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DEEP FLOW: An Embodied Materiality of Dance, Technology, and Bodily Experience

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In this research article, I argue that *Deep Flow* is an *embodied materiality* that may be experienced by entwining two sets of research: phenomenological dance research and artistic practice. In *Deep Flow* the blindfolded practitioner entangles phenomenological methodology, methods, and artistic practices, *looking inwardly*, to augment bodily sensing in the absence of visual information. This challenges ocularcentric dance and technology practices reliant on visual and aural feedback loops occurring outside the dancer's body. On the other hand, with the absence of visual and aural feedback, the practitioner in *Deep Flow*, focuses inwardly on their embodied dance practice, their *felt-sense* and state of flow that becomes a private experience rather than a performance for an audience to look at.

After *Deep Flow*, the felt and embodied phenomena are described and revealed by the practitioner in drawings, verbal feedback, and biometric data from an embodied heart rate monitor. These findings are then interpreted and analysed, in relation to each other, and to the experiential state of flow experienced by the practitioner. These outcomes are considered as being differing human and non-human materials, flowing, and converging through the relational and phenomenological practice of *Deep Flow*. Through an immersion in these materials, they become embodied by the practitioner; a form of re-embodiment emerges. This is an experiential state, where all human and non-human materials are experienced as being in a state of flow, coursing through the practitioner in *Deep Flow*, as an *embodied materiality*.

Introduction

Deep Flow is an *embodied materiality* that may be experienced by entwining two sets of dance research: phenomenological dance research and artistic practice. It arises when situated within a *Tentacular Worlding*, a methodology that uses phenomenological methods, to *spiral inwardly* (Fraleigh, 2018), to explore *dance as experience* (Ibid.), and to support a practice, what I am referring to hereafter as, *looking inwardly.* To intensify the experience of *looking inwardly* during *Deep Flow*, the practitioner uses a blindfold, to augment her bodily senses, affective sensations, and her perception of the lived and felt experiences, in the absence of visual information. This allows the dancer to explore *Deep Flow* as an internal whole-body experience rather than a performance of certain movements or emotions for an audience to look at.

Deep Flow includes multimodal qualitative and quantitative methods, to describe, configure and interpret the embodied experiences using verbal description and drawings, to record and make sense of those experiences. The data from a heart rate monitor (HRM) embodied by the dancer during *Deep Flow*, is analysed and interpreted in relation to the qualitative data, that are the verbal descriptions, and drawings. This applied phenomenological approach thereby focuses on the validity of first-person lived experience as the starting point for the construction of knowledge and consequently challenges ocularcentric and technologically informed dance practices that make use of wearable biosensor technology or interactive software.[1] These forms of practice are reliant on a dancer *looking outwardly* to interact with visual and aural feedback loops to visualise and represent their responses in external media environments, outside their bodies, thereby neglecting the vast storehouse of lived experiences felt within their bodies.

Deep Flow is an immersive experience that requires the embodiment of technology, and embodied relations between human and non-human materials (Ginslov, 2021). This enables an embodiment of tangible and intangible materials, collapsing notions of inside and outside, subject and object. The immersion in bodily experiencing and felt sense perception, promotes states of flow and relational embodiment, to construct knowledge from a first-person perspective, expanding an understanding of our lives in relation to technology, human and nonhuman materials.

Deep Flow may then be seen as a model of research and practice that is not a one-dimensional form but an ever-evolving emergent process that is itself an embodiment of lived experience, research, phenomena, technology, materialities and practices. Meaning making takes place within this relational embodied reflexivity that accommodates and makes conscious, the flowing living present through bodily awareness. It is not about performance and display, but focused implicit experiences. Through this the dancer discovers a multiplicity of relational sense perceptions and

intentionalities, originating from within the experience of being in a body, immersed within a state of embodied materiality of *Deep Flow.*

1. Phenomenological dance research

Deep Flow is framed within a *Tentacular Worlding*, a phenomenological methodology that is centred on relational and subjective bodily experiences as the basis for the creation of knowledge. The term *tentacular* derived from the Latin *tentaculum*, means 'feeler', or *tentare*, 'to try' whereas *worlding* describes a way to experience *being-in-the-world* (Heidegger, 1962), which is achieved by being present, experiencing and living in the world, forming relations with it through one's body, mind, and culture. Together they are used metaphorically in this research to *try out* new practices, to *world* or performatively interlace different states of feeling and perceptions through the body. To do this, *looking inwardly* and *doing a phenomenology* (Kozel, 2013 & 2007) becomes necessary.

