This document contains the critical commentary for the thesis but not the catalogue or scores.

Developing a Vigilant Musical Practice

Hugo Maia

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Abstract

This thesis, in the field of music composition and performance practice, presents the results of a practice-research project into performance validity and notational reliability in vigilant musical practice.

From my initial inquiry into what constitutes a valid performance, three ground principles were observed: non-normative cognitive states (how the performer thinks); embodied multimodal imagery across a full effort scale (the images a performer draws with their presence); and inter-personal communication (the performer's readiness to react to the audience's presence) and the performance environment. These three interconnected skills form what I come to call vigilant performance practice. This thesis aims to define a conceptual framework for *vigilant music practice*, at the stages of composition, of rehearsal, and of performance.

In support of vigilant practice, a set of developmental tools and activities were constructed that promote each of the three vigilance skills. These tools and activities are developed in practice in a sequence of sixty-four scores entitled *Games for Musicians and Non*-Musicians. This workbook promotes the development of vigilance skills in the context of improvised music performance in groups. *Games for Musicians and Non-Musicians* was rehearsed and performed publicly in several occasions. Reports of those events are presented here.
Vigilant performance practice has the potential to be of use in music education and professional training, with different age groups (including children), as well as in other types of performance practice. It may be of use outside the performance environment altogether, in personal or community development.

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Portfolio

List of scores, performances and rehearsals submitted

(Video documentation exists for the pieces in **bold)**

Scores

- ***Games for Musicians and Non-Musicians*** *(GMNM), 2019* – a collection of 64 text scores for a group of players. The sequence of scores forms a proposal for development of vigilance skills.
- ***On Light and Darkness*** *(OLAD)*, 2018 – gestural score version (v.2), for a group of players. This is a gestural notated version of one of the pieces in GMNM. This piece was performed at York Amok platform in February 2019. A period of 5 days rehearsal preceded it, during which we also explored many pieces/games in GMNM.
- *To Lead and Be Led,* 2017 – for variable group, using any of John Cage's number pieces for more than three players. The score is made of post-it notes the players stick to Cage score. This piece then invites the players to conduct each other. It addresses the vigilance skills of embodied imagery, interpersonal communication, and to a lesser extent, of non-normative cognition.
- ***The Nine Circles****,* 2018 – for voice or voices. A collection of nine pieces for voice. The text scores make use of terminology familiar to the Estill Voice Craft model. Knowledge of the Estill model is necessary to understand and perform these scores.
- *For Two Lovers and a Double Bass,* 2015 – a text score to be performed by two lovers with a double bass. Though loosely notated with regards to form, there is an in the score expectations of improvisation from the players. All three vigilance skills are explored.
- *For Machines and Machinists*, 2014 – performed at Index Gallery with Gavin McClafferty, 21 March 2014.
- *A Chair to Sit On*, 2016 – installation/performance.
- *Photo Albums (GMNM.33),* 2016– realization of piece 33 from GMNM, a metascore that offers instructions on how to construct and perform a score from found photographs.
- *Four Songs for a Time of Darkness*, 2019 – for intergenerational choir.
- *Four Songs for the Return of the Light,* 2019 – for intergenerational choir.
- *Dandelions in May*, 2014, an exploration of audiation and space audiation.

Performances

- **Music for Loud and Quiet Sounds, Index Gallery, Stroud, 21 March 2014, with Gavin McClafferty**
- **Ryonaji Concert, Index Gallery, Stroud, 6 June 2014, with Alun Hart, Cameron Johnson, Oogoo Maia**
- ***Synchronicity*****, later renamed *I want to know who you are*, piece 18 of GMNM, at Ludo Conference, Bath Spa University, and in Lille.**
- **Thee Ones record launch night, 4 November 2015**
- **Holborne Museum, Bath, performances with Mariana Marcelino, Spring 2018**
- **Amok, York, GMNM workshop and *On Light and Darkness*, 6 February 2019, with William Barnardo, Felix Hird, Oogoo Maia, John McArearey, and James McIllwrath.**
- **James McIlwrath, performing GMNM.4 (*Unpacking I*), GMNM.23 (*A Room of Mirrors*), and GMNM.25 (*Sisyphus at Work*) at Amok, York, 2019**
- Blancmange performances: gestural dialogue with the audience

Documented rehearsal periods

- **Workshop day with Uta Baldauff, Lansdown Hall, Stroud, 2015**
- **Workshop week at Museum In The Park, Stroud, working through *Games for Musicians and Non-Musicians*, 12, 13, 15, 16 November 2017**
- **Four rehearsal days of GMNM and *On Light and Darkness* leading to public performance of *On Light and Darkness* at Amok Platform, York, 3-6 February 2019**
- **Open Scores Labs, Bath Spa University, 11 January and 4 April 2017**

A list of all the videos submitted (performances and rehearsals) is presented in Appendix II.

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1.1. Introduction – Origins of the problem: my perspective

The primary creative and compositional aim of this research project is to generate compositional, learning and performative tools that allow the performers to develop forms of embodied communication with their audiences and amongst themselves.

At a very basic level, this research addresses a problem that I have identified very early on in my activities as composer, performer, music teacher, and as music consumer: what makes some music performances better than others? That is to say, why are some performances (music and other forms) magical, touching, educative, transformative, and others are not? This is a problem that has concerned me since I started composing music, and in its simplicity, raises a number of subsequent problems, which quickly grow exponentially in depth and complexity as one tries to understand the human transactions that agglomerate in the moment of a performance: first of all, what is a performance? What is a performer? What does a performer do? Why? How? How do they learn to do it? What is *the audience*? What is the audience's role in facilitating, promoting and evaluating the goodness or badness of a performance? What makes a *good* performance good and a *bad* performance bad? How can we understand the factual differences between a *good* and a *bad* performance? Can such an understanding inform the writing of new music and new performance practices, and in crafting a pedagogic model for the teaching of music performance skills?

Searching for answers to these questions led me to a profound aesthetic crisis, perhaps even a moral one: I could not clearly judge what constituted good music from what was not good music, and by extension I could not securely state what was good and what was bad.

The issue at hand is not one of subjective assessment ('I liked it, you didn't…'), or one of adequate market direction and genre alignment – offering the right style of performance for the right audience tends to return positive responses – but one of understanding the mechanisms behind being able to reach out to the audience with work that is appropriate for this and that particular audience, on this and that particular performance, and which somehow offers each person involved (performers, audience, venue staff…), an opportunity for a *transformative*

experience. My work prior to this research project addressed some of these questions.

This PhD appears as a continuation of those previous compositional and performative concerns. I will formalise the research questions and connect them to my previous work in part 1, before explaining how the present research project continues that work by absorbing practices and concepts from a variety of performance forms and theoretical disciplines. In part 2, I propose a possible theoretical framework for understanding of what I am referring to as a *vigilant* musical practice. In part 3, I propose a possible way to promote the pedagogic and training development of a vigilant musical practice, and report on the practical work which I have so far undertaken in that direction in the form of a portfolio compositions, and a catalogue of rehearsal periods and live performances.

1.1.1. Performance validity

When considering the phenomenon of musical activities and musicological studies, Cook gives prevalence to the musical event over the score and the composer's text. For Cook, music happens in time, not on paper (Cook, 2001). My compositional thinking is sheltered in this idea. For me, writing scores is a process of creating triggers-for-action that a performer may undertake before an audience. Ultimately, it is the performer that has to generate meaning from the composer's notated suggestions and deliver it to an audience. The moment of performance – not the moment of writing the score – is the moment when music is capable of gaining some sort of relevance, some sort of transformational agency through the acquisition of musical meaning. It was by watching and working with certain theatre and dance shows, in particular performances by Sue Morrison's clowns, Jordí Cortes Molina, Forced Entertainment, Vânia Gala, Jonathan Kay, Robert Lepage, La Fura Dels Baus and others that I was brought closer to an awareness that there was an aspect of the human experience - the body as both emotional and rational engine –that was largely absent in many of the music performances that I had seen or taken part in. In fact, that absence seemed to form part of my formal training as a musician.

The action of making music that I was accustomed to through my classical music education did not do the kinds of things these theatre performances did. They did not move in the same way. They did not laugh, scream, cry with the same kind of undisputed honesty and truthfulness. They did not question the same things or even posed questions in the same way. They did not penetrate me in the same way. I did not always have from a music performance the same urge to laugh and to cry – sometimes simultaneously – to observe intently, or to participate, to be transformed. There was a level of physical and emotional involvement from both performer and audiences in some forms of theatre and performance art that I felt could add to live music making the same type of the excitement – and transformational power - that a clown performance, for instance, has.

What did these other performers do that made their performances so profoundly touching and *universally personal*? This was what I wanted my music to do: to touch profoundly, to be universally personal. How can I harness their 'secret'? It was been my aim to understand the underlying principles of what I had seen in the work of these and many other performers that had so influenced me and continue to do.

But my musical training and that of the musicians around me did not promote, support or, in some instances did not allow music making to be combined with physicality ('do not tap your foot, do not move the head to the beat'). The decision not to train the body and its *presence* in the curriculum of music-training institutions

where I later taught supported my view. Cook summarises my concerns precisely when he describes music as an enactment of social relationships.

> Instead of seeing musical works as texts within which social structures are encoded we see them as scripts in response to which social relationships are enacted: the object of analysis is now present and self-evident in the interactions between performers, and in the acoustic trace that they leave. To call music a performing art, then, is not just to say that we perform it; it is to say that music performs meaning. (Cook, 2001)

From Cook's statement one can infer an acknowledgment that music relies on our full presence to generate musical meaning, and not just on the parameters notated in a score and their accurate delivery. My work on vigilant music practice builds on that acknowledgment; exploring and exploiting ways in which our physical presence can further enlace itself in our music making. If the physical presence is important in the making and in the understanding of music, what can I as a composer do in order to consider the performer's physical presence in my own musical imagination? My scores should then engage the performer at a physical level, not by offering my own choreographies to be repeated and re-enacted, but by facilitating and promoting in the performer the freedom to access and make use of their whole body, including their voice, facial expressions and the gaze, in whatever way they choose, using and expanding their own vocabularies of gesture, movement, speech, sound.

Over the years, I made several mental lists of what I find important in performance. These are the aspects – or performance skills – that I appreciate in a performance, and that, in my view and experience, offer a high degree of performance validity, and that I want to promote through my scores:

- A body that can access a complete range of actions, movements, directions, levels of effort, speeds, intentions, moods;
- The possibility of eye contact with the audience;
- Spoken word and, with it, a voice, with all its verbal and non-verbal meanings and moods;
- Some aspect of improvisation, risk taking and a clear and visible possibility of failure, failure being part of the excitement of the performance situation;
- Absence of acting: action is now and is here, the performance *is* the story being told, no artifice, and an honesty of presence: the performer is not pretending to be anyone else but the person that is doing something for the audience to see and hear*. 'I am me.*'
- The audience is invited to explore and takes part in the *game* of the performance. The audience is made to feel their presence is felt and is appreciated, indispensable even. '*You are you'*.
- Both solo and group plays were, to me, transformative: aspects of my own sense of self were changed through the performance.

The next step was to try to learn more about these skills and about the mechanisms that other practitioners employ in developing them, in order to try to make use of them and promote them in my compositions and in my own performances. This research is my personal path in achieving these aims, both as a composer and as a performer.

1.1.2. Notational Reliability

Together with identifying what constitutes for me performance validity, I tried to identify ways of ensuring notational reliability in my scores: how can I guarantee that my scores will produce valid performances?

In the work that I developed during my MA (1998-2000) I had already detected some meaningful discrepancies between the way I was thinking about my music performances and the notational model I was using. I was increasingly finding that the truly important aspects of a performance were not encompassed in my scores. I was not writing scores that addressed what I considered important in a good performance; my scores were not exploring at depth the skills that I had identified as promoting performance validity.

1.1.2.1. Parametric Notation

Music notation, be it prescriptive or descriptive notation, (Kanno, 2007) tends to focus on certain parameters of activity while neglecting others (Lely and Saunders, 2012). Traditional western visual-symbolic notation offers a great deal of precision on pitch, rhythm, and synchronicity. Secondary and less precise are, for instance, timbre and sound pressure. Completely ignored are physical and gestural parameters. Modern gamelan notation provides relational pitch instructions (the precise pitches are dependent on the tuning of a particular set of instruments that make up a gamelan orchestra), and synchronicity between players. In both traditions the physical involvement of performers, beyond the physical activity necessary to produce sound is usually ignored all together. The parameters that are absent in the score are still present in a performance, but the score does not offer instructions that cover all the possible parameters of action. Some parameters are irrelevant in one performance tradition but important in another – light design, for instance, is not consistently relevant in the tradition of British brass bands, but is a fundamental constant in rock and pop music performances. It is my view that certain important parameters that are absent in a score or aurally transmitted musical texts are completed by the performer with the help of acquired traditions, of stylistic vocabularies and of prior learning. One is trained to fill in the gaps in the text according to a particular tradition, a particular genre, a particular taste. The level of knowledge required to competently fill in those gaps is transmitted either orally, or intuitively, by cultural assimilation, often from birth, and often unconsciously (Dewey, 1938; Gordon, 2007; Merleau-Ponty, 1945; Merleau-Ponty and Lefort, 1991, 1968; Spatz, 2015). In order to perform according to a certain style, the performer has to internally assimilate – or formally learn – the subtleties of that style. Often pertaining to the bodily, behavioural, ritualistic and formal aspects of a performance style, those subtleties can easily escape the blunt parametric precision of symbolic or textual notations.

Clayton (2007a, 2007b) found that in classical Indian music gestural signs, such as appreciative head shaking and rising head gestures from the audience, were used to direct and encourage the performers. Gestures are evidently crucial parts of human communication systems, and research shows that they are in part common across all humans, but heavily socially and culturally determined (Davidson, in McPherson and Welch, 2012). Yet I observe in the notation of music (composition) that gestures are rarely present. The gestural learning seems to take place in aural transmissions between players, and not by score-driven transmissions. Some exceptions (Kagel, Stockhausen, Cage. Walshe and many others) are nevertheless present, and growing.

1.1.2.2. Notational Deficiency

The deficient aspect of notation, and the reliance on the performers prior training (formal or informal), poses a problem of notation reliability: if we accept, like I will be proposing, that the validity of a performance lies, to a degree, on the full *embodied presence* of the performers, and if such an embodied presence is not explained, understood, formed or taught by the score; and if, in addition, the performers' formal or informal training fails to develop the awareness of their own embodied presence, there is the clear risk that otherwise perfectly competent musicians may fail to explore and offer successful embodied performances, because the notation that leads to a particular performance lacks reliability: it does not offer the performer routes into its own stylistic competency. There is a need to offer, together with a score, the means of training performers in a particular embodied tradition, or perhaps away from engrained habits of other acquired traditions, in order to continuously expand the performers vocabulary of vigilant and embodied practice.

This continual expansion of one's own vocabulary is connected with a particular conception of *pedagogy* and training, and to the notion of *transformation,* two words I will return to throughout this text.

1.1.3. Performance pedagogic needs

A powerful stage performance is so for some reason. Something must happen during a competent performance that is different from a mediocre one. What are those things that are happening, what variable parameters are involved? Answers to these questions are often discarded as 'stage magic', charisma, x-factor, a *'je ne sais-quoi*', unattainable knowledge, which one either has or does not have. It is precisely *'la chose qu'on ne sait pas'* that I want to know about. This '*chose'* that makes great performances happen must be observable in some way. Swanwick, citing Popper states that "it is only *products*, things we say or make, that enable us to communicate with one another. We cannot see internal psychological processes at work unless there is some outwards manifestation, some visible, audible or tangible object, a perceptible event" (Swanwick, 1988, p.14). Something has to be present, some outward product needs to be observed in the performer for the audience to receive and begin to make meaning of the performer's presence and actions - which include the music being made but extends to their gestures, facial expressions and voice quality, the totality of their observable human presence.

Nevertheless, music educators spend a great deal of time considering how to train and teach performers to be able to do such great performances, and convince audiences to endure and financially support such performances. What exactly is being taught and (hopefully) learnt, when we do not yet seem to agree on *what* makes a good performance good, regardless of stylistic constraints?

How can I, as a composer and as a performer, structure a learning sequence that will promote a vigilant and embodied awareness in music making, a transformative pedagogic action towards a vigilant musical practice? The word pedagogy is used here in a broader sense than is often used. I use the word pedagogy in the context of acquiring skills, concepts and insights that were not previously present or clear. The concept of transformational action is relevant: pedagogy can be considered any action that offers a transformational opportunity. Of course one never knows what lies at the other side of transformation, so in this sense my use of the word pedagogy is not a methodological one. It is not prescriptive in its sequential steps for individual personal development: transformative action is understood as any action or enquiry that favours growth, sustainable development and positive exploration of one's field of action. From this understanding of *pedagogic transformation*, the production of

music texts can then be seen as the production of training tools, tools that help and show a performer how to do something they could not do or had not done before, be it to play a four-part fugue, improvise over a 12-bar blues pattern, or say play a board game while highly amplified, for instance (Cage, 1970, Solo for Voice 23). Matthews (Matthews, 2011) proposes the term *askeology* to describe the meta-disciplinary training one undergoes when preparing for performance. I will use the term *pedagogic* and *askeologic* alternately with similar meanings. I will further explore the pedagogic, or askeologic nature of producing and performing scores in Chapter 3: Solving the Problem.

1.1.4. Justifications for the need for a creative framework for vigilant and embodied practice

“For the drama theorist Baz Kershaw, it is "a fundamental tenet of performance theory . . . that no item in the environment of performance can be discounted as irrelevant to its impact," (Kershaw, Baz, 1992, p.22) and Charles Bernstein provides an all too graphic illustration of what this might mean when he characterizes "gasps, stutters, hiccups, burps, coughs, slurs, micro-repetitions, oscillations in volume, 'incorrect' pronunciations, and so on" as "semantic features of the performed poem […] and not as extraneous interruption” (Bernstein, ed., Close Listening, p.14, in Cook, 2001).

The growing body of research on embodied music cognition points to the importance of the body – gesture, facial expressions, tone of voice – in understanding and generating musical meaning (Clarke and Cook, 2004; Clayton et al., 2013; Davidson, 2001, 2001; Godøy and Leman, 2010; Goldstein and Brockmole, 2017; Gritten and King, 2011; Leman and Maes, 2015; Levitin et al., 2002; McPherson and Welch, 2012; McPherson, Gary and Parncutt, 2002).

I am proposing that musical meaning comes not only from the sounds that are being produced or experienced, but also from a series of other factors: the bodily configuration of the performer, the gaze (Graham and Hoggett, 2009); language and gestural imagery (McNeill, 2005), space audiation (Gordon, 2007), effort-levels (Estill et al., 2017). I am supporting this idea with research into interpersonal communication (Hargie, 2017), and multisensory and multimodal cognition (Alais et al., 2010; Calvert et al., 2004; Deroy et al., 2014; Vigliocco et al., 2014).

This research thus proposes practical ways of exploring those ‘other factors’ in notated music performance – the embodied factors – in a structured series of pieces, conceived to illuminate paths into the possibility of a multi-modal presence of the performer, offering broader possibilities of meanings to a witnessing subject.

1.2. My work prior to this research project

The work I did up to the start of my PhD in 2012 had not yet addressed my initial question: what makes a good performance good, and how do I write that into a score? What seemed clear was that what was meaningful to me was not just *what* the performers were doing on stage, but *how* they were doing it. My concern with the human presence, with gesture and with communication needed to be explored further. I formed a notion of *vigilance* (from my reading of Blanchot), which went beyond the engagement of the body: the need to engage the body was a means to promote and expand the creation of *meanings*, and to develop channels of direct human communication.

Vigilant music practice is about trying to discover other places where music may inhabit, beyond the sounds, in the complete complexity of human *presence*. It is

about considering the possibility that the meanings generated in the experience of music may be derived from the sound but also from the presence of the musicians and of the audience. In my definition of *presence* I will exclude forms of secondary meaning creation: fourth wall, suspension of disbelief, artifice, 'acting out', pretence, illusions, choreographies were no longer my preferred way into an exploration of vigilant musical practice.

Ruth Zaporah's 'Action Theatre and the improvisation of Presence' is a sequential training course that touches similar concerns by offering a model to explore "who we are, how we perceive our world, and how we respond to those perceptions" (Zaporah, 1995, p. xxi). In defining *presence*, all aspects of the human (the *pure experience* of the other, of the self, and of the dynamic relationship between self and other (James, 1912; Nishida and Abe, 1992)) must be allowed into the music-making equation: the body, the face, the voice, the skin, the gestural, the smell, the memories, the erotic, whether we understand the mechanisms of their communicative action or not. The fact that we may not be able to make quantitative deductions of the importance to 'presence' of some of these aspects makes those aspects no less negligible in the creative process. *Vigilant practice* considers and observes all of the above, and more, all other residues of human contact, whether or not we understand them, or even acknowledge them - for instance the role of smell, the illusive pheromones, and the presence in olfactory cognition of biologic quantum processes which we don't yet understand (Marais et al., 2018). We should not ignore the role of olfactory cognition in human communication simply because we cannot discuss it with words or quantify it with numbers, because we all know, experientially, that smell plays an important role in human relationships, because we know the power of smell in attracting and repelling others, in feeling safe and under threat, in determining healthy and unhealthy environments, in establishing spatial domains where we feel welcomed or not. Equally, the absence of a formal understanding of the complete phenomenology of human interactions should not restrict my exploration of vigilant and embodied presence in music making to modalities of interaction that we do understand. An open-ended approach to vigilant practice is in my view necessary in order to preserve all modalities of phenomenological engagement in the moment of performance.

The explorations I undertook before this PhD led me to consider the following points as some of the skills necessary for my experience of *valid* performance practice, which became starting points for this research project. Special attention would have to be given to:

Table 1 - Observed skills in valid performances

The meaningful body, Vigotsky's *material carrier* (Vigotsky, in McNeill, 2005)	The importance of the body (gesture), facial expressions, and the voice (mood)
	Remove the score from the performance situation in order to release the performers' gaze, accepting with this both the advantages and the constraints that also arise from this decision: abandon precision pitch and rhythm complexity, complex physical choreographies in favour of improvised structures easier to memorise.
	Focus on effort levels (as defined by the Estill voice model, and taught by Sue Morrison's Clown Through

	Mask)
	Appropriation of the space of performance (by the performer and their audience)
Mental processes and an intense inner focus	Promote in the performer an awareness of the self as object-in-the-world, objectified by the audience, and consequently, the Body as the prime meaning-creation object, and the body's sound producing agency as a secondary object
A dynamic engagement with the environment (venue, audience and other performers)	Focus on empathy, in the form of interpersonal interaction
	Favour group improvisation forms and scoreless aural transmissions
	Group-learning and group decision making
	Focus on relationships between objects of perception, rather than on the objects of the world
Training	The need for prior training and development of the performers' skills, and to view a score as a pedagogic tool.

That gave me enough questions to start the research: how (and what) do we communicate when we communicate music? What role does the body play in that communication? And the voice and gaze? How can I, as a performer and as a composer bring these skills into my performances and scores? What is the role of the score (which is after all the composer's only palpable and material tool) in achieving all of the above, yet maintaining a level of simplicity in the score which allows it to be memorable, therefore absent from the performance event? How can groups of players work together to promote such a level of communication? How can I exploit, in an inert score, the inherent role of oral transmission in a group rehearsal?

These are the questions that this research is ultimately trying to address. It was clear to me from the onset that precise answers could be found for some but not all of these questions, although it was also clear that personal approximations and the presence of an uncertainty principle would be unavoidable, perhaps even welcome. Nevertheless, without the pressure to find conclusive answers, these questions opened a line of artistic enquiry in my work as composer and performer that has proved very fruitful.

1.3. Notational Reliability

1.3.1. Notational Reliability in Mental-Process scores

Stockhausen's concept of *Intuitive Music,* which he developed throughout the late 1960s, led to the production of a series of pieces and recordings, the most relevant of them being the two collections of text scores entitled *Aus Den Sieben Tagen* (1968) and *Für Kommende Zeiten* (1968-70). Stockhausen "defines 'intuitive music'

as music that ‘results from the musicians’ spiritual attunement’ ” (Lely and Saunders, 2012).

These text scores propose a deep mental engagement with the process of music making but, in my view, they do not offer easy ways into valid performances. I personally would not know if and when I have reached an appropriate state of ‘spiritual attunement’ in order to perform intuitive music. In fact, Stockhausen’s text scores raise important issues of notation reliability, as well as well the problem of styles and traditions in vigilant music practice that I would like to explore further. In the interviews and lectures collected by Maconie, rather than describing what Intuitive Music is, Stockhausen talks about what intuitive music *is not:*

> When I hear the Globokar group, for example, even though they claim to play without any written understanding or agreement, it is very obvious that the percussion player every once in a while starts playing tabla rhythms from Indian music. He studied tabla once with an Indian percussion player and these stylistic elements come out automatically. So while there may be no pre-established style for the whole music, certain stylistic elements come into it, and I would try to avoid them, and draw completely on intuition. The same is true of Portal, the clarinet player. Whenever the group comes into rage, as I call it, when their playing becomes very heated, he starts playing typical free jazz melodies and configurations that he has played for years, being a free jazz player; certain idioms that come from the group he plays free jazz with, others that belong to the free jazz tradition in general. (Stockhausen and Maconie, 1989, p.121)

Stockhausen is cautious to disallow learnt musical behaviours – in Gordon’s Music Learning Theory (Gordon, 2007), this is equivalent to the acquired vocabulary of patterns that build up the syntax of a musical style – from invading improvised music, yet he does not offer a path to learn how to 'draw completely on intuition'. In my view what Globokar and Portal are doing when they revert to their learnt 'styles' is in fact to draw on intuition, to intuitively re-order learnt patterns from their own vocabulary of patterns, and construct new pattern sequences. Music Learning Theory would suggest that what would be necessary to escape the restriction of ‘learn styles’ is to increase the amount of patterns in the performers learnt vocabulary, and to develop the practice of articulating them into larger gestures in many different ways.

> Playing intuitive music it soon becomes very obvious which musician has most self-control; in fact, it's alarming how quickly the musicians reveal their physical and spiritual state, whether they are in crisis or have reached a certain kind of equilibrium. [...] Understand, I am not talking about ugly or beautiful sounds, but about very debased, physical, bodily aggression expressed in a determination to destroy one another. Then they play all at once. When that threatens it, it is most important that I always remind them, and myself as well, "Don't play all the time, and don't get carried away.[1] After several hundred years of being forced to play only what has been prescribed for them by others, musicians today

[1] [a lot of self-control demanded: how will intuition arise?]

> are particularly apt, once they start playing intuitively in a group, to play all the time, and it becomes loud very soon, and they don't know how to get soft again because everybody wants to be heard. (Stockhausen and Maconie, 1989, p.121)

What Stockhausen expects from musicians when he expects them to draw on *intuition*, is, I believe, for them to sound like Stockhausen himself ("whenever the group come into rage, ***as I call it***…"). Read this way, Stockhausen's personal *intuition* seems to be better than his musicians' own! I believe what is absent in Stockhausen's work with intuitive scores is a structured, sequential pedagogic framework, where *his* version of possible improvisatory events can be taught and achieved by *any* musician. He never wrote such a structured pedagogy, but no doubt he offered it to his close group of musicians – his troupe – as a director, *hors texte,* that is, relying not only on the written score but also on his own oral tradition to construct his performative style. Stockhausen again:

> You can think about a lot of things while performing: training your fingers, controlling what you are doing, reacting – aha! now he is playing, now I should do this – all of which is thinking about what you are doing. But you can also act! Now! Now! Now! Now! Now! Stop the thinking and as soon as you stop, all right. As soon as reflection or thinking starts also noticing that you are thinking, stop. That is all that is asked. And it needs some time for preparation, some special training of the musicians. (Stockhausen and Maconie, 1989, p.124)

But how do you train the musicians to play the music like Stockhausen imagines? How do I stop thinking? Stockhausen's intuitive scores have an unwritten expectation that musicians will know how to perform them how the composer imagined them. Yet, Stockhausen is merely stating how *he* makes music. He expects other musicians to make music the same way, to make the same discoveries in improvisation, without giving them the basic tools, the preparation or the training to enable them to do it like he does. Here, the composer is absolutely relying on a performance tradition to fill in the blanks in the score, but dangerously, such a tradition did not exist at the time (perhaps it does not exist yet).

> ...it says here 'Play a vibration in the rhythm of the universe'. We have a pianist in our group, Mr. Kontarsky, who is an extreme intellectual and everything must be intellectually and mentally clear,, otherwise, he says, he at least can't do anything. So he said, what do you mean by the rhythm of the universe? What is all that mystic stuff here? And I said, I mane, have you never had dreams where you fly from star to star? He said no, I don't have them. What are you talking about? The I said, well, have you any inner view or inner vision of how the planets are rotating round the sun? –What do you mean? I said, at least you have an intellectual knowledge of how long it takes for the moon to go around the earth, or the earth around the sun; how many days it takes, in earth days, and how many earth days Mercury takes? And he said, I am not well informed about the planets and, well, I could have thought about it but it's all so slow. I said, no, when it is in your mind it has your own time, hasn't it? Imagine it, just the rhythm of the universe. I mean, I'm not asking you tonight to go beyond the solar system, but just try. And he was saying, I don't know, let's stop and you can get

> somebody else. I said, well, Aloys, you see, perhaps the constellations, think Cassiopeia or the other constellations of stars. He said, Oh, you mean Webern? I said yes! he said, well okay, let's start. (Stockhausen and Maconie, 1989, p. p.118)

Stockhausen's anecdote on how he directed the rehearsal and performance of his own intuitive score reveals how incomplete and unreliable his text score is. Though profoundly committed to performing the score as competently as he could, Aloys did not extract from the score enough information to elicit a competent, *valid* performance. It's not that the score leaves aspects open to improvisation or to free interpretation. Its more a matter of the musician not being able to recall or imagine a mode of *being* that precedes the understanding of the score, as if the language of the score itself is unknown to Aloys.

Aloys seems to be searching the score for clues that would allow him to embody the demands of the score: not the specific and *appropriate* actions and timings, not *what to do*, but *how to be*. That missing clue does not come from the score, but from the composer himself, fortunately present, who is here taking the role of the troupe leader, the director, the Joker. Stockhausen's physical presence in the rehearsal space allows the process of decoding the score into performative action to proceed. Without the composer's physical presence, the score does not offer Aloys all the tools he needs to act. This score is, in this sense, unreliable.

Stockhausen's presence has two distorting effects: Stockhausen holds in his mind a model of what a valid performance should be like, which no one else knows. His authority as the composer and also the band leader allows him to easily impose his vision of validity and remove any discrepant presences. (John Potter (conversation with the author) proudly refused to work with Stockhausen for that same reason). What is missing in Stockhausen's unreliable score is completed, authoritatively, by the director. The *troupe* model of performance practice is in action here. But the authority of composer removes from the rehearsal space any possibility that the role of the troupe leader/director could, even if momentarily, taken over by another member of the troupe. The double authority of troupe leader and composer is absolute. Absolutely absolute! Cardew's epithet of Stockhausen as servant of imperialism is thus expanded to enabler and enforcer of authoritarianism. The model of human interaction, of social engagement that is inherent in Stockhausen's intuitive scores seems to be all but intuitive: it is directed, dictated even, from an external force – Stockhausen himself–, and not from an internal intuition (mindlessness, System 1). This needn't be the case were the score reliable, or had Stockhausen offered in his life time some form of training in how to achieve his own unique vision of what constitutes a valid performance. So the composer takes on the role of director, in flesh and blood, to supplement the *unreliable narrator* speaking from the score (subsequently, through his work with his troupe, through recordings and performances, a Stockhausen *sound* is accessible, a tradition has now been founded, which other performers may learn *aurally,* and validly apply to the reading of Stockhausen's 'unreliable' scores).

Pauline Oliveros' work on the practice of *Deep Listening* follows on from John Cage's work into the non-intentionality of sounds, but places a stronger emphasis on agency, in particular meta-cognition of sound. Many of Oliveros' published text scores pose, in my view, the same problem of notational reliability as Stockhausen's Intuitive Music, but Oliveros circumvents the problem of notational reliability by offering courses and qualifications in Deep Listening at the Deep Listening Institute™: oral transmission again comes to the rescue and fills in any gaps left in the unreliable score.

The problem of notational reliability sits at the very heart of my research: as a performer I am searching for a particular *way* of being on stage, of improvising, and of communicating with other people. As a composer of scores I write must, first of all, generate tools that explain what that *way* is, and then teach it to other performers. *Games for Musicians and Non-Musicians* is the first of such tools.

1.3.2. Non-notated, improvised, and genre-bound mental processes

As I suggested above, I believe that often, when faced with an imprecise instruction, or the absence of instructions, performers take a heuristic route and make improvised decisions according to what is already familiar and therefore predictable and easier. The strategies of heuristic decision-making can be seen to be the foundation stones for the development of the notion and practice of *genres, styles*, and *traditions.* Taking a considerable risk of generalising complex performative practices and reducing them to over-simplified heuristic algorithms, I will make reference where appropriate to performers where an observable engagement with the processes I presented in Table 1 is enacted without the recourse to scores or scripts, but rather through a variety of vehicles: 1) by an established tradition, delivered to the performer through cultural media; 2) by direct oral transmission, through one-to-one teaching and 'troupe' work, often in studio centred rehearsals and closed-door workshops.

Some brief examples of non-notated mental process could include meditation and mindfulness training, Clown through Mask training, with its emphasis on quick reaction and intuitive responses, or so many orally-transmitted singing traditions, learnt without a score or a formal training structure.

1.3.3. Notated and non-notated gestural engagement in style-bound music performance

Though the agency of the body and the perception of the musicians' body seems to be inescapable in live performance, (and perhaps even in recorded music and acousmatic music), through space and movement audiation and the multi-modal nature of human cognition (Godøy and Leman, 2010; Gritten and King, 2011), few composers work with the physical presence of the performer in a focused and deliberate notated way. Some musical practices – for instance, in Okinawan classical music (Gillan, 2013) – that exist outside the notated realm tend to grant the presence and perception of the body more attention, but a correlation between the presence or absence notational practices and embodied awareness is not definite.

Some oral folk traditions show little style-bound physical involvement (for instance in my experience, Irish folk musicians tend to make a limited amount of non-functional gestures), while other styles may be defined by a higher degree of physical engagement, or non-normative physical effort levels. Andalucian flamenco and Lisbon fado singers' pained facial expressions define the gestural style of the performance while at the same time also defining the voice quality required. In the second half of the 20th century attempts have been made in the field of western experimental and contemporary music to explore the role of the body in a more deliberate way and to acknowledge the role of the body as *material carrier* (Vigotsky). I will present examples of relevant work in this area that uses both a notated and non-notated approach to exploring the corporeal presence of the performer.

1.3.4. Notated gesture

Sara Carvalho's score *Imaginary Bars* notates in text clear movements ("moving away and towards the listener"; "moving in a circular motion") side by side with traditional music notation. Carvalho describes these gestures as "metaphorical process", in which "the performer's body gestures express an intended and pre-conceived compositional musical idea. Therefore, the composer's musical events are also enriched with specific planned gestural intention" (Carvalho, 2017, p.6). We see here an attempt at transferring to the performer's body and presence the intentions of the composer. Again, like for Beethoven or Schoenberg, the performer's presence is seen as a conduit to reveal the composer's absence, through a process that I personally find mysterious, unreliable, fallible, and, ultimately, unnecessary. What I see in a performance is the performer's body. I cannot see the composer's absence. In addition, Carvalho's gestural choreographies are seen as enrichments of musical events. As I will try to expand in the second section of this text (Chapter 2.2), I believe that gestures are not an addition but sit at the very core of musical meaning, even when physical gestures are not observable, as is the case of recordings, or even absent, as is the case of electro acoustic music, where the human body is not the agent in the production of sound, yet physical gestures can still be multi-modally perceived.

1.3.5. Non-notated, improvised/genre-bound corporeality

Kagel's *Match* (1964) is a piece for two cellos and percussion that enacts a match between the two cellos, refereed by the percussion. It is scored using traditional western music notation. There are no gestural notations, but the sounds are precisely notated. The gestures present are the gestures required to perform the music in the classical tradition, "the theatre element is only evident in a very roundabout way – indeed the music is so complete in itself that some people may never notice the subtlety of Kagel's joke" (Brindle, 1987, p.148). The corporeal aspect of this piece, being absent in the score, is brought into the performance by the conventions of the classical music concert, which are culturally, stylistically constructed and not strictly composed but genre-bound and stylistically improvised.

1.3.5.1 Acquisition of embodied vocabularies

Stelarc's *Amplified Body* (1994) invites the audience to control the performer's body through a remote web interface. The performer's deliberate relinquishing of his own physical control draws parallels to the called dances traditions, like one sees in the British *Ceilidh* tradition, or the Portuguese *baile mandado*. Here the responsibility for the participants physicality is transferred to the *caller*. This tradition sits comfortably within a pedagogic model of vocabulary acquisition by rote, prior to inferences (improvisations) being attempted. The pedagogic process that involves relinquishing personal responsibility over one's own physicality by copying (mimesis) or obeying another performer in order to assimilate new physical habits is central to the work I am proposing in this research.

1.3.6. Voice/body synthesis

I would like to highlight the special case of the voice in performance, as a tool for immediate communication. The variety of vocal uses in performers like Roy Hart and the Roy Hart Theatre – exploring the extremes of vocal usage and vocal effort; Laurie Anderson – where story telling and music are inseparable; Meredith Monk and choreographed music performance, with an embodied vocality that expands from Dalcroze Eurhythmics, (which was part of Monk's music education), Trevor Wishart, Phil Minton, Michael Edward Edgerton, and other contributors to the extended vocal technique repertoire, bring to the discussion on embodiment another angle in the

forging of a fully human communicative presence. What I find important in the work of these artists is the expanse of vocal use in order to differentiate between various emotional drives, pointing to an embodied generation of meaning through a rich use of voice and voice qualities: voice qualities and gesture are bound tightly with the making of musical meaning – an embodied musical meaning that is constructed on more than just notated musical parameters.

1.3.7. Communication with the audience

Interaction with the audience is more central to some performance practice traditions than others. Pop music performances tend to make much of physical and facial communication, including the gaze. Richard Pochinko/Sue Morrison's 'Clown Through Mask' training puts interaction with the audience at the very core of the clown's craft: in this type of clowning, a merging of European new clown traditions with native American fooling and shamanistic practices, the performer reacts and engages with their audience, the environment and other clowns with an immediacy and dynamism that defies planning, intellectualisation and social normative behaviour. The clown is operating on maximum outwards awareness and immediate response to external stimuli, and on minimum internal self-reflection. This dichotomy – degrees of internal focus and of external reactions – is central to the findings of my research project. In Chapter 2 I will expand on how both poles of this dichotomy are relevant to vigilant improvisation.

In a similar vein, many of Augusto Boal's theatre games included in the two books *The Rainbow of Desire* and *Games for actors and non-actors* (which I paraphrase in my workbook *Games for musicians and non-musicians),* focus on developing an awareness of the other and of the performers' response to the other (see **GMNM.1**, **GMNM.2**, **GMNM.3**, **GMNM.5**, **GMNM.13**, **GMNM.15**, **GMNM.55**, *A Chair to Sit On)*.

1.3.8. Group decision making

An aspect I identified in my reading of performances that fitted my conception of *validity* was the importance of group communication. Communication between performers is equally important in establishing a safe and protective environment where each performer is allowed to explore ways of searching this elusive quality of *presence*. A working situation where each individual is free to explore safely and develop personal embodied strategies seems important in facilitating *valid* performances.

Creating a safe rehearsal space

In the introduction to *Games for Musicians and Non-Musicians* I suggests strategies for creating a physical and emotional safe rehearsal space.

'It is important to make all efforts in order to create a safe rehearsal space, not only physically but also emotionally. An environment where players can safely explore, express, and understand their own physical and emotional limits needs to be nurtured throughout the rehearsal process. Besides the group discussions and debriefing mentioned above, other strategies and policies to implement a safe space may include the presence of a qualified counsellor accompanying players throughout the rehearsal process, and the creation of a rehearsal agreement, to be agreed by all players in advance, setting out what behaviours they can expect and what behaviours are expected from them. I suggest the group discuss and write a rehearsal agreement to be agreed on in advance by all members, setting out actions and behaviours they expect to be part of. An example of a rehearsal agreement – by Intimacy Directors International – is presented, purely as an example, in appendix 4. Revisit and revise the group agreement as the work through the *Games* progresses.' (*GMNM*, Introduction)

Some composers have brought into their scores ways of organizing groups so that different degrees of individual freedom are allowed, facilitated or outright imposed: James Saunders group behaviour pieces, where individual behaviour is tightly bound to collective behaviour; Alexis Porfiriadis's collaborative pieces (Porfiriadis, 2016), where the authoritative connection between the composer and the performers is

deliberately severed in benefit of the consensual ethos of a working group of decision making performers; Christian Wolff's vision of equality between musicians (Saunders, 2009). The political consequences of this attitude in the act of scoring are clear: absence of clearly defined authority; sense of individual responsibility towards the whole group; open-door attitude to the participation of non-specialists (un-trained musicians); group decisions are made by consensus rather than majority pressure.

1.4. Methodology: Action Research - Research-Led Practice / Practice-Led Research

The purpose of this research is to impact change in my own performative and compositional practice and to share those changes with other players in my research community. For that reason this is an action-research project. The methodology used in this research project was one of studying established texts and practices as well as new trends in performing arts, philosophy, linguistics, pedagogy and neuroscience, and constructing a compositional practice that could accommodate the findings of those studies.

This was an iterative process, where studies in one discipline led to the composition, rehearsal and performance of new pieces, which in turn raised new questions. These then triggered further study in a new or related area of knowledge, often in a circular and recursive way. Music Psychology authors for instance were revisited several times, under the light of new knowledge acquired by the study of neuroscience, linguistics and gesture, and of certain composers whose work bears relevance to my research questions. New pieces were then written or old pieces re-written and performed in response to newly acquired knowledge and the cycle continued.
Gray defines practice led research as research in which "The questions and challenges originate in practice and the needs of practice, and the research is carried out through practice" (Gray 1996, p.3, in Barrett and Bolt, 2010). This definition describes accurately the work undertaken at certain points during the research period: a practice-led recursive processes – where the work prompts enquiry– is followed by conceptual reflection.

But at other moments during the research the work was much more led by theoretical research then by practice. At these moments it was the conceptual process that lead the way, the practice changing as a result: research-led practice.

My research project was conducted under what Davidson refers to as the New Paradigm Approach, a variant of qualitative research "in which the researcher plays an active role in the generation and interpretation of the data" (Davidson, in Clarke and Cook, 2004, p. 58)

The portfolio of compositions and the documentation of performances I am presenting is the result of this rather unpredictable and somehow self-evolving process. The thesis forms the conceptual distillation of this process and proposes new ways of understanding vigilance with regards to music performance, and how compositional processes can facilitate such an understanding in the practical contexts of rehearsals and performances.

1.5. Conclusion to Part 1

To summarize, my research questions are looking at ways of exploring in the process of scoring and rehearsing, what I observed in other performers as a sense of full engagement from the performer; of full physical agency and access to a wide

range of effort levels; of a delicate communication with the audience through the gesture, voice and the gaze.

1.5.1. *Vigilant Music Practice* as relational awareness

My use of the term *vigilance* is anchored in Blanchot's definition:

> "*Vigilance - the authority of the body when the body is not separated but fully in agreement with the truth of place*" (Blanchot, 1982, p. 266).

The place in question for my purposes is any place which one treats as a performance space, what Peter Brook calls the *empty space* (Mitter, 2006; James Roose-Evans, 1989). Blanchot's *vigilance,* perhaps akin to what Brooks calls *the detached attachment* (Mitter, 2006; J. Roose-Evans, 1989), exists in a cognitive place which is also to be understood as any place one inhabits, any event one endures.

