 'Your perfect dance' (the task was to visualise themselves dancing their solo as perfectly as they wanted),
2. 'Observation' (in this task they had to imagine which parts of their body needed to be relaxed and which had to be triggered)
3. 'My loved ones' (In this task the participants had to visualise a journey, walk, climb up some stairs and reach a room where their favourite people are. There, they had the chance to talk to their favourite people, hug them and later they had to leave that place and come back to the studio).

The last improvisational task was 'Putting on different masks of different emotions.' After the end of the improvisational tasks, they were asked to reshare their dance phrase. At the end of the workshop, there was an open discussion and the filling out of questionnaires.

In a scale 1-5 (1: No difference 2: Some difference 3: Quite different 4: Very different 5: Extremely different), participants were asked to rate how different they felt after performing their phrase after the tasks and describe their emotions. Out of 15 participants, three participants rated the difference with 2 (Some difference), seven participants rated the difference with 3 (Quite different), three participants rated the difference with 4 (Very different) and two participants rated

the difference with 5 (Extremely different). Some comments from the participants about their experience are:

‘[My experience was] good, I felt really comfortable’ (Participant, 2024)

‘The overall experience was really positive and helpful in a way of exploring to feel emotion instead of acting it.’ (Participant, 2024)

‘My experience was really joyful, it showed me another way I could choreograph’ (Participant, 2024)

‘Very positive relaxed environment with space to explore’ (Participant, 2024)

‘At first, I was nervous but there was good guidance. I think it was useful and interesting’ (Participant, 2024)

On the question: Do you think you will explore some of the techniques identified today for performance/dance practice preparation? All the participants replied positively. Some examples are:

‘Yes, because when I did the visualisation of how I want to do it, it made me confident’ (Participant, 2024)

‘I think I will use these techniques before some performances and also to create my solo’ (Participant, 2024)

Lastly, on the question: How do you feel now? 14 participants felt pleasant, and one participant felt uncomfortable. That was because of a personal struggle and not because of the tasks.

‘Today’s session felt like a superficial view of emotion, but I think that’s where I struggle with dance connection personally. I think it helped highlight that for me.... I felt frustration, fear/uncomfortability...I will take the feeling of anger through exploring tension (particularly in my jaw and hands) ...I will probably explore visualisation from personal experiences to help remember how emotions make my body feel.’ (Participant, 2024)

‘I am now confident to perform in front of people because I found ways to deepen my emotions and express them’ (Participant, 2024)

‘I feel connected to myself...’ (Participant, 2024)

‘I want to do more and more...’ (Participant, 2024)

‘I feel really happy and grateful for life’ (Participant, 2024)

9. Discussion

As stated in the chapter 2.2.5, the data will be interpreted through the metaphor of typology. The participants will be considered as ceramic findings and will be categorised according to common characteristics. The purpose of typology is to communicate the information in a few words (Miller and Bordes, 1972). The archaeologist Julian Thomas (1994) has mentioned that the findings do not have a fixed meaning rather they are polysemic. In this research, the meaning of the findings from my archaeological excavation is as follows:

Workshop 1

1. Amateur dancers
2. Foreigners

3. Confidence improves the performance
4. Storytelling is pleasant for everyone
5. Visualisation is a valuable tool for preparation

Workshop 2

1. Dance students
2. Young dancers
3. Improving confidence is essential
4. Personal stories need to be meaningful
5. Visualisation is a valuable tool for preparation

In both workshops there were notable similarities and differences. In both workshops visualisation and imagery were indeed interesting and useful tools to enhance emotions. According to Munroe-Chandler and Guerrero (2017), imagery has been shown to have promising effects on performance. Based on the research (Zebulon Highben and Palmer, 2004), pianists who were mentally practising the piece made less errors during the performance compared to those who did not practise mentally. The same might be applied in dance. If the dancers practise their piece mentally, it may be a useful tool for preparation before the actual performance.

‘Yes, I think the first visualisation could be used prior to performance to better the solo’
(Participant, 2024)

‘I will visualise my performance moving forward as a pre-meditative method to relax myself’ (Participant, 2024)

Another similarity between the two workshops is that all the participants, when they shared their solos for the first time, were expressive enough but with a shyness that did not allow them to go further. After the tasks, there had been a difference in how each dancer felt and how the participants as an audience perceived.

‘I think there was more intention the second time’ (Participant, 2024)

One difference between the two workshops is the choice of the personal story which the participants shared. In the first workshop, all the participants shared meaningful stories that were decisive for their lives. For example:

‘I was about 10 years old, had a piano recital and I had to tell a short story before the show started. So, I got on stage, and I went blank! I couldn’t remember anything, but I had to speak...I had to say something. That was the moment that I realised that I didn’t want to do that as a profession for the rest of my life.’

In workshop 2, most of the participants shared simpler stories that were not meaningful for their lives so far. One example of a shared story is:

‘Stuck in rush-hour’

In both workshops, I gave the freedom to the participants to share any personal story that they wanted. In the second workshop I did not consider their young age. Due to the young age of the participants, I had to provide more guidelines as to what sort of lived experience they had to share. One participant mentioned this and was right. The importance of individuality and the different conditions must be considered every time, so the guidelines must be adjusted. As Fiona Bannon (2019) argues, improvisation is first a movement exploration. It has also become, though, a tool for experimental choreographic practice. Due to this fact, ethics of participation must be

considered. 'Attention is given to sharing a deepening discipline that respects the changing identity of investigative craft' (Bannon, 2019 p.43). To develop this, there must be time for being in practice which in turn increases stimuli for the dancers and factors drawn from the individuals' conditions and circumstances. Hence adjusting the material according to the circumstances and the individuals that are protagonists on every occasion is a conclusion from the above.