1.1 Looking inwardly

Deep Flow uses a strategy of *looking inwardly* to disrupt ocularcentric and technologically informed dance practices that use wearable biosensor technology and or interactive software to requiring one to *look outwardly.* These forms of practice are reliant on a dancer *looking outwardly* to interact with visual and aural feedback systems that visualise, sonify, and represent their responses in external media environments, outside their bodies. These forms of interactive practice favour ocularcentrism to drive the work. This may be construed as neglecting the vast storehouse of a dancer's lived experience that digital or interactive technologies, used instrumentally, cannot capture nor share. To counteract these ocularcentric forms of practice, the practitioner *Deep Flow* uses a blindfold to focus on bodily experiencing and the pre-reflective when practicing meditative states of flow. This expands and deepens an understanding of our own personal bodily experiences and enables the construction of knowledge from a first-person. The pragmatic use of the blindfold with the meditative techniques, forces one to *look inwardly*, to focus on embodied dance practice *as experience.* With the absence of visual and aural feedback or information from the outside, the practitioner in *Deep Flow*, focuses inwardly on their own embodied experiences, to try and get closer to what their experience 'feels like' when dancing in a state of flow. This is a private experience rather than a performance for an audience to look at. To achieve this requires 'doing' a phenomenology (Kozel, 2007).

1.2 Doing a phenomenology

Phenomenology according to Susan Kozel (2013), is centered on the validity of first-person lived experience and may be used for the construction of knowledge by *doing a phenomenology.* This implies sliding across the words, method, and methodology, as the

method refers to *how to* do research and phenomenology is a methodology that has at its root: phenomenon, which means something that happens. 'It is one of the subjective, experience-based methodologies that is used to anchor practice within research, to overcome unhelpful divides between theory and practice, between the mind and the body and between my solitary experience and shared experiences' (Kozel, 2013, pp. 4−5).

Doing a phenomenology then, is a way to conduct research as something one experiences on a practical level. It is not prescriptive as practitioners should set up their own methodology based on the project that they are developing. One starts by *doing*, one then becomes aware of the *doing* and then finally one refines and selects 'a line of thought, or a line of questioning' (Kozel, 2007, pp. 50−51). It uses a method of 'describing, not of explaining or analysing' (Merleau-Ponty, 1945, p. viii) and is different to analytic thought, as pre-reflective experience is unrestricted by universal and abstract rationalist notions but operates 'through resonance rather than truth' (Kozel, 2013, p. 7).

This orientates pre-reflective experience as being a resonance within the body, unrestricted by universal and abstract rationalist notions of *truth*. It enables the researcher to practice *looking inwardly* and *doing* a phenomenology, to explore phenomenal presences, going back to the body and bodily knowing, the *lived experience* of embodied consciousness, or *the mind in the body* (Merleau-Ponty, 1945). This includes exploring the *felt-sense* (Gendlin, 2003, pp.100−115) that is a 'bodily knowing [that] is not an immediately identifiable specific emotion or sensation, but something "fuzzy" and difficult to pin down, yet also clearly "there" inside you, telling you about your situation' (Boden & Eatough, 2014, p. 162). This requires a focusing method that requires the practitioner to 'find meaning inherent in the *felt-sense*, through a back-and-forth movement between words, and their felt complexity in the lived body' (Todres & Galvin, 2008, p. 575).