Blanchot's definition of *vigilance* points to *how* one engages with such a place, how one's awareness is engaged with aspects of the *truth of place*. Blanchot's use of the word *vigilance* raises several immediate questions: what it is like to have authority of the body; how do I know when my body is or is not separated from the truth of place; what is the *truth* of place? What do we understand by *the body*? Do we mean our *awareness* of our body's presence in a space? Do we mean our awareness of how our physical presence in a space is perceived by others?Some of these ideas resonated strongly with my own experience of performing other people's music, and mine, and with performances that I had watched that impacted on me. *Vigilance* seemed to me to describe perfectly what I had so strongly experienced when I watched the work of, for instance, Sue Morrison's clowns, or of Lisbon Fado singers: the intense authority of the performer's body over the performance situation, the sharp immediate responses to any sound or movement in the performance space, or outside of it – the performer in close syntony with the environment and people around them. Blanchot's definition of *vigilance* points to a way of being which is relevant to my problem.

A proposal for a definition of vigilant musical practice needs to dismantle each of the terms of the problem, and attempt to understand them and how they can be used in developing a practice.

William James, in 'Essays in Radical Empiricism' (James, 1912) places the relationships between objects as the root of all ontological insights. In this light, I focus not on the work as a product or object, not on the space of the performance, not on the performer, not on the audience, but on the *relationships* that take place in a performance: the relationship between the performer and the self, between the performer and the venue, between several performers, between performers and audience, between performer and the work performed. Relationships, or using another word, communication between entities become the keyword in beginning to address my problem. I could begin to explore my actions as a composer and performer if I took as a starting point that what makes a valid show is the degree with which communicative relationships are formed between all constituting agents in a performance, rather than the isolated acquisition of discrete sonic events by a passive audience. A sequential list of such relationships could be attempted, which could provide a schedule for exploration both in compositional and performative practice:

1. Relationship between performer and the self; (part 2.1)
2. Relationship between performer and its body; (part 2.2)
3. Relationship between performer and sound (pitch, timbre…), time (rhythms), and the passing of time (form); (part 2.2.2)
4. Relationship between performer and space; (part 2.1, 2.2)
5. Relationship between performer and other performers (body, word, presence) (part 2.3)
6. Relationship between performer and the audience; (part 2.3)

7. Relationship between audience and the space; (part 2.1)
8. Relationship between audience and sound; (part 2.2)
9. Relationship between audience and others in the audience; (part 2.3)
10. Relationship between audience and time (explored in my previous work, mainly through the production of installations).

This shift of focus from objects to relationships is a reason why the present research is moving my compositional approach away from '*what* do performers do in a good performance?' to '*how* do they do it?'; away from the prescribing of meaningful actions, towards proposing forms of communication and interaction between performers and audiences, which may be meaningful – such proposals are but my cheap excuses to trigger situations when we can be in each other's presence in a positively communicative and transformative manner; to see, feel, hear and touch each other with more and more *reality* each time, with *vigilance* and *empathy*, and, ultimately, with love. [I believe I have never read the word *love* in an academic text, book or article, but my use of the word love in this paper is not a provocation or a misuse. Love in this context stands for the simplicity of individuals supporting and helping each other, unconditionally and reciprocally, with openness, honesty and generosity, in whatever ways are necessary and safe for each individual's personal fulfilment.]

I have structured the sequence of pieces in my *Games for Musicians and Non-Musicians* along this sequence (points 1 to 6). I felt I had already addressed point 7 and 10 in my previous installation work. Points 8 and 10 were tangentially touched in The Listening Club, a series of public talks and listening events of new music I curated at Index Gallery in Stroud between 2012 and 2014. Relationship between members of audience (Point 9) is visible in clubbing, where the audience can also be understood to be the performers. Point 7 to 10 are largely out of the control of a performative process, but may be addressed through a separate compositional and pedagogic programme. For that reason they did not form the focus of this research project.

It is important first of all to define what is meant by *embodiment* and by *presence* under the light of Blanchot's definition of *vigilance*. Notions of *self* and *other*, *environment* and *agency*, and more importantly how the *self* and the *other* engage with each other in a dynamic communicative process become fundamental starting points in this exploration. Defining the fields surrounding these concepts will be subject of the next section.

In 'Chapter 2: Understanding the Problem' I will explain the three skills that underpin my concept of vigilant performance practice: cognitive states (internal processes) (Ch. 2.1), embodied imagery (external states) (Ch. 2.2), and inter-personal communication (Ch. 2.3). I will conclude the chapter with an overview of the three skills, their intrinsic relationship with each other, and propose a dynamic definition of vigilant performance practice.

In ‘Chapter 3: Solving the Problem’ I will present my proposal for developing tools, activities and scores that promote the three skills of vigilant practice. This has taken the form of a workbook, populated with sixty-four text scores.

Chapter 4 brings together all the threads in this discussion. I discuss the possible personal and social consequences of this work and offer possible routes for developing other applications of this research. Future research avenues are explored.

I will make reference, as appropriate, to scores in my portfolio, and video evidence of rehearsals and performances that may testify to a particular argument. The appended catalogue of pieces, video recordings, photographs and performance reports makes connections between the theoretical points raised in the thesis, the scores in the portfolio of compositions, and the video documentation folder submitted. The video documentation folder contains records of events – rehearsals and public events – where aspects of this research project were explored and guiding conclusions were reached.

Part 2 - Understanding the problem

Introduction

Before I embark on a thorough explanation of my research project I would like to offer an explanation for the wide range of sources used in framing my arguments, experiments and conclusions.

The field I am moving on is inherently interdisciplinary: for instance, the relationship between music-making, physical gesture, linguistics, neuro-science and psychology is so close in the present literature and state of knowledge that it seemed unavoidable for me explore wider and wider in the literature in each of these fields. Equally, the question of self control in music performance quickly poses subsequent questions in the fields of psychology, cognition, philosophy, cultural studies, pedagogy. Questions regarding group improvisation seemed relevant to theatre studies, sociology, even thermodynamics and entropy (a research thread eventually abandoned in the present thesis but still a possible avenue for future research). This was an iterative research process: reading leads to writing and testing, experiment and reflection, which opens new questions that require further reading. The number of subjects relevant to this project quickly expanded, with a great deal of data gathered along the way. I created a data management system that fitted my personal needs and the nature of the research plan. As the thesis took shape I could navigate between data sets from each different subject with ease, and fruitful connections were drawn between different disciplines that helped guide the outcome of the research.

Another reason for the wide range of sources visited lies perhaps in my own nature, and can reveal my initial motivation for embarking on a PhD. That is, to explore and learn new things (if not in depth of detail, clearly in breadth of scope). I like learning stuff. This was a perfect opportunity to explore and study areas of human knowledge that I would not have otherwise dived into: existential philosophy, linguistics, physics. I was open and curious and I followed all leads in the obvious musicology literature, eventually landing in unexpected areas. Many of these explorations led to creative dead ends, but even so of importance to the research, in that I learnt what *not* to do. One must not underestimate the power of negative knowledge – to know that a hypothesis is false is as important as knowing that it is true (the best example I am aware of the importance of negative knowledge is the Michelson-Morley experiment (1887) that failed to prove the existence of a cosmic ether, thus opening the way for Einstein's Special and General Theories of Relativity.

Towards a definition of vigilant music practice

At a simple level, sound carries clues to its origins, be they the material origin (what vibrates to produce pressure waves and the material nature of those objects) or the embodied origin (how the sound was created by the relationship between at least two bodies), which in turn includes information about other parameters, like speed, space, breath, strength, and also physical effort, intention, mood.

Sound gestures have also the capacity to be meaningfully received and akin to other types of gestures: physical gestures, bodily gestures, syntactic gestures, vocalic

gestures (which includes voice qualities and with it information about mood and intention). According to Gødoy and Leman, “we experience and understand the world, including music, through body movement–when we hear something, we are able to make sense of it by relating it to our body movements, or form an image in our minds of body movements” (Godøy and Leman, 2010, p.5).

Recent and on-going research into multi-sensory cognition points to the possibility of sound being understood at a multi-sensory level (Alais et al., 2010; Calvert et al., 2004; Clayton et al., 2013; Deroy et al., 2014; Galvan Debarba et al., 2017), and the creation of musical meaning being cognitively forged not only in auditory centres but in other brain areas, like those responsible for the processing of movement and tactile inputs (Leman and Maes, 2015). Damásio’s (2000) use of the term *embodied cognition* relates cognitive processes to body processes and the bodily interaction with the world, in what Damásio calls the ‘body-minded brain’. I will explore these threads in section 2.2. We also find strong relationships between the understanding of gestural imagery in language (McNeill, 2005, 1992) and music making gestures (Clayton et al., 2013; Davidson, 2012, 2001; Godøy, 2004; Godøy and Leman, 2010; Gritten and King, 2011; Hatten, 2017; Kurosawa and Davidson, 2005; Leman, 2008). I will explore this topic in section 2.2.

At a more complex level, embodied sound production expands from the purely sonic to the phenomenologicaly embodied, with possible strands into the creation of meaning at a *poietic* and *aesthesic* levels (Nattiez, 1990), which intersect with all of the types of gestural co-relations described above. *Embodied improvisation* delves further into the meaning making potential of music and gesture, and incorporates into its tool box not only the body as functional maker of music but also the body and its presence in space as trigger for the generation of meanings– which encompasses how the body relates to its surroundings, and also the voice and its many qualities – voice here seen as both as a musical instrument and as carrier of verbal and non-verbal meanings.

At a linguistic level, “language is inseparable from imagery” (Damásio, 2000; McNeill, 2005, p.4). The word, gesture and the embodied presence all participate in the creation of thought, of speech and of meaning (McNeill, 2005). I am constructing my compositional and performative work on the notion that, like language, live music (and possibly recorded music as well) is also inseparable from imagery (Damásio, 2000; Gordon, 2007; McNeill, 2005). The concept of embodied music practice I am proposing stems directly from the creative appropriation of the concept of music as imagery, which is inseparable from our relationship with the materiality of the world and of our bodies.

But my concept of vigilant musical practice goes beyond simply using the body: it is about engaging the complete presence of the body to present embodied images which promote and expand the creation of meanings, and use all channels of human communication to achieve that. This practice excludes any form of secondary meaning, fourth-wall, artifice, acting, pretense, illusion, and persona.

I am proposing a definition of vigilant musical practice as a practice that is at once: *cognitively non-normative, multi-modal/imagetic,* and *interpersonally communicative.* I will explain what I understand by each one of these terms and how I believe they can be tied in to a model of musical practice that includes compositional practices, the pedagogy and rehearsal of musical performance, and the performance of live music. In fact I will use these three terms – cognition, multi-modal imagery, and interpersonal communication– as the titles for each of the main sections in part 2 of this paper, because they can be seen as three conceptually independent learning

sequences in the development of a vigilant musical practice, which I will explore on part 3. For each of the three aspects above, I will propose ways of promoting and developing the performative skills that I identified in section 1, thus structuring a training sequence, supported by pedagogic theories, and by the concept of askeology (Matthews, 2011).

The separation of vigilant practice into three stages – cognition, multi-modal imagery, and fully communicative engagement- can be equally described as:

a. An interior stage [IN],
b. An external stage [OUT],
c. And relational (the relationship between what is IN and what is OUT*:* IN↔OUT).

I will use these simplified terms – IN, OUT, and IN↔OUT – throughout the text to refer to each of the stages of the model. The division into three stages, though difficult to compartmentalise in the moment of performance, is not merely conceptual. Several writers from distinct areas have used this separation to describe how humans conduct their existence, in and out of the performance stage. One such writer is Daniel Dennet, whose writings on consciousness can bring a focused light into this discussion. For Dennet (Dennet, 1992, p. 44), human existence is subject to a

> tripartite division into outer, inner, and affect. [...] Philosophers and psychologists often use the term phenomenology as an umbrella to cover all items – the fauna and flora, smells, itches, pains, imagined purple cows, hunches, and all the rest. [...] Our phenomenon is divided into three parts: (1) experiences of the "external" world, such as sights, sounds, smells, slippery and scratchy feelings, feelings of heat and cold, and of the positions of our limbs", the body in the world, [OUT]; "(2) experiences of the purely "internal" world, such as fantasy images, the inner sights and sounds of daydreaming and talking to yourself, recollections, bright ideas, and sudden hunches" [IN]: and "(3) experiences of emotion or affect" (to use the awkward term favoured by psychologists), ranging from bodily pains, tickles, and "sensations" of hunger and thirst, through intermediate emotional storms of anger, joy, hatred, embarrassment, lust, astonishment, to the least corporeal visitations of pride, anxiety, regret, ironic detachment, rue, awe, icy calm. (Dennet, 1992, p. 44)

But I should make a reservation regarding my concept of vigilance and a three-part separation: each part in this separation is not isolated from the other parts. As I lay out my thesis, it will hopefully become increasingly clear that my personal vision of a vigilant musical practice cannot separate a sense of self, from a multi-modal engagement with the body, and from a dynamic inter-personal communication with the audience and other performers. In the heat of a performance, all three parts should co-exist and influence each other. But there is a practical benefit in separating vigilance into three part: my model of vigilant music performance uses these three aspects to construct a sequential training programme for musicians (and non-musicians) that proposes to transform their performative practice. This training programme guides the content and sequence of the sixty-four pieces that constitute my *Games for Musicians and Non-Musicians*, which is the main work to come out of this research project. From a pedagogic point of view, there is an advantage in

dividing learning objectives and activities into smaller conceptual units, for which separate learning sequences can be designed. I will discuss how the three parts can be connected in learning sequences in more detail in Part 3 of this text.

2.1 Cognition [IN]

An understanding of how the senses of *self*, of *place* and of *other* interlock in the performance event (and in any event, for that matter) is a recursive topic in performance studies, and it is a logical and solid starting point for explaining my research. In this section I will look at several authors strategies to define the sense of self, compare opposing views on the matter, differentiating between mind, consciousness, meta-consciousness, and self; between emotion and feeling (Damásio, 2000). I will argue, based on Damásio's work, that the self, and the sense of self is, at a basic level, a transformational tool, ready to inflict and take on change and transformation; and that performance, and performers, exploit that property to operate transformations within themselves and in the others. I will look into how the process of transformation can be carried on onto the stage by observing the work of relevant current practitioners.

For my purposes, though only what is observable on a stage is of relevance to my study, the private mental phenomena that instigate and shape the public signs are equally relevant. In the *Games*, mental processes are one of the skills identified and a learning sequence is attempted for that skill.

2.1.1 Thinking and behaving

Logical behaviourism

> is the theory that being in a mental state is being in a behavioural state. Thinking, hoping, perceiving, remembering and so on are all to be understood as either behaving or else possessing a complex disposition or propensity to behave. The mind is nothing over and above behaviour. This reduction of the mental state to the behaviour is advocated by the logical behaviourist as a linguistic thesis: a thesis about how it is possible for psychological concepts like 'image', 'perception', thought' or 'memory' to have a use in our language. This is possible, according to the logical behaviourist, because any sentence or set of sentences about minds may be translated, without loss of meaning, into a sentence or set of sentences about publicly observable behaviour. Unless our psychological vocabulary refers to overt behaviour, it could not be meaningful (Priest, 1991, p.35).

Logical behaviourism, in its insistence on what is observable, and on what is 'languageable' does offer us performers a perspective that our presence on a stage, what we '*be'* before the other, needs to be seen, read, heard, felt prior to it being transformed into meanings. It does not offer a solution about where that presence originates and terminates, or how to sensitize us to its subtleties, and how to modulate that *presence on a stage*. That problem is addressed in the next section about the body in the world (see Ch. 2.2), and about communication (see Ch. 2.3).

2.1.1. Theories of the Self

For Hume, the self is not a substance that predates or outlives experience, but the result of a bundle of experiences. This view is also present in Buddhist philosophy: in the concept of Anatman, or non-self, there are no fixed points upon which to anchor the Self, which is considered a mere illusion of the five illusive and constantly changing skandha, or aggregates: perception, emotion, body, consciousness and thoughts. In isolation, none of these 'aggregates' are exclusive to one person. "They are regarded as without essence, impermanent, empty, and suffering-ridden" (Fischer-Schreiber et al., 1991). Hume's view of the self is described in his Treatise:

> There are some philosophers who imagine we are every moment intimately conscious of what we call our self. For my part, when I enter most intimately into what I call myself, I always stumble on some particular perception or other, of heat or cold, light or shade, love or hatred, pain or pleasure. I never can catch myself at any time without a perception, and never can observe any thing but the perception. When my perceptions are removed for any time, as by sound sleep, so long am I insensible of myself, and may truly be said not to exist . . . I may venture to affirm of the rest of mankind, that they are nothing but a bundle or collection of different perceptions, which succeed each other with an inconceivable rapidity, and are in a perpetual flux and movement. (Hume, 2015)

The emptiness of the self – the idea that the sense of self is forged from experience and not from a substance – is very much present in the theory of the self constructed by neuroscientist Antonio Damásio, which has profound connections to the improvising mind and to my concept of vigilant improvisation.

2.1.2. Damásio's Sense of self

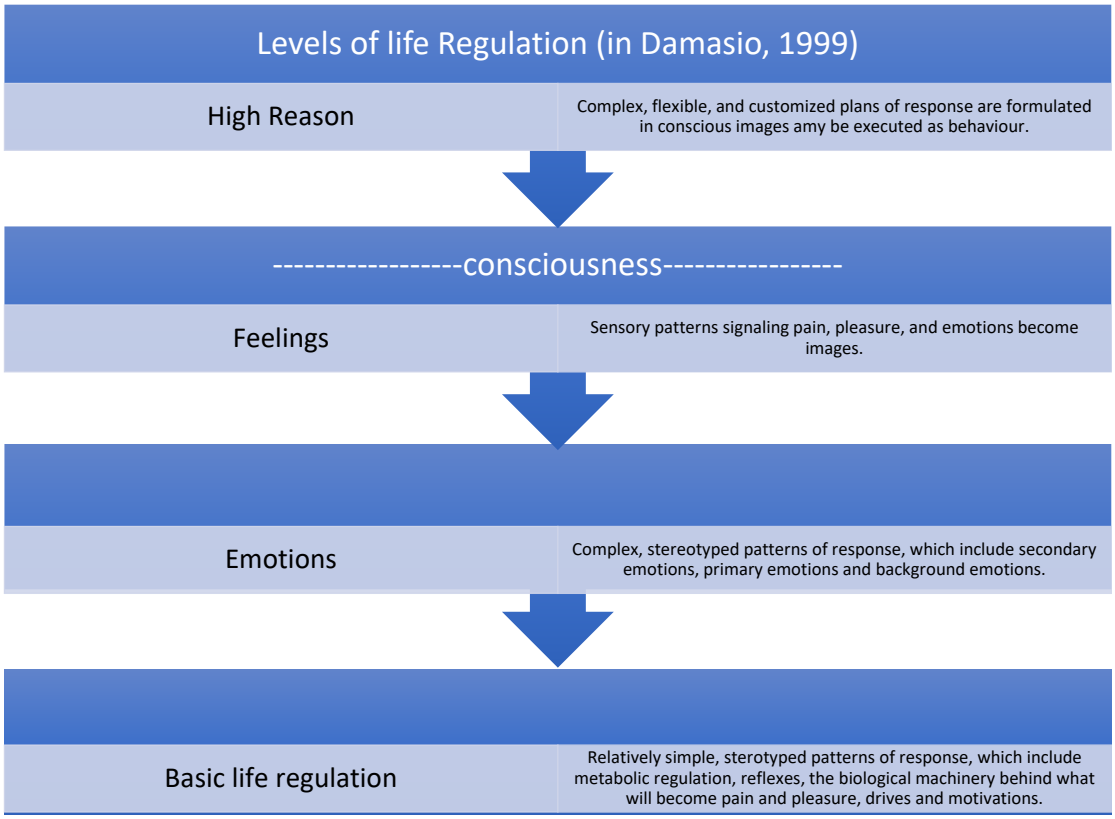
Continuing and expanding from the legacy of William James with regards to the primacy of the body as the source of consciousness, Damásio's view is that

> consciousness is an entirely private, first-person phenomenon which occurs as part of the private, first-person process we call mind. Consciousness and mind, however, are closely tied to external behaviours that can be observed by third persons. […] Both wisdom and the science of the human mind and behaviour are based on this incontrovertible correlation between the private and the public – first person mind, on the one hand, and third-person behaviour, on the other. (Damásio, 2000, p.12)

According to Damásio, the construction of consciousness is profoundly connected with the construction of a sense of self. Damásio's model of Self defines the homeostatic needs of an organism, required for the regulation and preservation of life, as the starting point for the development of the sense of self. Damásio makes some useful definitions that can help in homing in on the concept of vigilant performance. For Damásio the mind encompasses unconscious and conscious processes; the Self is divided into the *Proto-self* – "an interconnected and temporarily coherent collection of neural patterns which represent the state of an organism, moment by moment, at multiple levels of the brain" (Damásio, 2000), the *Core-self*, dependent on the Proto-self, is where consciousness first appears, as the "second-order nonverbal account that occurs whenever an object modifies the proto-self. The core-self can be triggered by any object"; and, constructed upon the Core-self, the *Autobiographic-self*, "which is constituted by implicit memories of multiple instances of individual experience of the past and of anticipated future." The Proto-self represents the state of the organism, moment by moment; the Core-self represents how an object (real or mental) operates changes in the organism itself; and the Autobiographical-self keep a life-long record of core-self experiences through "explicit images". The "activation of its memories generates core-consciousness." The autobiographical self requires a functioning core-self, and the core-self needs a functioning proto-self. For Damásio, consciousness is the part of the mind that tracks changes in the organism and the environment – both the Core-self and the Autobiographical-self. The neuro-physiological mechanisms that form the proto-self and the core-self change little across a lifetime, while the neuro-physiological mechanisms that form the Autobiographical-self are "partially modified with further experience" (Damásio, 2003).

This sequential structure will play an important role in how I have attempted a preliminary pedagogic sequence in vigilant improvisation, which I will address in more detail in section 3.

Table 2 – Levels of life regulation (in Damásio, 1999)



2.1.3. Self as transformational process

Damásio (2003) makes a clear distinction between *emotions* and *feelings*. Emotions are the neuro-physiological states that accompany the proto-self and the core-self, and are not always conscious, while feelings are purely mental, internal maps of emotional states, and are connected with the Autobiographical self. Emotions have a deep root on the body and bodily states, as proposed by James and Merleau-Ponty. Emotions are the bodily reflection of feelings, some of which can be observed externally, which include, but are not limited to facial expressions, somatic states, skin conductivity, voice quality, heart beat, hormonal states, etc. I will return to emotions and ways in which they are visible in the performers body in section 2.2, when I address the meaningful body.

Damásio states that

> "It is through feelings, which are inwardly directed and private, that emotions, which are outwardly directed and public, begin their impact on the mind; but the full and lasting impact requires consciousness, because only with the advent of a sense of self do feelings become known to the individual having them" (Damásio, 2000, p.36).

Knowledge of the subtle interaction between internal feelings and external, visible emotions is not always processed consciously, with full awareness of what the impact is of internal processes on our external behaviors and external revelation. “The fabric of our minds and of our behavior is woven around continuous cycles of emotions followed by feelings that become known and beget new emotions, a *running polyphony* that underscores and punctuates specific thoughts in our minds and actions in our behavior [my emphasis]” (Damásio, 2000). Revealing some of this running polyphony, the constant flux of emotional *matter* that continuously percolates through us, that is what vigilant practice is looking to establish. Pochinko/Morrison's Clown Through Mask (Coburn and Morrison, 2013) training talks about the clown 'facing all directions of our selves at the same time', ready to follow one or other of the *running polyphony*'s exquisite melodies, plucked from its dense counterpoint.
For my purposes, *feelings* relate to the IN aspect, while *emotions* bridge towards the physical and embodied, the multi-modal imagetic, the OUTwards aspect of the self, which I will address in more detail in section 2.2.

The sense of self is, according to Damásio created in the process of mapping and keeping track of change. “The sense of self in the act of knowing an object is an infusion of *new* knowledge, continuously created within the brain as long as "objects", actually present or recalled, interact with the organism and cause it to change" (2000, p.25) According to Damásio’s model, the sense of self arises through an awareness of transformations in the organism; the self is thus considered a *transformational process*.

2.1.4. The self in the world

Separately from William James, and equally stemming from a phenomenological tradition but fusing it with Zen Buddhist ontology, Nishida Kitaro proposes a variation on the concept of *pure experience*. For Nishida, "reality is the activity of consciousness" (Nishida and Abe, 1992, p.59). Far from locking consciousness in a solipsistic trap, Nishida’s statement reduces the description of reality to the act of *being* in such a reality, closely resonating with Heidegger’s *dasein*, the simultaneously fundamental and terminal notion of ‘being-in-the-world’. In Nishida’s words “We believe that there are two types of experiential facts – phenomena of consciousness and phenomena of matter – but actually there is only one: phenomena of consciousness” (Nishida and Abe, 1992, p.43).

For phenomenologist philosopher Maurice Merleau-Ponty, consciousness and the awareness of the self are inseparable from awareness of the world around us and of other people. Merleau-Ponty insists on

> the body's essential ‘reversibility’ of being both sensing and sensed is crucial to our ability to grasp the world, he strongly cautions that this reversibility of being both observer and observed, although "always imminent," is "never realized in fact" through complete simultaneity or exact "coincidence. One cannot at the very same time fell one's hand as touching and touched, one's voice speaking and heard. In short, one cannot simultaneously experience one's body as both subject and object. So if the lived body is always the observing subject, then it can never be observed as an object. (Carman and Hansen, 2005, p.173)

Merleau-Ponty calls this unbridgeable gap between self and other the *chiasm*. In the chiasm, Merleau-Ponty

> ensures that in some sense the other is always already intertwined within the subject, and he explicitly suggests that self and non-self are but the obverse and reverse of each other (VI 83, 160) […] attempts to reinforce that self and other are also relationally constituted via their

> potential reversibility. One example of this might be the way in which looking at another person–or even a painter looking at trees, according to one of Merleau-Ponty's more enigmatic examples–always also involves the tacit recognition that we too can be looked at. However, rather than simply oscillating between these two modes of being–looker and looked upon, as Sartrean philosophy would have it–for Merleau-Ponty each experience is betrothed to the other in such a way that we are never simply a disembodied looker, or a transcendental consciousness. (Reynolds, 2017a)

For Merleau-Ponty, there is an irreconcilable duality between the self in the world, as an object of the world, and the self as a subject, capable of observing and acting in the world.

This irreconcilability, this schism may in fact be capable of offering us operational tools for understanding our sense of self. Merleau-Ponty writes about the incompatibility of understanding that your hand touching someone else's comes with the inevitable possibility of your hand being touched as well, that the roles can be reversed. I expand on Merleau-Ponty's example by proposing the following: imagine a cup in front if you. It has a shape and a colour. You can probably calculate its weight, imagine how it feels in your hand, its temperature, audiate the sounds it can make. When you move your hand and finally hold the cup, you receive further information regarding the cup, which may confirm or deny your previous expectations. By holding the cup you not only we receive guarantee of the cup's existence, but, inevitably, you also receive confirmation that *your own hand exists,* as an object of the world. Holding the cup with your hand offers you the *materiality* of the cup and the *reality* of your hand. It is as if touching is not done outwardly – my hand towards the world, but equally in the opposite direction, the world imposing itself on my hand, touching it from without. Both are inseparable. Subject and object are inseparable. The knowledge of your own body is derived from its interaction with what is around it. When I feel the object I touch, I really am feeling my hand, the contour of my body, the first portal of my consciousness. There is no opposition between the subject touching and the object touched. They rely on each other to gain their phenomenological identity. Zen ontology refers to the non-opposition of knowledge, in which there is no separation between object known and knowing subject, thus defying the concept of knowledge itself. However, "it has nothing to do with "knowledge" in the ordinary or philosophical sense, because in the experience of enlightenment there is no distinction between knower and known" (Fischer-Schreiber et al., 1991). What remains is, rather than knowledge – acquired, developed, transmitted, learnt, taught, defied, discredited, bought, etc.– what remains is *experience*, the *pure experience* of Nishida, of William James.

Expanding this relationship between self and the special type of object which is the *other*, one could observe a similarity in our relationships with the other: when I see the other and the other sees me, I am in reality gaining awareness of myself as a seen entity: I am seeing myself. It is by encountering the other than one can begin to envision the self. We gain *self* by encounters with the *other*. The self is thus modelled by the way it is mirrored in the world around us. In human terms, perceiving another human floods the observer with a sense of being human himself. We encounter ourselves through an encounter with the other. When we transport this encounter to the performance situation, the encounter between performer and audience, the self and the world is intertwined in a complex *mirrored room* reflection, where performer and audience fulfil their mutual roles of obverse and reverse of self and object in the world. "Merleau-Ponty explicitly asserts that […] though we are *of* the world, we are nevertheless not *the* world (VI 127), and in affirming the interdependence of humanity and the 'things' of the world in a way that permits neither fusion nor absolute distance, he advocates an embodied inherence of a

different type" (Reynolds, 2017b). This interdependence between humanity and the world is fundamental in my definition of vigilant performance practice.

Roger Scruton talks about the 'other being a ritualized sacred representation of the self' (Scruton, 2017), which I think is another way of addressing the same issue**.** The word *sacred* points to Scruton's view that we see ourselves in the other with more clarity that we see ourselves *in ourselves*. The other is the vehicle for self-reflection, for development, for change, growth and transformation. It is in the encounter with the other that vigilant improvisation can present a tool for transformation in the context of the ritual of music making. The mutual influence triggered in this encounter is further explored in section 2.3 on *Inter-personal Communication*.

Below is a text box entitled *In Practice*. This text box (and others that follow) connects the theories and concepts discussed in the thesis to scores and performances in the portfolio. Video documentation is presented in the portfolio for the pieces on **bold**.

IN PRACTICE:
The first piece in my Games For Musicians and Non-Musicians (GMNM), entitled 'Public Situations' (**GMNM.1**) simply asks that the players, in a public situation, make them selves aware of the moment when a stranger sees them, and when the other is seen by the player, and observe the subtle *internal* and *external* mutations (what Damásio calls *feelings* and *emotions*) that happen in themselves in this process.

Other pieces in GMNM that address this point are **GMNM.2**; **GMNM.3**; GMNM.55. Videos recordings and Catalogue entries exist for the pieces in **bold**.

2.1.5 Sartre and *Bad-Faith*

Inasmuch as encounters with the *other* reflect and modulate the sense and agency of the *self*, Jean-Paul Sartre's concept of *Mauvaise-Foi*, or *Bad Faith*, seems pertinent at this stage of my discourse, though it is a complex concept that pertains equally to a discussion of non-normative cognition [IN], as it does to the multimodal embodied imagery [OUT] and to interpersonal communication skills, [IN/OUT]. As I mentioned in the introduction to Part 2, the three-part divisions that I built to structure my exploration into vigilant practice are not airtight and aspects of one division quickly become relevant to another one.

Sartre's view of the self is particularly relevant to how a performer may observe itself in the moment of performing. Sartre's ontology posits the existence of several modes of being: the *being-in-itself*, the *being-for-itself*, and the *being-for-others*, which make a clear separation between unconscious action, self-consciousness of self and awareness of the other (the objects of one's consciousness). In the state of being-in-itself one simply *is*, immediate, responsive, intuitive, (though not necessarily unconscious) with little or no attention placed upon ourselves. Being-in-self offers a clear separation between subject that observes and object that is observed (the objects observed may be objects of our own cognition, thoughts, itches, aches); the observing subject is IN the world but clearly separated from it. You can consider all the things around you as objects of your perception, perceived by your consciousness and clearly separated from your own self. Your being, a subject observing the world and it's objects, is clearly separated from the objects of its consciousness. You, the subject, can move objects, alter them, create meanings from those objects, cast judgments and generate values but your being is always separated by a thin membrane from the objects of the world around you. Yet that membrane can be easily torn by the sudden awareness that you are also an object *of* the world, brought about by the appearance of the being-for-itself. You own body, your own

consciousness can be seen by the for-itself as another one of the objects in the world. You are the object of your own consciousness, yet separate from it. For the being-for-itself, being a subject is also being an object of the world, upon which the subject can act; being-for-itself is self-reflexive.

While the being-in-itself is conscious of the objects of the world and how the subject engages with them, the being-for-itself is conscious of itself as another object of the world. But, following Hüsserl's phenomenological line, consciousness is conscious of something. What is it that is conscious of this consciousness? Nothing – according to Sartre (and to Buddhist philosophy and the concept of *emptiness*). At the core of consciousness lies a black hole of nothingness. Metzinger, in *Being No One: The Self-Model Theory of Subjectivity* (Metzinger, 2004), defines the Self as a creation of our consciousness, whose purpose is to make sense of the physical world. This is done through a process he calls the Ego Tunnel, where "our experiences of the outside world are organized for our understanding" (Duimstra, 2009). The evolution of a sense of self takes place to justify the knowledge that someone must be having these experiences, which are simply brain states. Metzinger's justification for the evolution of the self does not entirely address the fact that, whether the self is real or fictitious, the *sense of self* each one of us experiences is a phenomenological reality.

For Sartre a continuing struggle takes place as the for-itself tries to impose upon the In-self it's own wish to be factual. "Being-for-itself is being what it is not, and not being what it is" (Sartre, 2006, p.142). The self-reflexive nature of the being-for-itself imposes itself on the immediacy of the being-In-itself and becomes at once object and subject of its own awareness. The being-For itself wants to be what is not (promoting its self-asserting desire to be a facticity, to being real in the world – which incidentally it will never achieve), and be what it is not (that is, it wants to improve itself, striving to iron out faults, defects and wrongs). "It is this game of musical chairs at the heart of the for-itself which is *Presence*, to being" (Sartre, 2006, p. 142).

In short, Sartre defines three *Ekstases*, three modes of total absorption of the being-for-itself: "1) to not be what it is; 2) to be what it is not; 3) to be what it is not and not-be what is it" (Sartre, 2006, p. 137). Thody summarizes this labyrinthine argument: "We would all like to *be* absolutely *what we are* with the full awareness that *we are it*. But this, Sartre argues, is something which no human being can ever possess" (Thody et al., 1998). In Sartre's view, as well in Merleau-Ponty's, the self reveals its reality when confronted with the *other*. This new perception of the self in presence of the other Sartre calls being-for-others, "There arises here a new dimension of being in which my Self exists outside as an object for others. The for-others involves a perpetual conflict as each for-Itself seeks to recover its own Being by directly or indirectly making an object out of the other" (Sartre, 2006, p.650). Changes in one's awareness of the self in the presence of the other are explored by Jean-Paul Sartre in his concept of *Bad Faith.* Bad faith "refers to the cultivated illusion by which we seek to conceal from ourselves the uncomfortable ambiguity of our position - that we must and can choose, and yet that the only real choices we can make are those presented to us by the situation in which we happen to find ourselves […] The inevitable tension between our freedom and our facticity, the human response to this tension is to fall into what Sartre calls 'mauvaise foi'" (Matthews, 1996, p. 68). In Being and Nothingness (2006, p. 59) Sartre offers several examples of the trap of Bad Faith. I will refer to the example of the overly mannered café waiter, locked in the precisely established role of what a waiter should talk like, move like, think like.

> In thus behaving, the waiter is identifying himself with his role as waiter in the mode of being in-itself. In other words, the waiter is discarding his real nature as for-itself, i.e. as free facticity, to adopt that of the in-

> itself. […]. In this way, the burden of his freedom, i.e. the requirement to decide for himself what to do, is lifted from his shoulders since his behaviour is as though set in stone by the definition of the role he has adopted. […] the very identification at the heart of bad faith is only possible because the waiter is a for-itself, and can indeed choose to adopt such a project. So the freedom of the for-itself is a pre-condition for the project of bad faith, which denies it. The agent's defining his being as an in-itself is the result of the way in which he represents himself to himself. This misrepresentation is however one the agent is responsible for. […] Insofar as bad faith is self-deceit, it raises the problem of accounting for contradictory beliefs. The examples of bad faith which Sartre gives, serve to underline how this conception of self-deceit in fact involves a project based upon inadequate representations of what one is. (Onof, 2018)

The same analysis of behaviour could apply, for instance, to the way a classically trained musician walks on stage to offer the audience a solo recital.

Sartre's ontology presents a constant struggle between who we are and who we want to be, between who we think we are and who we think we should be, between who wish we were and what we think other people think we are. From a performance perspective, standing on a stage before an audience, this struggle – and the redemptive possibility offered by Merleau-Ponty's chiasm – becomes not only acutely real, but it is the very *matter* of a performers craft. Without an open and visible acceptance of the conundrum of Bad Faith and of its inevitable existential failure there is no performance, no ritual, no offering, no possibility of transformation. In this sense, vigilant performance publicly navigates the fine line between a pristine and a failing performance. In fact, it positively welcomes failure, errors, unexpected situations, and unplanned moments, since those are the moments when the person (in-itself), and not a persona (for-itself) of the performer is visible to the audience. In "being-for-others, the artist projects onto the audience the existential struggle itself, the struggle inherent in existing for others". (Adams, 2007) The shared humanity that is thus communicated is further discussed in section 2.3, Interpersonal Communication.

My artistic aim, as I attempt a definition of vigilant practice, is to reveal, on stage, each performer's own projects of Bad Faith – and their inevitable failure. In this sense I am proposing that a vigilant performance reveals the presence of *persons* rather than of *personas*. That is not to say that the performer should not bring to the stage his or her own *masks* and *lies* (that is after all the impossibility of Bad Faith), but that the masks and lies are personal, unique, individual, *honest*. The paradox is inevitable: a vigilant practice asks for *honest lies* (rather than acted out ones).

IN PRACTICE:
Games for Musicians and Non-Musicians contains several pieces that address the issue of bad-faith: **GMNM.3**; **GMNM.6**; **GMNM.15**; **GMNM.25**; **GMNM.47**.

Video recordings and Catalogue entries exist for the pieces in **bold**.

2.1.5.1 Sartre and Meta-cognition

Sartre's view of the self as a battlefield between being-in-itself and being-for-itself is further complicated if we consider that consciousness is seen by other authors as a complex, multi-layered concept. Winkielman and Schooler (2011) distinguish "between unconscious, conscious and meta-conscious processes in social cognition" and "among

mental states that are (1) genuinely unaware, (2) aware, but lack meta-awareness, and (3) meta-aware – internally articulated as states of the perceiver." For Schooler, mental content can be "meta-conscious" (or "meta-aware") and be explicitly represented as a content of one's own consciousness. It is this type of consciousness that is typically assessed when an experimenter asks participants questions like, "How happy do you feel now?" (Winkielman and Schooler, 2011) Meta-consciousness is not a distinct state of mind: "the distinction between consciousness and meta-consciousness is simply one of content. Meta consciousness can be said to correspond to conscious states in which the content of those states includes an explicit characterisation of what is currently being experienced. In other words, meta-consciousness is simply a kind […] of conscious experience in which the focus of thought is turned onto itself." An awareness of this difference is relevant in performance since it "carries behavioural consequences." Meta consciousness is not an abrupt process and can occur slowly or quicker, and at deeper levels of awareness, from the moment "when during a long drive a person suddenly realises that he mind-wandered right past the motorway exit", to the slow realisation that, years after an event, we acted wrongly towards another person. Meta-consciousness operates along a spectrum, and not as a binary on/off switch, and is not continuous, allowing moments where meta-consciousness is more or less present. Winkielman and Schooler tested subjects while reading a text during meta-cognition and during mind wandering states, when they suddenly realise that they are no longer retaining the information in the text. Surprisingly, Winkielman and Schooler's study presents an important find in that the neural activity of a mind-wandering subject, when not engaged in meta-cognition, is substantially more active than when engaged in a focused meta-cognitive activity. Meta-conscious states can be beneficial when self-control is necessary, but it can be equally hindering in situations of pleasure.

It is difficult to equate Sartre's being-for–itself to meta-cognition, since for Sartre much of the project of Bad Faith is active in the background of our mental content, often operating at an unconscious and even subconscious level.

2.1.6 Kahneman's mind operation systems

Drinko (2013) proposes Kahneman's model of immediacy of reaction in response to different levels of meta-awareness as particularly relevant to the improviser. According to Kahneman (2011), the mind operates in two distinct systems, labelled as System 1 and System 2. Keywords that define System 1 and system 2 are presented in the table below:

Table 3 – Kahneman's mind operation systems (in Drinko, 2013)

System 1	**System 2**
Intuition	Rationality
Behaviour	Action
Immediate response	Effort
Quick reaction (disgust, humour, pain	Ponder, plan, consider (take time to respond)
Automatic	Critical thinking
Outwards focus: observe, react to the external	Inward focus
Instinctive	Conscious problem solver
Observing environment	Deliberating
Listen	Talk

I will refer back to Kahneman's typology (System 1/System2) throughout this text.

2.1.7 A spectrum of consciousness

The view that consciousness is a dichotomy, a binary state that one either has or does not have (as portrayed in the Sistine Chapel's roof by the finger of the god imparting consciousness to humankind, fully assembled and ready to use) can be opposed by an alternative model of consciousness as gaining access to a series of procedural steps: a spectrum or continuum of consciousness that one can navigate, like Damásio's running polyphony 'I am aware of the page in front of me; of the temperature of the pen I am holding and by consequence of the skin of my hand, of the children playing outside, and by consequence of spaces that I am not presently inhabiting, of my breathing, of the discomfort of an old cut in my hand; of the memory of having cut myself, of all the times my skin was cut, grazed, healed, of remembering being. By writing this sentence I am becoming more and more aware of being aware, a meta-cognition, (a pata-cognition). All these descriptions can be placed along a continuum of awareness, each connecting my own cognition to a new aspect of my experience and memories. They don't all arrive at me simultaneously, as if a consciousness switch has been turned on in me the moment I wake up, but I glide along the continuum of awareness, of my own volition or not. Learning can then be seen as a process of navigating the spectrum of consciousness, and discover new colours: what is learnt is the new consciousness – experience is transformation. The concept of both pedagogy and of performance as a transformational process is central to this research. Let me clarify that transformational does not (necessarily) equal a healing process, though there are clear parallels with therapeutic practices, in particular Psychodrama, which proposes to be a psychological healing process. The reason why I do not consider this process of transformation to be a healing process is that healing implies that there is something to be healed, to be cured, some ill to be eliminated. That is not the objective of this research.

<table>
<tr><th>Sartre</th><th>Damásio</th><th>Winkielman and Schooler</th><th>Kahneman</th><th>Non-normative cognition [IN]</th></tr>
<tr><td rowspan="2">Being-IN-itself</td><td>Sub consciousness</td><td rowspan="2">Unconsciousness</td><td rowspan="3">System 1</td><td rowspan="2">Mindlessness (Flow)</td></tr>
<tr><td rowspan="2">Unconsciousness/low-level awareness</td></tr>
<tr><td rowspan="3">Being-for-itself</td><td rowspan="2">Consciousness</td><td></td></tr>
<tr><td>Core-Consciousness/Core-self</td><td rowspan="2">System 2</td><td rowspan="2">Mindfulness</td></tr>
<tr><td>Extended-Consciousness/ Autobiographical-self</td><td>Meta-consciousness</td></tr>
</table>

Table 4 – Models of consciousness: Damásio, Winkielman, Kahneman, mindfulness

These are the mental states that my work aims for in a vigilant performance practice. Vigilance in this sense is not a state of meta-cognition or System 2 – unless the *truth of place* demands it to be. The truth of place in an fully improvised situation may require a state of Flow (Cziksentmihalyi, 1990), system 1 state of mind, while planned aspects of the same performance may require a degree of meta-awareness, system 2. How to choose which state to be in, and more importantly, how to allow oneself to navigate between states, is an individual process, a process that is dependent on the individual's sense of truth of place. My Games are proposals for exploring these concepts but each player must always find their own solutions for each performative problem encountered.