'Getting closer' in workshop 1 was designed to help the participants feel confident with the rest of the group and enhance their empathy. In my opinion, both tasks were successful as at the end of the workshop the participants mentioned that they felt confident and comfortable communicating their piece with the others.

'I feel very free to move my body, more connected to my body, my emotions, and my identity. I feel understood by my audience' (Participant, 2024)

'I feel encouraged to express emotions and not hide them. I feel like the exercises helped me build connection between my body, and emotions and the group' (Participant, 2024)

These tasks though did not apply to workshop 2. I was very sceptical of the time limit but also, I thought that these people already know each other, and they collaborate on an everyday basis. Doing the tasks though from the section 'Getting closer' would have been super beneficial for them as I did not consider that they did not know me, there were other people in the room as well watching them and they are young dancers. Increasing empathy between the individuals in the space every time before exposing themselves or prior a collaboration is vital.

In workshop 2, the participants have mentioned that they enjoyed the variety of the workshop i.e., there was an energetic part and a more relaxed part. The time limit was emphasised, and the participants mentioned that they enjoyed the tasks, but the changes were quite quick and

there was not enough time to embody each emotion. Furthermore, they have said that if there was more time spent for each emotion then it would have been easier for them to identify and embody the emotion that was valuable for their dance phrase.

‘There was a feeling of disconnection, if you are imagining something that didn’t relate to your story...’ (Participant, 2024)

Lastly, some successful tasks in Oxford were not very successful in Rambert School. For example, the task ‘My loved ones’ was quite successful in Oxford, the participants mentioned that they felt comfortable and emotional after this task, and they felt that it gave a meaning to their dance phrase.

‘It was a confidence boost moment for the whole workshop. Your favourite people are your biggest fans; they believe in you.’ (Participant, 2024)

In the second workshop though, they did not enjoy that task so much. One comment that was remarkably interesting in my opinion is:

‘Seeing my favourite people gave me negative emotions.’ (Participant, 2024)

‘I have lost my concentration’ (Participant, 2024)

One participant from workshop 2 mentioned that it would have been a promising idea to do some tasks that are not dance related at all, for example drawing.

‘It would have been a real exploration of emotions and expressiveness if we could...for example draw’(Participant, 2024)

Automatic drawing was a task that I was quite interested in exploring and utilising. I have decided though in this research not to use it and focus on dance improvisation tasks and writing.

In the future though, it is an interesting point and perhaps beneficial that similar research could use.

10. Conclusion

This research which has spanned two years, explores the relationship between motherhood and performing and the ways in which the mother's identity affects a dancer. This was primarily research between mother and daughter, where through extensive patterns of movement improvisation I discovered the Loop. A pattern of improvisation which looped: I learned the ways this developed and helped me to support my child through some challenging moments in her development. This understanding became an element on a study on how to trigger emotions of dancers as a preparation for performing utilising the personal experience and current state of the individual. This evolved into a successful workshop or pattern of exercises for preparing the emotional state of the dancers before performing introduced, and its effectiveness is evaluated over two experimental workshops.

This research is framed by field archaeology, a metaphor to support specifically the excavation process. I applied the excavation procedure on myself, aiding me to explore motherhood, self and the power of love. I explored love through neuroscience, understanding the difference between, maternal, romantic and love as physiological motivation. This was interesting from my perspective as a mother but also during the workshops when thinking about the chemical loops and movement loops. This eventually supported the structure of the workshop pattern in the laboratory.

Personally, I discovered how motherhood helped me to accept myself and love me even more. I discovered the many possibilities of maternal thinking which is 'only an example of

womanly thinking' (Ruddick, 1980, p.346). I also reviewed the power of dance as an instrument for addressing challenges that parents face. I managed to utilize my everyday life and my reality as a tool for conducting research and as a tool for my profession.

This excavation process was then applied on other dancers, who were not necessarily parents, with the purpose of inducing positive emotions and in particular love. The main methods used for triggering positive emotions during the workshops, were improvisational task based on visualization and imagery. The workshops were successful in accomplishing the intention of triggering emotions. Most participants from both workshops felt positive after the workshops and stated that they will explore some of the techniques introduced in their own practice. This has been evidenced through the participants' comments. A crucial factor on how the individual will react to these tasks is their mental state that can differ according to their personal circumstances.

Primarily this research started as a vehicle to position myself as a mother in the dance world. This quickly shifted to exploring how the subjectivity of the (m)other was called into being by giving birth. Therefore, this research is about exploring a new identity, embracing the latest version of the self and its new elements, discovering its possibilities in parenting and practice and applying the acquired knowledge to the dance practice. Through this project, I am adding a voice on how important the mothers/dancers of the dance sector are, how their inner emotional world is enriched after the genesis of the Mother, and how beneficial is to involve and embrace those individuals to the wider dance community. I hope that whoever is reading this dissertation, alongside my virtual gallery, can enter my world and my reality. I aspire that any dancer, whether a parent or not, can relate and benefit from my suggestions, both in their dance practice and inner mental world.

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