2. Artistic Practices

Deep Flow is an embodied dance practice that entwines two sets of practice: embodied dance practice that includes *looking inwardly* to explore whole body experiences, through fascia release, and meditation, and artistic research practice, using reflective methods such as verbal drawings, verbal description, and biometric data to describe bodily experiences. These methods enable the researcher to access and interpret pre-reflective experience through their own *felt-sense*, visual imagery, and verbal feedback. A HRM is worn by the practitioner to measure heart rate variability (HRV), that indicates when the dancer is in the meditative state, *Deep Flow*, and is only read and interpreted after a session of *Deep Flow*.

2.1 Embodied dance practice

Deep Flow is an Embodied Dance practice. It moves away from Somatic Dance practice, where the *(re)education* of a dancer's body takes place (Batson, 2009). Here dancers

consciously engage with scores, visualisations, and self-awareness, to facilitate change in habitual movement patterns enabling them to perform more efficiently. They use internal sensory awareness and experiential approaches to self-organisation through movement and visualisation techniques to improve the *Body Schema* through self-exploration rather than tactile or verbal correction.[2] Above all, they create an internal awareness of healthier pathways for movement, retraining the central nervous system, to repattern the body's habitual movement pathways, to reconnect the mind, body and physical sensation found in dance practice.

Embodied Dance practice however goes beyond the more pragmatic approaches of Somatics by using phenomenological methods to explore *dance as experience*, as it is more focused on embodied, meditative, and heightened state of awareness that synchronises states of *flow*, of the physiological, implicit, resonant, and affective states of awareness. By *looking inwardly* directing one's attention to the bodily senses, the emergence of embodied phenomena such as sensations, feelings, internal visualisations, and thoughts begin to materialise.

Deep Flow is inspired by the *Full Body Drop* created by Margret Sara Guðjónsdóttir, that uses myo-fascia release, meditation, the emotions and breathing techniques. This requires an 'intensive deep inner listening and surrendering to inner body systems and rhythms,' (Guðjónsdóttir, cited in Kozel *et al.*, 2019, p. 4). *Deep Flow* method also includes other known methods such as *dwelling* (Heidegger, 1962), *listening* (Nancy, 2007), *direct experiencing* (Gendlin, 2003), and *flow* (Csikszentmihalyi, 1990) however this paper will however only focus on *Deep Flow*, that is an amalgamation and was derived from all the above methods.

Deep Flow is a mindful practice, whether in stillness or in slow movement, where your whole body suddenly feels connected, lighter, expansive, and effortless, as if gravity no longer exists.

Using internal visualisation techniques and *fascia release*, it focuses on letting go, and without much physical activity, the sensory motor, neuromuscular and skeletal systems seem to *dissolve*, the body is perceived as becoming invisible and the dancer sometimes experiences an entwining with the world, a perceptual experience.

You know when you are *Deep Flow* when your arms float upwards without conscious control, and you explore moving, extremely slow *t'ai chi*-like movements, with a minimal amount of tension and effort in the body, focusing on equalising spatio-temporal dimensions of movement without the conscious mind guiding the movement. Your mental focus is engaged entirely in this experience. You are no longer aware of your bodily functions, such as the sensorimotor and the proprioceptive systems. Internal visualisations of colour, memories and emotions emerge and flood your mind's eye; your body sometimes feels like it is melting into the world around you and you are moving in

a thick viscous environment. This fosters a state of calm and flowing relations between subjectivity, the *felt-sense*, the sensorimotor system, the autonomic nervous system (ANS), HRV, fascia, kinaesthetic, proprioceptive, and sensorimotor systems. Attending to every shift of experiencing the physical and phenomenological, the body and mind are experienced as a unified whole, not as parts. The slow deep breathing stimulates the parasympathetic nervous system (PSNS) (Polar, 2020), which releases the fascia, lowers heart rate (HR) and increases HRV. *Deep Flow* is concerned with the state of *flow and calm* whist moving very slowly in a standing position. *Deep Flow* does not seek to investigate the mental, subconscious, and emotional states of a dancer, but is more concerned with focusing on the relational flows of lived and embodied experience.