2.1.8 Cognitive states in Performance: Applications

How are these theories of the self-useful in understanding performance studies and specifically in exploring vigilant music improvisation? Many theatre practitioners and educators, such as Boal, Johnstone, and Zaporah have focused their work on how to articulate these mental processes in order to promote valid theatrical performances and improvisations. I believe many of those mental processes can be transferred to music improvisation practice.

Drinko (2013) makes the point, based on Viola Spolin, Keith Johnstone and Del Stone's work on theatrical and comedic improvisation, that an outwards focus on what is happening in the scene around can motivate an intuitive and un-repressed response, which is referred to as a state of *Flow*. This outwards awareness also plays an important role in Pochinko/Morrison Clown Through Mask training.

> The key to understanding improvisation's effects on the mind is that it orders consciousness. By focusing outward on one's scene partners, the game of the scene, or the space, skilled improvisers can order consciousness in such a way that system 1, or intuitive automatic thinking rises to the surface in the competition amongst different modes of thought. Whether it be Viola Spolin's focus (or point of concentration), long-form improvisation's perceptual shift towards patterns and themes, or Keith Johnstone's status, not thinking about one's behaviour leads to less self-conscious improvisations with better ensemble collaboration. (Drinko, 2013, p.93)

See the text box on the following page for details of pieces relevant to this topic.

Like Drinko, I believe that meta-consciousness (system 2) can have an important influence on the improvisation of *presence*. This influence is both positive and negative. Meta-consciousness can have the positive effect of focusing the performers' awareness in their own presence and inner imagery. Equally, it can have the negative effect of interrupting quick decision-making, which can be necessary in improvisation. Drinko (2013), quoting Johnstone, Spolin, Close points towards the dismantling of meta-consciousness to allow intuitive, quick responses to stimuli. Albeit working in the context of theatrical improvisation, and not of musical improvisation, Drinko refers to Damásio's proto-self and core-self, when the mind-wandering state reveals enhanced neuro-activity (Winkielman and Schooler, 2011), as potentially facilitating a state of flow, when improvised solutions are generated quickly and without inhibitions. For Drinko, the autobiographical self, extended consciousness and meta-consciousness, and System 2 can have a hindering effect in improvisation fluency.

Damásio's model for the sense of self in which awareness of self is dependent on an awareness of change in the organism in response to a stimuli has consequences in my definition of vigilant performance practice: being aware of how an object changes the organism (the performer) can become an obstacle to achieving Drinko's state of flow in improvisation. But, as Damásio proposes, core consciousness is a preliminary state that allows emotional states, and is fundamental in having a sense of self, and upon which extended-consciousness is constructed. It is possible to argue that having a sense of self at the level of core consciousness does not necessarily obstruct the possibly desired state of flow in performance or a state of Vigilance. Extended consciousness, on the other hand, can in fact create such an obstacle to the immediacy of Flow. The careful articulation between Kahneman's System 1 and System 2, between mind-wandering and meta-cognition is described by Dina Facklis as a

> “shift in focus in terms of *listening* [...] Facklis says, "if I say to myself, 'Listen, listen, listen, [...] then I'm always in a better place." Facklis's outwardly focused listening prevents her from relying on her system 2, conscious problem solver, internal monologue. [...] In order to have successful shows where she feels as if she is experiencing the performance moment to moment, Facklis reminds herself and her students to shift their focus outward. […] By listening intently to her partner and the ensemble, she is able to shift her focus from a self-conscious, critical mode of thinking to a heightened perception of what she hears on stage” (Drinko, 2013, p.93-94).

In Merleau-Ponty’s parlance, the performer sees the other-as-subject, and the self-as-object, “Allows them to 'get out of their heads, [...] and out of 'deliberating mode' (Claxton). It means no conscious monitoring of one's own behaviour” (Drinko, 2013, p.93-95). When performing, focusing on intense outward listening, attending to the duality of the other – at once object in-the-world, beings-in-the-themselves, and subjects that attend to me, as being-for-themselves attending to me as being-in-myself – I allow the experience of being-in-myself to take over being-for-myself; I choose to give more weight to the other-as subject and to myself-as-object, than the more immediate and common self-as-subject (being-in-myself). These mental operations can be seen as Sartrean key concepts applied to the working and development of the improvising mind.

Vigilance in performance, as I am defining it, is at once ‘mind-wandering’ (Self A, being-in-itself) and meta-conscious (Self B, being-for-itself). Choosing to engage one mode or the other can be dependent on the situation, on the style or genre. But both modes can coexist, in a way that perhaps sits closer to the meditative state of observing one’s thoughts with *detachment* and *non-interference*. As Winkielman states, mind-wandering states display active neurological states that are not present in meta-cognitive states. Further research is needed to investigate the possibility that this halting of neurological activity is causally related with the hindering of improvisational activities – stopping the *flow*– which is reported by improvising performers.

Many of the performance traditions and practitioners I discuss on this paper – from performance areas as diverse as music, dance, theatre, martial arts – have engaged, to a larger or smaller degree, in some of the concepts and practices that scaffold my concept of vigilance. Their work seems to me to nurture mental processes over or in parallel with the physical or musical. That is to say, a great deal of the ‘product’ of the performance (the material residue of the performance) is spent internally, in the performer’s mind. I will refer to a selection of performance practitioners and how specific aspects of their practice can be used to exemplify and scaffold my own concepts and practices.

Though a detailed analysis of each of the following practices falls outside the scope of this paper, it may be helpful to refer to some of them as examples of the type of mental engagement I am referring to in my concepts of Vigilance and embodiment. I have mentioned the practice of breathing meditation as an example of a practice where the inner, mental process is at the core the activity. Tai chi and yoga are other examples of a practice where the mental process is an inseparable part of the physical activity. Performance practitioners like Pina Bausch, Marina Abramović, or as I mentioned above, comedy improvisers and Pochinko’s Clown Through Mask also make use of specific mental states in their practice. In the field of music, notable performance practices, composers and performers where the mental engagement is important include the musical accompaniment to Nō theatre, Pakistani Sufi chanting, Pauline Oliveros’s Deep Listening practice, Stockhausen’s intuitive music, John Cage’s non-intentionality in performance, many of the composers of the Wandelweiser group, such as Mark So and

Manfred Werner's book *Bangs* (which deals primarily with cognitive states and no action), Alexis Porfiriadis collection *Blocked Piano* (which contains pieces which deal with cognitive states with some action).

IN PRACTICE:
[IN]
Many of the scores in my Games employ rules that demand that the players focus their attention on external events, precisely to take their awareness out of System 2 and into System 1. Other pieces, on the other hand, focus on meta-awareness and the players perception of themselves. I will discuss them in more detail in Section 3.

[COGNITION]
GMNM.1; GMNM.2; GMNM.3; GMNM.4; GMNM.5; GMNM.10; GMNM.11; GMNM.13; GMNM.14; GMNM.16; GMNM.23; GMNM.30; GMNM.33; GMNM.38;

Anthony Rowley's view that "Music can be a way to contemplation […]. The player is also the listener - he becomes his own audience, but he may be joined by others who find this way attractive" (Rowley, 1984) is informative in this respect, in particular if we consider his view in the light of Merleau-Ponty's definitions of Self and the awareness of Self. For the performer, the musical act is one of encounter with the self and with the self as other. At the same time his audience is invited to observe and partake on this experience. The audience may perceive the performer as the other, but also as a representation of the self: to see a performer making music is also to consider ourselves, the audience, as – at least in potential - the performer we are face with. We are also the body of the player playing, of the dancer dancing. The understanding, the creation of meaning (at the aesthesic level) by a performer can be argued to be in part related to the way in which we, with the help of the mirror neuron system, embody the very body of the performer – the gestures, the facial expression, the voice quality, the muscle tone and effort of our performer is in reality – not figuratively – being experienced (but in unique and individual ways) by the brain and body of each audience member. This is good news if the aim of the research is to emphasise communication at all possible modalities. An embodied presence can be an entry point for what Moreno call the *encounter*: "the ability to meet others, being as present and aware as is possible and each being capable of mentally reversing roles with each other" (Karp, M., et al., 1998, p. 32). I will return to this when I discuss inter-personal communication in section 2.3.

2.1.8.1. Audiation as internal music making

Amnon Wolman's collection of textual descriptions of music are an exemplary exercise in audiation. In *February 26, 2000*, Wolman describes sonic events that are never in fact present physically. The sounds are audiated by the reader, existing only in their audiated imagination, in a very private performance. It is interesting to note that Wolman describes not only the sounds, using non-technical language often drawn for other senses (I will return to the multi-sensory nature of perception in section 2.2 – multi-modal imagery), but also describing the feelings and emotions, thus impelling the reader to imagine how they react and respond to the musical imagery described. From purely mental, audiated, imagery, a physical, emotional response is elicited from the reader-performer.

Stockhausen, in his own words, articulates his concept of an outwards driven performer in the following way:

> the most profound moments in musical interpretation and composition are those which are not the result of mental processes, are not derived from what we already know, nor are they simply deducible from what has happened in the past. Musicians must learn to become the

> opposite of egocentric; otherwise you only play yourself, and the self is nothing but a big bag full of stored information. Such people are closed systems. But when you become like what I call a radio receiver, you are no longer satisfied with expressing yourself, you are not interested in yourself at all. Then you will be amazed at what happens to you, when this state is achieved; when you become aware of what happens through you, even for short moments, you will be quite astonished. You become a medium. (Stockhausen and Maconie, 1989, p.125)

Though Stockhausen's attempts at defining the optimum performance state for his music is done through a sequence of negative sentences, which tell us what the optimum state *is not* but do not necessarily clarify what that optimum state *is*, it is clear that at the centre of his performative concerns is the relationship between the emptiness of the self and the awareness of the objects of the world outside (the 'radio receiver'). Here I observe a similarity with the IN and OUT dichotomy that I am proposing as a basis for my concept of vigilant practice.

Pauline Oliveros' Deep Listening exercises are, at the onset, exercises in sonic meta-awareness: *Listening to Listening,* as Oliveros herself describes it. "Deep Listening comes from noticing my listening or listening to my listening and discerning the effects on my body mind continuum, from listening to others, to art and to life" (Oliveros, 2005, p.xxiv). But Khaldi, describing Oliveros' notion of attention that underpins Deep Listening, states that "Attention is the act of using our senses, beginning with the ability to concentrate. Next is the ability to process our external environment through our senses by taking an interest. Third is giving care and tending to the information we have received, then fourth is responding to the information by an affectionate act. The summation of these properties creates respect. In our case it is respect for what our senses have heard, seen tasted, smelled or touched" (Oliveros, 2005, p.63).

In Oliveros' work, there is an emphasis on receiving stimuli, on the input aspect of being, on the inwards, and on states of meta-awareness, on System 2. Oliveros' concept of Deep Listening, as described by her, has the clear aim of "listening in every possible way to everything possible to hear no matter what one is doing." […] Deep Listening explores the difference between the involuntary nature of hearing and the voluntary, selective nature – exclusive and inclusive - of listening" (Deep Listening Institute Website, n.d.). Though Khaldi's fourth ability is to do with responding to information, that response is conditioned to being an affectionate act. All other possible responses seem to be inappropriate and not compatible with Attention. If divergent from affection and compassion -for instance Joy, euphoria, sadness, anger– should the responsive acts be ignored and discarded? Should they be masked and replaced with an un-authentic demonstration of affection? The Outwards motion in response to the inwards impact of the world is dangerously restricted to a tight and unforgivable sense of morality that is not necessarily the performer's morality. Oliveros's attempt at the OUT is thus obstructed. The last sentence confirms this by focusing all the definition on what is received internally through our senses. Left out, in my view, are the continuous emotional flux of the subject, Damásio's *polyphony of emotions,* the continuously modulated adaptation to the other's response to the self as inter-personal Communication. For that reason, Oliveros's score work, though full of interesting models with regards to mental processes that operate in the boundaries of System 2 and System 1, falls short of my aim to create an un-impeded, direct channel of communication between performers and between audience.

I make this negative assessment through the study and performance of Oliveros' scores alone. Oliveros was aware of the limitations of the score as vehicle for transmitting musical actions. For that reason she founded the Deep Listening Institute in 1985 to develop and divulge Oliveros's work, through a certified training programme. Oliveros'

Training institute involves Deep Listening practitioners in a process that “includes bodywork, sonic meditations, interactive performance, listening to the sounds of daily life, nature, one’s own thoughts, imagination and dreams, and listening to listening itself. It cultivates a heightened awareness of the sonic environment, both external and internal, and promotes experimentation, improvisation, collaboration, playfulness and other creative skills vital to personal and community growth” (Deep Listening Institute Website, n.d.) There is in the mission statement an unequivocal desire to include ‘external’ agency in the deep listening process, which seems to me, in the light of my own artistic practice, to be underdeveloped in Oliveros’ scores. (I have not taken any training at the Deep Listening Institute, which could be a route for further exploration and personal development).

2.1.9 Summary of section to 2.1

We have seen how some theatre and comedy practitioners (Drinko, Johnstone, Morrison) propose a mode of improvisation where the mental states and awareness of the improviser is driven towards the world around, the Exterior – the OUT–, rather than on the mental or psychic world, the Interior. Evidence from Neuroscience supports this preference for an outwards awareness in improvisation. Other composers, like Pauline Oliveros, Manfred Werther, Amnon Wolman work on processes that are predominantly interior. Oliveros’ Deep Listening proposes forms of engaging with the production of sound that are first of all internal. Wolman’s text scores describe in words music that has never been heard, to be recreated in audiation by the reader at each reading of the text. These pieces operate purely on audiation and do not require the physical existence of sound to be enjoyed. An inwards looking awareness, an appeal to meta-cognitive processes draws the work to an Interior field.

By opposing Morrison’s [OUT] and Oliveros’ [IN] strategies of improvised performance, I observe two distinct pulls in regards to the fields of awareness of a performer: one draws the performer into itself, and the other does very much the opposite and draws the performer’s focus to the world around and how to react to it. I believe striking a delicate balance between inwards and outwards awareness is key to formulating a model of vigilant musical practice.

I will return to cognition and cognitive states in Chapter 3, when I will discuss approaches to developing a pedagogy of cognitive states and applications to music improvisation.

2.2 Embodied Multi-Modal Imagery [OUT]

Introduction

The second element in my definition of vigilant performance practice is *embodied multi-modal imagery*. Multi-modal imagery is the way in which we perceive the whole presence of the performer, their actions, and the music they may be performing, as a complex and interconnected set of images (Damásio, 2000) and that those images are constructed upon many cognitive modes, such as: sight, sound, time, effort, shapes, language, materiality, intentionality, movement, balance, olfaction. That is to say – the complete presence, the *perceived body.* According to Damásio, we use multi-modal imagery in order to construct meaning. The *perceived body* becomes a *meaningful body.* The way in which the multi-modality of presence affects each individual is unique and seems to be influenced by culture, environment and by each individual's experience (Heyes, 2012; Calvert et al., 2004). Nevertheless, there are important aspects of multi-modal cognition that are genetically, rather than culturally or individually encoded (Kreifelts et al., 2007; Simpson et al., 2014). The human ability to read meaning in facial expressions and voice qualities, even across species, is a well-documented example of genetic, or Universal behaviours (Ekman, 1972; 2003).

Considering that non-verbal communication is an important element of live music performance, I construct my work around the idea that the body of the performer has the power to influence, and in fact to construct, the musical meaning of a performance. The *meaningful body* is seen as the tabula rasa, the ground zero of musical meaning, upon which all other layers of action and meaning are later deposited. The duality of cultural and biological meaning formation surrounding the musical action is described by Thompson

> A musical gesture, read on a score, heard as sound, or seen as a bodily movement attains its significance through an acknowledgment bestowed upon it by the subject producing the object (agent) or the subject perceiving the object (interpreter). Robert Hatten, cited in Gritten & King (2006), argued musical gestures are biologically grounded, that they 'inter-modally synthesize the energetic shaping of motion through time into significant events with expressive force' (Gritten & King, 2006, xxi). From this point of view, musical gestures are gestalts in which otherwise unrelated elements are constructed 'into continuities of shape and force' (xxi). […] The cognitive pairing of these dichotomies is what we come to interpret as music. (Thompson, 2007, p.6)

From these sonic gestalts, which can trigger complex internal images, I highlight the importance of bodily movement and physical gestures, and the external images they can trigger because, as I will discuss, it is only through the visible, audible, multi-modal and perceptible presence of the performer that imagery is created.

In this section I will explore what philosophy, neuroscience, linguistics and gestural linguistics, and performance studies can tell us about how *imagery* is created from the performer's multi-modal presence, and how imagery from the object of the *perceived body* is the vehicle for the creation of subjective meanings – *the meaningful body* – through non-verbal, verbal and musical images.

2.2.1 Multisensory cognition and multimodality

The literature about the neurological and psychological underpinnings of multisensory cognition is rich in examples of multi-modal representations. Multisensory imitation in neonates (Simpson et al., 2014), offers evidence of the importance of multisensory mirror neurons in the acquisition of speech. Neuro-plasticity – the brain's capacity to re-structure itself and to appropriate neural structures for different processes– may also offer clues about multi-sensory and multi-modal cognitive processes . For instance, in blind people, vision centres in the brain can be diverted to other senses. The questions that this field of research presently poses are far beyond the scope of this project. Nevertheless, from an artist's perspective it can be enticing and creatively productive to play with suppositions and scientific hypotheses: can the capacity to redirect and restructure pathways across sensory domains be a constant in the functioning of the brain, even without any visible damage or impairement? That is to say, can, for instance, auditory cognition be perceived by tactile pathways, or vice-versa? We know we can perceive space from the sounds we hear. Can we also smell with our ears, hear with our eyes? That would surely help us direct this creative research towards a complex web of cognition where the senses are no longer separate but in continuous, *embodied* interaction. From this perspective, music may be said to not be purely sonic – because it is also gestural and colourful; painting is not purely graphic – because it is also material and literary; literature is not purely verbal – because it is also rhythmic and pictorial.

Multi-sensory cognition proposes that cognitive information arises from a complex interaction between the senses, and not from each sense individually. According to Massaro (Massaro, in Calvert et al., 2004, p. 154) "when regarding cross-modal influence across other domains, multisensory integration is the rule rather than the exception". Multi-sensory pairings of sound and vision, touch, movement, balance, proprioception, temperature have been identified (Calvert et al., 2004). In fact, present research by Roder and Rosler points to the possibility that multi-sensory, or multi-modal cognition may be present even in the absence of some of the modes of perception involved. When observing the audio-visual pairing in the perception of speech in the presence of only one of the sensory stimuli, Roder and Rosler find that the missing sensory mode is completed in cognition. Even in a mono-sensory episode, multi-sensory neural processes may be active. (Röder and Rösler, in Calvert et al., 2004, p. 724)

Of particular importance to my work is the notion that multi-sensory cognition is relevant to the understanding of how we in fact perceive our own self. deGelder et al. states that "At the level of subjective experience, multisensory integration contributes to a sense of self and an intensified presence of the perceiver in his or her world. This aspect of multisensory integration is particularly relevant for multisensory perception of emotion" (deGelder, Vroomen, Pourtois, in Calvert et al., 2004, p. 581). Debarba et al., working on first and third person representation in computer games, proposes that the "experience of embodiment, or bodily self-consciousness—the pre-reflective sensation of being the subject of an experience—comes from the coherent multisensory integration taking place in the brain and relates to the notion of an egocentric first person perspective on the self. One feels embodied due "to the ensemble of sensations that arise in conjunction with being inside, having, and controlling a body" (Kilteni et al., in Galvan Debarba et al., 2017, p.1)

Damásio (2000) points to the role of *attention* in multisensory integration. Attention here can also be understood as *vigilance*, as discussed in the previous section. Vigilance can be seen as a multisensory and multi-modal experience: to pay attention to an object is to perceive it as a multi-modal event. This brings us back to Dewey and Merleau-Ponty's

notion of learning through an embodied and shared environment, through the “non-dualistic divergence” “between my body looked at and my body looking, my body touched and my body touching, there is overlapping or encroachment, so that we may say that the things pass into us, as well as we into the things" (Merleau-Ponty and Lefort, 1968, p.123).

Multi-sensory cognition plays a role in understanding and reading emotions, in particular the complex relationship between verbal and non-verbal vocal stimuli, facial expression and bodily effort (Calvert et al., 2004). Mirror neurons play an important role in reading emotions in a multi-modal context. I will return to mirror neurons in more detail when I discuss Interpersonal Communication in Section 2.3.

From a performance practice perspective, I will discuss the work of a selection of performers, and of performance traditions where I identify performance skills that are relevant to my own compositional work. I will explain how the notion of imagery – the perceived body, and the meaningful body – has informed my compositional and performative practice, and how I use these concepts to construct a proposal for a learning and development sequence that embraces and promotes those skills within the *Games for Musicians and Non-Musicians*.

I will make a separation between the generation of meaning – where one only requires an object and a subject (which, as we discussed in the previous chapter on vigilance, can coincide in the same person), – and communication proper, where, according to Hargie (2017), two or more active subjects are necessary – a sender and a receiver. I will reserve for section 2.3, a discussion on inter-personal communication, when the contact between two or more entities is subject to a constant modulation and interplay.

2.2.2 The Perceived Body

The study in *vigilance* that I initiated in Section 2.1 proposes that the sense of self only becomes fully present within an individual when that individual is observed by the *other*. The next stage in my investigation is to explore how the individual is seen by the other, and the nature of the performer’s physical presence before its audience (which includes other performers).

Vigilance (‘the body in agreement with the truth of place’ (Blanchot, 1982)) requires an alert engagement of one’s own body, not only with mental but also with all physical mechanisms which can be used to assert the authority of the body, ready to be engaged, ready for action: muscle, bones, weight, voice (in its many qualities), mastery of skills, the whole body in full agreement with the needs of the situation. A vigilant performer is prepared to use its body in any way, in any direction, with any intention, at any level of effort, in order to assert its authority, or *presence*. Skill, experience, and control of physical effort levels are seen as requirements for playing many musical instruments but from a vigilant performance perspective a performer also needs to be ready to acknowledge the role their facial expression, their voice, their fear and excitement, their emotional presence, their whole body-perceived, play in the possible understandings of the performance of music.

2.2.2.1. Cognition and embodied imagery

The notion of a vocabulary of physical actions – a vocabulary of bodily forms and gestures– is closely linked with the notion of imagery which recurs both in Damásio’s texts on the neurological basis for the self, in current models of multi-sensory cognition (Stein, 2012), in McNeill’s (2005) work on linguistic and gestural imagery, and also, reverting back to music, in Gordon’s late notion of Space Audiation as the foundation for

both the understanding of rhythm and of tonal audiation, which he was working on at the time of his death in 2015. I will come back to each of these authors to expand on their notion of imagery.

The processes that underlie the perception of the objects of our world, be they external or internal objects are, according to Damásio (2000), defined as neurological patterns, formulated as neurological images of the objects themselves:

> On their own, without the guidance of images, actions would not take us far. […] Images allow us to choose among repertoires of previously available patterns of action and optimize the delivery of the chosen action – we can, more or less deliberately, more or less automatically, review mentally the images which represent different options of action, different scenarios, different outcomes of action. We can pick and choose the most appropriate and reject the bad ones. Images also allow us to invent new actions to be applied to novel situations and to construct plans for future actions – the ability to transform and combine images of actions and scenarios is the wellspring of creativity. (Damásio, 2000, p.24)

This again is in full agreement with Gordon's Music Learning Theory and the emphasis it places on acquiring a vocabulary of short patterns (images) that can be combined in familiar or unfamiliar in improvisation.

My proposal is that musical meaning, very much like linguistic meaning (McNeill, 2005) is deeply interconnected with physical, and therefore emotional imagery as perceived by both the audience, other performers, and, both subconsciously and in a meta-cognitive way, by the performer itself.

2.2.2.2. Feelings and emotions

Damásio makes the distinction between *feelings* and *emotions*, feelings being the internal states one undergoes privately, while emotions are the physical states that accompany feelings. Emotions are external and observable. They exist in the outside world, be it in facial expressions, muscular tension, level of skin conductivity, tone of voice, gestural patterns, in the “fine touch and musculoskeletal division” (Damásio, 2000, p.150).

> In practical terms this means that you cannot observe a feeling in someone else, although you can observe a feeling in yourself when, as a conscious being, you perceive your own emotional, physical states. Likewise no one can observe your own feelings, but some aspects of the emotions that give rise to your feelings will be patently observable to others. (Damásio, 2000, p.42)

I am using the terms ‘feeling’ and ‘emotion’ as Damásio defines it. Only *emotions* are public; *mind*, *consciousness* and *feeling* are private, mental experiences. IN/OUT: emotion is OUT, consciousness and feeling is IN. Emotions, in this sense, are the physical counterparts, the residues of internal states, and form the primary building blocks for the creation of meaning, from an embodied and holistic perspective. The perceived body becomes the primary meaning machine, or in Vigotsky’s terms, the material carrier, upon which we can erect other meaningful modes of communication – words, music, images, architectures. Kristeva’s concept of the *pheno-text*, in opposition to the *geno-text*, as well as Roland Barthes’s notion of the Grain in the Voice (Barthes

and Heath, 2009), both emphasise the corporeality of the voice, and highlight the uniqueness of each performance and of each performer as the only route into the understanding of music performance. Thomaidis (in Reeve, 2013, p.86) summarises this point by stating that the

> grain is the manifestation of the aspects of physicality engaged in the production of spoken or sung utterances, the bodily trace that seals each voice emission in such an unrepeatable way that the voice becomes direct allusion to the unique body that made its genesis possible in the first place. The 'grain' is what allows the listener to distinguish between this or that singer.

In fact, for some art forms, like popular music, and performance painting (or perhaps any painting), it is precisely the uniqueness of the *grain* in the voice (and, by extension, in the whole body) – the pheno-text – that is highly appreciated. This is often the focus of the learning and training process in those styles: to find individuality. But the perceived body is also the emotional body. The performer's body reveals to the world the intricate and delicate 'polyphony' of its own emotional symphony, to use Damásio's expression (Damásio, 2000).

Sartre describes emotions as mechanisms to "mask, substitute for, and reject behaviour that one cannot or does not want to maintain" (Sartre, 1948, p. 32). It seems to me that Sartre's focus is on understanding the structures behind *extremes* of emotions (joy, terror, anger, hysteria), and does not address the gentle flux, the "running polyphony that underscores and punctuates specific thoughts in our minds and actions in our behaviour" (Damásio, 2000, p.43). Nevertheless, Sartre's view is that extreme emotions open a route to the issue of the authenticity of the body in the world. "Emotion is not an accident. It is a mode of existence of consciousness, one of the ways in which it understands its being-in-the-world" (Sartre, 1948, p.91). According to Sartre, extreme emotions are dependent on the situation from which they arise and cannot be considered as isolated elements, or as discreet ingredients in a biochemical soup that conditions our bodily behaviours. Extreme emotions arise from a need to defend the self from a change in the world. The emotional realm is at once inevitable and absolutely true: inevitable – in the sense that it cannot be stopped or avoided, (nor can it be internally provoked without recourse to some context) – and absolutely true – in the sense that it's reality is, at the moment of its existence, utterly convincing and undeniable. It cannot be faked. If either of these conditions fault, the emotion is, from the point of view of the individual, false. The perceived body lies. Sartre's phenomenological view of emotions – which lead to extreme behaviours and to less extreme ones– points, in my own work, to a need to appropriate the performance situation per se as the source for those emotional behaviours, and not by exterior, imagined or a-priori contexts. In this sense, a vigilant performance cannot rely on acting plans, theatrical scripts, mood scores or created choreographies. The multi-modality of presence is too complex for scoring, and the perceived body too subtle for acting out previously learnt gestures and images, the 'polyphony' of emotions too delicate and dynamic to be fixed in time. For this reason (and other reasons we have and will encounter later), my vision of vigilant practice tends to step away from choreographies, from precise scripts and instead embraces improvisation as the initially favoured way of making music.

Improvisation has been a constant compositional tool in my work for the past twenty years. I have written text scores, graphic scores, gestural scores, video scores, all of them rely heavily on the performers' willingness to improvise some parameters of the performance, while respecting others. Nevertheless I acknowledge the importance of traditional western music notation and what it can achieve by focusing its attention on pitch, timbre, and temporal parameters. One could argue that traditional scores are improvised with regards to all the other parameters that escape its grip, such as the

performers' gestures and embodied imagery. In parallel with the text scores produced as a result of this research I continue to compose traditionally notated scores, focusing primarily in defining pitch, sound colour and rhythm. Those scores do not form part of this research project but the work I have undertaken in my exploration of vigilant performance practice feeds into those compositions and the sonic universes and events they describe. This poses the possibility that even strictly notated scores can produce vigilant performances, if other aspects of the performance (embodied multi-modal imagery, communication) could be said to be present and observed. Further research is needed to clarify this point, but in the meantime I will continue to compose using both traditional and non-tradition scoring systems.

What is seen in a performance is the performance being performed. What is being revealed to a concert audience are musicians making music, players playing. I believe there is enough depth, enough profound learning to be made within the ritual of a performance itself. The performance ritual of music making has the potential to create meaning, to reveal beauty and depth, to electrify some of Damásio's internal 'running polyphony' in all those involved, to transform whoever is involved in it. Revealing some of this running polyphony, the constant flux of emotional matter that continuously percolates through us, that is what my vigilant practice is looking to communicate: Sartre's thirst for authenticity, within the complex polyphonic flow of our existence. Vigilant practice is looking for persons, not personas.

Sue Morrison, when teaching Richard Pochiko's 'Clown Through Mask' (Coburn and Morrison, 2013) talks about the clown facing all directions of our selves at the same time, ready to follow one or other of the running polyphony's exquisite melodies, plucked from its dense counterpoint. For this reason, vigilant practice in my work is not simply about using the body in non-stylistic ways, like perhaps Kagel or Stockhausen propose in their theatrical, choreographed scores, or others more recently, – Michel van der Aa theatrical scores, Sara Carvalho's gestural compositions, Ben Jameson's Guitar Hero, – but about engaging the performer in a physical way which reveals some sort *of inevitable truth about themselves in relation to the situation they happen to find themselves in*. Again, the aim is to reveal persons and not personas – persons, with their true complexity of masks, denials and falsehoods.

In vigilant practice the aim is to ultimately communicate using all of the above: mind, consciousness, emotion (external) and feeling (internal). In my compositional and performative work, I am concerned about how we can use the extent of our multi-modal physical presence to promote the generation of imagery, and how imagery is used to generate meaning.

The conception of *Games for Musicians and Non-Musicians* is to address these areas as separate skills, each with their own learning sequences. In my *Games for Musicians and Non-Musicians* there are situations where fixed scripts are used to highlight a particular aspect of performance practice, by momentarily liberating the performer's attention from the verbal or gestural in order to be able to focus on other aspects of performance. This is done for the purposes of a pedagogy, of a training sequence, and not a choreographic attempt. My aim is that the person is never concealed by a persona.

In the previous section we established that the differentiation between subject and object – the observer and the observed– can be complicated when the subject realises that they are themselves the object of the *other*'s subjectivity; and that we can observe not only the objects of our perception as subjects that observe us, but that we can also observe our own cognition as an object of our perception, in a process referred to as Meta-cognition, or meta-awareness. Cognitively, we are images of ourselves. This is a central aspect of vigilant performance training. See section 2.1.

2.2.2.3. Space Audiation

Edwin Gordon's late work on space audiation brings the notion of multi-modal imagery directly back to the musical field. For Gordon the complex process of audiation, when one listens internally, with comprehension, sounds that are not yet or no longer present, is inseparable from the notion of space audiation, when one equally perceives internally spatial gestural movement that are not yet or no longer present in perception. Gordon's early work on music pedagogy, following on from Laban and Dalcroze Eurhythmics, placed a strong emphasis on physical movement as a means to understand rhythm. Later, he expanded this concept to encompass the notion of internal gestures that take place in an auditory space rather than a physical one, in the same way that musical time is seen separately from chronological time (Korsakova-Kreyn, 2018). Space audiation is not limited to rhythmic and temporal structures. For Gordon, space audiation is equally present in the musical understanding of pitch and harmony, phrasing, form, as well as in improvisation, musical expression and intonation (Gordon, 2015). Observing an orchestral conductor at work, or a rock musician performing – say Jeff Beck – I see how non-functional, gestural actions can relate to musical structures and how we, individually or within the context of a music genre or style, may construct an embodied meaning from sound (Korsakova-Kreyn, 2018).

2.2.2.4. The materiality of sound and multi-sensory perception

Multi-sensory perception may play a role in assigning material qualities to sound perception. One can perceive the nature of the sound producing objects by hearing them: soft, hard, wooden, metallic, blown column of air or scratched string. We can also perceive the physical nature of the space through its resonating patterns (Bregman, 2006). For Gordon, sonic gestures can be perceived (both in audiation and as acoustic signals) as material objects, and also as physical gestures, as having speech properties, like agogic and prosody, as movement in space, as spatial events (the low rumble of an earthquake or of a horse running comes from below, the high pitch of birdsong comes from above) (Klasen et al., 2012; Ramachandran, 1998; Vera, 2001).

The theory of multi-modal cognition poses the possibility that the separation of senses that we experience at the level of perception may not be so clearly separated at the level of cognition. It's an alluring prospect to consider the many senses as existing in a continuum, sharing between them the capacity to motivate the creation of meaning. Ramachandran's multi-modal justification allows us to consider that perceiving say, a colour may not mean *just* a colour, speed not just speed, time not just time, movement, space, pitch, chords, gestures, moods, etc., etc., may all join forces in creating a complex web of cognitive stimulation across many senses from one single perceptual stimulus. In addition, and to further complicate the matter, since most perceptual stimulus are already multi modal at a perceptual level (a bouncing ball is not just a sphere, not just red, not just rubbery, not just movement at a certain speed, sound, material, etc. the potential complexity of a multi-modal cognitive experience is enormous: a bouncing red ball has the potential to generate and trigger an infinite number of simultaneous meanings within an individual. It is not my aim to map or control such complex webs of meanings within my compositional actions: for me, what is important is the recognition that a multi-modal approach to cognition and the creation of meaning(s) can justify a multi-modal approach to performance practice, and consequently to the training of a vigilant performer.

I believe that phenomenologically, acousmatic, electronic and electro acoustic music retain this strong cognitive link to materiality (even though the sonic materials are electric speakers), to movement (even though movement and space are perceived only through space audiation and not through sight) and gesture (even though the gestures have to be imagined and audiated from within each audience member's own vocabulary of gesture-

sound patterns) (Bullington, 2013; Kreifelts et al., 2007; Leman, 2012; Leman and Maes, 2015; Lundqvist et al., 2009).

2.2.2.5. Music and gesture and the Multi-modal cognition of sound and Imagery

These proposals support the notion of sound as source of information regarding the actually materials involved, but also of the effort levels involved in its production, and subsequently information regarding the emotion and intention behind the production of such sound. Multi-modal cognition of sound thus proposes two types of imagery: one relating to the material nature of sound itself, the other relating to the embodied gestural imagery attached to possible ways of producing the sound itself. One is physical, belonging to the world of things, the other is human, relating to the world of human intentions, emotions, meanings (Korsakova-Kreyn, 2018). As an example of the second form of multi-modal imagery let us take for instance a singer: without seeing the singer's face, one can perceive their facial expression in the sound of their voice, and with it their emotional states, as revealed by their unseen physicality. Equally, one can visualise the physical effort of a violinist or of a rock guitarist in the sound we perceive, without seeing them. "We do not perceive sound just for itself, but as a source of information about the various bodily gestures that create that sound" (Windsor, in Gritten and King, 2011, p.55).

The multi-modal cognition of the act of making music offers us the possibility to understand not only sound as a material movement, but also of understanding musical movement as meaningful gesture, in accordance with Godøy and Leman's definition of "gesture as meaningful movement" (Godøy and Leman, 2010, p.5)

2.2.3 The Meaningful Body

The notion that an embodied presence is seen to form images in a multi-sensory field can help us understand how those images form meanings that can be subjectively communicated – meaningful action being my objective both as performer and as composer. But there is a large procedural step between the formation of images and the formation of meaning.

2.2.3.1. Imagery and the formation of meaning

McNeil (2005) presents a definition of '*meaning'* as a significant contrast in a field of opposites.

> The meaning is two things taken jointly, including both the point differentiated and the field of oppositions from which it is differentiated. The concept of meaning is irreducibly a relationship of a point to a background [cf. James's Radical Empiricism], both of which are constructed in order to make the relationship possible. (McNeil, 2005, p.107)

This view "contrasts with the classic view of meaning as 'association' or 'habit strength' or 'content' at a mental address" (McNeill, 2005). For McNeil meaning is formed by comparing the changes in objects in relation to a context. Interestingly, learning by *comparison and relationship* (and also the relationship between the pattern and the context) is also an important concept in Gordon's Music Learning Theory, whose pedagogic models offer a way of scaffolding and informing my research output, in particular '*Games for Musicians and Non-Musicians*'.

Yampolschi, quoting Michel Imberty, offers the gesture a structural role in musical form: "the physical gesture contains the essential psychological elements of all musical thinking"[2] (Yampolschi, 2014), starting with newborns' experience of tension and release surrounding feeding patterns, and the temporal frame that is then created, which form the base for intentionality and meaning formation. In this perspective, the mechanics of meaning generation are genetically encoded, running in our biochemical processes, largely independent from our consciousness, a skill that is always present, that perhaps one never truly learns because its is present from birth. Many of the ways humans assign meaning seem to be genetically driven: from pattern recognition, facial emotional recognition, dietary preferences, sexual practices, racial bias and stereotyping, much of the really important aspects of human life are in fact largely beyond our interference.

Reading an emotion when presented with a specific facial expression or voice quality seems to be driven to some extent by our shared genetically encoded behaviour, as observed by universal behaviours and values (Ekman, 1972). Yet a great deal of our relationship with gestural vocabularies is a learnt one, absorbed and developed by each individual in response to their environment and culture. Inevitable cultural variations arise from migrations and periods of social isolation, in what we could call the creation of gestural tribes with distinct gestural vocabularies (Mithen, 2011; Spatz, 2015).

Musical genres often come packaged with a specific way of dancing, a way of singing and talking, and even a way of walking (the band Madness comes to mind). A whole catalogue of embodied skills is acquired through our continuous cultural contact: trends, fashions, technological advances, religion, changes in legislation, all these can have an immediate and profound effect in the way we form meanings from each other's physical presence. The cultural and stylistic variants present in musical practices are immense and observing their specificities in detail falls out of the scope of this paper. What I'd like to retain is the notion that gesture, regardless of its origin, is inseparable from both speech and music and it forms an inclusive part of how we construct musical meaning. My work as a composer and as a performer has tried to bring our attention to this inseparability.

In order to support this notion, I am drawing connections between gesture, language and speech, and music, highlighting the strong bonds that exist between all three, at the level of language and music acquisition, music education, linguistics and gesture.

I am constructing my argument for a compositional concern with music/gesture imagery around two premises: one is that speech and music share many of the same neurological, psychological and social structures including what McNeill calls the Speech-Gesture bond, which can be understood as imagetic and also present in music performance (Davidson, 2001; Godøy and Leman, 2010; Gritten and King, 2011; Truslitt, in McPherson, Gary and Parncutt, 2002, p. 241). Mithen (2011) proposes evolutionary links between the development of language, music and dance/gesture, which are still visible today. The other is the premise that those common aspects and similarities need to be welcomed into musical practice, and some consciousness of gesture (large or small, effortful or effortless) needs to be present during the conception, training, and performance of music. In Chapter 3 I will explain my pedagogic proposals to address the second point.

[2] "o gesto constitui o recurso psicológico essencial de todo o pensamento musical" (Yampolschi, 2014) [trans. author].

2.2.3.2. Speech-gesture bond and music-gesture bond

To support the first point I am referencing, in addition to Mithen, the work of Vigliocco, McNeill, observing the links between gesture and language, I am also referencing texts on music and gesture, in particular Truslitt, Davidson, Gritten, Godøy, Gordon which points to the possibility that the speech-gesture bond is also present in music making as music-gesture bond.

2.2.3.2.1. Evolutionary links between language and music

Observing the archaeological and anthropological record of early humans, Mithen (Mithen, 2011) proposes a shared evolutionary origin between language, music and dance (gesture), and a shared evolution of symbolic mind, in parallel with the beginnings of a Theory of Mind and the development of a sense of self-awareness, or meta cognition.

Mithen proposes a pre-linguistic, pre-musical and pre-gestural communication system. With evolutionary specialization those modalities gain some separation in the form of language, music and dance but are not yet in our present evolutionary stage, completely separate.

Yet language, music and dance/gesture still invade each other at all moments: the meaning of a spoken word is inflected by the tune of the voice or the gesture of the hand; a dance inevitably brings to mind words to describe and remember it; the emotional intensity of a piece of music is clearly written in a singer's facial expression. In Mithen's words:

> Music and language are universal features of human society. […] Both communication systems involve gesture and body movement (Mithen, 2011).

Mithen's hypothesis of a shared origin of language, music and gesture allows us to approximate McNeill and Kendon's speech-gesture bond closer to the possibility of a music-gesture bond, as Godøy proposes.

Peretz makes a connection at a neurological level between music, speech and emotional states, suggesting that each of these human activities is united through early responses to parental vocalisation in such a way that there is an "invasion of the brain circuits that have evolved for emotional responsiveness to vocal expressions" (Peretz, in Juslin and Sloboda, 2011, p.102).

2.2.3.2.2. Parallels between Music and language acquisition

Gordon proposes many shared aspects between early language acquisition and music skills acquisition, in particular the aspect of pattern acquisition through imitation, the process of learning through comparison and differentiation, and the value of improvisation strategies in learning and perfecting musical skills.

Berkowitz concurs with Gordon in this point when he states, "Continuing the analogy with foreign language learning [...], practicing recombination of musical materials is similar to the use of learned vocabulary and grammatical structures to begin to form sentences. [...] recombination begins to train the budding improviser in the art of musical rhetoric" (Berkowitz, 2010, p. 71).

The evolutionary (as Mithen proposes) and developmental (as Gordon and Berkowitz propose) connection between music and language is not structural: it is not through the shared presence of a grammar, which music lacks, but through the shared exterior

physicality (as Kendon and McNeill propose), of both speech and music making, and through it, the presence of imagery.

Both music and language demonstrate the presence of an intention, a drive, an agency in the creation of meaning. Both the agent and the receiver of the linguistic or musical object need to be engaged at some level in order for some sort of meaning to be possible. I will refer back to this point when I discuss inter-personal communication in the next chapter.

Music and language also share a social role, important in defining tribal identities, at many different levels, from families and friendships to nations and inter-national cultural associations (Ben-Tal, 2012; Gordon, 2007; Howell and Cross, 1985; Leman, 2012; Leman and Maes, 2015; Malloch and Trevarthen, 2009; Matyja, 2016)

2.2.3.3. The language-gesture bond

Linguists, from Saussure to Chomsky, have debated the formation of meaning from phoneme or graphemes but often the role of the body in spoken communication has been ignored. Adam Kendon and David McNeill's work on gesture, thought and language addresses this issue.

McNeill offers two complementary dimensions of analysing language, two models for linguistics: the dynamic model and the static model. The static model observes the written word, best practice, correct grammars, etc. while the dynamic model observes the spoken word in a holistic manner, where an embodied, gestural, contextualised analysis is possible. It is interesting to note the similar move in recent years in musicological studies away from the object of the written score towards the complete phenomenon of music making (Cook, 2001).

For McNeill, the gestures that inevitably accompany oral communication are not simple add-ons to spoken language, or clarifying elements for the verbal discourse, but are in fact inseparable from the whole thinking process that underlies speech. "It is profoundly an error to think of gesture as a code or 'body language', separate from spoken language […] [gestures] are *part* of language" (McNeil, 2005, p.4)

2.2.3.3.1. Language is multimodal

Vigliocco states that "speech signals are invariably accompanied by visual information on the face and in manual gestures, and sign languages deploy multiple channels (hands, face and body) in utterance construction (Vigliocco et al., 2014).

