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Meditative Dancing and ‘Flow’

When I first enrolled in this program, I used to call myself a Dance Scientist. During my previous years as a Master’s student and while I was applying for grants to do my PhD, I encountered countless researchers from the sciences, like engineers, biologists, physicists and neuroscientists, all seemingly skeptical about the richness of what arts and philosophy can provide. A study needs empirical evidence, they would say, and they would glaze over the philosophical frameworks that had always fascinated me. But I knew that both empirical evidence and philosophical accounts often point towards similar conclusions, only in a different mode of expression. This is why I decided to start a quest on how I can bring those philosophical theories into the realm of empirical research, so that scientists could also benefit something from these fascinating ideas. Now, I call myself an interdisciplinary Dance Psychologist, with a minor in ethnography – yes, I observe and document the tensions between the arts and sciences constantly, because that is where my research has placed me.

My practice is not only Meditative Dancing and experiencing ‘flow’ – it is also the constant code-switching between scientific knowledge on cognition and the philosophy of embodiment. So I am sure that my presentation will bring up some controversy – as it always does – but please do provide me with your insight at the end of my presentation; give feedback on my practice. As artists and philosophers, what did you feel that I had “left out” or “over-simplified”?

Topic 1: Movement approaches, altered mental states, and “mastery”

So, I have mentioned that there is a fascinating philosophical theory that has led me to this project. Let me explain what this is. The idea of Eastern mind-body unification has become popular in the Western world, naturally reaching the realm of dance as well. As dancers, we often participate in exercises involving “being present in the moment,” or “letting go of self-judgements.” Looking back to the origins of these meditative approaches to movement, we find a myriad of literature on Eastern Zen-influenced practices which use these approaches as a gateway to enter an altered state of mind. In Japanese traditional dance – or Nihon-buyo – for example, the students are taught to repeat the motions of the choreography and maintain their full attention to the movements, until they reach a state of “no mind”; no forceful effort, no self-reflections, no other distracting thoughts. Teachers of martial arts also see the physical training process as a pathway for the students to reach an intuitive, hyper-responsive state of mind. In this state, actions are taken with such precision and fluidity, that not even the movers themselves are aware of their own decisions.

In both Nihon-buyo and martial arts, this state of extraordinary intuition is regarded as the ultimate mastery of the art. In either scenario, it is obvious that the repetition of specific movements naturally enhances the overall physical performance. This is the general belief in any physical activity – we all say, practice makes perfect. However, there is another important element in these training processes, and that is the *intention* during movement. “Being present in the moment” and “letting go of all conscious judgements” are some of the essential *intentions* that make that training an effective pathway to reach a heightened mental state. In Zen-based movement traditions, it is thought that no matter how well one train’s his body to execute specific movements, he will never become a true master of the art, until he can strip his mind of all the distractions inhibiting the true potential of the body. The same principle is embedded in many of the Eastern-influenced dance practices today, including improvisational styles like Butoh, and also other movement styles incorporating knowledge from somatic practices, like the Skinner Release Technique, Feldenkrais and the Alexander Technique.

What is more curious is that so many of the literature written on this philosophy compares the heightened mental state to the experience of ‘flow’ – a state of intense concentration, effortless task execution and optimal performance. The idea of ‘flow,’ originally developed by a Hungarian psychologist Mihaly Csikszentmihalyi, is one of today’s central topics in the field of positive psychology. It has been studied in numerous research projects, branching out from an incredibly diverse range of disciplines – sports, technology, business, culture & religion, cognitive science, and so on. Some say that the heightened state in Zen practices is synonymous to ‘flow,’ while some say that the two are different, but either way, the significance of this comparison lies in the fact that this may be a valuable bridge between Eastern philosophy and Western empirical research. If researchers of ‘flow’ claim that this subjective experience is connected to optimal performance, wouldn’t this be the perfect grounds to investigate the Eastern philosophy on how certain *intentions* can bring about the mastery of the body and mind, in an empirical, science-compatible way?

So, having said this, I present the following questions, which have become the starting point of my research project: (Slide)

a. How do I extract and define the essence of this specific approach to movement?

b. What is this particular altered mental state, often compared to ‘flow’?

c. What are observable movement qualities, possibly caused by this mental state?

d. Is there a way to measure these movement qualities objectively?

Topic 2: Defining and identifying Meditative Dancing & Meditative Flow

Now let me explain how I have investigated the first 2 questions: what is the essence of the movement approach, and how do I define the mental state? In exploring the literature on Eastern-influenced movement practices, I gained confirmation that the word “meditation” was indeed a keyword that ties many of these practices together. It seemed that the concept of meditation was often times embedded in these practices, in the form of the previously mentioned *intentions* during movement. After some cross-referential reading and field work on dancers’ opinions, I developed a set of criteria on what the essence of a meditative approach may be. Here’s is what I have extracted.