In addition, the practice attempts to find relations between states of flow and biometric measurements from the HRM and is concerned with increasing HRV through fascia release that induces profound states of *Deep Flow*. This implies that *Deep Flow* has activated the parasympathetic 'rest and digest' (McCraty, 2016) response via the vagus nerve, the body's major parasympathetic nerve. This slows down heart and breathing rate and the entire ANS, that leads to an increase of HRV, making you feel relaxed, focused, calm and positive (McCraty, 2016). Achieving higher HRV is therefore an essential part of the method. Reading the data occurs after the practice, a self-reflexive practice that informs the dancer about the embodied state of HRV and its relation to states of *flow*. The biofeedback is reflected upon and informs the next practice session of *Deep Flow.*

2.2 The Deep Flow method

The practitioner should practice *Deep Flow* in a quiet warm room, wearing comfortable clothing, a blindfold eye mask, and a yoga mat should be in place to work on. One begins by standing on the edge of the mat and using a score: beginning with deep and slow diaphragmatic breathing as used in meditation techniques, and then a body scan that focuses the mind on every part of the body, slowly moving from the earth into the back of the heels, across the back part of the body, over the head and face and back down the front part of the body, into the earth. This centres the practitioner's awareness on their own body and bodily experiencing, nothing else. Then one thinks of *melting the bones* and this makes one feels like gravity is changing and with this, time is slowed down. One then starts thinking about releasing the fascia or connective tissue in the whole body which then relaxes the entire body, and the body is experienced as a whole-body phenomenon, with states of equal tension and weight distribution, amplifying states of calm and balanced effort. Your arms float upwards without conscious control. Moving extremely slowly, using a minimal amount of tension and effort in the body, with equal spatiotemporal dimensions of movement. This occurs without the conscious mind guiding the movement, yet your focus is engaged entirely in this one activity.

This is recognised as being in a state of the *Deep Flow*. When this occurs, one steps onto the yoga mat to further experience and deepen states of *Deep Flow*. Here the physiological, the phenomenological and the embodied entwine with each other. These is no separation between them as *Deep Flow* is only experienced through a relational process, that entwines bodily experiencing, methods of practice, fascia release, and HRV.

Deep Flow therefore synchronises states of *flow*, between the physiological, the implicit, and resonant states of awareness. By *looking inwardly*, directing one's attention to the bodily senses, sensations and feelings, internal visualisations, and perceptions begin to materialise. Internal visualisations of colour, memories and emotions emerge in your mind's eye; your body sometimes feels like it is melting into the world around you, and you are moving in a thick viscous environment. This fosters a state of calm and flowing relations between subjectivity, the *felt-sense*, the sensorimotor system, the ANS, the fascia, the kinaesthetic, proprioceptive, and sensorimotor systems. Attending to every shift of experiencing the body and mind are experienced as a unified whole. The slow deep breathing stimulates the parasympathetic nervous system which lowers heart rate and increases HRV making you feel relaxed, focused, calm and in a state of *flow* (**Figure 1**).

Figure 1: Dancer, the Author in Deep Flow at the Symposium on Digital Urbanism, Blekinge Institute of Technology, Karlshamn, Sweden, Nov 14, 2019. Photo: Daniel Spikol. Reproduced with permission of the photographer.