The language-gesture bond and its reliance on iconicity "(i.e. resemblance between aspects of communicative form and meaning)" (Vigliocco et al., 2014) forms the basis for an "imagery-language dialectic" (McNeill, 2005)

McNeil (2005) proposes an inseparable bond between gesture and imagery of speech**:** "Language appears to be inseparable from imagery. The imagery in question is gesture" (2005, p.18). McNeill's static and dynamic dimensions of language, offers us another way of relating speech to music: One static dimension (the score, the recordings of music, the geno-text, Nattiez's neutral state of *the work*), and a dynamic one (observing also gesture and relationship – the pheno-text, Nattiez's *aesthesic* and *poietic* states, Barthes' *grain in the voice*, the performer's body, the music's internal and material imagery). The static dimension, connected with grammatical and syntactic structures in language, is also present in the syntax of music, regardless of style (Gordon, 2007).

The distinction between static and dynamic dimensions is also observed in Donaldson's observations of classical and Pop musicians stylistic gestures in live performance, and in Moran's observation of gestures in Indian classical musicians (in Clayton et al., 2013).

The dynamic dimension of music is connected to the subtleties of phrasing, of the specifics of the situation of music performance (venue, and acoustics) and, directly relevant to my research, of the embodied, physical domain of music making. Again in this sense one could propose that Sausurre's view that language has a 'double essence' ('langage et parole'), also applies to music: an essence of syntax (Gordon, 2007), and an essence of imagery.

The existence of a speech-gesture bond as McNeill suggests, and of an imagery-language dialectic as supported by Damásio and McNeill, echoes Donaldson, Gritten, Bayley, Godøy's work on gesture and music performance. Once again, we find closely related sets of cognitive and behavioural structures that link language and gesture, and music and gesture.

As in speech, thinking music and making music impact on each other. Similarly, the gesture-speech bond could be as important in music making as it is in speech, as proposed by Truslitt, Davidson, Sloboda (Juslin and Sloboda, 2011; McPherson, Gary and Parncutt, 2002; Sloboda, 2005). Identifying some of the mechanisms behind the language-gesture imagery bond has helped me understand ways in which my own interest in the physicality of the act of music performance can be developed in my scores and performances.

Relevant to this project, is McNeil's point that speech-gesture "presents an absence of combination of units. There is no pre-choreography of the possible units of speech-gestures" (2005, p.29). Similarly I believe that the music-gesture bond is not combined in units and is not pre-choreographed. This impossibility of pre-choreographed gestural units is extremely important in my work, and informs my decision to opt for improvised, rather than strictly notated, or choreographed, gesture-music imagery.

IN PRACTICE:
Piece 28 from *Games for Musicians and Non-Musicians* offers an example of how this topic can be addressed in the writing of score and in its performance. A video recording exists for this piece (**GMNM.28**), as well as a Catalogue entry and commentary.

2.2.4. Internal musical imagery and External music imagery

The literature pertaining to the relationships between music and gesture in the creation of imagery presents two clearly distinct but nevertheless related ways of understanding music and gesture, which I will refer to as *internal imagery* and *external imagery* (Korsakova-Kreyn, 2018).

2.2.4.1. Internal Musical Imagery

Internal imagery, as studied by authors like Juslin, Gordon, Sloboda, Hatten, refers to the relationship between the cognition of purely sonic musical gestures and the mental perception of physical events, which may be connected or not to the physicality of the musician making music, but it is subjectively connected to a sense of materiality, movement and physicality. Truslitt in 1938 theorised about an internalised sense of corporeal movement as a way of understanding how music impacts upon us:

> Musical motion is internal and encompasses the whole human being. It is not only an emotion but also a true motion sensation. […] Musical motion can be likened to an invisible, imaginary dance. (Truslitt, 1938, in Repp, 1993, p.51, in McPherson, Gary and Parncutt, 2002, p.241)

Similarly, Hatten (2004), cited in Gødoy and Leman propose that a musical gesture is

> a mental activity that can be evoked from musical sound. When we hear something, we are able to make sense of it by relating it to our body movements, or form an image in our minds of body movements. (Godøy and Leman, 2010, p.5)

Davidson and Correia give the example where “expressive slowing in music (ritardando) corresponds to the deceleration of runners coming to a halt” (Davidson and Correia, in McPherson, Gary and Parncutt, 2002, p.249).

As Gordon proposes, musical gestures can be perceived (in ‘space audiation’) as multi-modal phenomenological events: as physical gestures, as material objects, as movement in space, as agogic and prosody in speech as natural events (the *low* rumble of an earthquake *below*, or the *high* pitch of birds *above*.) Clayton goes one step further into the realm of the individual’s body. He states that "Musical sounds can be conceptualised in terms of movements of our bodies and/or external objects within spaces that are roughly commensurate with the human body and its capacity for reach" (Clayton et al., 2013, p.196).

2.2.4.2. External musical imagery

External imagery is caused by events that are seen as well as heard, through the body of the performers. As an event with a public dimension, it can be shared, measured, documented, discussed, filmed, reproduced. It is present when the audience’s musical meanings are modulated by the act of watching the performer’s actions, and also how the performer’s physical actions are modulated by their own intentions (Davidson, 2012, 2001; Kurosawa and Davidson, 2005; McPherson and Welch, 2012).

2.2.4.3. Unity of internal and external imagery

On one side we can observe the influence of the external, physical gesture in the understanding of music gestures, and one the other we can observe the influence of musical gestures in creating an internal imagery (Leman and Maes, 2015). Both aspects are important in my compositional research: some pieces focus on the mental process of understanding musical gesture as a representation of physical events (**GMNM.7**, **GMNM.8**, **GMNM.16**, GMNM.17), while other pieces focus on the physical gestures that attract and modulate musical events (**GMNM.9**, **GMNM.13**, **GMNM.16**, GMNM.33). In the end, my aim is to create a performative bridge between both aspects: to combine the mental gesturing of music perception with the physical gestures of making music into one integrated form of musical practice from which meaningful and communicative situations can be extracted. The nature of the physical gesture itself can be so tightly bound to the sonic gesture that no imagetic separation between the two is possible: the concept of musical gesture applies both to sounds as well as to body movements (Godøy & Leman, 2010). My artistic proposal is that, from a phenomenological perspective, both internal and external imagery are in fact inseparable.

Clayton (Clayton et al., 2013, p. 197) refers to this parity between physicality and sonority as embodied music cognition. Windsor, cited in (Gritten and King, 2011), expresses the deep bonds between sound and gesture by writing that “sound has information about the

various bodily gestures that create sound". The experience of sound, musically construed or environmental, is an experience of gesture, that is to say, or meaningful movement.

Cumming offers an argument that I consider important in my search for performance validity: "What transforms a dead mechanical performance into a 'live' one is the creation of sound as a sign" (Cumming, 2000, p. 29). Cumming cites David Lidov, stating that for him, "music is significant only if we identify perceived sonorous motion with somatic experience" (1987, p.70) [...] Music bears significance, he suggests, if and only if, its capacity to convey somatic experience is understood" (2000, p. 134). For Lidov, it is a condition for the encoding of a musical sign that the somatic experience he mentions is one that accommodates a full embodied phenomenology: gesture, material, surface, temperature, speech patterns, voice qualities, shapes, temperature, colour, and whatever else if part of out complex embodied existence, all have the potential to partake in the job of generating musical signs and imagery, and with it, musical meaning.

Windsor, in a departure from a sound-centred observation of music making, goes as far as suggesting that what one perceives when watching a performance of music are the physical actions, the gestures of the performers, and that the light that reaches our eyes and the sounds that we experience are mere sensory scaffoldings for the phenomena of embodied gesturing:

> If one is willing to take a radical ecological approach (i.e. Gibson 1979) what is perceived is movement of a person (in interaction with an instrument), not sounds and light. Auditory and visual perception are processes of picking up information that specifies events and objects. In case of music, the objects are people and instruments, the events are sets of movements that constitute musical performances (whether seen or heard, or both). (Windsor in Gritten and King, 2011, p.48)

By proposing that one can conceive of the world as movement of our own body, Godøy and Leman open way for an interpretation of the experience of the musical as an experience of the gestures of our own body, whether we are moving or not, performing or not. By reducing all musical phenomenon to analogues of phenomena of our own individual bodies we encounter the ground rock, the absolute zero of musical meaning, the starting point for all shared musical experiences (Trevarthen, C., Delafied-Butt, J., Schögler, B., in Gritten and King, 2011).

The immediacy of the unmediated physical meaning that music has the ability to propel is not limited to individual experiences, but because of its grounding on primal biologic encodings, it has the power to generate communicative channels between individuals, to create unhindered flows of shared meaning that, though non-verbal are by no means less real. Gestures "can be considered vehicles of human musical communication" (Godøy and Leman, 2010, p.30).

This discussion is now traversing towards the communicative nature of the embodied musical gesture, and preluding the topic of the next section of this paper, and the third pillar of my definition of vigilant musical practice: interpersonal communication. For now, I will discuss how the physical gesture in music making is used to bridge towards the *other*, as a communicative tool.

2.2.5. The musical gesture as communicative tool – bridging towards the other

Davidson (Davidson, 2001) adapts Ekman and Freisen's conversation gestural categories to music to propose three types of music performance gestures:

- Adaptive gestures

- Regulatory gestures

- Illustrative and emblematic gestures

Davidson adds a fourth gesture, which she calls ‘display’ or ‘showing off’.

Bayley (Bayley and Clarke, 2011), observing chamber groups in rehearsal, highlights gestures that facilitate group music making. These gestures help musicians synchronize their musical intentions, provide tempo and timing information and offer cues for entries and exits. Though on the surface these types of gestures are merely functional, they nevertheless offer added information about the whole of the musical meaning, and how each individual understands it, thus helping the whole group find consensus about each individual contribution to the musical fabric. Group gestures also help the audience partake in the musical images of the musicians.

Davidson reminds us the importance of gestures in music performance and perception of music, in particular that “different types of gesture are used for specific co-performer and audience engagement, underscoring the role of social interaction in the construction of a performance […]. It could well be that the presence of others promotes the use of these communicative gestures” (McPherson, Gary and Parncutt, 2002, p.244) The inter-personal nature of gestural imagery will be discussed in section 2.3.

2.2.6. Social and communicative aspects of music-gesture: gestural styles, cultural identity

2.2.6.1. Cultural markers and social interaction in music gesturing

For Merleau-Ponty, and in the words of Matthews (1996), the inherent ambiguity of human existence – at once the subject and object in the world

> makes human beings essentially social rather than essentially isolated as Sartrean individualism maintains. We are social beings because we necessarily communicate our thoughts and feelings to each other by means of signs of different sorts. Some of these signs are more 'natural' than others: for example, basic facial expressions and gestures. They are relatively natural in the sense that they appear to have a fairly direct connection with our biological constitution. (Matthews, 1996, p.98)

It is possible to compound the statement that the expression of a feeling is different because the feeling differs, with the idea that the feeling is changed according to changes in the embodied expression of such feeling: changes in the embodied sign of an emotional state alter the way the emotion is emoted. James-Lange's theory, as well as Damásio, points to the body itself being the depository of emotions, rather than the way emotions find a 'way-out-of-the body'.

Cultural assimilation and cultural variations must play a role in the coding and decoding of meaning, with the cultural variations becoming more noticeable as the complexity of thoughts or emotions increases. “To speak of this variation as merely 'conventional', however, is, Merleau-Ponty argues, misleading, since it implies that the variation is only in a superficial sign, rather than in the feeling or concept signified. It is not just the *word* for 'love', for instance, which varies from culture to culture, it is love *itself*: the feeling is differently expressed because it is a different feeling" (Matthews, 1996, p. 98).

For Merleau-Ponty, what determines the meanings to embodied signs (the totality of our presence) is the culture where we exist, and not our biology. In opposition to Merleau-Ponty, Paul Ekman's research into facial expressions, as well and Chomsky's proposal that linguistic structures are innate and tied in with neurological evolution. Equally, Gordon's theory of musical aptitude development, which seems to point to an innateness of musical understanding, rather than a purely cultural construction, does not immediately negate the importance of the cultural/historical flow within which the individual communicate and formation of ideas and emotions, but no doubt expands the complexity of the coding/decoding process exponentially into a blurred continuum where we make sense of each other and ourselves in the world by appropriating, manipulating and transforming both genetic and cultural signs and signifiers with extreme dynamism, speed and subtlety.

The communicative nature of adaptive, regulatory illustrative and display gestures in music making can also fulfil a social role. Davidson (in Rink, 2002) offers the example of stage craft gesturing in traditional western classical music performance: how the performer walks on stage, how they dress and how they bow at the start and end of a performance as socially constrained gesturing, with ritualistic and stylistic readings that a familiar audience will understand. Gesture provides a vocabulary of cultural identifiers that culturally bound groups of individuals around a commonly agreed aim. I propose that the audience's gestural behaviour itself is also part of a learnt set of communicative actions, style bound, characteristic of a genre and tradition, and part of social cement that allows the musical event to take place in the first place. How both player and audience negotiate their shared space is the topic of the next section of this text.

Davidson's reading of the communicative nature of performance gesturing allows us to expand the matter of embodied musical practice beyond the music-gesture and its ability to take part in the creation of a music-gesture imagery, and to consider the importance of the non-musical gesture as well, taking us closer to the holistic expressive presence of the performer – vigilance – that I referred to at the start of this chapter (Davidson, 2001).

With this in mind, vigilant musical practice encompasses much more than the musical. It allows, even demands, that the full field of human action (with its multi-modal complex web of relationships) is recruited into the performance ritual. In that sense, vigilant musical practice is open to all, musicians or not.

Clayton divides musical gestures into six categories:

1. voice;
2. external object manipulation (instruments);
3. movements of body not for sound production but for clarification of musical intentions (similar to speech-accompanying gesture);
4. whole body dance, processional, space engagement;
5. social dimension: synchronization between musicians, group sharing through learning; dance;
6. embodied metaphors (verbal association): music moves, jumps, etc. that can be linked to actual, not metaphorical physical movement (Clayton et al., 2013, p. 195)

Returning to Kendon's linguistic gesture continuum, we can now draw more precise links between linguistic gesture and musical gesture. Kendon's continuum and Clayton's music-gesture categories overlap:

Table 5 – Kendon's Continuum, Ekman/Freisler's gesture categories, Clayton's music gesture

Kendon's Continuum of Speech-gesture	Ekman/Freisler's gesture categories	Clayton's music gesture categories
Gesticulation	Regulatory Adaptative	External object manipulation (instruments); voice; Movements of body not for sound production but for clarification of musical intentions (similar to speech-accompanying gesture); keeping beat
Speech Like Gestures	Illustrative	Embodied metaphors (verbal association); music moves, jumps that can be linked to actual, not metaphorical physical movement.
Pantomime	Illustrative	Whole body dance, processional, space engagement; mime (air guitar)
Emblems	Illustrative/regulatory/emblematic	Social dimension: synchronization between musicians, group sharing through learning dance; Style specific dances or gestures with no musical connotation (e.g., index and small finger stretched out, ring and middle fingers curled into the palm: horn-fingers)
Signs	Illustrative/emblematic	Curwen hand solfége

My interest lies in exploring how '*gesticulation'* and *'speech like gestures'* can be understood in music practice. Pantomime, emblems and signs are not so directly relevant to my research into embodied music practice, though, as important social signifiers they are not refused in the rehearsal room or on the performance platform.

In my experience as a performer across different styles, music specific gestures bound to each musical style are certainly a reality. I find that I repeat certain full-bodied gestures when I play certain musical phrases, within the stylistic constraint of that particular music genre or performance style. The precise origin of my own musical-gestural co-relations is largely irrelevant. Whether I make a movement because I'm consciously or unconsciously copying another musician's movement, or whether it is a simply a previously learnt movement, or through multi-modal stylistic emulation, or triggered by deep-seated and yet unidentified genetic algorithms; what is important for me is that the imagery connection with music making seems unavoidable. I believe the gestural bond with speech is present with music as well.

Relevant to the pedagogic aims of this project, Davidson (in Rink, 2002) highlights that those learnt gestures which form part of the vocabulary of a tradition can also be responsible for the creation of meaning and of expression: "all kinds of movement behaviours are learned from other people" (Davidson, in Rink, 2003, p.148).

Clayton and Leante's study of the hand and body gestures in the vocal performance of a raga by Indian singer Manjiri Asanare-Kelkar point the shared nature of the musical gesture as simultaneously cultural, style bound, and multi-modal, erupting from within webs of embodied sensory interference, "metaphors based on an embodied image mental schema" (Clayton et al., 2013). Davidson refers to Gellrich's suggestion that "specifically learned movements and gestures furnish a performance with expressive

intention, and that these gestures can have both positive and negative effects on the production of the performance" (Davidson, in Rink 2003, p.148).

To draw universal behavioural algorithms from music-gesture activity is not the aim of this research. Individual variations of gestural engagement between different performers will no doubt be present, but those variations are part of my creative aim: I want to expose those individual variations, rather than to use the imagery-gesture-music bond as a means of exploring uni-directional choreographies. I am satisfied that I do not know if a certain music-making gesture goes with a certain musical intention. Those actions are decided by the performer, according to their own unique and individual patterns of engaging with their own embodied presence. In vigilant practice, embodied presence cannot be pre-choreographed by an external entity, like a composer or a choreographer, or a playwright. I believe that if they do, bad faith, incongruous mimetics, and fake personas are inevitably detected by onlookers (Runeson and Frykholm ,1983).

The music-gesture bond, if it in fact exists, is equally specific and determined by cultural, stylistic, individual and situational conditionings, as proposed by Davidson, Godøy and Leman, Clayton, Parncutt, Gritten and King. Windsor warns us against considering that a music-gesture bond may operate in the same way the language-gesture bond. They fulfil a different communicative role.

> The gestures that 'accompany' music […] are potentially a primary manner in which an audience has direct contact with the performer: we cannot see what a performer thinks but we can hear and see them move, and this may provide us with useful information about their conception of the music they are playing, or at least allow us to form an interpretation of what we think this conception might be (Windsor, in Gritten and King, 2011, p.48).

Leman clarifies my proposal that musical meaning is inseparable from gestural imagery:

> Listeners can engage in different degrees of involvement with music without having to draw upon a reference to know what this music expresses. Nevertheless, the music is recognized as expressive. This is possible because expression can be captured by the mirroring system (motor resonances) and corporeal imitations. It provides a basis for corporeal understanding without any need for a reference (Leman, 2008, p. 131).

I believe there is enough data to posit the hypotheses that gestures in music-making may have similar functions and modes of operation as in speech and can be broken down into the same functional categories as McNeill/Kendon does for the speech gesture bond.

But the aim of my research project is not to categorise gestures, and their relationship with music making, or their possible meanings. For me, as performer and composer, what is important is to conceive of performances and scores as vehicles for performers to develop their own imagetic and gestural engagement, in particular the possibilities opened by Kendon's '*gesticulation'*. The precise details of a musical- gesture, the inner triggers that drive a performer to move in such or such away, those decisions are better left to the performer, like they are in when they speak and use gestural patterns simultaneously, in an improvisatory way.

How can I create such a vehicle? Scores, in whatever format, can be useful in choreographing aspects of making sound and movement (similar to 'indicating' in theatre), even in defining an *intention* and *effort level* (as theatre scripts often do in speech and action directions, as well as in textual instructions in traditional western

music scores – con bravura, dolce, etc.), but that is not my artistic aim. I desire an authenticity of presence, of expression, that is unique to the person performing and to their unique audience in their unique shared environment, for that unique moment in time, a rare authenticity that is not easily imposed externally on the performer by scripting or scoring gestures, or musical outcomes. Authenticity by definition needs to be brought about by each performer, regardless of the music being performed. In that sense – like in jazz performance practice, for instance – the composer is relegated to a lower hierarchical position than the performer.

2.2.7. Effort, non-normative states and expressivity

I believe that, in forging tools for the creation of a music-driven imagery dialectic, another element plays an important role in physical engagement and informs the generation of meaning: non-normative states and non-normative effort levels. In my work, these two concepts have become the routes through which my scores can reach a performer's potential for embodied imagery and expressivity.

Eric Clarke, writing about expression and expressivity in performance points to "the basic principle that expression is a departure from some norm" (Clarke, E., in Rink, 2005). When I observed performers and performances that touched me, regardless of the music being performed, a 'departure from some norm' was precisely one of the aspects that I identified. The *norm* can be culturally established, through genre and style of performance – the ritual of the performance (unusual ways to dress, walk, talk, venue design, etc.) –, but also defined within the performed object itself: a regular pulse defines tempo, and departure from the normative pulse (i.e. a change in tempo – an accelerando, a rallentando, a rubato) is a vehicle for expression. Humans tend to speak with a particular voice quality[3], at the low register of their voice. Use of voice qualities that differ from the speech norm may be perceived to be expressive: high pitch, sustained frequencies, tilted thyroid cartilage, very thick or very thin vocal folds (used in many singing styles); cricoid cartilage tilt, thick vocal folds, high pitch (as used in screaming) are all departures from normative vocal behaviours (which may be more than cultural and in fact be imbedded in our genetic encoding, as is the case of belting, which emotes emergency, or sob/crying, which emotes sadness).

Stylistic departures from normative day to day behaviour can be said to have the a priori potential to be expressive, but departures from established stylistic norms themselves can also be perceived to be expressive, for instance when a singer uses a voice quality that is not expected in a particular style (e.g. Montserrat Caballé singing a pop song with Freddie Mercury, or Sting singing Dowland songs (Potter, 2006)). For an expressive performer, the awareness that one needs to operate beyond the boundaries of some sort of established and accepted normality is one of the aims of my workbook exercises. This approach is similar to Boal's disjunctive techniques, which try to retrain individually learnt body behaviours and expand the scope of action within the field into areas of non-normative behaviour beyond a performer's acquired gestural and embodied vocabulary.

Pochinko/Morrison's clown training uses group improvisation exercises where two excesses of emotional effort – experience *and* innocence – confront each other in quick succession. The two excesses, the excess of pain or joy, and the excess of playfulness and lack of restrain, when present in a performance offer to the audience a spectrum of

[3] Estill Voice Model refers to Speech Voice Quality as: larynx at middle height, thyroid cartilage not tilted, cricoid cartilage not-tilted, aryepiglotic sphincter not engaged, vocal fold mass thin to mid – that is to say, all physiological vocal structures use low effort levels).

emotional expressiveness that I find unique, and that I wish to capture in music making. To be able to access any point in the spectrum between extremes of excess is a gateway to expression.

But non-normative states also exist outside the formality of the performance ritual, where the actor, or the musician can control the flow from normative to non-normative states. Other situations rely on departures from normative states in order to provoke empathic expressivity: the car crash victim on the motorway, the misery of the homeless, the exuberant joy of a child; the myth of the tortured Christ, the inescapable tragic destiny of Oedipus, can fulfil their function as meaningful objects when there is an empathic link with the characters embodying those stories. An escape from the norm offers these stories the 'expressivity' that is required for an empathic link to form, as we find in the mirror neuron system, and in embodied attuning.

With regards to music, "expressive actions are inseparable from the musical structures. Expression is involuntary" (Cook, 2014). That is to say, the *display* of expressivity cannot be voluntarily added to the recipe. This idea resonates with Sartre's theory of emotions, which are not voluntary and cannot be deliberate. Equally, how we *read* expressivity in musical actions is also involuntary: "the body can be used to understand expressive musical material and to communicate that meaning to co-performers and audience" (Davidson, in McPherson and Welch, 2012, p.769). The human body and its phenomenological trace, seen as the first and last repository of meaning and human communication, can also be seen as the repository of musical meaning and expression (Todd 1992, 1995; Friberg and Sundberg (1999), in Davidson, 2001) A relationship is drawn "between human movement trajectories and musical expression" and a call is made for a music pedagogy that "incorporates physical skills and musical concepts" on the grounds that "music has a core expressive component that is necessarily communicated in human action" (Davidson, in McPherson and Welch, 2012, p.773). The acquisition of physical skills (executive skills) is bound to the development of expressive grammars and correspondent expressive movements. Such pedagogic routes have in fact been undertaken by Dalcroze in the first half of the 20th century and by Edwin E. Gordon in the second, which, as I will explain in chapter 3, have been central in the design of my own training tool, *Games for Musicians and Non-Musicians*.

IN PRACTICE:
[GESTURE]
Pieces that address the development of gestural vocabularies in music making are listed here:
GMNM.6; GMNM.7; GMNM.8; GMNM.9; GMNM.13; GMNM.14; GMNM.15; GMNM.16; GMNM.17; **GMNM.18; GMNM.20; GMNM.22;** GMNM.24; **GMNM.25;** GMNM.26; **GMNM.28; GMNM.29;** GMNM.30; **GMNM.31**; GMNM.32; GMNM.33; GMNM.36; GMNM.37; GMNM.38; GMNM.39; GMNM.40; GMNM.41; GMNM.42; GMNM.44; **GMNM.50; GMNM.51; GMNM.63.**

2.2.7.1. Removing obstacles to embodied musical imagery

Davidson's pedagogic appeal is for the musician to explore "the role of the body in the production of the expressive as well as the technical features" (Davidson, in Rink, 2002, p.146). This is precisely my aim. For Davidson, to be able to access the emotional and expressive potential of one's body is fundamental in offering a musically expressive performance. Such physical freedom is obstructed by any obstacle to movement and gesturing, excluding naturally the constraints of playing a musical instrument. The presence of a paper score is one such obstacle, which I identified as problematic early on in my compositions.

Williamon's study (Williamon, 2004) of audience responses to performances of music with and without a physical score is revealing. Audiences were asked to judge similar musical performances but each performance offered a different position of the music stand, or no stand at all. Williamon found that music enjoyed without music stands scored higher with audience emotional rating. Without the fixing presence of a music stand, the performer is freer to move and to navigate a wider spectrum of physical effort, thus being able to explore a wider expressive realm, which the audience responds to.

2.2.8. Developing individual Effort Scales

Building on the notion that expressivity is something that lies beyond a 'norm', my concept of vigilant practice seeks to explore the fringes of normative behaviour by presenting actions that are made using a 'non-normal' level of 'effort', that is to say, too much or too little effort in performing an action. For this to happen, I propose to performers engaging with my scores that they construct their own individual effort scale for a specific action, gesture, or musical event.

The creation of effort scales, which I have adapted from the Estill Voice Model, allows a performer to explore a specific action with different levels of localised effort, from zero effort, when the action itself will become impossible to fulfil, to the extremely effortful, at the very edge of the physical capacity, pain, and safety. Once established, an effort scale presents to the performer the full spectrum of physical and emotional possibilities, which they can access during a performance, from stasis to pain, and with it, of expressivity.

The notation of precise effort levels is, in the context of this research project, largely unimportant, since I am presently more interested in allowing each performer to use the effort scales tool in order to make their own personal discoveries. Precise notation of effort levels is nevertheless a possible route for future compositional practice. I have attempted to work with effort levels with a small level of precision in the vocal studies *The Nine* Circles, also included in the gestural version of *On Light and Darkness*. More is possible in the future.

IN PRACTICE:
[EFFORT SCALES]
The exploration of individual effort scales forms a crucial part of my vigilant practice proposal, and is perhaps the cornerstone upon which my whole compositional and performative practice is constructed, and the element I have been searching for in my compositional attempts.
Pieces that explore effort scales are listed here:
GMNM.9; GMNM.18; GMNM.24; **GMNM.25;** GMNM.26; GMNM.29; **GMNM.31;** GMNM.32; GMNM.49; GMNM.57; GMNM.58; **GMNM.63**.

I will return to the topic of effort levels in Chapter 3, and at the same time explain my proposed activities for the development of individual effort scales

2.2.8.1. The effortful voice

Dal Vera, in '*The voice in heightened affective states'* makes a deep connection between extreme emotional states and physiological states, including the voice. Dal Vera maps with precision primary emotional states with respiration patterns, postural attitude and muscular effort, facial expression, speech rate, pitch range, and average loudness and articulation effort. The voice, as well as the whole body, is the locus of emotion (Dal Vera, 2001). By exploring what Edgerton (Edgerton, 2015) refers to as the *traditional extra-normal voice* the embodied performer can simultaneously explore what I could refer

to as the *extra-normal* emotions, which are of course completely normal, but perhaps have been forgotten or are repressed.

At this point the notion of emotional freedom (that is, being free to *show* emotions), or emotional literacy (developing a wide vocabulary of expressed emotions – which is very distant from *talking* about emotions) becomes relevant. A search for emotional freedom surprisingly became one of most important personal outcomes of this research project. I will return to this important issue in Chapter 4.

IN PRACTICE:
[VOICE]
In my portfolio of compositions the voice plays a special role in developing and expanding a sense of embodied imagery and vigilance practice. Many of the pieces in the workbook ask for the use of the voice, both musically and speaking. The portfolio also includes a set of nine voice pieces which can be sung independently as *The Nine Circles* or included in *On Light and Darkness*. These pieces use Estill Voice figures, and the Estill figure of the Effort Scale. Unlike *Games for Musicians and Non-Musicians*, these pieces require previous training. They can be performed by both trained and untrained voices but they do require knowledge of the Estill Model. These pieces explore the expressive possibility of both extremes of effort, that is to say the positive extreme effort at one end of the scale and total absence of effort at the other end. They propose the exploration of unfamiliar modes of voice production and of non-normative voice qualities. Prior to studying these pieces it is advantageous to experiment with the text scores in the Games and explore the concept of vigilance it presents.

Two video recordings exist of a performance of two pieces from *The Nine Circles*, with commentary in the Catalogue.

2.2.9. Embodied Imagery Tools

In the context of performance, I have identified two tools that need to be present in my definition of multi-modal embodied imagery in performance practice:

1. Full body engagement (including facial expressions and readiness to use the voice in all its qualities, both singing and spoken);
2. Physiological structures which are used according to full individual effort scales, ranging from no effort to maximum effort;

Additionally, in the context of my proposal for a vigilant practice, the imagery tools above are not precisely scripted, scored or choreographed, all parameters being open to a varying degree of improvisation. In chapter 3 I will explore practical activities I have developed which make use of these two tools.

2.2.10. Multi-modal imagery in performance practice

In practice, multi-modal imagery is of course present in many artists' work and in many performance traditions. In fact it is the very core of the work of many art forms. A very brief list of specific performers where multi-modal embodied musical imagery plays an import role might include Laurie Anderson, Roy Hart Theatre, Glenn Gould's vocalisations during recordings, and a very long list of pop/rock performers.

2.2.11. Summary of Section 2.2: Embodied multi-modal imagery

In this section I have attempted to build an argument for the existence of an embodied multi-modal imagery dimension in the making and enjoyment of music. I have proposed the existence of an internal and external music-gesture imagery, and the presence of a music-gesture dialectic, very much like it exists in language, with which music shares many of its neurological, cognitive and social processes. I have made an argument for expression as a deviation from normative behaviour, and proposed the use of full effort scales as a way of exploring expression and expressivity. Similarly to language, the presence of a dynamic dimension of music-imagery best inhabits an improvisatory framework. For that reason, I have proposed that an improvisatory stance in performance, rather than a scripted or choreographed one, is better attuned to my aims as a performer and composer and to the development of a vigilant performance practice. I have given examples of artists, composers and performance traditions that use some or all of the parameters and skills I identified as relevant in a multi-modal embodied practice.

A vigilant musical practice welcomes embodied imagery and gesture, and also the gaze and the voice into its toolbox. The development of a pedagogy of embodied and vigilant music performance, of music improvisation, and a practice of music composition can and should include the imagetic and the gestural, not as scored, or un-scored but pre-set choreographies, but as opportunities for vigilant, multimodal and communicative actions between the performers and their audience.

In the way it operates – through innumerable and ineffably complex gestural signs, uncontrollable at the most meaningful detail – embodied multi-modal agency is, in my view, the foundation for dynamic inter-personal communication.

In the next chapter I will take non-normative cognitive states [IN] and embodied multi-modal imagery [OUT] as the starting points upon which to develop the third arm of my definition of vigilant practice: inter-personal communication [IN/OUT].

2.3 Interpersonal Communication [IN/OUT]

Introduction

Vigilance ("the authority of the body when the body is not separated but fully in agreement with the truth of place" (Blanchot, 1982, p.266)) is not a purely internal, mental process. It is not only a process of projecting an embodied imagery to the world outside us. It also means to be responsive to the world around us and to the multi-modal images and meanings we form of it. Such responses are made visible through communicative channels that shape how we react and respond to the environment around us, because "all that is ever known about others during social interaction is how they actually behave" (Hargie, 2006, p.18) The third aspect of my definition of vigilant musical practice is therefore *Interpersonal Communication.*

2.3.1. Communication v. information exchange

At the onset of exposing my definition of interpersonal communication in the context of vigilant music performance, I would like to make an important distinction between two models of communication: *transmission* models, and *synchronous* models. In *transmission* models of communication, like the Shannon-Weaver model (1949) or the Berlo model (1960), data (the message) is displaced uni-directionally between one agent (transmitter) and another (receiver). The flow of data can operate in both directions, alternating between two (or more) agents, but it is not seen to be simultaneous (Shannon, 1949). On the other hand, in *synchronous* communication models, such as Barnlund's transactional model (1970), or Hargie's *Skilled Interpersonal Communication* model (Hargie, 2017)*,* the data, the channel, and the information it carries is constantly being modulated, adjusted, and altered in real-time by all agents. Hargie's Skilled Interpersonal Communication model that I have adopted to scaffold my definition of vigilant music practice shares this characteristic of synchronous communication. I use the terms *information exchange* and *communication* to refer to one or the other models of communication. The difference between the two lies in the way the participants in the conversation or exchange influence each other's own participation. Let us consider as an example two modes of encountering the other in a conversation: a face-to-face meeting, and a collection of handwritten letters between two people. In a face-to-face conversation how one person articulates their message to the other influences the response of the other. A continuous two-way flux is in place where one person's facial expressions, movements, breathing pattern (that is, their multi-modal embodied presence) in response to another person's presence influence the latter's way of being, their tone of voice, their movements, their own embodied presence. And a feedback loop is thus formed: Anna sends out a message to Ben. Ben responds with changes in his embodied presence. Anna reads the changes in Ben's behaviour and adjusts her embodied message in response. Ben in turn reads changes in Anna's embodied presence and adjusts his own. The tight loop of responses means that the message itself is continuously being modulated in response to the way it is being received by the recipient of the message. The message could be considered to be continuously re-defining itself in the process, by reaching out and appropriating the recipient's own response. Information communication technologies (including video technologies like Skype which carries an inevitable delay and an incomplete embodied message) favour transmission rather than synchronous models.

Information exchange on the other hand does not present a tight feedback loop. In the example of the hand written letters, the way the embodied presence of the letter – a multi-modal presence, the actual piece of paper, the ink marks on the paper, the size of each word, the difference depths in the pressure marks of each different letter, the smell of the paper – the way the embodied author's marks on the letter are perceived and multi-modally decoded by the recipient of the message will not alter the way the letter has been written. The time delay between writing a message on a letter and it being read means the feedback loop I mentioned above is not possible. I will call this type of exchange *information exchange.*

Based on Brooks and Heath's (1993) definition of interpersonal communication as "the process by which information, meaning and feelings are shared by persons through the exchange of verbal and non-verbal messages**",** Hargie describes this process as inherent to, and dependent on the "dynamic and changing character of communication, [where] both participants are, at one and the same time, senders and receivers of information. Each is, even when silent, acting and reacting to the other" (2017, p. 6). Michelson et al. (1983) propose that social skill is "a process in which the individual implements a set of goal directed, interrelated, situationally appropriate social behaviours, which are learned and controlled" (Hargie, 2006, p.13).

It is the presence of this dynamic feedback loop that I consider fundamental in my use of the term *communication*. Conversely the absence of the feedback loop is what defines *information exchange*. This distinction between communication and information will be useful later on in considering different ways of understanding and exploring vigilant presence, and in creating a tool for grading and assessing vigilance in a work or performance.

From a composer perspective, I will argue that scores where vigilance is explored are scores that create an opportunity for communication rather than just an information exchange. Equally, performances and performance traditions that promote a constant two-way communicative modulation will fall within my definition of vigilant practice. Vigilance fundamentally inhabits the realm of communication, the continuous dynamic modulation of presence, rather than the discreet steps of information exchange.

It is my aim, as a composer, to write scores that emphasize communicative events, rather than informative ones. A vigilant and embodied presence is by definition communicative. It responds clearly and immediately to its environment, to the other and to the self. Open channels of two-way communication are, in my view, important in offering our presence to the other. Let us now observe the channels of communication that are available to us.

2.3.2. The trace of communication: body, voice, writing

From communication to information exchange one could imagine a continuous line, with face-to-face, proximal, verbal and tactile interactions at one end, and at the other end perhaps a typed email containing words, or a mathematical equation, a set of numbers, an emoji. Along this continuum, we can find for instance, a phone conversation, where only sound is used (tone of voice, breathing patterns, background noises), hand written letters, video calls, typed messages, email, etc. where the physical trace of the other's body becomes increasingly fainter. I should point out that multi modal cognition can create in the recipient's mind an embodied presence – a facial expression, a body, a gesture – just from hearing a voice, even

when the transmitter is not seen. Other multi-modal combinations are possible, as I discussed earlier.

The trace of each of these communication types can offer more or fewer clues about the transmitter herself. For my artistic purposes, the important distinction to make is whether the trace of the communication can be subject to a dynamic feedback loop in response to the presence of the *other* or not. Hargie's Skilled Interpersonal Communication offers a model that incorporates such feedback loops.

2.3.3. Hargie's Skilled Interpersonal Communication model

Hargie's model of skilled interpersonal communication can be useful in understanding aspects of the relationships that exist during a music performance between musicians and their audience. Though the author highlights its usefulness in social services, education, even criminology, Skilled Inter-Personal Communication can be applied to any situation where humans interact with each other in a meaningful way, in what Hargie describes as an *inevitable process.* Hargie's *process* is based on "three basic assumptions. The first is that people act purposefully; second, that they are sensitive to the effects of their actions; and third, that they take steps to modify subsequent action in the light of this information" (Hargie, 2017, p.23). One could argue that these three assumptions can equally apply to performances. I would like us to hold the third point in mind. Michelson, Sugai, Wood and Kazdin (1983), cited in Hargie (2006, p.13) propose social skills have the following six elements:

1) Are learned
2) Are composed of specific verbal and non-verbal behaviours
3) Entail appropriate initiations and responses
4) Maximise available rewards from others
5) Require appropriate timing and control of specific behaviour
6) Are influenced by prevailing contextual factors.

Though the six elements identified by Michelson et al. can be observed in performative events such as theatre and music concerts, I identify some elements that tend to be more common in the impacting, high validity performances I referred to in Chapter 1 and that were absent in less impacting, low validity events. In particular I felt that element 6 (being influenced by prevailing contextual factor) and element 3 (appropriate initiations and responses) were uniquely present in higher validity performances. I identify element 6 in performers that make noticeable and intentional changes to their behaviour on stage in response to the audience and to the environment. I identify element 3 in performers that initiate a positive engagement with their audience, mainly through the direction of their gaze and often through verbal and non-verbal communication cues directed at the audience (which requires element 2 to be present as well). Two elements: to initiate communication, and to respond appropriately, letting external factors influence the action. I considered if the absence of either of these elements from a performance could be related to reason why certain live performances of music which is dear to me (including my own performances), left me untouched and unmoved, un-transformed. Injecting these two elements of communication into my scores and into my performances is one of the main steps in defining a vigilant musical practice, both from a compositional and performative perspective. I will explain how I have proposed to do this in chapter 3: Solving the problem: practical applications.

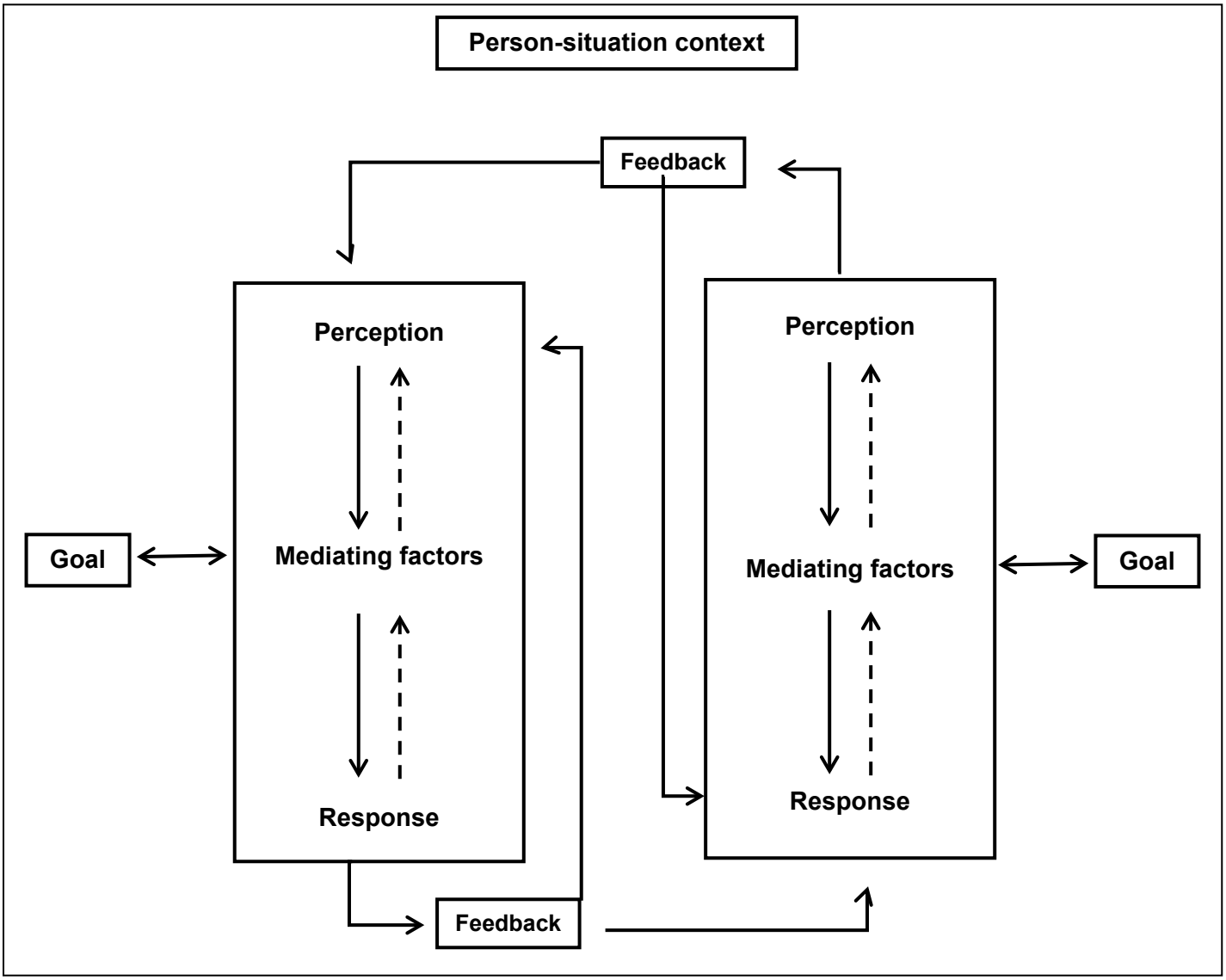


Figure 1 – Skill model of interpersonal communication (Hargie, 2017, p.22)

Hargie's model for skilled interpersonal communication is schematically described in Figure 1. Notice the presence of the several feedback loops between the agents of communication and within each agent.

Approaching the performance situation under the light of Hargie's Interpersonal Communication model allows me to consider where one may be ignoring a communicative skill in favour of another, therefore disrupting interpersonal communication from taking place? Could I work towards developing each of the skills in this model, both in my own performance but also in the writing of scores, which I am considering as training tools? In my workbook, some pieces fall into different training sequences and the six inter-personal communication skills are present one way or another throughout the combined sequences.

In the context of live music performance, the mirror neuron system can encode the physical expressions (gestures) of the musicians, as well as the motor control actions. Leman states that

> Listeners can engage in different degrees on involvement with music without having to draw upon a reference to know what this music expresses. Nevertheless, the music is recognized as expressive. This is possible because expression can be captured by the mirroring system (motor resonances) and corporeal imitations; it provides a basis for corporeal understanding without any need for a reference. In contrast, cerebral understanding (cognition) often results from a search for something that is imitated. (Leman, 2008, p.131)

2.3.4. Mead's loop

For social behaviourist and pragmatist G.H.Mead the self is a social act (Mead et al., 2000). Mead explains that the self is constructed between the "I" and the "Me". The "Me" is a social entity, a social self; the "I" is the self's response to the "Me". Together they form a tight loop of stimuli and response formed around the self's relationship with the social realm. Note the similarities between this concept and Sartre's *being-in-itself* and *being-for-itself.* More important to my research into vigilant practice in live performance is Mead proposal that "gestures become meaningful symbols when they provoke in the person gesturing the same reaction they provoke in observing individuals" (Mead, G.H., in McNeill, 2005, p. 250).

McNeil refers to this dynamic interaction as *Mead's Loop*: "meaningfulness depends on simulating a social response – the social response of another in yourself, a kind of auto-socialization" (McNeill, 2005, p.250) McNeill poses the possibility that Mead's loop is grounded on the mirror neuron system, which were not known at the time Mead was working.

> Mirror neurons could be the mechanism of this gestural self-response [...] one's own gestures activating the part of the brain that responds to intentional actions, including gestures, by someone else, and thus treats one's own gesture as a social stimulus (McNeill, 2005, p.250).

A consequence of Mead's loop is that gestures "activate one's own mirror neuron circuit" (McNeill, 2005, p.251). McNeill highlights that the social nature of the gesture "explains why gestures occur preferentially in social contexts of some kind (face-to-face, on the phone, but not when talking to a tape recorder)" (2005, p.251). Gesture, language, voice quality and the completeness of human presence all partake in the functioning of Mead's loop – that is, seeing self *and* other through mirror neurons–, which in turn leads to the dynamic gesture in language proposed by McNeill. The dynamism of the gesture/speech bond is only activated through the encounter with the *other* (which can be real or imagined, visualized). At this point, according to Mead's loop, our own representation of our selves is combined with our representation of the other. Mead's loop supports Skilled Interpersonal Communication Model and the existence of the looping mechanisms in Hargie's model of interpersonal communication. By proposing a model of embodied performance practice that includes Hargie's interpersonal communication feedback loops, I am also bringing Mead's loop into my model, which will play an important role when I discuss the *transformative* role of vigilant performance practice.

By resorting to the idea that there is a deep and inevitable interpenetration between self and other, we are moving very close to the arguments I presented in section 2.1, when I referred to the importance of awareness and representation of the *self* in

performance, but now tempered by the presence of, and the reaction to the *other*, thus approaching a closure to the circle I have been drawing in this proposal for a vigilant practice.

2.3.5. Embodied simulation and embodied attuning

Another important concept in support of Hargie's interpersonal communication loops and Mead's loop is *embodied simulation*. Embodied simulation, which is an extension of the mirror neuron system, refers to the way one's body mimics the body of another: smile, speech and accents, emotions (Drinko, 2013). Drinko, citing Niedenthal et al. study on embodied attuning in relation to facial expressions, describes a study performed by Hennenlotter where "people who were injected with Botox in their foreheads experienced less response in their limbic systems when mimicking angry expressions" (Drinko, 2013, p.102). The expression of an emotion is found to be directly connected to the physical capacity to reveal such emotion. "By reducing the muscle movement of the face, part of the embodied meaning of the anger was lost" (2013, p.102). Equally, the loss of embodied expression of an emotion impairs the very understanding of that emotion in other people (Drinko, 2013). In another experiment led by Krumhuber, studying how we read and understand emotions on other people,

> participants had to rate the genuineness of various smiles. Half the group had to hold pencils in their mouths, thereby preventing them from unintentionally mimicking the smiles. The participants that had the pencils in their mouths were unable to distinguish genuine from false smiles. (Drinko, 2013, p.102)

Niedenthal et al. explain, "the ability to mimic facial expressions was essential for distinguishing true from false smiles, implicating embodied simulation in performing these judgements accurately." The phenomenon of embodied simulation is thus central to both expressing and understanding the emotional *meaning* of the *other*'s presence. It is also part of the mechanism by which a speaker confirms that his or hers embodied meaning is being received accurately: if a person does not respond to my laughter with a laugh, I will understand that my good disposition is not reciprocated, signalling the possibility that the other person may feel they are the target of my jocosity and may be offended by my laughter, directing my awareness back to my own actions and suggesting that my immediate reaction should be to change my behaviour! This idea can be seen to support Sartre's and Mead's view that one is aware of oneself (for-itself) in presence of the other (Cox, 2006).

The eyes and the gaze seem to be of particular importance in establishing a positive level of embodied simulation. "Focusing one's attention on someone else's eyes triggers embodied simulation, which quite literally allows us to feel what someone else is feeling" (Drinko, 2013, p.102). McConachie (2008), studying patients with aphasia, raises the possibility of the mirror system providing an inextricable link between gesture and communication, in particular the role of the face and eyes: "the eyes and the muscles around them are especially revealing" (McConachie, 2008, in Drinko, 2013, p.101). Drinko also cites a study by Bavelas et al. (Bavelas et al., 1986) where participants, exposed a pained facial expression "unconsciously mimicked the facial expression of the first. Interestingly, eye contact made the unintentional mimicked pain expression clearer than the participants who did not make eye contact" (2013, p.101). Looking directly into someone's eyes helps the participants to "unintentionally embody that person's facial expression and better

distinguish the meaning behind it" (Drinko, 2013). In the context of performance, Drinko favours being able to exchange glances with the audience:

> when picking up communicative cues it is especially important to be able to see someone's eyes. The mirror system is then better able to 'mind read' or interpret and relate to the speech and gesture (the linguistic system) of others. (Drinko, 2013, p.101)

IN PRACTICE:
[THE GAZE]
In the introduction to my *Games for Musicians and Non-Musicians* I make special mention to the importance of the gaze. Some of the pieces/games deal specifically with the gaze by asking the players to engage in a series of activities and mental processes based on looking into another person's eyes:

GMNM.2; GMNM.3; GMNM.5; GMNM.16; GMNM.27; GMNM.53; GMNM.55; GMNM.60; **GMNM.63**.

Another aspect of embodied simulation that I find relevant to my work, and has helped me structure the sequence of piece/games in *Games for Musicians and Non-Musicians* is gestural *appropriation* and *mimicry*. McNeill refers to the sharing of communicative gesturing as a process prone to the assimilation of the person's gestural and spoken repertoire. This process, according to McNeil facilitates the very understanding of the *other*'s communicative goals:

> If one person assimilates another person's gesture or speech, the material carriers of being, this inhabits some aspect of this other person's verbal thinking. The joint inhabitance includes gesture sharing and this appears in two broad forms – *mimicry* and *appropriation***.** (McNeill, 2005, p.159)

In this statement we can see another way in which interpersonal communication influences and modulates the formation of meaningful images. I use both gestural mimicry and appropriation in *Games for Musicians and Non-Musicians*, namely pieces that involve copying another player's gestures or speech, and pieces which involve sharing a gestural procedure between two or more players, for instance, by improvising gestures for others to play music to, what I refer to as body-scores.

IN PRACTICE:
[MIRRORING]
The following pieces from *Games for Musicians and Non-Musicians* make use of mirroring activities:
GMNM.7; GMNM.13; GMNM.14; GMNM.15; GMNM.16; GMNM.30; GMNM.33; GMNM.38; GMNM.39; GMNM.40; GMNM.41; GMNM.42; GMNM.63.

I will expand on the practical implementation of embodied simulation, gestural mimicry and appropriation, and the gaze in Chapter 3.

2.3.6. Interpersonal communication in therapeutic models and social transformation models: Moreno's Psychodrama and Boal's Forum Theatre

Psychologist Moreno worked with theatrical models as tools for healing. Psychodrama, the therapeutic practice he devised involves a group of 'patients' and a director meeting regularly to enact aspects "of life they want to work on: fear of death, relationships, authority" (Karp, M., et al. 1998, p.5). In a Psychodrama session, one person in the group is elected as the Protagonist. The Director guides the group in enacting the Protagonist's traumatic event. The director can choose anyone else to be the Auxiliary Ego,

> who plays a role representing a significant other in the life of the Protagonist. This maybe a role external to the protagonist. [...] it may be an internal role, such as one's former self, child self, or one's inner voice [...] the double helps express that which is not being expressed, with or without words. Because Moreno felt that the route to the psyche is not the word but non-verbal expression, the auxiliary ego can express, by gesture, posture or distance those unspoken secrets in relation to the protagonist. [...] the body remembers what the mind forgets. (Karp, M., et al. 1998, p.7)

The ritualised theatrical event extends to the audience – the group- and a dialogue is initiated within the audience about the action being portrayed, which influences the action itself.

> the *subject* or actor is asked to be himself on stage, to portray his own private life; the *audience* is a sounding board of public opinion as well as the subject itself - it becomes healed by taking part; the auxiliary egos have a double significance: they are extensions of the director, exploratory and guiding, and extensions of the subject, portraying the actual or the imagined. The director has three functions: producer, counsellor and analyst. (Karp, M., et al., 1998, p.4)

A channel of communication is open in both directions: between the actors and the audience, and between the audience and the actors.

Playback Theatre, created by Jonathan Fox and Jana Sala extends from Moreno's praxis. In Playback Theatre the audience offers their own stories for the actors to re-enact. Augusto Boal's Forum Theatre shares aspects with the model by working with whole communities to solve social problems, address conflicts in the community. The Forum thus created is supported by *the joker*, an appointed person whose role is to push the debate forward.

Again, the duality of communication we observe in these models is also present in some of the pieces in the workbook in several ways. One of those ways involves *improvised spoken scores*. In these pieces one player takes on the role of giving instructions to other players – akin to Moreno's director, or Boal's Joker. The instructions are improvised but in some pieces the improviser is given specific aims and instructions to follow. Any one, including the audience, can take on the role of offering instructions to the players.

IN PRACTICE:
[IMPROVISED SPOKEN SCORES]
The following pieces from *Games for Musicians and Non-Musicians* offer examples of the use of improvised spoken scores and the role of the facilitator:
GMNM.15; GMNM.25; GMNM.26; GMNM.33; GMNM.37; **GMNM.50; GMNM.51; GMNM.63.**

2.3.7. Interpersonal Skills in the context of performance practice

In the light of my exploration of communication, I have identified three skills that I believe need to be present for the conditions of interpersonal communication to be present in the context of live performance. I can summarize them as *see, be seen, act/react*

1) See: to see the presence of the *other* – a clear awareness of other people, both of other musicians, and audience members, but also awareness of the shared space, including extraneous noises. Synchronicity and empathic response play a role.

2) Be seen: be noticed; in particular the importance of the *gaze* in securing the player's presence before the *other*.

3) Act/react: set up clear communicative feedback loops, visible responses and reactions to the environment

2.3.8. Interpersonal communication in performance practice (Composers, performers, traditions)

Interpersonal communication appears in, and in fact forms the backbone of a variety of performance genres and traditions, and is largely absent – or incomplete – in many others. I will briefly point to traditions, performers and composers where interpersonal communication as defined by Hargie (that is, with the inclusion of feedback loops) plays a role.

Theatrical traditions such as Pochinko's 'Clown Through Mask' (which was devised by combining European clowning traditions with Native American *trickster* shamanistic practices); Jonathan Kay's fooling; some strains of stand-up comedy that make use of improvised audience interaction; improvisation forms such as Del Close and Charna Halpern's *The Harold* and its many variations; Augusto Boal's Forum Theatre and Invisible Theatre; Jonathan Fox and Jo Sala's Playback Theatre; Moreno's Psychodrama (strictly speaking a therapeutic form); all share an aspect of deep and intense relationship with their audience, either by improvising around the audience's initial contributions (The Harold, Playback Theatre, Forum Theatre, Psychodrama) or by engaging the audience moment to moment, bringing the uniqueness of reactions of each person in the audience into the very development of the performance (Invisible Theatre, Clown Through Mask, Jonathan Kay). The three skills I have identified above (see, be seen, act/react) all appear in these performance traditions and in the work of these performers.

2.3.8.1. Pop/Rock performances

In the area of music performance, we can observe Pop/rock music performance practices that often deploy the three inter-personal communication skills, in varying

degrees. Some behavioural patterns are pertinent to this genre, such as addressing the audience directly, maintaining eye contact with the audience (though, because of the intensity of stage lights we often cannot see the audience from the stage: eye contact is often feigned. Nevertheless the intention is present and clearly understood by the audience); engaging the audience in physical entrainment through stage dance and clapping (Davidson, 2001; Kurosawa and Davidson, 2005). Though dynamic feedback loops between the performers and audience are observed, at the level of the embodied presence and gesturing, even voice qualities, the loop reactions of the musicians to their audience don't often have a profound influence in the actual music being played. That is to say: the audience's reactions will not necessarily change profoundly the music being played. Obviously this is because the music being played is not open to fully improvised situations, and it tends to follow a musical *script*: a pre-set meter and repertoire of rhythmic, harmonic, and melodic patterns stay largely unchanged regardless of feedback loop struck between performer and audience. Nevertheless, according to Davidson's studies, such feedback loops between audience and performers are visible in pop/rock performances.

2.3.8.2. Scored communication: Christian Wolff, James Saunders

Christian Wolff's scores (such as *Burdocks* (1970-71) and James Saunders' *things to do)* present another example of Interpersonal Communication, but this time between the players, which have to react and respond to each other, following clear and often intricate rules of engagement. In these scores, the feedback loops tend to be limited to the performers and do not extend to the audience. The ludic component of the scores, established by its strict rules, points to the quality of group flow proposed by Sawyer.

One last example of interpersonal communication I would like to present comes for Meredith Monk, who states that:

> As a soloist I can be very precise and very rigorous and yet at the same time, its a kind of a pinpoint focus and at the same time I feel that I am very open and very fluid to what is happening in the moment. It's that thing of trying to be really present in the experience. (Vanloo, 2009)

2.3.9. Summary of Section 2.3: Interpersonal Communication – [IN/OUT]

The two-way flow of communication as understood by Hargie will play an important role in helping to frame a concept of vigilant performance practice ("…the body in agreement with truth of place…"): when communicating, like one does in a performance of music, one needs to be open to receive the dynamic and changing character of the situation, and I, as a performer, need to *send out* but also to *receive*, and update my possible reactions accordingly. I need to react to the audience's loud or silent reactions to my presence and change my actions as a result. The design of my scores and the performances I take part in should take into account the possibility of this dynamism; in fact they should *promote* this dynamism.

IN PRACTICE:
[TWO-WAY COMMUNICATION]
A significant amount of the pieces in *Games for Musicians and Non-Musicians* address cognition and cognitive states. I have listed them below according their skills development tools (see Chapter 3):
[THE GAZE]
GMNM.2; GMNM.5; GMNM.13; GMNM.16; GMNM.27; GMNM.38; GMNM.39; GMNM.40; **GMNM.47; GMNM.50;** GMNM.53; GMNM.54; GMNM.55; GMNM.57; GMNM.60; **GMNM.63.**

[SYNCHRONICITY]
GMNM.3; GMNM.7; GMNM.10; GMNM.11; GMNM.12; GMNM.13; GMNM.14; GMNM.15; GMNM.16; GMNM.17; **GMNM.18;** GMNM.20; GMNM.21; **GMNM.27**; GMNM.30; GMNM.33; GMNM.34; GMNM.35; GMNM.36; GMNM.38; GMNM.39; GMNM.40; GMNM.41; GMNM.42; **GMNM.45;** GMNM.46; GMNM.48; GMNM.49; **GMNM.50; GMNM.51;** GMNM.52; GMNM.53; GMNM.54; GMNM.55; GMNM.59; **GMNM.63.**

[SPOKEN SCORES]
GMNM.15; GMNM.25; GMNM.26; GMNM.33; GMNM.37; **GMNM.50; GMNM.51; GMNM.63.**

[STORY TELLING]
GMNM.14; GMNM.15; GMNM.18; GMNM.45; GMNM.46; **GMNM.47;** GMNM.48; GMNM.49; **GMNM.50;** GMNM.52; GMNM.59; **GMNM.63.**

[GROUP DEVISING]
GMNM.51; GMNM.55; GMNM.56; GMNM.59; GMNM.61; GMNM.62; **GMNM.63;** GMNM.64.

In section 2.1, I proposed that the ideal mental states for a vigilant practice are those states that take us away from normative states, either in the direction of intense mindful meta-cognition or in the direction of mindless *flow* – precisely because of their non-normative nature, which I have scaffolded on Cook's proposal, presented in section 2.2, that expressiveness arises from non-normative or unusual events, "a departure from some norm" (Clarke, in Rink, 2005, p. 22), and on the state of *flow* proposed by Drinko. Now I close the circle by proposing that states of non-normative consciousness, supported by modes of non-normative bodily engagement and imagery through exploring extreme effort levels, and enacted in the context of interpersonal feedback loops can be responsible for an enhanced level of communicative and expressive actions. The three aspects of my definition of vigilant musical practice – cognition, imagery and communication – are thus inseparable and indivisible in vigilant practice. Cognition, imagery and communication are not separable elements in vigilance. They influence and inhabit each other in a profound and dynamic way. In the next section I will discuss how the three aspects combine.

2.4 – A Definition of Vigilant Music Practice

Introduction

In this section I will bring together the three skills that form my definition of vigilant music practice – non-normative cognitive states, embodied multi-modal imagery and interpersonal communication.

I will make a case for using improvisational models and open scores in vigilant practice – in contrast with choreographed, scripted and parametrically notated prescriptive scoring approaches.

In Chapter 3 I will put forward tools and activities that may contribute towards the development of those skills.

2.4.1. A definition of vigilant musical practice

My definition of vigilant musical practice is as follows:

Vigilant music practice is at once cognitively dynamic, makes use of multi-modal imagery, and engages in a two way communicative flow with the surrounding environment.

2.4.2. Vigilance skills

In establishing a vigilant musical practice according to my definition above, I searched for the presence of specific performance skills, skills that I could relate to validity in my performance experience and my observations of meaningful performances. In this chapter I will discuss the performance skills I observed and formulate an essential list. According to my definition of vigilant musical practice, one can call a performance to be *vigilant* if one detects that set of skills to be present. In the following section I will enumerate and explain the skills I highlighted during this chapter, in reference to each of the three elements of my definition. This list of skills will allow me to create an assessment scheme to evaluate if a performance is *vigilant* or not, if a score promotes vigilance or not, and what skills may need to be developed in order to operate development in the direction of a vigilant musical practice. At the same time, enumerating the skills necessary in order to consider a performance to be *vigilant* will allow me to create a developmental schedule – that is to say, a learning sequence – that performers interested in expanding their own personal practice in the direction – myself included – may use. *Games for Musicians and Non-Musicians* presents one possible version of such a learning sequence. In Chapter 3 I will discuss how I have made practical applications of my definition of vigilant practice, including the learning sequence proposed in *Games for Musicians and Non-Musicians*, by creating a series of *tools* that promote the development of each skill. In chapter 3 I will discuss the difference between *skill, tool,* and *activity.*

2.4.2.1. Cognitive Skills [IN]:

In section 2.1 I discussed how states of cognition and awareness can vary from the normative, day-to-day cognitive states:

- ***Mindlessness*** and *flow*, intuitive cognition can help us make quick decisions and forge relationships;
- States of ***Mindfulness*** and *Metacognition* can help us bring our own presence in a situation to the fore and observe the relationships we are immersed in.

In between these two extremes sits day-to-day cognition, the normative state. The skills required in vigilant cognition are then to be able to navigate away from normative states in the direction of the extremes of *flow* or *metacognition* (System 1 and System 2). Normative cognition for a particular situation could suggest room for the development of vigilant cognition skills through performance activities.

2.4.2.2. Multi-modal Imagery Skills [OUT]

The skills required for the creation of holistic and multi-modal imagery involve:

- **Full body use**: being free, able and ready to use the whole presence (that is, the whole body, including the voice) and
- **Individual effort scales**: use the body within the scope of a full effort scale, from no effort to maximum effort.
- **Improvisation** of embodied imagery

The absence of Imagery skills is suggested by normative body use and a reduced effort scale, which avoids the exploration of the possible extremes of effort or relaxation.

2.4.2.3. Interpersonal Communication Skills [IN/OUT]

The skills relevant to Communication are:

- **To see**;
- **To be seen**;
- **To act and react** to the environment.

Communication skills are absent if the player is not seen (no presence), fails to notice the environment surround him/her, and does not react to it.
Referring back to Chapter 1, and to the performances that I considered to be, in a subjective way, of particular importance in my personal artistic development, I believe that the presence of these skills is what separated meaningful events from performances that left me untouched.

2.4.2.4 The relationship between the three skills

The relationship between IN (self), OUT (world) and IN/OUT (communication) is important. According to Damásio, they are not separable (Damásio, 2000, pp. 184–186). The sense of self arises from the interaction of the individual with objects in the world (either physically present, recalled or predicted). [IN] is thus formed by [OUT]. Equally the influence of communication [IN/OUT] on both the sense of self and on how the objects of the world is fundamental: the sense of agency, of being able to impact on other people and being equally impacted by other (what Maurice Merleau-Ponty refers to in his concept of the *chiasm***;** the capacity to reflect self or other, and vice-versa folds back on itself to construct both the object of our attention (in the case of performance practice, the human other) and further even, to mould our sense of ourselves. Seen separately, the three layers that I am proposing (non-normative cognition, multi-modal presence, and inter-personal communication) loose their fundamental mode of existence because each is formed and continuously morphed by its connection to each other**:**

> The story contained in the images of core consciousness is not told by some clever homunculus. Nor is the story really told by you as a self because the core you is only born as the story is told within the story itself. You exist as a mental being when primordial stories are being told and only then; as long as primordial stories are being told, and only then. You are the music while the music lasts (Damásio, 2000, p. 191).

Damásio's description of the proto-self and core consciousness being primarily formed by 'images' (neurological patterns) informs and supports McNeill's gestural-linguistic model, which I rely on to support my views on multi-modal presence in music making, but also Gordon's appropriation of Dalcroze and Laban's gestural/imagetic understanding of musical syntax. The performance work I am proposing aims to draw the performers' attention, in the act of performing, to core-consciousness and the auto-biographical self (learnt past experiences), and, to an extent to impair the interfering role of extended consciousness – the long term (past and future) mapping of experiences.

Figure 2 below is a graphic representation of the relationship and interdependence of the three vigilance skills. At the bottom of the pyramid lie the cognitive states (system 1 or system 2). These are invisible to the audience. One cannot see what the other person is thinking. At this level lie the intentions and motivation of the performer, what Nattiez calls the poietic level. The second stage – multi-modal and embodied imagery – relates to all the body actually does when performing. This layer is visible/audible to the audience. Nattiez would call this the neutral stage, the material residue of the intentions and motivations nurtured at the poietic level. The third stage of the pyramid – communication – appropriates the stage below and constructs meanings and personal strategies. This corresponds to Nattiez's aesthesic level. At the aesthesic level the neutral stage gains meaning and an aesthetic response. This stage is not possible without the two stages that support it: intention and agency are necessary for communication.

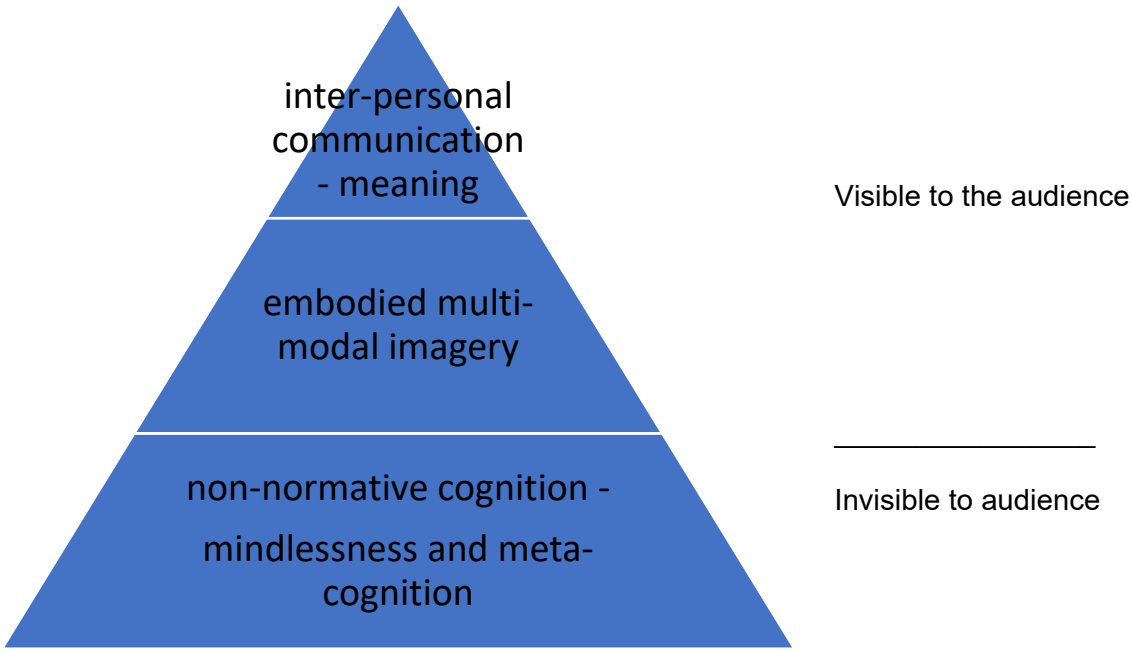


Figure 2 - The relationship of interdependence between the three skills of vigilant practice: Cognition, Embodied Imagery, and Communication

2.4.3. Vigilance Skills: Improvisation and Choreography

At several points in my text I make a stand against scripted behaviours, learnt choreographies (in the sense of pre-decided, scripted gestures or scored movements) in favour of open scores and improvisation. Having now explained the three aspects of my definition of vigilant practice I would like to revisit the opposition between choreography and improvisation and summarise my arguments in support of improvised behaviours.

2.4.3.1. Choreography: a definition

I adopt Graham and Hoggett's (2009, p. 125) definition of choreography:

> By choreography we mean any formalised movements that become set and can be repeated. This can be the dynamic and spectacular or it could be the minute and precise. It can be explosive and it can be introspective.

I extend this definition beyond physical movements to include the whole of the image making presence of the performer: their facial expressions, voice qualities, musical gestures. For me, the problematic key words in Graham and Hogget's definition are *formalised*, and *repetition*.

My artistic aim is to strike a direct relationship between performers and their audience through revealing their personal and unique imagery. As such, opting for *formalised gestural repetitions* will inevitably rule out the unpredictable panoply of gestures and imagery that each singular performance may stimulate. My compositional option has been to minimise in the score the possibility for formalised, repetitive behaviours. In the instructions for *Games for Musicians and Non-Musicians* and other pieces I advise against too many rehearsals creating the risk of ossifying behaviours and responses.

2.4.3.2. Cognitive [IN] and choreographies

There are several reasons for my decision to favour improvisation over choreography, but expression and expressivity is an important one. I would like to go back to Sartre and his concept of Bad Faith that I discussed in section 2.1 on *cognitive states* and consider again its consequences in the light of my discussion on *multi-modal imagery*.

2.4.3.2.1. Action: Bad faith and performance

When is Bad Faith present in performance? How does *bad faith* in performance affect the experience of performance? How does *bad faith* reveal itself in the audience? Is there a causal relationship between *bad faith* in the performers and *bad faith* in the audience? What can a performer do to promote amongst the audience an awareness of their own *bad faith*, and the option to abandon it? These questions are at the core of this research. By reframing my research questions under the light of Sartre's existentialism I can hope to clarify some of the psychological processes behind a successful performance and how to guide performers through score, rehearsals and performance.

For the performer, the problem of *choreographies* in the light of the idea of Bad Faith, in as much as choreographies are a visible element in a given performance, is not only that it creates a visible lack of authenticity in what has just happened on the stage (the past action), but more important it *solidifies* the state of mind and being of a performer into one single possible field of action in the very near future, which is locked by the script, the score, the choreography. It has the negative potential to limit

the possibilities of future action to the prescribed scripts. The problem here lies in the future, not in the past. Sartre's waiter, or the friend of the closeted homosexual pose good examples of this problem: by limiting themselves to clear and prescribed roles and modes of action (in the waiter's example the mode of action is in a way ritualistic, similar to a performance situation), they exclude from their field of possibilities their many other possible 'selves'. It is fundamental to clarify that the notion of 'multiple selves' is not related to acting or faking, very much the opposite: it is about allowing the multiplicity of true and real 'selves', our many masks to reveal themselves in performance. Pochinko's Clown Through Mask, as taught by Sue Morrison can bring light into this apparently labyrinthine argument: *the clown faces all directions of themselves at the same time, and is prepared to take any direction.*

But choreographies have consequences for the audience as well. Fundamental to existentialism is the responsibility of freedom – where do we want to be? – for which we require a view of ourselves as both subjective and objective entities (Merleau-Ponty's ambiguity, the intertwining), capable of observing and modulating our relationship with the environment around us. In improvised vigilant practice, all responsibility lies with the individual rather than with a prescriptive score (Kanno, 2007). Improvisation is an existential statement of freedom and responsibility. By creating feedback loops that include the audience, the performer is bringing the audience into the making of the performance itself. Once aware of their role in the making of the performance, the audience is faced with the existential freedom to embrace or refuse established roles of bad faith (Adams, 2007).

2.4.3.3. Imagery [OUT] and choreographies

McPherson and Parncutt refer to Barthes' observation of "the actor's disturbing corporeality". Barthes sees theatre as "consummate artificiality: the actor's body is artificial but not fictitious, and thereby a part of that delicate transcendence, of an exquisite, essential savour by which Baudelaire had defined the power of the artificial paradise" whereby "corporeality exceeds the mask" (McPherson, Gary and Parncutt, 2002, p. 79). The mask of the actor is betrayed by the presence of the actor. For me, Barthes lesson is to clarify attempts to construct the actor's mask through the writing of scripts, choreographies, through scoring, through the deployment of acquired stylistic gesturing and gestural patterns, which only delay and taint with a certain calculated dishonesty the encounter with the person concealed behind the actor/player and their masks.

The embodied multi-modal imagery aspect of my definition of vigilant practice, if understood under the light of Nattiez tri-partite analysis equally refutes the need to precisely score, script or choreograph a priori the gestural actions of performers on stage. Scoring multi-modal imagery and gestures faces an inevitable discrepancy between all three parts of the tri-partite approach: the composer/choreographer's intention of the scored gesture and, at another level, the performer's gestural intention; the gesture itself, devoid of any reading; and the reading of the gesture perceived by an audience. The composer's intentions (the *poietic* level) is inevitably 'capped' by the performer's own presence (the *neutral* level), and by the audience's reading of the performance (the *aesthesic* level). The inevitable discrepancy of meaning between the three levels renders in my view any attempt to score, choreograph, and compose gestural imagery not only difficult, even impossible, but perhaps pointless in achieving my aims of promoting direct communicative bonds between performers and audiences.

2.4.3.4. Communication arguments against Choreography

Finally, *choreographies* tend to focus the performer's attention in the choreography itself: one action following another, one sound following another sound. Such tendency to focus on inner processes – reading scores or recalling memorised actions – may impair the performers' capacity to focus part of their awareness on the communicative feedback loops, on the outwards processes. On the other hand, it is a very real possibility that a state of *flow* can be reached when a performer is engaged in very well mastered choreographies, as it often happens when a musician knows a piece of music so well that a state of *flow* is achieved through mastery. More remains to be explored.

2.4.3.5. Mirror Neurons: Choreographies and improvisation

Giacomo Rizzolatti's discovery of mirror neurons (in Goldstein and Brockmole, 2017, p. 163) in the 1990's can perhaps cast some light on the phenomena of cross-modal cognition and multi-sensory integration that I am proposing in my definition of embodiment. Mirror neurons are capable of providing information regarding the intentions of another person, "not just to what is happening but why something is happening, or more specifically, to the intention behind what is happening" (Goldstein, 2017, p.163). Also

> that mirror neurons may help us understand (1) communications based on facial expressions (Buccino et al., 2004; Ferrari et al., 2003); (2) emotional expressions (Dapretto et al., 2006); (3) gestures used while speaking (Gallese, 2007); (4) the meanings of sentences (Gallese, 2007); and (5) differences between ourselves and others (Uddin et al., 2007). (Goldstein, 2017, p.163)

It is possible that mirror neurons play and important role in guiding social interactions (Rizzolatti & Sinigaglia, 2010; Yoshida et al. 2011), we can invest on the mirror neuron mechanism as a possible way to create connections between performers and audience. Mirror neurons, by providing us with a simple –but not infallible– mechanism to explain how we begin to understand each other's presence, that is, the understanding our own experiences, offers us at the same time a tool for facilitating, and even imposing, one's embodied experience onto the other. By observing the other, the self experiences the other's experience. But this observation is tainted by the self's previous experiences – without which the mirror neuron system does not activate. This is a useful platform upon which to begin to construct a theoretical frame work to address the desire to create deep and transformative relationships in a performance situation: the performer has to engage in actions, display facial and emotional expressions, gestures, spoken meanings and differences between self and other that are likely to be apprehended by the other in a way that can trigger, in some way, their own mirror system. That includes actions, sounds, intentions, etc. that are closer to *universals*, that are not so uniquely virtuosic that a spectator would fail to empathise with what they observe. At the same time the performer can make use of extremes of effort within the context of a familiar set of actions – say for instance in terms of use of vocal qualities associated with a particular extreme emotions – that, despite not being used often in our daily routines are nevertheless part of the shared repertoire of human embodied experience, and capable of being accessed by the audience's own mirror neuron system. If a performer sobs, the audience recognizes that embodied experience. If a performer screams to exhaustion, the audience will both recognise screaming, and exhaustion. Because the mirror neuron system recognises familiar actions, it is important to me that what the performer offers the audience is never choreography, or a set of learnt actions, like a dancer or a theatre actor might do.

It is important in my notion of vigilance that the experience offered is never seen to be *fake,* that no *pretence* if observable, because it risks dismantling the deep connection offered by the mirror neuron system, and replace it with the universally shared experience of *faking* and *pretending.* I revisit this problem several times in the construction of my scores and in rehearsals. Part of the training that I am proposing appropriates the notion of non-acting, of not-pretending – and in that sense away from traditional character-driven theatrical training practices and towards the training practices of post-modern theatre practitioners such as Grotowsky, Barba, Boal, Pochinko and Zappora, and performance artists such as Marina Abramovic or Neville Gabie. Extreme physical displays and any connected emotional meanings are welcome in many of the scores, but they must be *truly* extreme: don't pretend to be tired: be tired; don't pretend to be tense: be tense; don't pretend to be aroused: be aroused. For this reason, I tend to opt for a language that focuses on what can be perceived, rather than what can be imagined or visualised.

What meaning a spectator makes from a performer's actions is in great part out of the performer's control, and so it should be – or performing would be nothing more than emotional imposition, some sort of 'intravenous mood' dispensation. That is not the artistic objective of this work. The spectator of the performance operates their own personal transformation – or none at all! – through their own mirror neuron system, and from their own experiences, memories, desires and patterns of behaviour. The role of the performer in this work is to offer a carnal model of full physical, emotional and human engagement and involvement with their environment, which the audience may be free to accept or reject.

2.4.3.6. Some examples of composers and performers where choreographies obstruct embodied presence, and where openness/improvisation facilitate it

Strategies to highlight the role of the body, of gesture and of imagery abound in the music literature. I have mentioned a variety of composers, and performers throughout this text. Not all attempts to make conscious use of the body and gestural imagery fulfil the requirements of my definition of vigilant practice. Some examples of scores that make use of gestural notation include many of Stockhausen's theatre pieces and operas, Mauricio Kagel's instrumental theatre scores, e.g. *Pas de Cinq* (1965), Christopher Fox's *Patrol* (1999-2001), and Sara Carvalho's *Imaginary Bars* (Carvalho, 2017).

Similarly, a variety of scores make use of gestural imagery without notating movements, but by requesting or provoking gestural *actions*. According to McNeil (2005), Davidson (2012), Godøy (2010), gestures, unlike movements, have an intention. From there, we find imagery, and from imagery we find meaning. Some examples are Jürg Frei *Un champ de tendresse parsemé d'adieux,* Atau Tanaka's sound-body interfaces, Yoko Ono's text scores in *Grapefruit*, John Cage's *Songbooks*, David Pocknee's *Parameters VII* (2012) for four dancers or *Cipher for the Lighthouse Twins* for two readers (2016). Though these scores by no means guarantee an adherence to the principles of non-normative cognitive states, embodied multi-modal imagery, and inter-personal communication I have presented in my definition of vigilant musical practice – that responsibility always lies with the performer – these scores nevertheless allow the open space necessary for a vigilant practice to flourish.

2.4.4. Summary of Section 2.4

In this section I have presented my definition of vigilant musical practice and the skills that scaffold vigilant practice. I have presented arguments towards favouring

improvisation over choreographed actions in the light of my definition, with examples of composers and practitioners.

In the next chapter I will discuss practical applications of my theoretical definition of vigilant practice in my compositions and performances. I will propose tools that may promote vigilance in performance. Using those tools, I will suggest a sequence of learning activities for vigilant practice, underpinned by educational and pedagogic theories, in the form of my workbook *Games for Musicians and Non-Musicians*.

Part 3 — Solving the problem: Theory in practice

Introduction

In Part 1 I have identified a problem surrounding the craft of composing (notating) music: how can the composer, through the score, promote a meaningful and transformative performance experience, given that so much more than the sounds of music are involved? My inquiry at this stage is to look into the issue of notational reliability: how can I guarantee that my scores reliably provoke valid performances?

In Part 2 I have made an inquiry into performance validity. Through cross referencing the literature with my own performance practice, and various performance practice trainings I undertook, I have identified three interconnected aspects in the act of performing (cognitive states, imagery and communication), which I have denominated as *skills,* and derived a set of tools that I consider necessary for performers to present in order to bridge communicatively meaningfully and transformatively (*vigilantly*) towards their audiences.

In this Chapter I will explain my proposal for developing compositional and performative tools for musicians and non-musicians interested in exploring embodied modes of performance and music improvisation. I will start by listing the outcomes of this research project so that I can refer back to them as I expose my arguments for a practical implementation of the theoretical framework I have constructed in Chapter 2. The outcomes include not only my portfolio of compositions, but also several rehearsal processes, public performances and personal development training periods.

I am concerned with the need to consider the process of music making as fundamentally a learning process, and the importance of the pedagogic role of music practice, especially in groups, and also of the pedagogic aspect of writing scores. For that reason, I will propose a set of practical tools to promote and develop the skills identified in Chapter 2, supported by several pedagogic theories and other current training practices. Those tools form the foundations for *Games for Musicians and Non-Musicians,* a sequential workbook of pieces/games that forms the central part of my composition portfolio.

I will explain my choices and strategies for notating the scores in my portfolio. I will describe how my notational choices serve my artistic inclinations and the training and pedagogic aims of this research.

I will report on the practical implementations of the skills presented in part 2, in the form of public performances and rehearsal processes of a selection of pieces from my portfolio.

3.1. Research Output and Outcomes / Summary of practice

Before I present a summary of the practice developed during this research I would like to make a distinction between output and outcomes. By output I am referring to the scores I produced and form the composition portfolio, but also performances and

rehearsal periods. The outcomes are less tangible and can be summarised as particularly important and transformative moments in my personal practice as composer and performer.

3.1.1 Output

Though the portfolio of compositions may be the most palpable output, it would not have been possible to write the pieces I am presenting without a sustained effort to test and experiment ideas in several periods of work in the rehearsal studio and in public performances. See the Catalogue of Pieces for a list of pieces, rehearsal periods and performances.

The research methodology I adopted was one of research-informed practice and simultaneously of practice-informed research. Intense periods of theoretical reading around a particular subject, such as music and gesture, or the nature of consciousness and the sense of self, as well as attending workshops and training sessions, may have found a particular resonance in performance practice that led to the writing of a particular text score. Once tested in rehearsal with other musicians the ideas in that score may have evolved to such an extent that the initial score was lost in transformations, or may have led in turn to a period of study in another subject, previously irrelevant, such as entropy and thermodynamics, speech and gesture, or the universality of facial expressions. My research notebooks contain written recollections of events and video evidence of rehearsals and concerts with multiple connections to a variety of subject matters, some now utterly central to the research (such as speech, music and gesture, while other topics lost their centrality yet remain important in carving the space for my research (such as thermodynamics and entropy, which no longer forms part of the theoretical underpinnings of this research, yet is still very present in some of my scores that deal with group improvisations and sound masses). I am presenting video documentation of rehearsals and performance as both the output and the outcome of the research, not all relating to the pieces in my compositional portfolio, but relevant none the less to the performative aspect of the research. Equally important in the development of this research were periods of self-development and training with theatre and music practitioners whose work I considered to hold important clues to answering my research questions.

3.1.2. Personal development: training attended

During this research I considered it important to experience personally some of the performance traditions that I had identified as being of particular relevance to my artistic aims. I attended Sue Morrison's course in Pochinko's Clown Through Mask, several Estill voice training seminars, 'La Voix Humaine' weeklong workshop at Roy Hart Centre at Malerargues and Guy Dartnell's Voice (e)motion course, Butoh dance with Natsuko Kono; capoeira, ashtanga yoga; mindfulness training (ongoing). Later in this chapter I will explain ways in which these training events influenced the research.

3.1.3. Intrinsic outcomes: transformation of performance practice

One of the aims of this research project was to transform my own personal performance practice.

I will offer an example of performances that I considered to be transformative – not necessarily a valid performance, but moments when a new awareness was reached.

***Backyard Boogaloo* launch event**

In the autumn of 2015 Nick Buckle and Graeme Owen (*Thee Ones*) invited a series of musicians to choose one song from their new album *Backyard Boogaloo* and perform it at the launch event at the Goods Shed in Stroud, England. I was privileged to have been asked to take part in this event. Complete freedom was given to each musicians to adapt the original song how ever they wished. I chose *I'm a Man*, which I sang accompanying myself on a Roland RX-800 using a glassy electric piano/Fender Rhodes register. In preparation for the concert I made profound changes to the song: I slowed it down, substantially altered the lyrics, and changed the mode (from major to lydian). A video recording of my performance at the event is included in the video documentation databank, with a commentary in the Catalogue.

As is expected in this type of event the audience was noisy, ordering drinks at the bar, freely conversing with friends, even during each band performance. But as I started singing my song the audience went absolutely silent and still. I watched the videos of the performance many times trying to understand what had caused this extraordinarily welcoming response, which I consider in line with the aims of my research.

My hypothesis is that two actions are possibly responsible for the audience's reaction: one was my gazing at the whole audience before I started the song, the second was the embodied imagery I created, in particular my raised shoulders, held in tension, and the slightly unbalanced position which accompanied the suspended long first chords that introduce the Lydian mode. My gaze drew the audience to my field of engagement, and the embodied image of a held, tense and unresolved music/body-gesture, maintained their attention. An added sense of fragility was also offered by the glassy timbre of the electric piano. I feel that perhaps there was an image of impending failure, akin to the tension of a funambulist's act or another dangerous moment, which held the audience quietly with me and the music to the end of the song. Elsewhere in this thesis I make reference to the importance of failure in my aesthetic vision – this was certainly a performance that explored the possibility of failure as a communicative and transformative tool.