2.3 Movement Hieroglyphs

Movement hieroglyphs are drawn after *Deep Flow* as a form of *writing from the body* to visualise one's internal 'body's voices' (Steinman, 1986, p. 16). They are created by connecting one's body to the pen and allowing 'a bit of body energy to move on the page' to draw the 'energy you feel in your body' (Stark Smith, 2013). These are single line drawings or glyphs drawn spontaneously without reflection using a pen as an extension of one's body (**Figure 2**). After drawing a hieroglyph, you reflect on how it was drawn and how it still resonates in your body making notes on the experience.
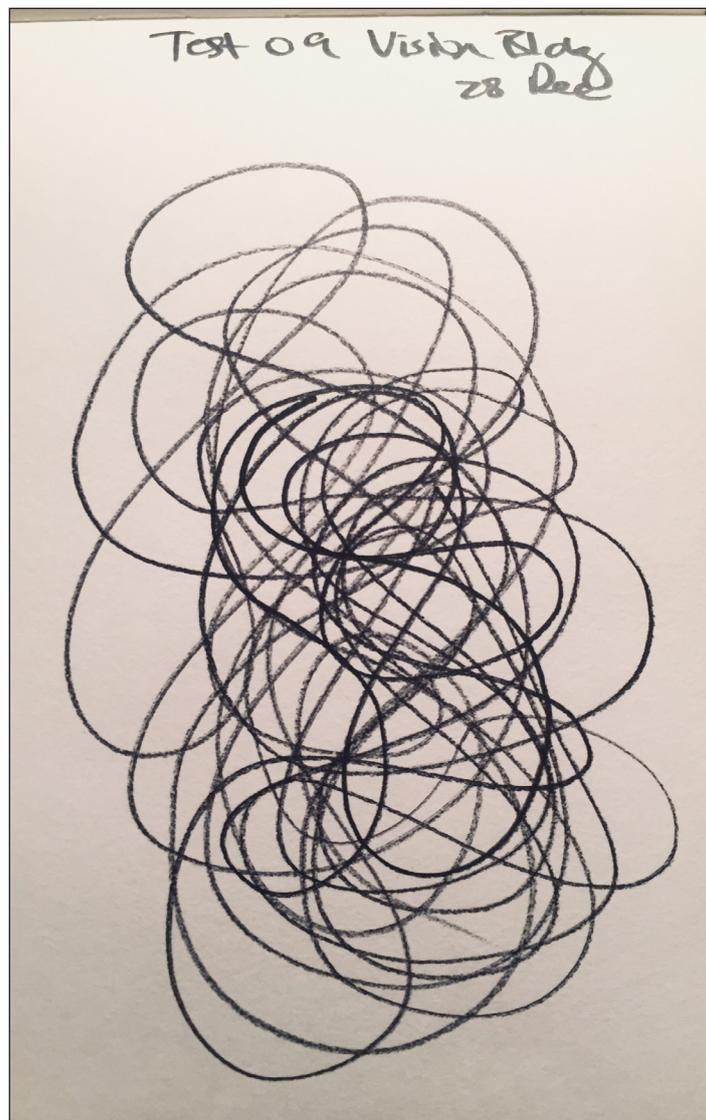

Figure 2: An example of a Movement Hieroglyph by the Author (2017). Photo: The Author. Reproduced with permission of the Author.

2.4 Figuring-Figures

This was derived from Nikolaus Gansterer (2017) methods of *figuring*. According to Gansterer, *figuring* starts in the body of the practitioner. One needs to firstly pay attention to the experiential shifts, intensities, sensations, or feelings in the body before they are represented and made visible externally through drawing or painting. When aware of this *figuring*, one then composes or creates *figures*, that are spontaneous drawings–paintings (**Figures 3** & **4**) not controlled by a drawer's cognitive abilities but through a body–mind relation. This *figuring-figures* process may be seen as being symbiotic and reciprocal, a Möbius strip as '*figuring* gives rise to *figures*, whilst they attempt to activate the *figures*, create the conditions for (further) *figuring*' (Gansterer *et al.*, 2017, p. p. 75).

Figure 3: An example of a Figure by the Author (2017). Photo: The Author. Reproduced with permission of the Author.

Figure 4: An example of a Figure by the Author (2017). Photo: The Author. Reproduced with permission of the Author.

2.5 Verbal description

Certain aspects of Zoë Boden and Virginia Eatough's (2014) multimodal hermeneutic-phenomenological approach, framed by qualitative social science research, are used verbally describe the experiences of *Deep Flow*. These are directed toward a documentary camera immediately after the hieroglyph, to 'express something fundamental about one's *Lifeworld*' (Boden & Eatough, 2014, p. 173) and what you have experienced through your *felt-sense* and bodily experiences.[3] This may include the more poetic or aesthetic aspects of spoken language rather than written text. According to Boden and Eatough (2014), verbal description is a better way to report on felt experience as it is far easier to verbally describe an experience than to write about it, as this requires mental and intellectual work. However, finding the right words to describe the *felt-sense* is difficult as they are experienced in the body of the speaker as a resonance or sensation (Merleau-Ponty, 1945) before becoming identified as a thought. In these instances, verbal 'analogy,

metaphor, and imagery can offer a means to communicate the complexities of *felt-sense* experience outside of literal language' (Schneier, 1989; cited in Boden and Eatough, 2014, p. 163). Verbal translation is therefore needed to put felt experience into words so that a researcher may better understand and find meaning in them. Boden and Eatough (2014, p. 162) suggest a method of interviewing a subject using a list of questions to 'move from the meaning-rich *felt-sense* to the fullest possible verbal account of an experience' (Boden and Eatough, 2014, p. 162), to reach a 'bodily informed understanding' (Todres, 2007, p. 2). After answering these questions directly toward the camera, the researcher transcribes, verbatim, what was said and reflected upon. These notes are then used and referred to in relation to the imagery created on that day. Relations between embodied and resonant experience, the verbal descriptions and imagery then start to emerge. Later comparative analyses may also be used to find differences and commonalities in each *Deep Flow* experience. Multimodally thereby offers various qualitative methods to open the multiple dimensions of experience for exploration, and 'combining these so as to work simultaneously across different sensory registers' (Boden & Eatough, 2014, p. 174).

2.6 Embodied technology

During the practice of *Deep Flow*, the HRM is not looked at or referred to as one is blindfolded, in an embodied state of *flow, looking inwardly.* This strategy subverts the practice of *looking outwardly* and replaces ocularcentrism with *looking inwardly* and bodily experiencing. The biometric data is only read after *Deep Flow* and is not treated scientifically. It is treated rather as another strand of description that feeds back into the experience of self in *Deep Flow* as 'the perception and interpretation of the biometric data feeds back to one's embodied being' (Van Den Eede, 2015, p. 151). The experiential self is realised through this relational self-reflexive praxis. However, for this to occur the HRM needs to become embodied by the practitioner, so that it becomes perceptually transparent and incorporated.

The Author uses two phenomenological philosophers' terms, to explain the embodiment of technology, Martin Heidegger (1962) and Maurice Merleau-Ponty (1945). Heidegger (1962) refers to the embodiment of technology as a *readiness-to-hand*, where there is a merging of the body with a tool or technology. He uses the example of a carpenter working with a hammer, where he is so familiar with it that he no longer consciously aware of how to use it but is only aware of hammering. Engaged in this action, the hammer becomes perceptually transparent, as the carpenter's Body Schema adjusts to the hammer, creating an intuitive relationship with it, such as one experiences when riding a bicycle. On the other hand, Merleau-Ponty (1945) describes the embodiment of technology as an *incorporation* that is explained his thought

experiment where a blind man navigates a street with a cane. Where does the blind man's self begin, in relation to his holding of the cane. Is it at the tip, the handle or halfway? Merleau-Ponty states that it is found in the circuit of material engagement between the cane, the environment and the man's perceptual experience. Stick, man, and pathway form a circuit of information. The stick, becomes an extension of his Body Schema, is a perceptual and transparent tool that transmits material differences in the environment which he feels through the cane, to which he adapts. The man *incorporates* the stick into his Body Schema, as it becomes inseparable from his lived experience.

However, post-phenomenologist, Don Ihde (1993; 2002; 2009, 2010) describes the embodiment of technology, and in this case an HRM, as occurring through four human-technology relations with technology that are 'inter-relational and reflexive' (Ihde, 2010, p. 42).

a) *Embodiment relations*: here the technology is embodied into the user's *Body Schema*. When familiar with its use, the HRM becomes perceptually transparent.

b) *Hermeneutic relations*: this is reflected in the reading and interpretation of data generated by the HRM.

c) *Alterity relations*: where human beings interact and experience a HRM as a digital *other* or an 'other' version of the self in numbers.

e) *Background relations*: where the HRM is not foregrounded in *Deep Flow* but is understood as being *present absent* not directly experienced, and also uses Bluetooth and the internet providing a context for *Deep Flow*.