Blancmange

Figure 3 – Performing with Blancmange: the gaze and embodied imagery promote communication with my audience

I have performed with the band Blancmange since 2011, initially as a VJ but soon after as a keyboard player and singer. Over the years of this research I have noted a change in the way I perform, in particular the way I engage physically when I play, and an increased engagement with the audience through eye contact and being prepared to respond gesturaly to the audience. My work with Blancmage has been useful as a testing ground for aspects of this research. I have tried and experimented with the variants of vigilant practice in the many years of performing similar songs for similar audiences. Blancmange has been my own *journal piece*, as I propose in the introduction to *Games for Musicians and Non-Musicians*. This photograph of a Blancmange live performance was taken in Glasgow in 2019 (©Neil Arthur) and offers an example of using the gaze as communicative medium with the audience.

3.1.4. Composition portfolio

The main work in my portfolio of compositions is a collection of 64 text scores/games entitled *Games for Musicians and Non-Musicians (GMNM).* This work is structured as a sequential workbook, addressing the development of the skills I identified in Chapter 2 using tools I will present later on in this chapter.

The workbook of compositions was created over the period of the research, as both practice-research and research-practice, where a series of public events were used both to test acquired concepts and practices, and simultaneously helped generate new concepts and compositions that were later incorporated into the workbook. Besides being a collection of pieces, *Games for Musicians and Non-Musicians* is also a *pedagogic* tool – pedagogy here being considered as any tool that promotes a change, or transformation in someone's own practice (Berkowitz, 2010; Coburn and Morrison, 2013; Damásio, 2000; Dewey, 1938; Matthews, 2011; Spatz, 2015; Wheeler, 2015)– a sequential workbook of text scores that guides a group of performers through what I identified in the literature and in my own personal performative practice as the most important skills likely to approximate us to a practice of vigilant music improvisation, and that I have presented in Chapter 2. Though on the surface its aim may appear to be process-based – to operate a series of personal transformations through work shopping pieces and musical games–the workbook engages the group in music-making as a product-creation activity, that is to say, the group makes performances that can be presented to a (sometimes inconspicuous) audience. The final draft of the workbook was tested as a pedagogic sequence over various periods of intense rehearsals with several groups of performers, prior to its present format being finalised. The workbook proposes and promotes ways of approaching live performance that can be transferred to the performance of the other pieces in my portfolio. As such, all other pieces in the portfolio benefit from a preliminary period of rehearsals playing through some (if not all) of the games in *Games for Musicians and Non-Musicians*.

In addition to *Games for musicians and Non-Musicians*, my portfolio of compositions offers other pieces that inform this research (see Catalogue).

3.1.5. Skills-development sequences and skills-development tools

The three skills I have identified in Chapter 2 – non-normative cognitive states, imagery through effort, and dynamic interpersonal communication – have been subject to a careful study and a preliminary sequential developmental process for each skill has been designed. For each skills-learning sequence, I have created a set of developmental tools, and practical activities that support and promote each skill. The scores in *Games for Musicians and Non-Musicians* are a materialisation of those tools. I believe they offer a reliable way of developing vigilant performance skills. Future work is necessary to allow a quantitative study of my claim of notational reliability. At present, my claim can only be substantiated by the subjective impressions and feedback from performers and audience that have engaged with my scores in rehearsals and in performances.

I can compare the relationship between skill, skill development tool, skill development activity and score to the art of cabinet making. If I wish to learn how to make cabinets (the skill), I first need to gather the necessary tools: hammers, saws, wood, nails, and also the knowledge of how to use them (the developmental tools). Then I need to act upon my tools in order to shape the wood into a cabinet. I need to

measure, cut, hammer, glue, paint – these are the developmental activities. The detail of each activity is given by a blue-print for a specific cabinet design, a set of technical instructions that guide with more or less precision how each drawer should be joined, how each door should be decorated (the scores).

The table below explains the relationship between skill, skill development tools, skill development activity, and the corresponding text scores in *Games for Musicians and Non-Musicians* that implement developmental activities.

Table 6 – Skills, non-normative states, tool, activities and scores

Skills	**Non-normative states**	**Skill Development Tools**	**Sequential Skill Development Activities**	**Scores in *Games for Musicians and Non-Musicians***
Cognition [IN] (System 1 or system 2 are chosen as performer sees appropriate at each moment)	System 2 (meta-cognitive states)	Awareness of self, of own thoughts and of decision-making processes	Meta-cognition and mindfulness	1, 3, 4, 29, 37, 43, 55
	System 1 (mindlessness, flow, intuitive responses)	Quick and intuitive reactions	Mirroring/synchronicity – fast decision making	3, 10, 11, 12, 14, 16, 18, (20), 34, 35, 38, 39, 40, 41, 42, 53
			Story-telling, stream of consciousness	14,15
	Audiation	Internal listening: recall and predict sound	Internal listening	7, 28, 29, 44, 47, 59
			Improvising sound	4, 5, 6, 7, 8, 9, 10, 11, 12, 16, 17, 19, 23, 25, 26, 31, 34, 37, 44
Embodied Multi-modal imagery (OUT – the focus of the work is on outwards action)	Non-normative effort	Effort scales	Developing individual effort scales	24, 25, 26, 29, 31, 32, 49, 57, 58
	Meaningful gesture	Full body engagement, embodied imagery	Gesture and the meaningful body	5, 6, 15, 17, 18, 20, 22, 24, 25, 26, 27, 30, 32, 33, 50, 51
			Body/sound gesturing	7, 8, 9, 13, 14, 16, 22, 28, 29, 30, 31, 36, 37, 38, 39, 40, 41, 42, 44, 51
			Mirroring/synchronicity	7, 13, 14, 15, 16, 17, 18, 30, 33, 36, 38,

			– embodied attuning	39, 40. 41, 42, 45, 48, 49, 51, 52
			Voice qualities and the meaningful voice	6, 8, 9, 12, 22, 33, 53
			Body scores	7, 8, 13, 15, 16, 17, 18, 33, 36, 38, 39, 40, 41, 42
Inter-Personal Communication (IN/OUT – the focus is on relations and meanings)	See. Be seen. React.	Initiate and respond to a communicative situation	The gaze	2, 3, 5, 13, 16, 27, 53, 55, 57, 60
			Synchronicity – empathy	3, 10, 11, 12, 13, 14, 15, (16), (17), 18, 20, 21, 30, 34, 35, 36, 38, 46, 48, 50, 51, 52, 53, 55, 59
			Improvising sound in groups	5, 7, 10, 11, 12, 13, 18, 19, 20, 21, 22, 23, 30, 32, 34, 35, 36, 38, 39, 40, 41, 42, 45, 46, 47, 48, 49, 50, 51, 52, 53, 55, 56, 58, 59, 61, 62, 63, 64
			Spoken scores	15, 18, 25, 26, 33, 37, 50, 51
			Story telling	14, 15, 18, 45, 46, 47, 48, 49, 50 52, 63
			Group devising and long forms	51, 55, 56, 59, 61, 62, 63, 64

I explored the notion of communicative performance validity in chapters 1 and 2, and concluded by proposing a framework for *vigilant* performance practice. I will now explain the pedagogic underpinnings and models that led to the construction of skill-learning sequences, and to my choices of compositional and scoring strategies and activity design.

3.2. Pedagogic models

Cognitivist and constructivist pedagogic theorists, such as Dewey, Piaget, Gagné, Vigotsky, Bruner, focus on how mental structures, or schemas, which have evolved and developed in response to environmental stimuli and are mediated by personal experiences are at the foundation of learning processes, be it skill acquisition or the development of conceptual thinking (Wheeler, 2015). Mental schemas can operate motor, emotional, social, logical structures. Learning is seen as a change operated in such mental schemas. The relationship between environment, experience, and past experience is at the centre of the learning process. Learning happens best when the learner is actively involved in the matter to be learnt. Experiential learning, problem-based learning and inquiry-based learning are key pedagogic concepts in the work of cognitive and post-cognitive writers (Wheeler, 2015).

Russel describes Dewey's approach to knowledge as one that "does not aim at judgements that shall be absolutely 'true', or condemn their contradictories as absolutely 'false'. In his opinion there is a process called 'inquiry', which is one form of mutual adjustment between an organism and its environment" (Russell, 1995, p. 777). Dewey's definition of knowledge as inquiry is particularly relevant to the final format of my scores. The scores, with their strict rules, but yet without proposing a final product, make a proposal for personal and group discovery, an inquiry, whose product and consequences are yet to be discovered.

For Merleau-Ponty, cognitivist pedagogic theories fall short of explaining the learning process satisfactorily. His critique of the cognitivist approach is centred around the precept that the learner improves through experience and practice "by abstracting and interiorizing more and more sophisticated rules" (Dreyfus, in Carman and Hansen, 2005, p. 129).

Merleau-Ponty's view of the cognitive approach is that it does not

> explain how the organism could possibly use features of the current situation to determine which rule or concept should be applied. There are just too many features, so the selection of the relevant features requires that one has already subsumed the situation under the relevant concept" (Dreyfus, in Carman and Hansen, 2005, p. 129)

In opposition to behaviourist and gestalt theories, Merleau-Ponty's phenomenological view guides us to an understanding of learning processes where one cannot learn new rules simply by repeating old rules. How the acquisition of new features, skills and concepts takes place poses a problem if we are talking about how to transform the way we undertake a set of complex performative tasks, musical or otherwise. Merleau-Ponty's critique of the behaviourist approach that developing one skill will lead to the acquisition of a new skill is particularly problematic in music education. This problem is a *Peter's Paradox* of pedagogy.

I observe this repeatedly in the context of western art music, when technically proficient musicians fail to develop other fundamental musical skills (for instance competent sight reading skills, stylistic improvisational skills, or inter-personal

communicative skills in performance) because skills are developed independently and not holistically and sequentially. Returning to the sight-reading example, it is expected that the teaching of technical proficiency alone (rather than the training of audiation skills and embodied practice) will eventually develop those other skills, which is not consistently the case. Even in countries (such as the United Kingdom) where a strong emphasis is placed on developing sight reading skills in the curricula of major music exam boards, it is not evident that it produces musicians that are versed and comfortable and competent in other musicianship skills, such as improvisation or gesturally expressive performance.

According to Mishra (2014), clear progress in sight-reading skills is mainly observed in sound before symbol methodologies, such as Kodaly and Gordon's Music Learning Theory, where several musicianship skills can be taught sequentially and holistically. The experiential, sequential and skills driven curriculum. Other national music education plans place more or less attention on developing musical comprehension skills over execution skills (Mishra, 2014).

According to Gordon, the learner can only initiate this high level of inferential self-learning after a long and sustained period of learning by rote, through imitation and differentiation.

The design of a training tool must take into account specific practicalities surrounding the acquisition of several skills: communicative skills, musical skills, improvisational skills and body-voice skills which can be accessed in the context of a vigilant performance. Each new skill, once identified, needs to be introduced through the design of a learning sequence that can facilitate a transformative progression from an initial state of complete unawareness of such a skill to subsequent stages of awareness (i.e., differentiation), control (repetition), mastery (improvisation) and only then be able to operate further inferential and independent learning of other skills levels (Gordon, 2007).

For Merleau-Ponty, experience – the embodied physical experience of being-in-the-world – is at the very core of the complex edifice of shared and shareable knowledge. McNeill points in a similar direction when he describes learning as a "relationship of a point to a background" (McNeill, 2005, p. 107): the shared knowledge forms the background, and as further afield we look into that shared background, the more we notice that it is the body, and the embodied universal meanings it carries, that provide the most basic foundations and sustenance for all subsequent learning. For Merleau-Ponty, transmitting and acquiring knowledge requires the foundation of a shared experience.

Zen Buddhist epistemology refuses the notion of *knower* in opposition to *known* object. Zen epistemology sets out to define the process of learning as an instantaneous phenomenon, without transmission of learning, therefore without learning or teaching, where intuition and inference define the whole epistemological process. At its most elementary, this shared experience is provided by the body and its 'understanding' of its place in the world, what Merleau-Ponty calls the *intertwining*: the known object and the knowing subject are inseparable and cannot be considered in isolation. A subject observing the world and being an object in the world are inseparable, *intertwined* experiences. Matthews describes Merleau-Ponty's view with clarity: "we are neither totally detached subjects, pure eyes outside space, nor are we simply one kind of object among others" (Matthews, 1996, p. 94). This intertwining operates from within the shared experiences of the body, the most basic instinctual responses, before words, before conceptualization, before culture, history, memories, experience and expectations. The intertwining offers us a way of understanding how our understanding of each other's presence can be constructed

from the most basic cognitive responses, into shared behavioural patterns of response to the environment, – a smile, a cry of pain – which leads, in an increasing spiral of complexity, to other shared types of knowledge: a hand gesture, a tone of voice, words, mathematics, logos, values, laws. I cannot share with another person what a ripe peach tastes like, or what is the colour green, or what it feels like to be thirsty, angry or erotically aroused, unless we share a priory some experience that we may use to bridge between our own individual experiences. Saying that a peach is sweet, juicy, fragrant goes some way towards transmitting what it tastes like, if you already know the experience of juicy, sweet and fragrant (the shared knowledge), but still a long way from a convincing and reliable transmission of knowledge about the taste of a peach. I can tell you green is the result of mixing blue and yellow, but you have to know what blue and yellow are. Unless you already know what blue is, or what a peach tastes like, my attempts at sharing with you the knowledge of its flavour are always vague approximations, doomed to fail. A gap exists between the experience and the explaining and transmission of the experience that cannot be easily and completely bridged. Yet I can use shared knowledge as an approximation to discover a place where we can both find a common ground whereby some salient aspects of the experience can be communicated. Such common ground (the words of a shared language, the shared knowledge of algebraic symbols, the shared understanding of the resolution of a perfect cadence…), requires a previously agreed background upon which the point of differentiation can move, a context that both parties assume (by mutual agreement) that is equal for both: the mastery of a particular language, the sharing of algebraic representations, improvise a perfect cadence together. But, as proposed by Ekman (Ekman et al., 1972) and his work on Universals, such an agreed background is, at its most basic level, inscribed in the embodied experience and in our experience of bodies in the world, in facial expression, gestures, instinctive reactions to the environment we inhabit. This most basic shared background is not taught and it is not learnt. It can be shown, shared, demonstrated, experienced, expanded, but not fully transmitted with words or discussions.

For Merleau-Ponty, the knowledge(s) and meaning(s) that are created, transmitted, learnt, absorbed through embodied presence and communication - the words spoken, but also the tone and quality of voice, the facial expressions and physicality - are never fully (or better) understood by the word. In that sense, semantic representations of embodied knowledge are always incomplete; the complexity of the embodied presence fails to be described by the tools of philosophical and logical dissection. It relies on its own lack of '*verbality*' for its transmission and reception. In that sense, embodied communication and knowledge could be said to be, paradoxically, metaphysical, because it cannot be *verbalised* or logically systematised in order to extend the understanding of the object and its physicality in the world. Yet it can be *understood* - like jokes, koans, and oracles. Embodied knowledge, presence and communication could perhaps be described as being meta-logical: it follows a logic, but one that is not fully understood or described by Logic. The acceptance that the complexity of embodied presence lies somewhere beyond the field of verbal or symbolic representation had an important role in the way I decided to write my scores in order to represent what is not symbolically representable. In the context of this research project text score presented the most versatile format. I will return to the problem of scoring later on in this paper.

My proposal for the development of a vigilant musical practice is grounded on the notion that it is through experience that such a practice can be developed, and later perhaps even understood. For that reason, the work I am proposing is done through rehearsing pieces and performing them before an audience. The objective is that the lived and shared experiences of performing music become the vehicle for personal development, for individual transformation.

3.2.1. Pedagogic theories applied in *Games for Musicians and Non-Musicians*

Taking these pedagogic approaches, I have appropriated some of their concepts into the structure and design of my *Games for Musicians and Non-Musicians*.

3.2.1.1. Reflection

Reflection, individual and in-group, after rehearsing and performing a piece is important. In my pieces, and in particular in the Games, I call for reflective discussions to be held by a performing group after each rehearsal and after each performance, acknowledging the importance of Kolb's experiential learning cycle (1980). It is through the very individual experience of performing the pieces that the possibility of a transformation in the player's approach to performance can take place. Reflecting on such transformations, individually and in-group can help sediment positive transformations. This is the view of pragmatist thinkers, such as Dewey, to whom reflecting on the learning experience forms a central aspect of the process of inquiry. According to Moon**,** "reflection in the experiential cycle tends to concern it as a way of making sense of experience, reflection in such activities as reflection in- and on-action tends to be focused on change in the quality of the outcome - in the practice" (Moon, 2013, p. 21).

IN PRACTICE:
[REFLECTION/GROUP DISCUSSION]
The following videos offer examples of group discussions before and after rehearsing the piece:
GMNM.1; GMNM.4 [Tk2]; GMNM.8 [Tk4a]; GMNM.9 [Tk1]; GMNM.10 [Tk1].

3.2.1.2. Journal Pieces

In *Games*, I have also asked the players to use a piece of music or song they know very well – the *journal* piece – and revisit it throughout the rehearsal period. Revisiting the journal piece has the aim of creating an individual benchmark upon which the players can observe any changes, hopefully positive ones, in their personal approach to performing. Gordon proposes a process of learning by comparison: by playing the same journal piece in different days of the rehearsal period, the player is confronted with several different versions of the same piece. Comparing them and identifying the differences forms the basis for transforming one's practice. My Games offer the possibility of the players to assimilate the concept of vigilant practice by experiencing, experimenting and reflecting on each of the three skills I defined in chapter 2.

3.2.1.3. Separation of skills – examples from music education

Separation of skills is an important notion in the structuring of *Games for Musicians and Non-Musicians* as a learning tool. Though adopting an experiential and holistic approach to the design of Games, I felt it was important to allow the players to focus in turn on the individual development of each skill. Some activities and games focus on cognition more than communication, other focus more on communication than on the formation of embodied imagery, etc. Yet all three skills are revisited throughout the workbook.

Gordon's music learning theory proposes a similar learning structure, where each musical skill (rhythm skill, tonal skill, harmonic skill, timbral skill) is taught separately from each other, according to each own increasingly complex learning sequence.

3.2.1.4. Estill Voice craft: skills separation and effort scales

Estill Voice Craft training also teaches through the separation of skills. In this case each skill refers to being able to control individually each of thirteen physiological structures that affect voice production. The physiological structures connected with each of these figures are used in isolation (as much as possible, because they can interfere with each other). An individual effort scale is developed for each of the figures, from no effort to maximum effort, and the perceptual and sonic results are analysed at each effort level, thus offering the possibility of full control of each individual figure. Alter the effort level for each of these figures and the perceptual quality of the voice is also altered (Steinhauer et al., 2017). The use of individual skills in connection with individual effort scales is for me, what makes the pedagogic model of Estill Voice Craft very interesting, for two reasons:

-Effective pedagogic structure: each skill is introduced separately, and revisited circularly, in an increasingly difficult progression.

-Effort scales promote the making of mistakes, or unexpected events, leading to an ease with accepting the inevitable errors that working with improvisation brings; extreme effort levels in particular push the player beyond the zone of normative behaviour, towards a zone where expressiveness, according to Clark, is more likely: "the basic principle that expression is a departure from some norm" (Clark, E., in Rink, 2005, p.22).

Figure 2 – Effort scales and failure zones

An enjoyment of failure is a necessary part of this work. A search for the profound human beauty of *getting things wrong*, is necessary to understand my compositions. I propose the term *poetics of failure* to describe this search. I will refer back to this concept in section 3.3.11.

3.2.1.5. Sequential learning

Gordon's learning activities are based on the acquisition of small patterns (one or two bar rhythms, three pitches that form a tonal pattern, three-chord bar progressions). The learner hears and repeats or names patterns of increasing complexity. Unfamiliar patterns are added to the activities until they become familiar, thus creating an increasingly large vocabulary of patters. At this level of learning, which Gordon calls *discrimination learning*, the student is being asked to notice differences and similarities between patterns. No inferences or deductions from the part of the student regarding the nature of the patterns are expected. When the student has acquired a substantial amount of patterns, they are then asked to make their own inferences, make their own connections between familiar patterns, improvise using the recently acquired vocabulary of patterns, create their own patterns. Gordon calls this level of learning *inference learning*. There can be no inference learning until there has been discriminatory learning. Gordon also states that much of the discriminatory learning a young musician does, is done informally, by listening to lullabies, nursery rhymes, songs from their own musical culture, a type of learning

that starts in utero. Gordon makes the interesting point that in discrimination learning the student is firmly aware they are being taught, by repeating patterns and songs their teacher sings or plays. In inference learning the student is not aware they are being taught: they are simply making discoveries, or inquiring, to use Dewey's term.

Discrimination learning and inference learning are present at different stages in the workbook, with pieces that require mirroring and imitation appearing at the start of the book, and pieces that require a higher level of decision making and inference-drawing appearing at the later stages of the book. I have replaced Gordon's musical skills activities (which use only rhythmic, tonal and harmonic patterns) with cognitive, gestural/imagetic and communicative patterns, sequenced in a way as to make the unfamiliar familiar, thus increasing the player's vocabulary of patterns of cognitive skills as well as multi-modal imagery and inter-personal communication.

Table 6 relates skills, skill-learning tools and activities to the games/pieces in *Games for Musicians and Non-Musicians*.

3.2.1.6 The wider composition portfolio and the vigilance skills development sequence

As I explained in chapter one, this research project stems from a sense of frustration that the scores I was writing did not always produce the type of performance I cherished and imagined, a mismatch between performance validity and notational reliability, revealed in the discrepancy between poietic visions and aesthesic realities. I felt there was a need to re-train the performer's skills (my own skills included) from the bottom up, and the creation of *Games for Musicians and Non-Musicians* appears as a possible first stop training tool in vigilant practice. But once such a training has operated a transformation in the performers' own practice, and the notion of vigilant practice has gained root it felt to me that I could visit other musical ideas under the light of vigilance skills, and develop scores that relied on the vigilance transformations acquired previously through *GMNM*. My portfolio of compositions contains other pieces that are intended a second step in vigilant practice, after *GMNM* has been explored. As I mention in Chapter 3, a varying level of previously acquired knowledge is required to perform any score. In the remaining pieces in my portfolio, the previous learning required includes awareness and experience of vigilance and vigilance skills and, in the case of the voice pieces (*The Nine Circles*, *Four Songs for a Time of Blindness,* and *Four Songs for the Return of the Light)*, additional knowledge of the Estill Compulsory Voice Figures.

Though theoretically these pieces can be performed without any experience of *GMNM* they are in reality intended as *graduation* pieces, that is to say, they are intended for performers that have already assimilated and experienced the skills relevant to vigilant practice.
The nine voice pieces (*The Nine Circles*) in particular are aimed at performers who, in addition to having experienced the training proposed in GMNM, also hold basic training in the Estill Voice Model or equivalent. This collection of pieces makes reference to specialist Estill terminology and Estill Compulsory Voice Figures and should not be performed by performers unfamiliar with the Estill Compulsory Voice Figures. I should clarify that, as in GMNM, the performers need not be trained musicians. It may seem like a contradiction to include in my portfolio a workbook that lauds itself on its inclusivity by welcoming non-musicians, while simultaneously include pieces that require what is quite specialist (and expensive) voice training. My explanation for this apparent contradiction lies in the special role the voice plays in my notion of vigilant practice (imagery and the creation of meaning), and the need to push each performer to explore their own effort scales, out of their comfort zone, away from learnt behaviours into new vocal territories (failure zones). Some

simplified attempts at this are made in several of the pieces in GMNM that address voice skills. The nine voice pieces go further in this exploration of the voice. To use teacher's vernacular, these pieces are extension and enrichment activities, while *GMNM* is the basic activity.

3.3. Performance Training Models

I have exposed a few pedagogic theories with a generalist character upon which I have anchored my Games. I have discussed general concepts about how we learn, and more specifically about how we learn music. I will now discuss training practices in some areas of performance that I consider relevant to my aims: dance and movement, theatre, clown, martial arts and the voice. This discussion will bear relevance when I later on expose my proposal for a learning sequence and corresponding activities, for the development of vigilant practice.

3.3.1. Askeology: training for performance

Moving further from general pedagogic principles to subject specific pedagogic approaches, I would like to introduce Matthews's concept of *askeology*. Askeology is the study of training for the specific environment of performative arts. He is careful to point out that askeology is not concerned with the study of the specific technicalities of performing (saying lines, making a movement, controlling a musical instrument) but rather with the vocation for performing – the internal, personal operations necessary for a person to choose to perform. Matthews proposes "to map out the meta-disciplinary terrain of training through the identification of vocation, obedience, formation and automatisation" (2011, p. 32). The decision to engage in performative actions is sustained by a sense of obedience to the unique demands of performing, which in itself spawns a desire to do better, to improve and continue to develop and to master the performative actions required. For me, the value of askeology is to consider performance as a continuous learning process, with-in and with-out of the performance stage, a transformative learning that we can transfer to all other areas of our personal and communal journey.

3.3.2. Training gesture and movement

Spatz (Spatz, 2015; Spatz et al., 2013) makes a differentiation between *technique* and *practice* which is useful in understanding how best to construct a pedagogic framework for embodied and multi-modal performance practice. For Spatz, *technique* is a shared body of knowledge that "travels in time and in space, across cultures" (Spatz, 2015, p.41). *Practice* is time and space bound. It happens once. It is an event, an exercising of a particular technique. *Technique* is an aggregate of practices. Technique grows with repeated practices, that is, through training. Training is seen as the act of exchanging or transmitting a particular technique.

Spatz gives the example of a particular gait used by a male film star that was quickly adopted by many males in several countries. Spatz considers the transmission of a gait across time and space as constituting a learnt technique, re-enacted in practice by the audience every time they walk. Training, through practice, constructs, consolidates, and develops a technique.

3.3.3. Practice and technique

So is my work an attempt at forging a technique? Partly yes. Partly no. Yet, in my work there is an unequivocal attempt at *un-training*. If I consider the personal aims of my research, I am attempting to dismantle an inefficient performance technique, which I have identified in myself. This pursuit of an anti-technique led to the creation of new skills and developmental tools (the skills and tools of *vigilance*), by the amalgamation of other theories and techniques, some old, some recent, some

musical, some theatrical, pedagogic, which I believe may be equally helpful to other performers who may have encountered similar obstacles as me.

But is it not the case that my assumption that Western classical, jazz and pop musicians, like myself, need help improving their own practice through technique is at the very least misguided, at the very worst, arrogant? Could one argue that all scoring of events is inherently charged with a similar arrogance? Do playwrights write plays because they think actors are poor storytellers? Do storytellers tell exciting stories because audiences have uninteresting lives? Do architects design houses and cities because people cannot build their own shelters or organize their shared environment? Is scoring an attempt to *train* their target audiences? Can all scores be read as a way of proposing, through practice, developments to a technique? It is early to answer with certainty to all these pertinent questions, but at present I lean towards answering 'yes' to all of them. The joy of collaboration and a sense of communal creation can provide a good answer to all these questions, nevertheless, scores have the pernicious role of telling people what to, so they do not have to decide for themselves – the *obedience* Matthews includes in his model for askeology. Writing scores carries with it an unexpected and uncomfortable moral conundrum: I am proposing to write scores that promote the players' sense of holistic and independent agency, at a personal and social level, *because* I think they can't do it themselves. For me this is a moral and political short circuit, a logical trap which I have not yet fully resolved, beyond accepting Matthews' need for obedience in order to perform, in this case obedience to the instructions in my scores (including the instruction to disregard the score!)

In the light of Spatz's reading of *technique* and *practice*, my research is both technique and practice. As a score, proposing a specific way of approaching music improvisation in general, it is a *technique*; as events (training rehearsals and performances) it is *practice*. Much of the theoretical workings I have attempted to define in this paper so far fall in the area of *technique*, yet in each actual rehearsal and performance, where the technique is brought into action-on-stage, a process of training and practice is taking place. *Practice*, through training and performing, sediments a *technique*; *technique* defines the parameters of the *practice*. Repetition of experience through practice events builds a technique – travels in time and space (through the score, video records, oral transmission) (Spatz, 2015). The pedagogic aims of my compositional work thus find a way forward into the world, by proposing a process of experiential growth from practice to technique, or to use Dewey's terminology, the experiential continuum (Dewey, 1938, p. 28).

3.3.4. Grotowsky: a problem with technique

Grotowsky identified a practical problem surrounding the acquisition of a technique through practice. I have approached this very problem when I discussed the issue of performing pre-designed, scored or choreographed actions, as opposed to improvised actions. Mitter (2006. p.94) states about Grotowsky and his *via negativa*:

> Although technical ability provides the actors with an opportunity to be themselves, it does not compel that revelation. […] If one learns how to do, one does not reveal oneself; one only reveals the skill of doing... […] For years one works and wants to know more, to acquire more skill, but in the end one has to reject it all and not learn but unlearn, not to know how to do but how not to do.

A process of *un-training.* I find resonances here with Pochinko/Morrison Clown Through Mask training, and other clown masters working in Europe (like Lecoq and

Gaulier): the embracing of failure, of dismantling of any predictability of technical mastery; of not expecting but welcoming; of not knowing but wanting.

Zeami, the thirteenth century writer and actor, the creator and the highest exponent of Japanese Nō theatre, makes a proposal to tackle the problem of technique and practice that falls short of offering a solution to the specific context of composing and writing scores. Yet his concern with the problem is revealing in as much as it shows that he had identified the very same problem of performance validity that this research project is attempting to address. In his training manual for Nō actors, Zeami writes about the Nō actor's final stages of training, beyond the skills and the practice, referring to it as the *the flower*. He also talks of an even higher level of attainment in this unique art form, beyond *the flower*, which he calls *the wilting*. A flower is only beautiful because it will wilt, and the wilting of grasses or trees is of no interest. Only the wilting of flowers (with its promise of new fruit, seed and rebirth) is of interest to Nō actors (Zeami, 2006, p. 94). Zeami admonishes against aiming for technique and loosing sight of the flower. Unfortunately, he falls short of explaining how one can attain the flower and the wilting. He does point to a careful process of learning through observation and imitation: “carry your body in accordance with the various circumstances, and the action will come to itself. [...] this is difficult to perceive in the written materials. When the moment comes, you should learn it just by watching” (Zeami, 2006, p. 93). This statement is particularly revealing of Zeami’s awareness of the incomplete and fallible role of the score (in this case the written script), and the need to observe and learn by example in order to assimilate the stylistic constraints and liberties of Nō performance practice. Observation, learning by example and the importance of face-to-face transmission has been important in the design of the group-working model of *Games for Musicians and Non-Musicians*.

For many theatre practitioners and traditions, the ideas behind my concept of vigilant practice are not new. It is useful to observe how those practitioners and traditions engage in the training and learning process. I will focus on a few examples that have been important in arriving at my description of *valid* performances.

I would like to add to my review of relevant performers and performance techniques the work of Pochinko/Morrison Clown Through Mask, Roy Hart and The Roy Hart Theatre, Meredith Monk, Marina Abramovic’s Method, Frantic Assembly and the gaze, Butoh dance (training), Capoeira (training) observing specifically how the valid elements in each example are taught and practiced – their pedagogic strategies for each of the three vigilant skills. I have trained with some of these practitioners, and, as relevant, I will make connections to my personal training experiences and how they have influenced my research.

3.3.5. Pochinko/Morrison’s Clown Through Mask training: Bad faith’s good faith.

In the winter of 2015 I attended the Pochinko/Morrison Clown Through Mask’s course in Toronto. The training takes place over a series of daily workshops, usually taken over five or six weeks. During these workshops, the group goes through a series of exercises leading to the creation of six individual masks, each mask representing one aspect of the personality and character of the clown. Each person will find their own masks, and imbue them with personal memories, episodes, stories, traumatic events, moods and meanings from their own life. Though each clown’s mask is unique in appearance and meaning, the process of creating each mask is the same for all clowns and involve two sequential stages: *experience* and *innocence*. In *experience* clowns recall a traumatic event, relive it, its emotions, physicality, taste, sounds, and improvise freely on their own for a period of time until the essence of that moment is found, that is to say, until they can articulate verbally,

in one word or two, what that recalled experience signifies. At this stage, the player is primarily concerned with his or her own interior mental and cognitive experiences – the first skill of my vigilant model of performance. A group discussion allows each clown to pinpoint the other mood, the prevalent *experience* mood of each mask. Immediately after this discussion the whole group embraces the *innocence* stage, which is characterized by a child-like playfulness. An innocence mood is discovered and again a group discussion helps each clown find its most defining quality. The process is repeated six times, producing six masks, each with its two aspects, two moods, two ways of being and responding. The six masks are slowly brought into existence week after week, and as each mask is discovered, the clowns present them to the group in short solo performances, guided by Sue Morrison. The masks are no longer physically worn, but the mood, the way of being, the dichotomy of each mask (innocence and experience) are retained in the clowns demeanour and motivations. The up-to-now internal, cognitive process becomes exterior, multimodal and imagetic, communicative and responsive. The second and third skills in my model of vigilant performance are present here. During each clown's turn, Sue Morrison guides and prompts the new clown into opening its wings and trying a first flight. The new mask, that is, the new *mood* is presented, usually without words in the earlier stages, by the gaze and facial expression of the performer, and their relation with each person in the audience. The clown is not pretending to be another person. The clown is not a character. The clown is an enormously magnified, distilled, purified facet of the person performing, disrobed of the hindrances of *experience*, and fuelled by the most honest *innocence.* The clown presents itself as *bad faith's good faith*, using Sartre's terminology: the clown pretends, lies and fakes, but with a clear and transparent honesty.

The clown, a good example of a vigilant performer, draws to my mind Max Weber's concept of the Ideal-Type. Max Weber introduced this term as a means of testing possibilities that though abstract at the onset may reveal in the end valuable data (Maher and Groves, 2004). I am pursuing in this research an ideal-type performance, an ideal-type relationship between the performer and the audience. Understanding what such an ideal-type relationship may be, and how to use scores in order to facilitate (train) the ideal-type performer to create and develop such ideal-type relationship is an abstract operation. Yet, the actual creation of vigilant performance situations, of vigilant relationships between performers and audiences is no longer an ideal-type situation but a unique, non-ideal, real and unpredictable situation, where the ideal-types are no longer applicable, or desirable for that matter. In this sense, there is an inevitable chasm between the conception of a training program, be it a single score or a sequence of scores, and a performance somehow based - or triggered- by such a score. What the score works with – the ideal type – is not what the performance situation works with. What connects the two is an attempt at the ideal-type, a training impetus towards a dynamic, and indeterminable model. The ideal-type score and the real-type event are doomed to be misaligned, never to exactly superimpose upon each other. In this game, fallibility is a rule, not an option, not an error. *Personas* are ideal-types, while persons are real-types. Like in clowning, I am working with persons, not personas. My ideal-type performance is based on real-type relationships.

3.3.5.1. Clown-through-mask: teacher/ facilitator role and Spoken Scores activity.

Yet, during training, the clown very often simply crashes to the ground with a disjointed, contrived, acted out, *bad faith*, performance, and is brutally castigated and ashamed by their failure. Though I disapprove of the honest cruelty thrust upon a failing clown, I can not help but accept that without that honesty the clown would not find its *good-faith,* its masks, its motivations, ways of moving and of talking. I cherish a more supportive, positive, but equally honest way of helping the improvising

performer along the way. In particular I found the facilitating role of the clown master – offering suggestions for action, demanding more effort – inspiring and productive. I have retained this aspect of Clown Through Mask training strategy in my *Games for Musicians and Non-Musicians*. Several of the pieces/games ask for a member of the group to take on the role of the *facilitator* during someone else's performance. The facilitator improvises a spoken score, in which they offer suggestions and ideas for further improvisation, and to help a performer navigate through an effort scale, demanding from them more and more, or less and less effort.

3.3.6. Roy Hart theatre training: body/voice synthesis and effort levels

In 2014 I spent a period of time training with the Roy Hart Theatre, at the Centre Artistique International Roy Hart (CAIRH) in Malerargues in the south of France. Having attended several of Guy Dartnell's 'Voice/Body synthesis' workshops, who trained at CAIRH, I felt it was time to go directly to the source of this work and enrolled in the weeklong course entitled 'La Voix Humaine'.

The structure of the course involved doing daily voice/body warm-ups, focusing on a particular aspect of the voice, the body and gesture (body/voice patterns). The warm-up was followed by a carefully introduced voice/body exercise, game, or improvisation, where the newly discovered voice/body possibilities (the patterns) could be experimented with. This learning sequence – skill assimilation followed by improvisation – is in agreement with Gordon's Music Learning Theory, but engages the whole body rather than primarily the sonic self. Each exercise combines voice production with physical activity. For instance, one exercise involved miming throwing a stone up in the air, as high as possible and vocalising, with a descending pitch from a high note to a low one, the trajectory of the imaginary stone as it falls back to ground (the *pattern*). At each attempt, the physical effort levels were increased, by trying to throw the stone higher and higher. As a result of increased physical effort, loudness increased, the starting note of each glissando went higher and higher (by raising the larynx higher and higher), and the level of emotional engagement in the activity increased as well.

Reading through my notes from the course I notice that most exercises demand, or inevitably fall into, a continuous increase in physical effort, with the effort foci placed in different parts of the body, as I had encountered in the Estill Voice model. In Roy Hart Theatre's work, physical effort, voice qualities, and emotional display are profoundly interlinked, and a rich tapestry on embodied and multi-modal meaningful images (the second vigilant skill) were created quickly and convincingly, that is to say, in *good-faith*.

I have encountered the same focus of directed effort levels in Butoh dance training I undertook in November 2016 with Natsuko Kono at the Lansdown Space in Stroud, United Kingdom. Through playing with extreme effort levels, an immediate emotional display arises in each performer that is inseparable from the movements themselves: the same arm movement becomes equally a signifier for tiredness, or anger, frustration, boredom, etc. The meaning of the movement is not thrust upon the presence of the performer: it derives from it. It is therefore authentic, and not acted. Its imagery appears in *good-faith.* In its use of embodied effort scales to generate multi-modal imagery in a responsive and communicative way, Kono's Butoh training is *vigilant*.

3.3.7. Marina Abramovic method

In Chapter 1, I have referenced the Abramovic Method, as created by Marina Abramovic in the Terra Comunal intervention in São Paulo, Brazil, in 2015. I only

encountered descriptions of the Abramovic Method late into this research, and was impressed by the similarities it carries with my own proposal for training and development of a vigilant practice.

The four thirty minute exercises, performed by the audience, progress from an initial internal, introspective moment, proceeding to one of physical, corporeal and tactile engagement, followed by the sudden encounter with the other, and with it, with the self, through the gaze, and finally a moment of action, in this case group walking, where awareness of self and other, mindless (system 1) action, and active response to the presence of the other all intertwine in a *vigilant* group performance. The low levels of effort in the actions resemble, for instance, performances by the Wandelweiser group, where actions are brought to a minimum.

3.3.8. Martial Arts training - Capoeira

Capoeira training, as done by Oficina de Capoeira in the United Kingdom, is based around group learning, by rote, of a series of short movements (gestural patterns) which, when mastered, are combined into longer sequences, which are used in improvisations at the end of each training session.

From my practice in capoeira, I absorbed the way the whole group strongly support each learner, at whatever stage of learning (marked with a different coloured belt, like judo) they are at. Advanced capoeiristas play with absolute beginners; children play with older peers; older women with young boys. There is no room for competitiveness in the training process. I have reflected on the important role group creativity has in my definition of vigilant practice, in particular the inter-personal communication skill.

3.3.9. Group Learning: creating communities of inquiry

I will make a brief mention of performers, composers and therapists for whom working directly with a group of performers in their music and performances is the way in which its very style and syntax is developed. They range from groups where a clearly defined leader instructs and explains, to groups where a community of enquiry is created, with a stronger input from each of the participants. I have chosen these practitioners because their work addresses, in one more ways, positively or negatively, the concerns of this research.

3.3.9.1. The troupe as training system

I am using the word performing troupe to describe a group of people that work together for a period of time for a common performative cause. This includes pop/rock bands, theatre and dance companies, circus companies, training and workshop cohorts. Groups like the Philip Glass Ensemble, Steve Reich and Musicians, the Wandelweiser group of composers/performers, all share a commitment to developing very specific musical aesthetics, and with it performance practices that are sedimented not through the score/script but through the continuous, shared and communal experience of rehearsing and performing the music. The *troupe* is more than a performing group: it is a professional training methodology. As I have discussed previously, learning by discrimination (by rote, by comparison, by pattern acquisition, by pattern improvisation) requires a clear differentiation of roles between the person learning and the person teaching, though these roles can change swiftly and unexpectedly. Learning by observation and imitation fits well with the business and social model of a performing troupe, where many hours of contact between the players are expected.

3.3.9.1.1. Troupes with Leader/teacher

Zeami, writing about the training of a Nō actor, which took place within the family, states that *the wilting flower* (the highest point in an actor's craft) cannot be taught, directly or by the script, and it "is difficult to perceive in the written materials" (Zeami, 2006, p. 93). To acquire the flower, that actor "should learn it just by watching". Learning is once again done non-verbally, experientially, in a very personal way. The idea of personal learning and transformation through a communal experience sits at core of my artistic concerns. In the introduction to *Games for Musicians and Non-Musicians* I propose ways in which the communal experience of the group can inform personal experience and individual transformation: establishing a safe rehearsal space; alternation of roles within the group (player/audience, facilitator, spoken scores), mirroring and reacting activities; group reflection after a performance or rehearsal; group devising and decision making.

Other examples of troupes with a leader include Karlheinz Stockhausen, Meredith Monk, glass, Reich, and the psychotherapeutic practices of Psychodrama (Moreno), and Playback theatre.

It is not possible to ascertain reliably the relative weight of decision-making between the leader (Reich, Glass, Stockhausen) and the players in their troupe. Does the leader define and control all aspects of the players' physical presence, or do the players have creative agency over their own presence? Is there a community of inquiry (Dewey, Peirce) in action in these troupes?

Psychodrama operates according to a leader/led relationship. Though the role of the facilitator can alternate between members of the group, the leadership role is still present. Though a Psychodrama session obeys a strict model with well defined rules, those rules are positively accepted by the group because they are "not imposed by a third person" (Dewey, 1938, p. 53).

IN PRACTICE:
[FACILITATOR/SPOKEN SCORES]
The Director appears in several of the scores, usually referred to as facilitator, or model. I suggest a description of the role of the facilitator as instigator, which is greatly based on Moreno's Director. The use of spoken scores, where action is instigated as a response to a spoken question from the facilitator also appears in the following pieces:
GMNM.15; GMNM.25; GMNM.26; GMNM.33; GMNM.37; **GMNM.50; GMNM.51; GMNM.63.**

3.3.9.1.2. Troupes without leader

There are interesting examples of groups of performers – troupes of kinds – that do not have a leadership structure.

To name but a couple, the work that Alexis Porfiriadis has developed with 6daEXIt Improvisation Ensemble, or John Zorn's *Cobra*, are examples of troupes without a leader.

3.3.9.2. Troupes: a solution for the fallibility of scores?

We have seen how some composers, in parallel to writing scores, also direct their own ensembles, training of performers directly. The presence of the composer as leader brings the advantage of filling in any blanks left in the score, acknowledging the fallibility of the score to transmit many non-musical, embodied aspects of

performance. We have seen the examples of Stockhausen, Steve Reich, Philip Glass, where the score offers action detail, and the composer/director fills what is not represented in the score (gestural presence, etc). A similar process of *embodied anchoring* can be seen at popular sing-along screenings, where the audience not only sing the songs, but move and dance like the character on screen. In this case it is the moving image that is providing the score.