In all these descriptions there is a distinct focus on individual experience in relation to an embodiment of technology and data, making Ihde's *I-technology-world* (2010) definition clear (orig. emphasis) where subjectivity and self-knowledge are gained reflexively. All descriptions define ways of using HRM technology, that once embodied become perceptually transparent. In addition, HRMs offer a way of reading and interpreting the embodied *self* in the data, as HRMs do not mediate images isomorphic to the human heart. Through a self-reflexive reading and interpretation of the graphs, data or text, the embodied self is found in the data, as it is the user who has produced the data (Van Den Eede, 2015).

2.7 The interpretation of biometric data and its effects on Deep Flow

A question arises: How may the interpretation of HRM data affect the next level of *Deep Flow*, given that one enters a meditative state, immersed in a blurred body-mind state of the *felt-sense*, no longer driven by wilful cognition but by free association. How can

the relations between the states of flow and HRV within the duration of the practice, affect the next session of *Deep Flow*?

The answers could be derived from several factors. After ten sessions of *Deep Flow*, each one lasting around ten minutes, the Author began to recognise repeated patterns in the data feedback in relation to the time, duration, and onset of *Deep Flow*. After several sessions of *Deep Flow*, she began to recognise that when it started, her arms floated upwards and sideways, as if by themselves. This was time stamped by the Author making a low-pitched vocal sound and is reflected in the documentary videos of the sessions. With each session it took increasingly less and less time for this to happen and after ten to twenty sessions, seemed to occur at around two minutes.

The Author also noticed that between the onset and the duration, of at least eight minutes, there was a correspondence between the data and the state of *Deep Flow*. Higher HRV scores, (which, unlike heart rate, cannot be detected consciously by the practitioner) started at around two minutes and remained relatively stable until the end of the ten-minute session. However, this was not the case for every session. Dancers or anyone doing physical training, knows that not every practice or training sessions are not exactly the same, as nuances of our lives may often interfere with one's focus and concentration, especially when one is tired or emotionally upset. The Author noticed that whenever she had experienced a bad night's sleep for example, or if the technological aspects of the research were not working thereby upsetting her, the state of *Deep Flow* was affected, which in turn affected the scores of HRV. Generally, when stressed or from lack of sleep, the Author's scores of HRV were lower.

The Author then realised she would have to get a better night's sleep and/or focus more on her deep breathing and phenomenological methods to achieve a deeper state of *Deep Flow* the next morning. The impact of this information led the Author to realise that the body, emotion, mood, the subconscious, the PSNS, HRV and *Deep Flow*, were wholly connected. Achieving higher HRV scores is in a sense the desired outcome as it indicates that the practitioner is in a better frame of mind and has achieved a sense of well-being. It is for this reason *Deep Flow* is practiced. Not only does it promote a better sense of well-being but also indicates when you are not. However, the more you practice the more you increase your HRV and sense of well-being.

Embodied Materiality

Deep Flow becomes an *embodied materiality*, a relational *worlding* of visible and invisible, tangible and intangible, human and non-human materials, technologies, and embodied practices. This may be understood as arising from a *relational embodiment*. This is a concept of synthesis, unifying the material body, the phenomenological,

the technological, the imagined, the drawn, the languaged and the practice. The HRV data, bio-mediations, HRM and the experiential are considered as being co-equal and indissociable "complementarities" set in a 'perspective of relationism' (Overton, 2008, p. 5). In *Deep Flow*, these entities flow into each other through 'relational thinking' (Ingold, 2000, p. 295). Here the body and mind exist in relation to each other and the *worlding* in which they exist. This entwinement could also reflect Merleau-Ponty's (1964) notion of the *chiasmus*, that entangles body-self-world. This collapses Cartesian binaries defining the inner and outer to find relations between self, world, and technologies.

This presents a *dance of agency* (Aydin, et al., 2018) that is reliant on *embodied interactions* (Dourish, 2001), that entangles the human and non-human through a spectrum of sense modalities situated in the body. This writer adopts the definition of *materiality* as being the quality of the experience of materials that are both tangible and intangible, experienced in our material, phenomenal and embodied world that leave remarkable effects on our embodied states of being.

Deep Flow reveals therefore, an admixture of materials that are visible and invisible, tangible and intangible. For example, the HRM becomes perceptually transparent when embodied into the *Body Schema*. The HRM becomes materially tangible again after *Deep Flow* and when the biometric data is printed out. However, after its interpretation, the data becomes embodied and intangible again, as the interpretation of the data feeds back into one's embodied being and into the next session of *Deep Flow*. *Embodied materiality* thereby challenges the use of visualising, interactive or self-tracking technologies that mediate invisible events outwardly, making them visible for the user to interact with. *Deep Flow* rather, allows a practitioner to *look inwardly*, to experience *embodied materialities* of the human and non-humankind to get closer to the *felt-sense* and bodily experiences.

Conclusion

Deep Flow focuses on experiential lived experience, removes the need for ocularcentrism found in dance-tech practices. By doing so it unearths the Chthulucene, that is the earthy experiential side of ourselves. This could, in an ethico-political sense, reorientate a person's visual mastery over things, as being the purveyor of unequivocal *truths*. By relinquishing ocularcentric behaviour a practitioner may begin to trust their *felt-senses* and lead to a better understanding of our relations with the non-human, that de-emphasises human exceptionalism and visual mastery over things. Through the practice one may find new ways of experiencing interiority in relation to practices, materials, technologies, and the world, embracing the human and non-human, in states of *Deep Flow*, and by *looking inwardly*, creating an *embodied materiality*.

Notes

[1] A biosensor is a wearable analytical device which captures and converts the physiological and electrical activity of the body's muscles, such as acceleration, speed, direction, or heart rate, into data.

[2] Body Schema: To guide the movement of the body through space, the brain must constantly monitor the position and movement of the body in relation to nearby objects through the Body Schema. This refers to a representation of the positions of body parts in space, which is updated during body movement and is primarily used for spatial organization of action. The Body Schema is therefore a central representation of the body's spatial properties, that includes the length of limb segments, their hierarchical arrangement, the configuration of the segments in space and the shape of the body surface. *Haggard, Patrick and Daniel Wolpert 2005 Disorders of Body Scheme. Available at* http://cbl.eng.cam.ac.uk/pub/Public/Wolpert/Publications/HagWol04.pdf *[Last accessed 27 August 2019].*

[3] Lifeworld is how an individual experiences and expresses themselves in the world through their immediate experiences, activities, and relations that make up their world, such as self-hood, embodiment, temporality, spatiality, or mood. Ashworth, Peter 2006 Seeing oneself as a carer in the activity of caring: Attending to the lifeworld of a person with Alzheimer's disease. *International Journal of Qualitative Studies on Health and Well-Being*, 1 (1): 212–225. DOI: 10.1080/17482620600967786

Competing Interests

The author has no competing interests to declare.

Author Information

Dr Jeannette Ginslov (PhD, MSc, MA) is an artist, researcher and scholar exploring dance, Screendance and embodied technologies. She is an independent Screendance maker, producer, online workshop facilitator, and has screened her works internationally. In 2021 she was awarded a PhD from the Arts and Creative Industries Department at London South Bank University, where she researched *Deep Flow: a tentacular worlding of dance, biosensor technology, lived experience, and embodied materials of the human and non-humankind*. She also has an MSc in Screendance Dundee University (Distinction), and an MA in Choreography, Rhodes University. Currently Ginslov is in Malmö Sweden, working on: CATALYSTS – Somatic Resonance, an MR/AR/AI and Screendance collaboration with Prof Susan Kozel from Malmö University, choreographer *Margrét Sara Guðjónsdóttir and AR/AI interaction designer Keith Lim and, Nanocosmic Aesthetics, a collaboration with Keith Lim and nuclear scientist Emil Rofors*, selected for the Open Call ESS & InterArts Centre Residency in Malmö, exploring Small Angle Neutron Scattering (SANS), the embodiment of data and neutronic imagery, using AR/VR technologies to create a new visual aesthetic. In January 2022 she joined the School of Arts and Communication (K3), Malmö University, Sweden, as an MCS Master's Thesis Supervisor. http://www.jginslov.com/.

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