3.3.10. Performance as Transformation

Each of us constructs and perpetuates our own personal mythologies. As Damásio explains, our autobiographical self is an important part of our sense of self. The lady in the pool, where I am writing, says she is “terrified of insects”. All of them? or just some?, I think to myself. The man in the café is a “man of action”; the young girl talking to my children hates her native language and loves “foreign sounding things”. This is who they recognize themselves to be and forms their own personal mythologies about themselves. Personal mythologies, like tribal ones, prepare us for action in response to external events (Damásio, 2000). They are pre-sets for reactive behaviour. Yet, it is possible to consider that at least some of such mythologies may change overtime, even be profoundly altered or abandoned all together as personal experience grows, or through trauma. The lady in the pool may one day find that she likes butterflies and lacewings, and may even find beauty in some fat spiders; the man of action may learn to take a break and let others make decisions; the young girl may realise that her native language is also a foreign language. This is what I am referring to as transformation: a shift in our personal mythologies, in our autobiographical self, in our performance of being ourselves. For me, what is important is to acknowledge the transformative power of human interaction, in particular in the context of rituals and within the focused and cognitively non-normative nature of rituals: concerts, religious rites, games, theatre and performance. This is the aim of vigilant performance practice: to facilitate and promote personal transformations.

One sees in the Abramovic Method – which is, beyond a training method, a performance on its own merit – the desire to change the very deepest and most basic of human knowledge, to offer the possibility of transformation to each and every one of the participants, a deep and slow-growing transformation into a new and unfamiliar way of being. I see here parallels with Matthews’s notion of ‘training as metabolism’ (Matthews, 2011).

For Sue Morrison, ‘performance is about ritual, and ritual is about transformation’ (Coburn and Morrison, 2013; Morrison, 2015). Transformation is a central part of the goals – and tools – of the clown. In class, Morrison talks about the clown’s search for Innocence *after* Experience, not before, ‘which is what children do’. For Morrison, Innocence is the un-socialised, childish intuitive *wisdom* of ignorance, its wide and wild emotional spectrum, but in Clown it is tempered by the experiences of embodied presence – of pain, joy, sorrow, elation. It is the articulation between the lived experience of existence, which we all share and communicate in one way or another, and the quick intuitive emotionally broad response of *innocence* that opens the doors for communal transformation.

Taking into account Herbert Blaus’ view that 'what is universal in performance is the consciousness of performance' (Matthews, 2011, p. 33), the ultimate objective of a performative act is similar to that of a religious ritual, or medical intervention: to transform the participants into new, examined (and hopefully better, if not necessarily happier) individuals and communities, a concept expressed by Boal as ‘theatre is knowledge’ (Boal, 2013, p. 20). The notion of transformation – of learning as

transformation (Dewey), of performance as ritual and transformation (Morrison) – is central to my compositional and performative project.

3.3.11. Towards a *poetics of failure*

At several points in this text I make reference to the importance of *failure* and using *failure* techniques in my pieces, both as a pedagogic tool and an aesthetic aim. Pedagogic aims: As mentioned in 3.2.1, the formulation of personal effort scales implies the exploration of personal failure zones. A player that tries to sing a note that is beyond their comfortable register is exploring their failure zone, in this case a vocal effort failure (probably larynx height and false vocal fold retraction). Though she may have failed to sing the note, she could have learnt to identify the physical effort level beyond which she can no longer sing comfortably. She would have also learnt what an uncomfortably high note sounds like, and may choose to appropriate that sound in future improvisations. A failure quickly becomes a learning opportunity, often in a more profound and engrained way than a successful performance can offer. C. Dueck's work on fixed and dynamic mind sets further informs the importance of embracing failure as a learning opportunity.

Aesthetic aims: Beyond being simply a pedagogic tool, failure presents itself as opportunity for deep personal change. Wabi-sabi, the Japanese concept of beauty in imperfection flourished in Japan since the 15th century. Objects are admired for their imperfect uniqueness. Imperfect pottery cups and woven cloth, calligraphy, cuisine are often cited when discussing wabi-sabi (Juniper, 2003; Koren, 2015, 1994; Larson, 2019):

> *Wabi-sabi is a cracked and glued together ceramic bowl (check the concept of kintsugi); a funnily shaped, home-grown tomato; a dinner created from leftovers; falling cherry blossom; a worn wooden hallway and an elbow patch on your favourite jumper. Therefore, it's an appreciation of all that is simple, modest and imperfect. Yet, loved deeply. When you embrace Wabi-sabi, you realise that nothing is permanent— even fixed objects are subject to change and taint. A great example of Wabi-sabi in creativity is the art of kintsugi, where cracked pottery is filled with gold-dusted lacquer as a way to showcase the beauty of its age and damage rather than hiding it. This art highlights and praises the faults instead of hiding them.* (Larson, 2019)

In the area of performance arts, I have felt immediately attracted to Pochinko/Moprrisons clowns' performances. The feeling of impending failure and the possibility of serious humiliation in a clown performance is an important part of the genre; that is facilitated by the clown's openness to failure, by allowing herself to *face all directions of the self* at the same time: joy, shame, guilt, lust, greed, sadness, etc., and also failure.

The complexity of the physiological actions and reactions in an emotional response involve an enormous amount of muscular movements, most not conscious, but all meaningful. These movements are immediately detected, if not consciously, by an observer (Paul Ekman's Universals point to a genetic ability to read meaning into those external signs). In my compositions, such a complexity points away from any

attempt to notate some of such physiological reactions into a choreography, or towards acting out. All bar the utmost accomplished actors will be able to trigger all the external signs of an emotional state. I, for one, cannot, and as a composer I cannot expect other players to do what I cannot. Authenticity and honesty become crucial words. Good-faith and bad-faith once again enact their eternal struggle for dominance (Sartre, 2006). For this reason – honesty of emotional presence – I shy away from notating strict choreographies or acting out emotional instructions. What I find interesting is to observe in a performer and be part of myself is the unpredictable flow of emotions, clearly unscripted, obviously not-planned, dangerously fallible. I have a personal enamourment with the possibility of failure; with the honesty and *good-faith* that it brings to the fore; with the empathy that it can trigger in others through shared experience and shared humanity; with the opportunity for learning and transformation that it offers. But failure also presents us with the drama of the possibility of overcoming failure, with hope, with progress, transformation (personal, social, political). This enamourment frames my aesthetic choices. I could perhaps propose that the enjoyment of observing and enduring failure, its beauty and profound lessons forms the basis of a poetics of failure. I believe the scores in my portfolio reliably support this objective.

3.4. Training Vigilance Skills

Building on the models of performance training I studied during this research I have developed a training and learning strategy for developing the three skills of vigilant practice. My aim is to offer the performer, through experiential learning, personal tools that can establish a broad physical, emotional and communicative spectrum, through, amongst other things, the construction of extreme effort scales, which in turn allows the construction of a vocabulary of physical end emotional engagement upon which the performer can define a field of individual emotional and communicative freedom – Blanchot's "being in accord with the truth of place".

I will now describe in context my proposal for a training process to develop the three vigilance skills. I will propose a set of possible training tools and developmental activities for each skill, and will point to pieces in *Games for Musicians and Non-Musicians* where they were implemented.

3.4.1. Skills, skills-development tools, skills-development activities and scores: a differentiation

At this stage I'd like to clarify the difference between *vigilance skills*, *skill development tools*, and *skill development activities.* Table 6 in 3.1.5 maps vigilance skills to skill development tools, and to skill development activities.

> ***Vigilance skills***: the three interconnected aspects I have identified as offering performance validity: non-normative cognitive [IN] states that promote multi-modal embodied imagery [OUT], supported by inter-personal Communication [IN/OUT].
>
> ***Skill development tools***: the tools I designed in order to progressively promote the development of each of the three skills. Some examples of skills-development tools are: awareness of self, effort scales, to initiate and respond to a communicative situation
>
> ***Skill development activities***: generic activities that promote through practice the sedimentation of a technique. Their aim is to help performer explore non-normative states. Examples of skill development activities are metacognition, mindlessness, audiation; effort scales and non-normative states, use of the

whole body to form meaningful gestures; to see, be seen and react communicatively.

Score/Games: a set of instructions for live performative actions, which engages the players in skill development activities, with the aim of developing the skills of vigilant practice. *Games for Musicians and Non-Musicians* is a collection of such scores.

Performance: the practical realization of a score/game. A performance is a unique event: in rehearsal, in private, in public, an invisible public performance.

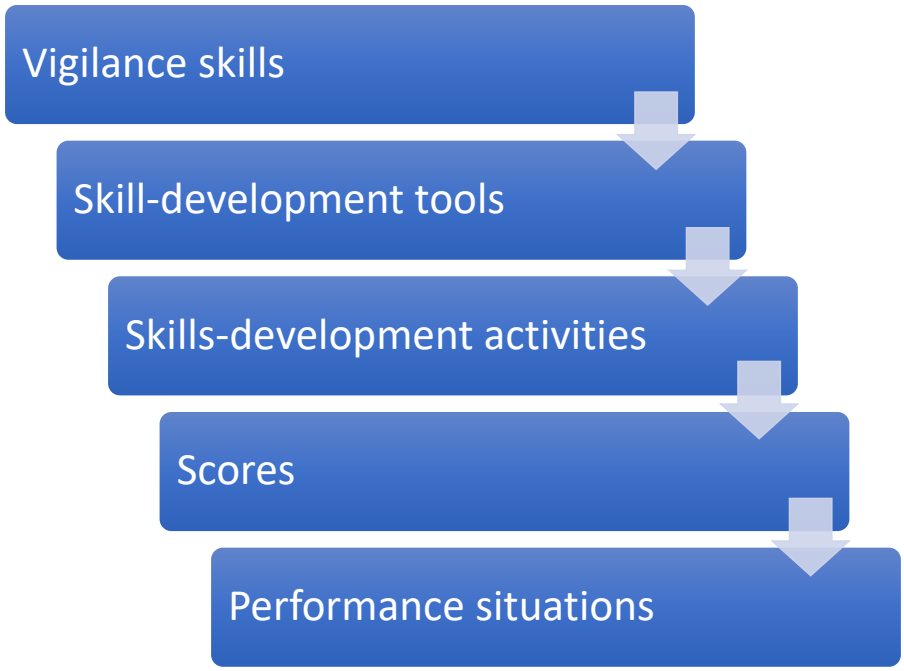


Figure 3 – The relationship between vigilance skill, tools, activities, scores and performances

3.4.2. Normative states for each skill

I will briefly re-expose my concept of normative and non-normative states, which I have made reference to when I discussed the importance of creating personal effort scales for each of the three vigilance skills. The following figures describe what constitutes normative (blue) and non-normative (green) states for each skill. Each individual performer subjectively establishes the effort level necessary to attain non-normative states.

[IN] – Non-normative cognition (Drinko, 2013; Hussain, 2015):

Figure 4 – Vigilant non-normative cognitive states

[OUT] – Multi-modal and embodied imagery (Gritten and King, 2011; McPherson, Gary and Parncutt, 2002; Spatz, 2015):

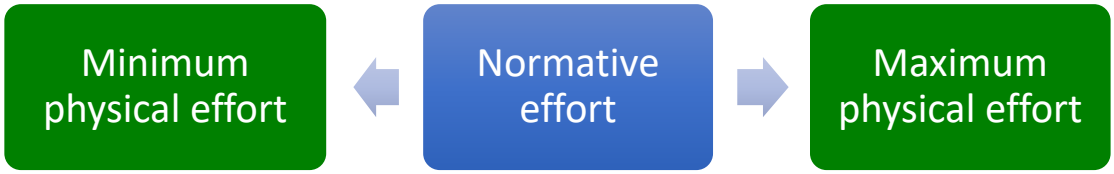


Figure 5 – Vigilant effort scales

[IN-OUT] – Inter-personal communication (Hargie, 2017, 2006; Hewes, 2012; Sawyer, 2015):

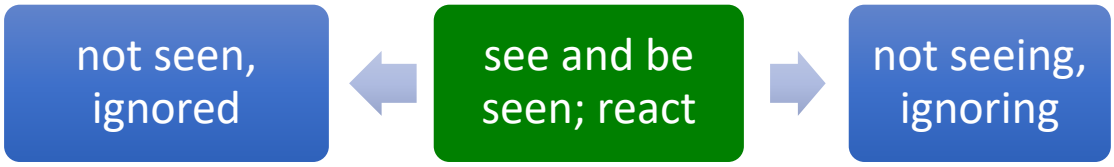


Figure 6 – Vigilant inter-personal communication

3.4.3. Vigilance skills and skill-development activities (in portfolio of compositions)

The *tools* presently identified as most relevant for the research topic and capable of sustaining non-normative states are presented in Tables 7, 8 and 9, and connected to proposed sequential developmental activities.

I propose these tools as developmental aids for the three skills of vigilant practice. Miss one of them, and the depth of vigilance lessens. The tools are used in the pieces of the workbook and ordered in a training sequence.

Each skill is considered separately and independently developed throughout the workbook (part) but explored in combination with other skills in a variety of pieces and games (whole). The first skill to be addressed is cognition, followed by imagery and later on communication. The division between the three skills is not watertight and a process of iteration happens where skills and tools are revisited throughout the sequence. The list of pieces at the end of *Games for Musicians and Non-Musicians* offers a quick visual map of the sequential progression through the three skills, in the order I mentioned above. A critical commentary explaining the practical outcomes of each skills learning sequence is presented below.

3.4.3.1. Non-normative cognition [IN]: tools, activities, scores and learning sequence

The learning sequence and tools for training cognitive states is, at the time of writing:

Table 7 – Cognitive skills, tools and activities [IN]

Non-normative cognitive states	Skill development tools	Sequential skill development activities
System 1	Awareness of self, of own thoughts and of decision making processes	Meta-cognition, mindfulness
System 2	Quick and intuitive reactions	Quick reaction by mirroring/synchronicity, speech as stream of consciousness
Audiation	Mental listening: recall and predict sound events	Improvising sound Copy/echo/mirror/diverge music

3.4.3.1.1. 'Awareness of self' and 'quick reactions': Skills development tool for cognitive states

As I discussed in chapter 2 metacognitive processes, when equated with Sartre's *being-in-itself*, in its fight with *being-for-itself*, can have the negative effect in improvisations of halting action and quick reaction (Drinko, 2013) and the quick formation of a genuine pallet of communicative imagery. The self-consciousness of *being-for-itself* hinders the player's quick reaction and intuitive agency. According to Drinko, embodied improvisation aims to promote *being-in-self* (flow, System 1, Self A), and minimise *being-for-itself* (metacognition, System 1, Self B).

In performance, inward reflective focus risks hindering through judgement and signification the constant flux of emotional states. The distinction that Sartre makes between consciousness and reflective behaviour is useful in clarifying this issue. Sartre frames the difference between mindful and mindless action in the following way:

> In order to act it is not necessary to be conscious of the self as acting – quite the contrary. Unreflective behaviour is not unconscious behaviour. (Sartre, 1948, p. 56)

Sartre heightens the value of outwards action without inwards reflection. The balance between inwards reflection and outwards imagery can be achieved in unreflective behaviour, where the inner eye is still seeing, but the outer body is moving in the world regardless. This figure of unreflective behaviour, all IN and all OUT at the same time is very present in Pochinko/Morrison's Clown Through Mask training, in the daze of pop music performance, and in shamanic practices, sports events, crowd behaviour. Vigilant cognition is a heightened awareness of performance- all inwards and all outwards.

Being conscious is not the same as reflecting on our behaviour, even in real-time. The outwards action I am describing relies on being conscious of our environment and how we can interact with it safely. The inward focus that seems to hinder spontaneous improvisation activity (Drinko, 2013) is one where reflection takes place, that is, the assignment of value and meaning to ones actions even before they are performed. Sartre's differentiation can help us stratify improvisatory actions into two categories: one in which the performer is constantly attentive to the possible meaning of the self's actions, and the other where the performer is constantly attentive to the relationship between the world around and the self's actions pre-meaning, what Nattiez calls the neutral aspect of performance. A training tool should exploit this differentiation between states of awareness: on one side the generation of relationships and responsive actions, and on the other the generation of

meanings. Drinko posits the possibility that both approaches (System 1 and System 2) interfere with each other and may be neurologically incompatible:

> System 2, Mindfulness: “know what is happening while it is happening”. See be seen- self –awareness; automatic speech (awareness of own thoughts).
>
> System 1, Mindless: “not knowing what is happening while it is happening” (Nairn, Mindfulness Association, n.d.) – tools: imitate, mirror; fast action, quick responses, short reaction times.

During rehearsals and performances related to this research, I have noticed a tendency in players (including myself) to fall back on familiar patterns of action when more deeply engaged in System 1/Flow moments. Because of the prominent role granted to intuitive and quick reactions, players are more reliant on using familiar body/sound patterns in unfamiliar sequences of patterns. In reverse, I have also noticed a tendency during moments of meta-cognition and self-awareness, when rationality and careful consideration are taken before each action, to engage in unfamiliar patterns of action, but in clearly familiar sequences. The macro-gesture seems to be more predictable, more clearly expected than the fine detail of body/sound gesturing.

I have devised pieces in *Games for Musicians and Non-Musicians* that play with the awareness of *being-for-itself*, of System 1 (e.g. GMNM.1, GMNM.43), but also included in the workbook pieces that promote *being-in-itself*, (e.g. GMNM.10, GMNM.38) to offer the contrasting context necessary for learning by comparison to take place.

3.4.3.1.2. Audiation

Some pieces pay special attention to the mental process of audiation, through sound improvisations. Some later pieces combine sound improvisation with gesturing, effort levels and synchronicity.

IN PRACTICE:
[MENTAL PROCESS - AUDIATION]
The following pieces address the mental process of audiation and space audiation:
GMNM.1; **GMNM.3**; **GMNM.4**; **GMNM.7**; **GMNM.28**; GMNM.29; GMNM.37; GMNM.43; GMNM.44; **GMNM.47**; GMNM.53; GMNM.54; GMNM.55; GMNM.57; **GMNM.63**, *Dandelions in May*.

3.4.3.2 Mirroring activities as tools for all three skills.

I will now discuss in detail the tools and activities I have designed for each of the three skills. But there are many situations where one tool or activity (score) may be pertinent to more than one skill. In this part of the learning process, isolated concepts or patterns are reconnected with other skills to form a holistic experience. For this reason, I need to make a preliminary reference to the mirroring/synchronicity tool, because it is a development tool that has the potential to promote all three skills simultaneously, albeit by different routes.

The Mirroring/Synchronicity toll and derived activities asks a group of players to copy one aspect of another player’s presence. This can be a musical phrase, spoken worda particular way of holding and playing an instrument, a way of standing and walking. This requires a close observation of the other player’s embodied presence and an immediate imitative response, in synchrony. In some pieces the players are

asked to do the opposite of another player, but in order to do the opposite they must still observe with care.

Mirroring/imitation tool plays a role in the development of [IN] through fast decision making, in the development of [OUT] through embodied attuning, and the development of [IN/OUT] through a process of empathy.

3.4.3.2.1. Non-normative cognition [IN]: Mirroring/imitation – fast decision making

Novel ways of moving and communicating, that is to say, non-normative ways of moving and communicating are comparatively easy to observe than novel ways of being cognizant (in either system 1 or system 2). Cognition, being an interior process is not directly visible, and therefore is not easy to imitate in others. All one can imitate are actions, gestures, meaningful intentions, not thoughts. Mirroring and miming strategies will not directly address cognitive skills. Yet research (Winkielman and Schooler, 2011) proposes that cognitive states are affected by the environment and the activity of the subject. Mindless tasks seem to facilitate the state of flow, of intuitive and immediate action of System 1, which Drinko observed in theatre and comedy improvisers.

The 'being-in-itself'/System 1 can be transferred to the embodied presence by imitation, through the break in the decision-making processes that imitation provides. Mirroring/imitation activities thus fulfil a multiple roll in all three skills.

IN PRACTICE:
[MIRRORING/IMITATION [IN] – QUICK REACTIONS]
The following pieces propose mirroring and quick-reaction activities:
GMNM.3; GMNM.10; GMNM.11; GMNM.12; **GMNM.14; GMNM.16; GMNM.18;** GMNM.34; GMNM.35; GMNM.38; GMNM.39; GMNM.40.

3.4.3.3. Embodied multimodal imagery [OUT]: tools, activities, scores and learning sequence.

I will explain how I have constructed tools and activities for the development of embodied multi-modal imagery in improvised music performance, and propose a possible learning sequence. I will make connections to my portfolio of scores and performance videos as it becomes relevant.
The learning sequence and tools for training embodied multi-modal imagery is, at the time of writing:

Table 8 – Multi-modal embodied imagery skill development tools and skill development activities [OUT]

Skill development tools	**Sequential skill development activities**
Full body engagement	Gesture and the meaningful body; body/sound gesture
	Mirroring/synchronicity- embodied attuning
	Voice qualities and the meaningful voice
	Body Scores
Effort	Effort scales

It seems to me that embodied multi-modal imagery in music performance is in fact always present, in the same way that multi-modality is inseparable from verbal and non-verbal communication. Nevertheless, through training and stylistic practice, the scope and potential of multi-modality is somehow reduced: each learnt musical style

expects a vocabulary of stylistic practices based of stylistic patterns (certain gestures, specific voice qualities, dress-codes) which are promoted in detriment of other patterns which may not be part of that performance style. I am attempting with this work to expand the vocabulary of multi-modal and embodied imagery, by the use of mirroring/synchronicity activities, body/sound gesturing, body scores, and the exploration of effort scales.

3.4.3.3.1. Body/Sound Gesture: gesture and the meaningful body

Spatz highlights that the concept of embodied technique, far from being a static body of physiological processes should be seen as "a field of variation between individuals and also within the lifetime of an individual being. This field of relative reliability and variation is what affords embodied technique an area of knowledge" (Spatz, 2015, p.43). The learning sequence I am present for the development of multi-modal imagery is grounded on the observation of the field of reliabilities and variations, similarities and differences, in embodied signification.

Davidson (Davidson, in McPherson and Welch, 2012, p. 778) shows "how technical and expressive elements become co-specified in motor programs," which are necessary to develop instrumental skills (musical or other). The programs are, to use Spatz's terminology, the physical residue of an embodied *technique*, and as such, liable to be subject to *practice*, that is to say, liable to training, to learning. Davidson opens up a door for a multi-modal pedagogical approach to music practice and education when she writes about the body in performance fulfilling the role of offering not only meaningful images but also in providing, through gesture "crucial sources of perceptual information between co-performers and between them and the audience" (Davidson, 2012, p.779). These sources of embodied communication which Davidson refers to are often attached to stylistic boundaries – different styles and traditions of music may adopt different gestural repertoires– and as such, they are learnt, sometimes in a conscious and structured manner, but often learnt intuitively, by cultural exposure, in a haphazard manner by inferences and approximations. If gestural aspects of music making are learnt, I propose they can also be taught. In fact, Davidson writes that:

> The creative teacher can help the individual or groups of students being taught to maximise their alignment and expressive potential of the music performer through the use of an engaged body. (Davidson, in McPherson and Welch, 2012, p.780)

Training for full use of the body, including the voice, and within each player's physical abilities, is the first tool in the sequence. It is not about being acrobatic or agile, but about being prepared to engage the whole body in the act of performing, including large muscle-skeletal structures, but also facial expressions and voice qualities in response to the environment, and exploring individually created effort scales, to be prepared to make one of an infinite possibility of physical and musical images. Meredith Monk, who received a Dalcroze music education, refers to the process as training sound and movement together. Physical gesture and musical gesture, as multi-modal images, are inseparable and might be better referred to as body/sound gestures and images. The body/sound image is the smallest performative unit of measurement, the performative atom.

3.4.3.3.2. Mirroring/ Synchronicity – Embodied Attuning

Augusto Boal, writing about the training of the actor, refers to the learning process as one of 'un-learning' established patterns of behaviour, "by destroying the wall of mechanisms, which is the actor's mask" (Boal, 1992, p.43). Mirroring and synchronicity activities provide an opportunity to experience unfamiliar gestural patterns. "Perception ability is influenced by the familiarity of incoming stimuli"

(Hargie, 2006, p. 52). The perceptual modalities that one is trying to develop are made increasingly familiar to the player. It is about each player observing and responding to unfamiliar stimuli enough times for them to become familiar stimuli. The reactions and responses to now familiar stimuli are not necessarily decided by the composer through a score, or choreographed in advance, but left open for the performer to decide in improvisation according to their own intuitive knowledge, and using and extending their already acquired vocabulary of gestural patterns. Gellrich and Parncutt (2014, p.178) support mirroring and imitation as a learning tool for teaching expression: "Learning through pantomime to take on any particular affect, and just as fast to drop it, or to tense up and relax at will, can enable practically every part of the body to be used to carry expression." Lecoq puts it differently: "Movement provokes emotion; the body remembers" (Murray, 2003, p. 129).

Mirroring and imitation activities ask the players to experience another body's way of moving, of being present; a novel way of moving, talking and gesturing; to contrast the other with the players' own ways of moving, talking and gesturing. Mirroring expands the players' vocabulary of imagery patterns.

3.4.3.3.3. Effort Scales: Skills-development tools and activities

The 'training' (or 'un-training') of an embodied musical practice needs to encompass not only un-familiar ways of moving, of engaging the body and the voice, but also *extreme* ways of experiencing emotional and embodied states.
The risk of this approach, where unusual and unfamiliar levels of effort, both physical and emotional or expressive effort, is of course to fall into histrionics, into *theatre characters*, into acting[4] - that is, to pretend one is who one is not, in a place or time where one is not, attempting to be who one is not – which is closely related to Sartre's project of *Bad Faith*), instead of welcoming the infinite possibilities that the condition of being present brings. I have discussed the creation and use of personal effort scales in chapter 2.2 and 2.4.

3.4.3.3.4. Voice qualities and the meaningful voice

In the article *The Voice in Violence* (Vera, 2001) Dal Vera makes the connection between extreme physical and vocal effort and demonstrations of extreme emotion: "Train the voice and the body for the demand of extreme emotion". In *Games for Musicians and Non-Musicians*, I introduce the use of voice as an aspect of whole body image making. The voice is used in improvised streams of consciousness, in developing effort scales, and finally in communicating with the audience and among the players.

IN PRACTICE:
[VOICE]
GMNM.6; **GMNM.8**; GMNM.9; **GMNM.12**; GMNM.22; GMNM.33; **GMNM.41**; GMNM.42; GMNM.53; GMNM.59; **GMNM.63.**

3.4.3.3.5. Body Scores

Some text scores ask for players to take other player's body, gestures and images as a score for their own improvisation. I call these activities *body scores*.
Body scores are situations where a musician takes their stimuli for improvisation from the body of another player: how they stand and sit, move, gestures, momentum is

[1]. In Clown Through Mask workshops, I witnessed Sue Morrison crush a failing clown by shouting at the top of her lungs: "You are acting! In clown we don't act. We don't pretend to be. We are!"

taken as score, a trigger for musical action. The body observed is the starting point for a relationship between two players, and the musical improvisation a residue of that relationship. Body scores are activities that promote both the creation of multi-modal imagery and inter-personal non-verbal communication skills. I have chosen to place body score in multi-modal activities because that is where it first appears in the overall learning sequence. As a multi-modal development activity body scores provide readiness for non-verbal inter-personal communication which appears later in the sequence. The introduction to *Games for Musicians and Non-Musicians* explains body scores in detail.

IN PRACTICE:
[BODY SCORES]
In *Games for Musicians and Non-Musicians*, the following pieces introduce and explore body scores:

GMNM. 7; **GMNM.8**; **GMNM.13**; **GMNM.15**; **GMNM.16;** GMNM.17; **GMNM.18**; GMNM.33; GMNM.36; GMNM.38; GMNM.39; GMNM.41; **GMNM.42**.

In conclusion, the five multi-modal and embodied imagery activities attempt to expand the players' vocabulary of full physical engagement, including the use of the voice, by offering performers the possibility of engaging in new gestural patterns, active body and vocal agency, and its potential in music making, and above all the exploration and application of individual effort scales.

3.4.3.4. Interpersonal communication [IN/OUT]: tools, activities, scores and learning sequence

The learning sequence and tools for training inter-personal communication skills is, at the time of writing:

Table 9 – Inter-personal communication tools and activities [IN/OUT]

See	The gaze: awareness of self and other
Be seen	
React (communicatively)	Mirroring/Synchronicity: empathy, embodied attuning; Improvised sound (in groups); Improvised spoken scores; Improvised story telling; Group devising

3.4.3.4.1. The Gaze

The gaze, (acknowledging the other's presence (and their own) by making eye-contact), is a crucial tool in the vigilant performer's toolbox by creating an immediate communicative loop between two people. Abramovic places it at the centre of her method, and of her performance practice in general, as does Pochinko /Morrison Clown Through Mask. Graham and Hogget, in 'The Frantic Assembly Book of Devised Theatre bring our attention to the fact that "Eye contact is such an important part of performance and theatre. When it happens you know you are being spoken directly. There is no confusion and that recognition is instant. Yet it can be one of the more terrifying tasks for young practitioners and students to master" (2009, p.121). I acknowledge in my own experience both as performer, director and audience the difficulty of training the gaze as a tool for vigilant practice – in my view, the most important tool. For that reason I have included in *Games for Musicians and Non-Musicians* several pieces that deal exclusively or to some extent with the gaze. The gaze offers both the player and the audience an immediate communicative signal. It

acknowledges each other's presence and prepares the player and their audience for an exchange. It is an aspect I return to time and time again.

The pieces in *Games for Musicians and Non-Musicians* that focus on the gaze appear throughout the workbook combined with other skills and activities.

IN PRACTICE:
[GAZE]
In *Games for Musicians and Non-Musicians*, the following pieces explore the gaze:

GMNM.2; **GMNM.3**; **GMNM.5**; **GMNM.13**; **GMNM.16**; **GMNM.27**; GMNM.38; GMNM.39; GMNM.40; GMNM.47; **GMNM.50**; GMNM.53; GMNM.54; GMNM.56; GMNM.57; GMNM.60.

3.4.3.4.2. Mirroring/Synchronicity: empathy

Some pieces focus on responding to each other's physical and sonic presence by mirroring or contrasting action. I have discussed the role of mirroring and synchronicity activities in *Games for Musicians and Non-Musicians* at the start of this section, but this point I would just like to clarify that, when mirroring activities are revisited in the context of developing communication, there is an added aspect of empathy and embodied attuning through the use of mirroring gestural repetition and effort scales, which I hope I have made apparent in the scores.

By practicing observing the other, and being observed, and responding with immediate action/reaction, mirroring activities ask the player to search for some level of synchronicity with the other. Inter-personal communication continuously modulates action; the players decide their actions in reaction to each other's. A dynamic communicative flow is observed in these activities.

IN PRACTICE:
[MIRRORING/SYMPATHY: EMPATHY [IN/OUT]]
In *Games for Musicians and Non-Musicians*, the following pieces explore empathy by mirroring activities:

GMNM.3; **GMNM.7**; **GMNM.10**; **GMNM.11**; GMNM.12; **GMNM.13**; **GMNM.14**; **GMNM.15**; **GMNM.16**; GMNM.17; **GMNM.18**; GMNM.20; GMNM.21; **GMNM.27**; GMNM.30; GMNM.33; GMNM.34; GMNM.35; GMNM.36; GMNM.38; GMNM.39; GMNM.40; GMNM.41; GMNM.42; **GMNM.45**; GMNM.46; GMNM.48; GMNM.49; **GMNM.50**; **GMNM.51**; GMNM.52; GMNM.53; GMNM.54; GMNM.55; GMNM.59; **GMNM.63.**

3.4.3.4.3. Improvised spoken scores and the role of the facilitator

Improvised spoken scores allow a *facilitator* to prompt another player. This is similar to Psychodrama's director, or Boal's joker. The spoken score is improvised and can be seen as a conversation between two or more players, where one provides the instructions and the other provide the actions. Players are naturally, always free to not follow the facilitator's spoken score. The aim of spoken scores is to create a mechanism to push players out of learnt and familiar patterns of action and into more extreme levels of effort and unfamiliar actions. The facilitator's role is to gently seduce the player(s) into less and less familiar patterns of action. Efficient communication is required in this process of seduction.

The printed text of the score – which is the only link between the composer and the performative processes – is a meta-score: the written score does not necessarily address the main performer and does not offer instructions for action (tablature) or a result to be expected. It suggests an improvised spoken score for one or more of the players, directed at other players. It offers either instructions for processes or modes of action (intentions, effort levels).

The improvised spoken score model that I am proposing in my work book can be useful in exploring cognitive states of flow, since it creates a secondary control level (given to the player that improvises the spoken score – the facilitator), which, while preserving its unique, transitory, in-the-moment human presence, can still frame and guide the performers to extremes in their personal effort scales where, like we have discussed before, expressivity resides.

The introduction to *Games for Musicians and Non-Musicians* contains a detailed description of spoken scores.

IN PRACTICE:
[SPOKEN SCORES/ FACILITATOR]
In *Games for Musicians and Non-Musicians*, the following pieces explore spoken scores and the role of the facilitator:
GMNM.15; GMNM.25; GMNM.26; GMNM.33; GMNM.37; **GMNM.50; GMNM.51; GMNM.63.**

3.4.3.4.4. Improvised story telling

Story telling is used as an activity that promotes inter-personal communication between the storyteller and the audience and between the storyteller and other performers. Improvised story telling pieces ask for one or more players to tell a story to the audience. The story should not be scripted or memorized. Some pieces ask for players to speak out streams of consciousness, others place tighter constraints on the players.

IN PRACTICE:
[STORY TELLING]
In *Games for Musicians and Non-Musicians*, the following pieces explore improvised story telling:

GMNM.14; **GMNM.15**; **GMNM.18**; **GMNM.45**; GMNM.46; **GMNM.47**; GMNM.48; GMNM.49; **GMNM.50**; GMNM.52; GMNM.59; **GMNM.63**.

3.4.3.4.5. Improvised Sound (in groups)

Improvising sound and making music appears in all three skills sequences. In the contexts of developing audiation, promoting body/sound imagery, and now as a way of creating and nurturing personal relationships between players. Pieces 38 to 42 in *Games for Musicians and Non-Musicians* ask for players to improvise sound in groups and to react to each other's music.

IN PRACTICE:
[MUSIC MAKING]
In *Games for Musicians and Non-Musicians*, the following pieces explore improvised music making in groups:

GMNM.5; **GMNM.6**; **GMNM.7**; **GMNM.8**; **GMNM.10**; **GMNM.11**; GMNM.12; **GMNM.13**; **GMNM.16**; GMNM.17; **GMNM.18**; GMNM.19; GMNM.20; GMNM.21; GMNM.22; **GMNM.23**; **GMNM.25**; GMNM.26; GMNM.30; **GMNM.31**; GMNM.32; GMNM.34; GMNM.36; GMNM.37; GMNM.38; GMNM.39; GMNM.40; GMNM.41; GMNM.42; GMNM.44; **GMNM.45**; GMNM.46; GMNM.48; GMNM.49; **GMNM.50**; **GMNM.51**; GMNM.52; GMNM.53; GMNM.56; GMNM.58; GMNM.59; GMNM.61; GMNM.62; **GMNM.63**; GMNM.64s.

3.4.3.4.6. Group Devising
The last developmental tool in my sequence is group devising. This tool, and derived activities ask the players to invent a way of organizing themselves in order to create a performance. The introduction to *Games for Musicians and Non-Musicians* includes rules for group decision-making, and the scores themselves offer tips on possible ways to start a devising process.

IN PRACTICE:
[GROUP DEVISING]
In *Games for Musicians and Non-Musicians*, the following pieces explore group decision-making and devising:

GMNM.51; GMNM.55; GMNM.56; GMNM.59; GMNM.61; GMNM.62; **GMNM.63**; GMNM.64.

3.5. Working with scores
In many theatre traditions, the complex ways in which a performer's body is seen as both object and subject is precisely the subject matter, constituting the training, labour and skill of the actor. What is important in my proposal for an embodied practice is precisely the realisation that the complex way in which a performer's body is seen, and from which one later constructs meanings, cannot be controlled from within the narrow project of a score. That is to say, the score –be it a text score, Laban notation, a traditional western music notation – cannot define all the parameters that make up the extreme complexity of a performer's embodied presence, without curtailing the performer's presence itself. The score, if there is indeed one, has to choose between addressing either some numbers of variables within that complexity, relinquishing the remaining variables to chance, to tradition or the (fallible) individuality of the performer, or it can choose to address the underlying internal and external processes that precede the performer's presence, with the aim of expanding the performer's realm of possible actions and of embodied agency, but in this case relinquishing the parametric precision of traditional scores. The latter is my choice as a composer: many of the scores in my portfolio aim to expand the performer's vocabulary of complex and meaningful actions (which include vocal and musical action), which in themselves precede the generation of meaning. In this sense, my scores have an unavoidable training aim, a pedagogic purpose. The expansion of performers vocabulary of embodied patterns is in harmony with the pedagogic model of Edwin Gordon's Music Learning Theory, as I have discussed in

the previous section, namely the learning, with a wide variety of contexts, of a wide vocabulary of patterns.

This research project's focus is not only rehearsal and performance validity, but also about notational reliability. By notational reliability I am referring to strategies that ensure that a score will always produce a valid and vigilant performance, or at least tend towards it. I will look at issues I encountered and choices I made in respect to score reliability.

I am using the term score in two ways: the traditional way of a score as a piece of written music, and as Halprin uses the term, as a stored potential for action: "Scores are symbolizations of processes which extend over time" (Halprin, 1976). From this perspective a theatre script is a score, a cake recipe is a score, the blue prints for a house or a new city are scores, Einstein's general relativity equation is a score. The score is a script for future action.

From this perspective, the composer (seen as score writer, not as performer) controls only one of the links in this chain in the production of musical meaning. The other links are in the hands of the performers and of the audience. Unless the composer is present and active during rehearsals, the score is the only point of contact between the composer's intentions and the audience's response to the performer's presence. It is a tenuous and far removed link, with many intermediaries along the way.

The score, as fixed intermediate point between conception and enactment of an event, operates as a similarly reductive algorithm, attempting, as Schoenberg dreamt, to do away with music altogether, in the same way Merleau-Ponty dreamt of language's promise to doing away with language itself "by delivering us to things" (Merleau-Ponty and Lefort, 1991, p. 4).

One can draw parallels here with the way we approach traditional notation, searching for a model to make real, to embody, yet that model does not exist in reality and it's embodiment is flawed in its realization, forever unaccomplished. By looking into the chasm that exists between the written score and the performance of the score, I am accepting and emphasising the a-historicism of live performance – in the sense that its historical residue, the written score is no longer a reliable document of a future event. Accepting that there are missing links and unwritten clues in any score, from any period and any style, is the starting point for rethinking the performer's approach to the alertness and vigilance on the stage.

That, in my view is only possible if we do not ignore the noises, the mistakes, stutter, the inevitable unwanted (or simply unexpected) events in the events themselves, which, through their evidence of an embodied presence provide us with much more that the algorithm of the score can accommodate, and perhaps even more that we can understand. The score, as algorithm, inevitably accepts its own preferences, prejudices and biases: it presents what it chooses to control and deliberately conceals what it knows it cannot govern; the score knows what is unsayable and says nothing about it.

The score proposes what is possible to happen and excludes what should not happen in a performance. In those possibilities and limitations scores can be grouped in styles, genres and traditions. At the same time, scores inevitably fail to prescribe or refuse an infinity of other events. Some are unpredictable, other are simply taken as inevitable. In their incompleteness, it is often the previous knowledge of a tradition or genre that allows the performer to complete the score and bring it from mere suggestion to real embodied action.

Scores rely on the performer having a necessary level of previous knowledge to enable them to be performed. The previous learning may include to be able to read music, if the score uses traditional western notation; jazz tabs to read a jazz lead sheet; be able to read the language it is written in, if it's a text score; but also to have a vocabulary of idiomatic improvisatory patterns in order to decode traditional Korean pipa scores; a vocabulary of style appropriate gestures and embodied imagery, of body/sound imagery is also necessary in order to convincingly perform music in a particular style.

The previous knowledge required also includes some knowledge of the style of music – 'how should this score sound like in comparison to all the other music I've played before? How does it fit in with the styles, genres and traditions I'm familiar with?' That knowledge is not presented on the score. It needs to be learnt and taught – by modelling and imitation. In *Games for Musicians and Non-Musicians* the *models* to be imitated are the players themselves, teaching each other, in a community of enquiry, how best to understand each piece. *The Nine Circles* and other pieces in my portfolio do not exist in this realm.

IN PRACTICE:
[GROUP LEARNING]
In *Games for Musicians and Non-Musicians*, the complete sequence of pieces and the rehearsal room work it proposes explore group learning and propose a community of enquiry for a group of players.
The later pieces in the workbook (GMNM.59; GMNM.61; GMNM.62; GMNM.63; GMNM.64) positively promote group decision making by consensus.

3.5.1. Score as pedagogic tool

I would like to propose that musical scores (perhaps any score or script), whatever form they present, always have a pedagogic element. Ultimately a score's aim is to teach a person or a group of people how to do something they could not do previously, be it play a piece of music, recite a poem, operate a plane, build a new city, etc. Scores may or may not have a stated educational intent but it seems to me that they always have a pedagogic outcome.

How does one write a score that goes beyond the musicians' actions, and onwards towards vigilance, towards their intentions, their presence, their imagistic potential? How does one write a score that goes beyond the composer's strict intentions and into the infinite possibilities of the player's infinite intentions, so all channels between self and other are open, all directions observed, at all levels of effort and expressivity. How can a score seduce a player to play in a way that makes it inevitable and unavoidable for them to work with personal embodied imagery and intentions, body/sound gesturing, rather than deploying stylistically bound learnt action-sequences?

For Robert Lepage, "the score is best understood as an experience the performer goes through, rather than as a concept for the performer to analyse" (Dundjerovic, 2007, p. 108)

Dundjerovic makes the comparison between Lepage's use of score and that of the traditional theatre script, stating

> In traditional text based theatre, the performer has his or her primary relationship with the dramatic text. [...] the director, together with the actors deciphers the given text and translates it

> into the language of the mise-en-scéne. The written text becomes the primary focus because it is fixed and entails a certain performance mise-en-scéne, whereas in devised theatre, the actors' primary focus is on a certain environment or stimulus they are working from. (Dundjerovic, 2007, p. 108)

Dundjerovic's distinction does not clarify that devised and improvisational processes can and often are used in script-based rehearsals. The needs of written text are still the primary focus but improvisation can be used as a tool to *decipher* it.

A score can be seen as a tool for the assimilation and development of new patterns of action (be it musical, gestural or communicative action), which expand the sonic and gestural (and therefore imagetic) vocabulary and present novel possibilities of experience. Reynolds makes the point that

> A successful score, then, presents and explains materials accurately. It can never duplicate a second function served by the actual presence of the creator: the correction of misinterpretations and the modification of divergences that are too extreme. An inert score is unable to accomplish the feedback that a responsive human being can. In placing on paper a representation of his intentions, the composer inherits an obligation to anticipate possible misunderstandings and to insert suitable admonition into the score. Notation is not expected to serve the second corrective function, and it supplies only the special instructions related to the event envisaged (Reynolds, 2005, p. 127).

Experimental composers have used the score's very potential for misunderstanding to force the performer to engage in the clarification process, aiming to empower the performer(s). Christian Wolff states that

> The techniques of coordination, interaction and interdependency, all players being equal (really, the normal thing in chamber music), and the sharing out of musical independence between composer and performers – that can have a metaphorical or exemplary force: social democracy (Wolff, cited in Saunders, 2009, p.361)

But, as we have seen this decision making process has the potential, through the use of recognition heuristics (Saunders, 2015), to anchor itself on traditional expectations of what music, performance, theatre, or experimentalism should be or appear to be.

For Reynolds the fallibility of the score extends beyond the performance event itself into the surrounding historical and social context: "Even in the ideal case, however, the notational document is rooted in and circumscribed by its own historical context" (p.128).

My research will explore ways in which notation can structure and facilitate the rehearsal period and performance event to re-shape, re-educate, re-train, the performing musician and to develop new tools that can extend beyond their own established music performance practice, what Reynolds here calls their *historical contexts.*

This is my answer to the questions I posed earlier: the open score's potential to propel a player beyond their existing modes of musical engagement and into yet

unfamiliar actions can perhaps be realised by focusing on vigilance skills, and using vigilance developmental tools and activities.

As in traditional music scores, open forms and open scores, whatever our understanding of the terms, do not guarantee per se the validity of a performance. That is to say, empowering the performer with more or less decision-making authority is not the reason why I found certain performances more *transformative* than others. Scoring itself, whatever score models are used, more open or more closed, does not guarantee validity. But if the object of an open score is precisely to make happen those types of events that do make a performance transformative (through vigilant practice or any other way) then open scores can in fact contribute enormously to my compositional toolkit.

Philip Thomas quoting David Tudor writes:

> ...If I play music [in which] the actions are undetermined as to their context, or at least let's say undetermined as to what they're going to produce, then I feel like I'm alive in every part of my consciousness. (Saunders, 2009, p. 77)

Tudor's emphasis on making actions, rather than exploring intentions and emotions seems to liberate the sounds, but seems to diminish the human connection between performer and audience; a sense of human presence is lost if the actions are devoid of some emotional cloak. It is as if the musicians' presence itself is not meaningful and it is not part of the construction of meaning the audience will inevitably undertake. This has been an important attitude in contemporary experimental music practice since the nineteen-fifties – but not in other performative arts, such as theatre, dance of performance art –, and it is this attitude that I wish to challenge with my scheme for performance validity through vigilant practice. Though the scored action cannot be directly imbued with humanity and empathy, through the use of individual effort scales and inter-personal communication activities (which can be scored) I have experienced and witnessed an increase in vigilant moments in performances of my scores. The empathy necessary for a vigilant, communicative state does not arise singly from true situations, but from truthful situations.

In open scores there is usually some sort of algorithm, or a series of algorithms, but in the way it is conceived the algorithm can return many different possible outcomes, the complexity of the equation contains so many interdependent and inter-locking variants that the final outcome cannot be statistically predicted. My text scores (the language algorithm) may or may not produce predictable results; but they do not produce repeatable results. The proposal for action described in the scores does not aim for that action – which is just an envelope, a trigger, an excuse – but for something else to arise between the people involved in performing it, which I cannot predict, or plan, or even desire, since that would amount to a gross interference in another person's freedom. Because it is dependent on a highly dynamic inter-personal communication process, the players' actions cannot be my concern anymore, but it is the concern of the players and their audiences to agree, vigilantly, what the matter at stake is – the human matter – which will be different for each performance.

Bayley (Bayley, 2011), analysing the rehearsal process of the Kronos quartet working with singers and musicians from Central Asia and with Ukrainian singer Mariana Sadovska, highlights that

> The inadequacy of notation is a common denominator in any collaboration that isn't purely improvised. […] And it is the

> inadequacy of notation that gives rise to the participatory singing, gesturing, musicking and verbalizing as compensation or supplement. (Clarke and Doffman, Cook, p. 12)

The score itself, if *open* enough, can be the vehicle for group enquiry and group decision making. The writing of my scores – that is to say, the designing of rehearsal and devising process and exercises for a group of performers – describes a process with many different possible outcomes, rather than describing the product/outcome itself, often with no clear clues on how to achieve it, without offering the reliance on a specific performance tradition, on a deciding director, or on a learnt performance practice to define the processes of rehearsal and preparation for a performance. The score is a game, with a set of rules to be followed by a group of people aiming to discover a dormant relevant *truth*, and to then present it, in a relevant way, to a relevant audience – of which they themselves are a part.

3.5.1.1. Gestural/body scores

Within the ebb and flow of determinate and indeterminate scores, some parameters of the performance have been traditionally determined in the score with more attention and detail than others. Traditionally pitch relationships are the main focus, the highest level of determinacy. Synchronicity between events (pulse, meter, rhythms) is another popular parameter to be determined in notation. Open forms often deal with other parameters: objects, time, timbre.
There are not many scores or composers that convincingly and validly determine parameters to do with gesture and embodied imagery, what we may call for now *gestural determinacy*. In fact I would risk that *gestural indeterminacy* is the rule in most traditional scores. Some notable exceptions are some of Kagel's scores, Stockhausen's highly choreographed operas, scores by Tom Johnson, such as *Scene for piano and tape* (1969).

Phillip Thomas highlights the problem of gestural indeterminacy in scores by suggesting that gestural omission in scores leads to gestural omission in the performance of those scores.

> Discussion of the music is generally centred upon the stages leading towards the creation of the notation, as well of the notation itself, but not what is subsequently done as a result of that notation. Whilst understanding the conceptual and aesthetic issues pertinent to the music being performed will doubtless affect the interpretative approach taken, a performer's decision - her actions - may conversely shape understanding of the music itself and the extent to which it may be considered experimental (Thomas, P. in Saunders, 2009, p. 78).

Yet, one could argue that it is the case that even in traditional music scores, whose main focus are the parameters of pitch and rhythm, a gestural determinacy arises from physical demands of playing the right notes at the right time with the right level of effort. Some aspect of the player's gesture is still 'enclosed' in the score, but largely unattended and unintended by both composer and performer. But the lesson here is that one undetermined parameter can be affected by another parameter that is determined by the score. I can use one aspect of a player's action to influence another aspect. This has been my approach in the construction of many of the text scores in *Games for Musicians and Non-Musicians*. Determining one parameter or action can influence another undetermined parameter. For instance, in piece 25 *Sisyphus at Work* the player is asked to perform an action, any action with as much effort as possible over and over again. The action itself is irrelevant for me. To a certain degree the instruction to perform it with maximum effort is also irrelevant.

What is relevant is the player's awareness of the moment when they catch themselves faking being too tired to carry on so they can stop, not out of exhaustion but out of boredom. The moment of personal honesty, of being for itself, that is what is relevant, that is what I am asking the player to discover. Yet it is not scored, it is not part of the instructions.

IN PRACTICE:
[BAD-FAITH]
The video portfolio contains two recordings of piece 25 from *Games for Musicians and Non-Musicians* performed by Uta Baldauff during rehearsals at Lansdown Hall, and by James McIlwrath at Amok in York, which demonstrate the moment when a performer is aware that they are feigning exhaustion:

GMNM.25

Open scores offer the opportunity for the participants to enter into an equalitarian and democratic mode of relating to each other, both during performances of the score itself, and also during the in between moments, rehearsals, reflections, during which the piece is slowly constructed and understood by the group. Porfiriadis points to the questions that arise during rehearsals: "In the case of preparation and performance of an open form piece for a group, some research questions emerge, often neglected in the related literature: Who takes the necessary decisions regarding the construction of the form? When are these decisions taken? How would the nature of these decisions affect the relationships between performer and composer and between performers?" (Porfiriadis, 2016, p. 3). I would add to this list of questions one about the role of the audience in this decision making process.

3.5.2. Scoring for Improvisers – Games as improvising activities

In my experience working with performers in improvised forms, it is often the case that when asked to make free improvisatory decisions, performers often fall back on their learnt and acquired solutions and responses. Performers have a clear tendency to complete the missing aspects of a score with their own personal experience, in particular their training, their favoured style and genre, and the acquired language of embodied patterns that they are most at ease with. Heuristics as a decision-making model can explain this way of completing the blanks with tradition and genre. Heuristics can also cast some light on what I as a composer can do in order to expand a performer's vocabulary of reaction in a free improvisation situation (Saunders, 2015).

If one's intention is to use scores as a means to expand a performer's mode of engagement with the situation at hand (vigilance), the score needs to offer pathways away from learnt behaviours, from traditions and personal habits and from genre and style. Again heuristics, through games construction, can offer a model for propelling a performer from areas of mastery into areas of personal unknown.

According to Davidson, Hallam and Berkowitz improvising makes use of specific behavioural, cognitive and neurological structures. Understanding what is known about how we improvise can help create pieces that deliberately make use of such optimised structures.

Damásio's model of the self which I discussed in Chapter 2.1 supports Gordon's Music Learning Theory, in the sense that Gordon's theory works to develop the

acquisition and assimilation of musical patterns at a proto-self level, prior to engaging a second level organism-object relationship at a core self level, which, through comparison and contextualization, that is to say, using memory and past experience, become part of the autobiographical memory, ready to be recalled and the original responses reused and adapted to novel situations, familiar patterns of action re-articulated in unfamiliar combinations, that is to say, *improvised*, but based on learnt events and environmental responses.

3.5.2.1. Use of text scores

My decision to write text scores sits on several factors. Firstly, I agree with Smith-Brindle when he writes that "perhaps indeed the text [score] serves better than any notated score, for it so strongly evokes mood rather than action" (Brindle, 1987, p. 98).

Another reason to choose text scores (in this case written in English, but easily translated into any language) is that text scores may offer a very low level of previous knowledge and experience necessary to play the games. Text scores are in that sense *inclusive* of people of any background or experience, and possibly to many different ages as well. Future research is possible into the adaptation of the work proposed in *Games for Musicians and Non-Musicians* for children in the context of formal music education.

The text score format, by framing the instruction as a set of clear and simple rules, sets itself up as a game, albeit one where there are no winners or losers. Dewey refers to games as "experiential learning tools", and that "games [are] normal social control" (Dewey, 1938, p. 59), and, as Sawyer points out, games provide shared goals which are a necessary constituent of *group flow*.

3.6. Conclusion to Chapter 3

In this chapter I have explained the practical solutions I designed in order to address the problem of performance validity and notational reliability I had identified in Chapter 1. I have focused on ways of facilitating the development of the three vigilant skills of non-normative cognition, multi-modal embodied imagery and inter-personal communication. I exposed various pedagogic theories, which I have use to constructed a possible learning sequence for each skill, through the design of skills development tools, skills development activities and scores for pieces/games, which can be performed by a group of players. I have presented each of the sequences and made reference to relevant pieces, and (where existing) to documentation of rehearsals and performances in the video portfolio.

I have explained my scoring decisions for *Games for Musicians and Non-Musicians*. Through text scores, I have proposed two other forms of scoring and instructing, namely body scores and improvised spoken scores.

In the concluding chapter I will pull together the consequences of working in a vigilant way, possible wider social consequences and wish lists. I will end by proposing possible avenues of further investigation.

Part 4 - Conclusion: findings, developments and outcomes

4.1. Findings

In my personal search for what constitutes a valid performance I have encountered the values of unmediated and expressive human connection, and a sense of transformative personal action that addresses both audience and performers. Blanchot's definition of *vigilance* seemed to me to encapsulate my performance ideals:

> Vigilance - the authority of the body when the body is not separated but fully in agreement with the truth of place. (Blanchot, 1982)

A vigilant performance reveals a performer that demonstrates:

> *Authority of the body*: agency, fully engaged and ready to react.
>
> *The body*: *not separated*: fully embodied imagetic presence.
>
> *Truth of place*: an understanding of the present situation; an acknowledgement of all agents present in the environment.
>
> *Agreement*: correct response to the environment; does not necessarily equate to harmony. *Agreement with the truth of place* may require conflict solving. Agreement also implies a sense of deep individual honesty, and a movement towards personal transformation through meaningful contact with the environment and the other.

For that reason I have called mine a proposal for a *vigilant music practice*. The next stage of this search was to invent ways in which I could reliably inject those values into my scores and performances.

4.2. Developments

At the end of this research project, I have generated a set of three basic principles that may form the basis for what constitutes a valid music performance. Those three performance principles, articulated as performance skills – gathered under Blanchot's concept of *vigilance*, and tempered by Cook's proposal that expressivity resides on *non-normative events* (2014, 2001), are:

- non-normative cognitive states (mindlessness/metacognition) [IN] (Chapter 2.1);
- the generation of multi-modal embodied imagery through the use of full effort scales [OUT] (Chapter 2.2);
- dynamic response to the environment through inter-personal communication [IN/OUT] (Chapter 2.3).

I have identified a set of tools that can facilitate the development of each of these skills (Chapter 3). Using those tools I constructed a possible sequence of developmental activities, which led to the creation of a series of text scores (Ch. 3). I have tested the reliability of these scores in a series of rehearsal periods and

performances prior to the final sequencing of the finished sixty-four scores in a collection, which I have entitled *Games for Musicians and Non-Musicians*.
The three vigilance skills – [IN], [OUT], and [IN/OUT] are interdependent but have unique qualities that can be analysed separately.

4.2.1 - [IN]

Vigilant practice asks for a dynamic awareness of our place in the environment. The cognitive patterns that promote such dynamism are, according to Drinko, Damásio, Sartre, Merleau-Ponty, as well as the meditative practice of mindfulness, the propensity for non-normative states of cognition, either by engaging in meta-cognitive activities, or by engaging in mindless activities.

The mental processes involved in audiation of sound and space audiation, as described by Gordon, are considered part of the vigilance toolbox I have constructed.

Damásio's structure of the self provides a model for the learning and teaching of improvisation by exposing the organism (the performer) to many different contexts and patterns, which at a higher level become engrained in the autobiographic memory, ready to be accessed and used in multiple combinations, some already learnt, others completely new in a growing spiral of potential complexity, yet always based on patterns of behaviour that the organism is already familiar with. In Gordon's Music Learning Theory the contexts and patterns that constitute a musician's musical vocabulary are divided in rhythmic, tonal, harmonic, melodic, but I believe the same vocabulary acquisition model (which he adapted from Dewey, Gagné pedagogic model) can be used to expand a player's cognitive, gestural, vocal, and communicative action patterns. The developmental sequence of vigilant improvisation that I am proposing is structured around this very idea: expose the player to as many different and unfamiliar patterns as possible (musical patterns, but also gestural, embodied, vocal, emotional, communicative states, responses and patterns of action) so that the player forms an increasingly vast vocabulary of familiar patterns which they can access, repeat, combine and expand in unfamiliar and novel ways.

[IN] - Drinko's work on neurology and cognition during improvisation, which I discussed in Chapter 2, proposes that certain mental states are conducive to a state of flow (System 1), while others tend to bring the performer into a state of self-awareness, and meta-cognition (System 2), that halts quick and intuitive agency during an improvisation. Drinko's proposal is based on the observation of theatrical and dance practices and it may not immediately fit the specific requirements of musical improvisation using musical instruments for the following reason: the mind-wandering (System 1) state, which Drinko suggests is optimal for physical and verbal improvisation, does not seem to interfere with the performers capacity to move or speak. System 1 does not impair the tools of improvisation. That may not always be true in the case of instrumental music, because the fine motor control and the predictive audiation mental process necessary for playing a musical instrument may be in opposition to the mind-wandering state.

Many of the pieces in *Games* ask for performers to copy each other, mirroring movements, miming the other. One of the aims of these pieces is to introduce players to unfamiliar and novel was of moving, walking, talking, singing. Another aim is connected with promoting cognitive System 1. By relinquishing decision making authority to another player, the copying player is being asked to ignore input from System 2. Decision making about movements, rhythms, pitches is deliberately (if one accepts to play the games) passed on to the player whose actions are being copied,

and with it, reflective agency over their own decision-making process – System 2. Improvisation games build up on this experience to offer the players an opportunity to transfer the same cognitive skills (system 1) to act with agency, but now without full rational reflection (Drinko, 2013)

4.2.2 - [OUT]

A vigilant musical practice – in its pursue for a dynamic communication flow with its environment and audience– welcomes embodied multi-modal imagery and gesture, which encompasses the gaze and the voice into it's toolbox.

The parallels between music communication and verbal/aural communication are important in scaffolding the concept of multi-modal embodied practice:

1. Language is inseparable from imagery and gesture (Chomsky, McNeill, Kendon)
2. Music shares many aspects with language at an evolutionary, cognitive, pedagogic, social levels (Gordon; Methen, Davidson Sloboda,)
3. Music, like language, is also inseparable from imagery and gesture (Gordon, Dalcroze, Davidson)
4. What we have learnt from the embodied and multi-modal nature of language should be promoted in the conception and development of a vigilant musical practice.
5. Exploring effort scales and non-normative states may help develop the full scope of multi-modal embodied imagery.

Gordon established strong relationships between the way humans think language and how we think music, which he calls audiation. In fact Gordon's music acquisition model places the audiation skill at the centre of music training process. Audiation is the most fundamental skill to be developed by musicians at every stage of their development from pre-birth to maturity. Audiation and space audiation stand for music making as thinking stands for speaking.

I am proposing the possibility that the imagery-speech bond that McNeill describes is also present in music making, as a music-gesture bond, that may be constructed in parallel with language, and possibly use a shared neurological circuitry with language-imagery.

The external aspect of the music-gesture bond is the strong force in music communication. It is at this level that clear interpersonal communication can occur.
It is the external and visible aspect that is taught and learnt, formally or informally, by osmosis and imitation. It forms the basis for the differences between performance styles. It is culturally conditioned and delimitated. It defines stylistically bound notions of validity, of correctness, of expressivity, of group connection.

Perhaps the most important finding in this research was the application of the practice of effort scales as described by the Estill Voice Model to the formation of embodied imagery. Inhabiting non-normative states while engaging in musical or non-musical activities offers the player the opportunity to safely discover their personal spectrum of embodied imagery potential, and to learn to navigate it.

4.2.3 - [IN/OUT]

To make an inquiry into communication requires an observation of the gestural imagery of all entities involved. Similarly, an inquiry into music communication requires an observation of musician's gestural images.
The two-way interpersonal communication model that Hargie proposes is particularly well suited to understanding the language-gesture-imagery bond (Kendon, McNeill).

4.3. Notational reliability

My objective is to write scores that are reliable, that is to say, scores that offer within their script all the information necessary to create a valid performance – vigilance being my personal standard of validity. Each score proposes to develop one or more vigilance skills, through the use of development tools and by engaging in developmental activities. A score is seen as pedagogic mechanism. Implementing experiential pedagogic theories I designed an experiential learning sequence that promotes the development of vigilance skills in performers. *Games for Musicians and Non-Musicians* is a set of activities derived from the learning sequence. Personal development in vigilance skills is operated experientially, through doing and reflecting. Improvisation and openness are considered a central aspect of the development of vigilance skills.

4.4. Output: Portfolio of Works

A record of the scores produced during this research is presented in the Catalogue. The Catalogue contains reports of rehearsals and performances and references to the scores and video documentation included in the portfolio. It is presented separately for ease of reading and cross-referencing.

4.5. Other Outcomes

Personal development: Performer/Improviser; Composer; personal transformation

In Chapter 3 I mentioned several performance practice workshops and training sessions I attended during the period of this research, which have brought deep insights and greatly furthered my performance practice.

As a piece of action research, I included myself as an object of the research. My personal practice was used in the research, and it was transformed by the research itself. I have noticed a marked transformation in the way I approach live performance, music or otherwise. I address the audience a lot more, and I have learnt to engage my body and my gestural imagery in my performances and music improvisations. I have noticed a profound transformation in my performances with Blancmange, where my physical engagement and use of effort scales has become a focus for me.

As a composer I have also noticed my score writing practice – mainly text scores– has transformed. My scores have become clearer, more precise, and support a stronger individual participation from each player.

4.5.1. Pedagogic support for the development of a vigilant practice

The development of a pedagogy of vigilant music performance, of music improvisation, and a practice of music composition can and should include a potential for the imagetic and the gestural, not as scored or stylistically-bound un-scored choreographies, but, as in language, as opportunities for vigilant and

spontaneous and unhindered communication between the performers and their audience.

The training of a vigilant practice proposes to open doors for possible actions, to expand the individual's unique repertoire of embodied imagery, rather than to dictate stylistic or non-stylistic gestural actions.

4.6. Areas for further exploration

I will propose future avenues of exploration: compositional use of video scores that can explore the interconnectedness between movement, materiality and embodied improvisation; social models of interaction using my definition of embodied practice in areas other than music and performance practice – education, team working environments.

- **Further explorations of [IN]**

Writing new scores, promoting in particular deeper integration of mindfulness practices into the activities.

- **Further explorations of [OUT]:**

Creation of new pieces using video scores, exploring the materiality of image and of sonic gestures. Researching the use of live video scores, which can offer players the possibility of improvising from a visual stimulus that albeit not human, can present a variety of imagery, be it human and non-human multi-modal gestures, movements, speed and momentum, colours and textures, time structures as a multi-modal and imagetic scoring proposition. The video image is the score.

- **Further explorations of [IN/OUT]**

Rehearse and present long form pieces in *Games for Musicians and Non-Musicians* (GMNM.53 to GMNM.64), for which a working group of performers will meet during a development period. Write new scores that explore communication skills.

- **Future development of *Games for Musicians and Non-Musicians***

Games for Musicians and Non-Musicians need to be implemented in performance practice development through workshops. It is possible to consider the use of *Games for Musicians and Non-Musicians* in group building activities, away from performance situations.

One avenue to consider is to research and develop a version of *Games for Musicians and Non-Musicians* as a music-learning tool for children and young musicians.

4.7. Concluding arguments: hopes, wishes and desires

4.7.1. Emotional Freedom

I believe there is a social and psychological dimension in the act of making music that has the potential to operate personal transformations in the individual and groups involved. This power operates not only at the level of the sonic entities of music but also at the physical and bodily levels, through multi-sensory cognition. As

such, music operates at the deepest level of core consciousness, and also at the level of extended consciousness, which encompasses emotional self, awareness, and communicative and social agency. The work I am proposing has the potential to operate at an emotionally alert and active level.

It is important to differentiate between engaging in verbal discussions about emotions and the embodied experience of emotions. Meredith Monk summarized this differentiation when she says that “our culture teaches us to describe our experiences, to narrate our experiences, and that some how we are one step away from the experience” (Vanloo, 2009)

William James says that emotions are physical states: ‘I feel sad because my body is crying'. I propose the freedom to publicly express, in the ultimate reality of one's body, our emotional flux, the tempestuous rapid of our body-emotion. In our liberated bodies reside our liberated emotions: such freedoms would hopefully set us on our way to being more complete, truthful, and freer living things.

Freedom becomes an important aspect of this debate, a particular kind of freedom: the freedom to nurture and share our emotional selves. Hegel introduces the idea that “history of the world is none other than the progress of the consciousness of freedom” (Honderich, 1995). Other philosophers of freedom have developed Hegel’s idea: Marx, Nietzsche, Steiner, Sartre, Merleau-Ponty.

Matthews, in relation to Merleau-Ponty’s writings on freedom and oppression, states that “it seems clear to Merleau-Ponty, however, that the oppressed ought to [become aware of their situation and desire to change it]: that oppression ought to be removed so that human beings could realize their possibility of true community with each other, in which each recognized each other's freedom and no one group of human beings exercised domination over any other" (Matthews, 1996, p. 101)

Kant proposed that freedom to publicly display the results of one’s reason was the most revolutionary action one could engage in. In his words:

> For enlightenment of this kind, all that is needed is *freedom*. And the freedom in question is the most innocuous form of all – freedom to make *public use* of one's reason in all matters. [...] The *public* use of man's reason must always be free, and it alone can bring about enlightenment among men (Kant and Nisbet, 2013, p. 3).

I would add, now that we have a theory of multiple intelligences (Gardner), in which emotional intelligence plays a large role in defining a sense of self (Damásio), now that we have a theoretical awareness of the subconscious and the unconscious – I would add that for enlightenment of this kind one needs another type of freedom, perhaps even more innocuous that Kant's, which is the freedom to make public use of one's *emotions* in all matters. Not through the a-posteriori use of words *about* emotions and through other analytic and conceptual frame works that do precisely the opposite of public emotional freedom, but through the embodied display of these very emotions.

I am similarly proposing that the freedom to publicly display the embodied results of one’s emotional flux, and by doing so presenting oneself in totality, is, within the present western European cultural context, the most socially revolutionary action one can engage in. For that reason, emotional freedom is an important aim of my developmental sequence for vigilant practice.

4.7.2. Vigilant group improvisation: a experiential model for social interaction

When one discusses music practice as a model for social interaction it is common to encounter the notion that music is a metaphor for such interaction. The sonata form, with its contrasting themes, is often portrayed as a drama in music, each theme taking the role of a different character; Schoenberg's dodecaphonic pan-tonal system is observed in parallel with the raise of representative universal democracies – if all citizens are equal, then so are all notes. These approaches to musical forms as social metaphors are interesting but they do not reach into the musical act itself.

A second approach is to observe the social model in the act of making music and try to expand it to the world beyond. For instance, Bach worked in a protestant and relatively equalitarian community and the music making model he asks from his musicians is representative of his world order. The social act of singing a Bach mass, where all parts have interesting melodies to sing, intricate counterpoint and a parity of musical relevance between all parts is very different from the experience of performing a Mozart symphony, where some instruments play the nice tunes while the basses play pages and pages of tonic and dominant roots. The social model, from the point of view of music making, gives some musicians preference over others. Mozart grew up and worked under absolutist monarchies, with strict class separation and privileges.

Amnon Wolman and James Saunders' scores require group consensus. The process of making music requires consensual decisions, operated through following the rules set out in the score. Some of James Saunders' scores take the form of games. I propose that this work is a practical model (not a metaphor) for social interaction, democratic and humanising. It demonstrates a concern with present pressing issues of individuality and identity, freedom, equality and co-operation. For that reason, it is work of our time.

The models of social interaction I am proposing through the development of vigilance skills and in *Games for Musicians and Non-Musicians* are based on ideals of freedom, equality, and social responsibility. It is my hope that experiencing those ideals in the rehearsal room and on the stage will help sediment those very values in the lives of those that choose to work through my proposal, and those around them.

Echo and Narcissus – self and other

Take Roger Scruton's perspective that the *other* is a sacred representation of the *self* (Scruton, 2017); and Merleau-Ponty's view that the *self* only truly becomes apparent when seen in counterpoint with the *other*; bring into your mind Damásio's view that the sense of self develops in multiple sequential changes in the organism, changes which are operated by objects it encounters; one can perhaps make a reading of the myth of *Echo and Narcissus* as telling the story of a progressive awakening of self awareness, brought about by the encounter with the *other*.

In Narcissus' story, the encounter of his own reflection (while misunderstood as another person with whom Narcissus falls in love) grants him the possibility that the *other* he sees is but a representation of the self (according to Scruton). In Echo's story, she becomes locked in the *other*, by eternally repeating what she hears from others, learning, experiencing, all her experiences conditioned by the primary input of the *other*. As in Damásio's view, in which the sense of self grows from the interaction of the organism with the objects it encounters, Echo grows from observing the other, from learning new words, new voices, new *selves* each time she responds.

Narcissus, in this reading, is not self obsessed but aware of self and other, of self *as* other; and Echo is not locked in the automatic, selfless, senseless repetition of the other, but acutely aware of how the other deeply forges and feeds her own sense of self. Together, both Narcissus and Echo offer a complete reading of selfhood and other-hood. It is perhaps tragically meaningful that in the Greek myth both figures' destiny is to mis-encounter each other for eternity.

Perhaps we have lived the past 250 years – since the consciousness transformations that started in the enlightenment – perhaps the West has lived in the age of Narcissus, the age when we discovered the importance of the self, of the individual, of each single person's experience. The age that preceded it was, in this analogy, the Age of Echo, when the self was perpetually locked into the other: the family, the tribe, the temple, the nation. Perhaps what I am proposing with my work on vigilance, and I am trying to find within myself, is to catch a glimpse of the next age, the next step in the development of the consciousness of our sense of freedom, an age where Echo and Narcissus finally encounter, see, and acknowledge each other.

This rebalancing of the sense of self (and individual freedom), and other (a group responsibility) has consequences for our notion of authorship, which can be reframed: vigilance proposes an equilibrium between the concerns of a group of people (Echo, pre-enlightenment), and the concerns of the individual (Narcissus, post-enlightenment). The author of an event can not be truly said to be this or that person, the performers can no longer be said to be this or that group. The authors of the event are the performers, which are also its audience. There is no self/other schism within the event. Self and *other* exist as primary colours, ready to be mixed into all possible colours.

The practice of vigilance proposes the development of the awareness of the *encounter* – in Moreno's terms – between self and other. That encounter propitiates a disclosure, a bridging of the *chiasm*, a revelation of *good-faith*, of *Tele*, of honesty and truthfulness perhaps akin to Heidegger's elusive *aletheia*, or Damásio's and Sue Morrison's *transformation*. Damásio summarises my point when he writes that:

> The drama of the human condition comes from consciousness because its concerns and knowledge are obtained in a bargain that none of us stroke: the cost of a better existence is the loss of innocence about that very existence. (Damásio, 2000, p. 316)

I conclude by highlighting the social implications of my proposed model of vigilant improvisation, suggesting its transformative potential, at an individual and social level. Having outlined a generic set of axioms of an aesthetics of vigilant and embodied improvisation, I speculate that the practice and experience of vigilance has an inherent social and moralizing value.

Appendix I – A short description of Music Learning Theory

I have made reference to Gordon's Music Learning Theory at several points in this text, as and when appropriate to substantiate my arguments and to justify my choices regarding a definition and practice of vigilant music improvisation. It is therefore important that I explain the fundamental building blocks of Gordon's theory. Importantly, Music Learning Theory offers me a way of structuring a possible plan of action for the development of a vigilant and embodied technique (Spatz, 2015) through a sequential pedagogic effort, incarnated in my workbook *Games for Musicians and Non-Musicians*.

Music Learning Theory (MLT) is the creation of Edwin E. Gordon and his research team. It was developed over sixty years, since Gordon's first observations at Iowa and Buffalo of how children acquire musical skills. It is an explanation of how humans learn music. MLT is a research based explanation of the unique phenomenon of music acquisition. MLT is grounded on the phenomenon of audiation.

In MLT, taking Gagné's learning models as a starting point, Gordon defines two distinct stages in music learning: *differentiation* learning, and *inference* learning. They are sequential, that is, a degree of differentiation learning needs to have taken place before a person can engage in *inference* learning. In differentiation learning, we learn mainly by comparison: we observe two objects and notice the differences between them. We learn to expect certain values regarding those differences. A musical example would be to learn the difference between major and minor. One can explain to a student all the reasons why they are different but until a student can identify that there is a difference between major and minor, learning anything else is of little consequence. Learning at the differentiation stage involves a great deal of modelling and mirroring. The student is clearly aware that they are being taught, guided, and instructed through copying differentiated actions. In learning the differences between objects, the student starts to create a personal catalogue of patterns (in the case of music, patterns of meter, rhythm, pitch, harmony, timbre, dynamics and how they tend to behave in the context of a particular musical syntax, or style). The early stages of education are thus devoted to the creation of a vast personal vocabulary of patterns through learning songs, moving with music, and through a structured music learning sequence, where individual patterns are taught in isolation and contrasted with each other. Improvisation is promoted by combining the learnt patterns in many different ways, creating a *super*-vocabulary of combinations. Stylistic differences in rhythm, tonal habits, modes, types of voice production, start to become obvious to the student, yet no type of pattern is ignored. The more patterns and styles are learnt, the richer the vocabulary of a student is and the more elaborate their improvisations are likely to be.

At the inference level, the student makes use of their expanded and often vast vocabulary of familiar patterns and is now capable of finding differences on their own, of combining different patterns in unfamiliar ways (improvisation). At this stage the student is not aware they are being taught, self-learning being more important. A clear learning sequence is still used in the structuring of lessons.

Using these two types of learning as scaffolding, different learning sequences were designed for each of the musical skills, in the order they are mastered by students, one step offering preparation for the next step in the learning sequence.

Gordon identifies two main skill domains: rhythm and tonal. Each domain address specific musical skills, through learning very short patterns. Rhythm pertains to pulse, meter, divisions; Tonal pertains to pitch relationships (through the use of tonal solfége and tonal patterns), and harmony (through short harmonic patterns).
By superimposing a learning sequence for each skill with the two learning domains, differentiation and inference, Music Learning Theory provides us with a clear music learning sequence upon which a scheme of work can be designed.
MLT derives a scheme of work from the Whole-Part-Whole structure, where integral songs and pieces are learnt, in different modes and meters, prior to its constituting patterns being learnt separately. Once each short pattern is learnt, and improvisations using those patters are tried out, the whole piece is revisited again, but now with a deeper understanding of each constitutive part.

Gordon insists that a strict process of student aptitude differentiation is adhered to at all stages in order to shape the teaching process. There is no point teaching very difficult patterns to students of low rhythmic or tonal aptitude. It would only lead to frustration. Equally, there is no value in repeatedly teaching easier patterns to students of higher rhythmic or tonal aptitude. This would only bore them. For the purpose of identifying each student's level of audiation aptitude, Gordon has designed a battery of tests that allow the teacher to shape the classroom activities to suit both lower and higher aptitude students. No one should be refused a solid music education, no matter his or her inherent level of musical aptitude. Notice that there is no attempt to judge a students 'talent' but their aptitude to learn. Talent, whatever is understood by this slippery word, is irrelevant. This point will become very important is my own scores and their attempt to include musicians and non-musicians.

In practice, this means a player performing my scores should be aware of their own physical, musical and communication limits and attempt, through the rehearsal and performance of my scores, to expand their personal limits to the most of their aptitude, on the different vigilance skills I have identified in the body of the text.

Appendix II – List of Videos and Photographs submitted

Abbreviations:

- **GMNM**: *Games for Musicians and Non-Musicians*
- **MITP**: Museum In The Park, Stroud, 12,13,15,16/9/2017, workshop week on *Games for Musicians and Non-Musicians*, Neil Arthur; Uta Baldauff; Anne-Margritte Böhl; Chris Chris; Andy Dunn; Herewood Gabriel; Graeme Owen; Sean Roe; Angie Spencer; Vicky Temple.
- **AMOK**: Amok, York, 3-6/2/2019, William Barnardo, Gaia Blandina, Felix Hird, Oogoo Maia, John McAreavey, James McIllwrath, Lynette Quek
- **OLAD**: *On Light and Darkness v.2 (GMNM.63*), performed at Amok, 6/2/2019
- **Ryoanji** – Index Gallery, 6/6/2014, Alun Hart, Cameron Johnson, Oogoo Maia
- **NMLQS**: New Music for Loud and Quiet Sounds, Index Gallery, Stroud, 21/3/2014, Gavin McClafferty, Oogoo Maia
- **OSL**: Open Scores Lab, Bath Spa University:
    - **OSL.1**: 11/1/2017, Vassilis Chatzimakris, Cameron Johnson, Robert Luzar, James Saunders, Jenniffer Walshe;
    - **OSL.2**: 5/4/2017, Cathy van Eck, Louis d'Heurdieres, Cameron Johnson, Leandro Maia, James Saunders.
- **Ludo2017**: Conference, Bath Spa University, 28/2/2017, Louis d'Heurdieres, Cameron Johnson, Oogoo Maia, Joe Manghan, Harry Mathew, James Saunders.

Table 10 – List of Video and photographs submitted

Folder	File name
GMNM.01:	GMNM.1 - MITP Angie Herry (Discussion Part 1).mov
	GMNM.1 - MITP Angie Herry (Discussion Part 2a).mov
	GMNM.1 - MITP Angie Herry (Discussion Part 2).mov
	GMNM.1 - MITP Neil Uta (Discussion).mov
GMNM.02:	GMNM.2 - MITP Angie Herry Oogoo.mov
	GMNM.2 - Open Scores Lab 1 - 11-01-17.mov
	GMNM.2 [Tk.1]- MITP Andy Uta Neil Sean Oogoo.mov
	GMNM.2 [Tk.2] - MITP Andy Uta Neil Sean Oogoo.mov
GMNM.03:	GMNM.3 - MITP Neil Oogoo Andy Uta Anne-Margrite Sean.mov
GMNM.04:	GMNM.4 - Jim McIllwrath (a).mov
	GMNM.4 - Jim McIllwrath (b).mov
	GMNM.4 - Lansdown - Uta Baldauff.mov
	GMNM.4 - MITP - Angie unpacks vl.mov
	GMNM.4 - MITP Herry.mov
	GMNM.4 - MITP Oogoo.mov
	GMNM.4 [Tk.1] - MITP Angie.mov
	GMNM.4 [Tk.2] - MITP Angie Tk. 2 Improvising.mov
	GMNM.4.1 - Index Gallery Alun Hart - Start (a).mov
	GMNM.4.2 - Index Gallery Alun Hart - Concl. (a).mov
GMNM.05:	GMNM.5 - MITP Angie Herry.mov
GMNM.06:	GMNM.6 - Amok Gaia.mov

Folder	File name
	GMNM.6 [Tk.1] - MITP Angie.mov
	GMNM.6 [Tk.2] - MITP Herry.mov
	GMNM.6 [Tk.3] - MITP Angie Herry.mov
	GMNM.6 [Tk.4] - MITP Angie (vl.).mov
	GMNM.6 [Tk.5] - MITP Herry (fl.).mov
GMNM.07:	GMNM.7 - MITP Andy Sean Vicky.mov
	GMNM.7 - MITP - Sound to drawing 01
	GMNM.7 - MITP - Sound to drawing 02
	GMNM.7 - MITP - Sound to drawing 03
	GMNM.7 - MITP - Sound to drawing 04
GMNM.08:	GMNM.8 [Tk.1] - MITP Andy Uta Neil Sean Oogoo.mov
	GMNM.8 [Tk.2] - MITP Andy Oogoo manipulation [Var.B].mov
	GMNM.8 [Tk.3] - MITP Andy Uta Neil Sean Oogoo [Var.B] Andy Guiding Group.mov
	GMNM.8 [Tk.4a Prep. and group discussion] - MITP Andy Uta Neil Sean Oogoo [Var.B].mov
	GMNM.8 [Tk.4b] - MITP Andy Uta Neil Sean Oogoo [Var.B].mov
	GMNM.8 [Tk.5] - MITP Andy Uta Neil Sean Oogoo [Var.B].mov
	GMNM.8 [Tk.6] - MITP Sean Conducting [Var.C].mov
GMNM.09:	GMNM.9 - Lansdown - Uta Baldauff.mov
	GMNM.9 [Tk.1]- MITP Uta (with discussion on effort scales).mov
	GMNM.9 [Tk.2]- MITP Uta (Max. effort).mov
	GMNM.9 [Tk.3]- MITP Sean guiding Uta.mov
	GMNM.9 [Tk.4]- MITP (Group Devising, Modularity).mov
	GMNM.9 [Tk.5]- MITP Andy (Baby Love).mov
	GMNM.9 [Tk.6] - MITP Andy (own gestures).mov
GMNM.10:	GMNM.10 - tk.1-4, discussions - Amok.mp4
	GMNM.10 [Tk.1]- MITP Andy Chris Sean (Preparation).mov
	GMNM.10 [Tk.2]- MITP Andy Chris Sean.mov
	GMNM.10 [Tk.3]- MITP Andy Chris Sean.mov
	GMNM.10 [Tk.4]- MITP Andy Chris Sean.mov
	GMNM.10 [Tk.5]- MITP Andy Chris Sean.mov
GMNM.11:	GMNM.11 - Amok.mp4
	GMNM.11 [Tk.1] - MITP Andy Uta Neil Sean Oogoo.mov
	GMNM.11 [Tk.2]- MITP Andy Vicky Oogoo.mov
	GMNM.11 [Tk.3]- MITP Andy Uta Neil Sean Oogoo.mov
GMNM.13:	GMNM.13 - MITP Uta Herry.mov
GMNM.14:	GMNM.14 - Amok.mov
	GMNM.14 [Tk.1] - MITP Uta Herry.mov
	GMNM.14 [Tk.2] - MITP Uta Herry.mov
	GMNM.14 [Tk.3] - MITP Herry Oogoo.mov
GMNM.15:	GMNM.15 [Tk.1]- MITP Uta Herry.mov
	GMNM.15 [Tk.2]- MITP Herry Uta Oogoo.mov
	GMNM.15 [Tk.3]- MITP Oogoo.mov
	GMNM.15 [Tk.4]- MITP Oogoo.mov
	GMNM.15 [Tk.5]- MITP Uta Var. A.mov
GMNM.16:	GMNM.16 - Index Gallery - Alun Oogoo Cameron (a).mov
	GMNM.16 - Index Gallery - Alun Oogoo Cameron (b) NA.mpeg
GMNM.18:	GMNM.18 - Lile James Saunders.mov
	GMNM.18 - Ludus Conference.mov

Folder	File name
	GMNM.18 - Open Scores Lab 1 - 11-01-17.mov
GMNM.23:	GMNM.23 (Var.C) - Oogoo Jim - Amok.dv
	GMNM.23 - Jim McIllwrath.mov
GMNM.25:	GMNM.25 - Jim McIllwrath.mov
	GMNM.25 - Lansdown - Uta Baldauff.mov
GMNM.27:	GMNM.27 - in OLAD – Amok York Show.mov
GMNM.28:	GMNM.28 - Lansdown - Uta Baldauff.mov
GMNM.31:	GMNM.31 - Index Gallery - Cameron (a).mov
	GMNM.31 - Index Gallery - Cameron (b) NA.mpeg
	GMNM.31 - Index Gallery - Oogoo (a).mov
	GMNM.31 - Index Gallery - Oogoo (b) NA.mpeg
	GMNM.31 - Index Gallery - Oogoo (c).MOV
	GMNM.31 - Index Gallery - Oogoo (d).MOV
	GMNM.31- Mariana Marcelino (BSU)- Rehearsals Oogoo.mp4
GMNM.45:	GMNM.45 - ALL TAKES - Amok.mov
	GMNM.45 - Open Scores Lab 1 - 11-01-17.mov
	GMNM.45 - Tk.1 - Amok.mov
	GMNM.45 - Tk.2 - Amok.mov
	GMNM.45 - Tk.3 - Amok.mov
GMNM.47:	GMNM.47 - Lansdown - Uta Baldauff.mov
GMNM.50:	GMNM.50 - Lansdown - Uta Baldauff.mov
GMNM.51:	GMNM.51 - Open Scores Lab 2 - 05-04-17.mov
GMNM.63	GMNM.63 - *On Light and Dark*:
	OLAD - Counting [ζ] - Amok.dv
	OLAD - Counting [ζ] - CHURCH - Amok.mov
	OLAD - Harmony 1 - All Takes - Amok.mov
	OLAD - Harmony 1 Tk.1 - Amok.mov
	OLAD - Harmony 1 Tk.2-3 - Amok.mov
	OLAD - Harmony 1 Tk.4 (2 Notes) - Amok.mov
	OLAD - Harmony 1 Tk.5 (Voices) - Amok.mov
	OLAD - Harmony 2 (No eye contact)- Amok.mov
	OLAD - On light and Dark - AMOK.wav
	OLAD - Synchronicity [β] - Music Only - Amok.mov
	OLAD - Transformations [V]- Amok.mov
	OLAD - Transformations [ι] - Chromatic Scales - CHURCH - Amok.mov
	OLAD - Transformations [ι] - Chromatic Scales - Tom - Amok.dv
	OLAD - Transformations [μ]- Quartet - Amok.mov
	OLAD - York Amok SHOW.dv
Holborne Museum, Bath:	Holborne Museum - Embodied model (painting).JPG
	Holborne Museum - Performance 01.JPG
	Holborne Museum - Performance 02.JPG
	Holborne Museum - Performance 05.JPG
	Holborne Museum - Performance 06.JPG
	Holborne Museum - Performance 07.JPG
	Holborne Museum - Performance 08.JPG
	Holborne Museum - Performance 09.JPG
	Holborne Museum - Performance 10.JPG
	Holborne Museum - Mariana Marcelino Dress Rehearsal 1.mp4
	Holborne Museum - Mariana Marcelino Dress Rehearsal 2.mp4

Folder	File name
	Holborne Museum - Mariana Marcelino SHOW.mp4
Performance Photographs:	Blancmange 01.jpg
	Blancmange 02.jpg
	Blancmange 03.jpg
***The Nine Circles*:**	*The Nine Circles*.9 (frag.) - Index Gallery NMLQS Oogoo (Long).m4v
	The Nine Circles.9 - Index Gallery NMLQS Oogoo (Shorter) .mov
	The Nine Circles. - Index Gallery NMLQS Oogoo .m4v
Thee Ones:	Thee Ones Album Launch - I'm a man (front).mov
	Thee Ones Album Launch - oogoo side im a man.mov

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