1. The intention to "quiet the mind" or "let go of distracting thoughts".
2. Continuous focus on one internal aspect (e.g. breath, energy, flow of consciousness, etc).
3. Release of any conscious analysis or judgement (e.g. self-monitoring or evaluation of one’s own movement).
4. No rush or push to attain an external goal such as winning a competition or hitting a target.
5. No forceful will to move one’s body in specific ways.

As I developed these criteria, I also became aware that the defining elements of pure meditation can be applied to movement practices other than those that are explicitly labeled as Eastern-influenced; simply from experience, I know that dancers could encounter any of these criteria in a variety of scenarios ranging from technique class, rehearsals, improvisation workshops, or even self-lead movement exploration. As my initial intention was to bring forth the applicability of Eastern philosophy to the contemporary Western world, this was, in some way, an encouragement to me. I am currently calling the movement approach which includes all of these criteria, Meditative Dancing.

Now, as for the ‘flow’-like, heightened mental state associated with Meditative Dancing, I conducted another literature investigation and field work, which lead me to numerous interesting theories on how ‘flow’ and meditative states are closely related, yet slightly different. One of such theories focuses on the 9 elements of the ‘flow’ experience during goal-oriented activities, and the incongruences between that and the altered mental state during meditation. The 9 elements of ‘flow’ can be separated into two categories, which are the pre-set *conditions* for ‘flow’, and the subjective *feeling* of ‘flow’. Within the condition elements, there are items like “having a clear goal,” “receiving accurate feedback on one’s performance” and “a good balance between one’s skillset and the challenge being presented”. As some of you may have suspected, these elements, as well as the way that they are worded, do not sit well with the concept of meditative activities; for example, the goal of meditative activities is the act of meditation itself, and the only feedback that meditators can obtain is on their own level of concentration. Furthermore, it is up to the meditators to know their ability to concentrate, and how far they can submerge into the activity. In other words, successfully striking a balance between skill and challenge is solely in the hands of the meditators themselves. However, there seemed to be enough written and spoken evidence on the similarities between ‘flow’ and meditative states to allow the development of a revised set of ‘flow’ criteria, tailored just for Meditative Dancing. Here they are.

Apart from some alteration, I was able to develop a set of criteria quite close to that of a frequently used measurement scale for ‘flow’ in sports. In my research, I define this set of elements as the criteria for Meditative Flow.

Utilizing these sets of criteria for Meditative Dancing and Meditative Flow, I am currently conducting an online survey which asks dancers’ experience of the two concepts, in order to confirm my assumption that the two are related to each other, and that, therefore, claims made in Eastern philosophy are applicable to our Western dance context.

Topic 3: What does it feel like to you?

Task 1: Think of a set of movements – 5 sec. : you will have to remember the sequence later!

Task 2: Repeat the sequence

Task 3: Gradually “let go” of distractions

Task 4: Keep focusing…

Now that you have experienced what Meditative Dancing is like, and maybe even Meditative Flow, I would like to explain what may be happening in our brains when we *do* enter Meditative Flow – now, this is where the controversy arises. We all feel that we experience movement and mental states in our own unique way, and that, reducing it to a set of brain functions is an over-simplification.

But in ‘flow’ research, many scholars have already delved into the study of brain functions in search of neuro-representations of the ‘flow’ state. These investigations have brought up innovative, but crucial theories on how the ‘flow’ state can be directly connected to optimal physical performance. As a researcher who strives to bridge the gap between philosophy and empirical science, I feel that this is an area that simply cannot be ignored in uncovering the relationship between Meditative Flow and mastery in performing arts.

Topic 4: Relationship between ‘flow’ and mastery – neuroscience perspective

Obviously, there are multiple brain regions and neural systems involved in ‘flow’, just as is with any of our everyday experiences. So allow me to give you a rough sketch, for the sake of time.

Our brain functions can be categorized into two systems. One is the Explicit / Egocentric system, and the other is the Implicit / Allocentric system.

1. The Explicit / Egocentric system creates our agency. We are “conscious” and we are “aware” of what’s happening. We can shift attention, make decisions, and analyze things. This system is governed by the prefrontal cortex, and operated in other areas of the cerebral cortex – we are programmed through society to use this area – in school, at work… we need this system in order to function.
2. The Implicit / Allocentric system, on the other hand, is our “sub-conscious”, which means we are “unaware” of this processing, and it involves habitual, intuitive, and instinctive actions. This system is mostly independent of the prefrontal cortex, and is made up of direct interactions between non-frontal cortical areas, the limbic system and cerebellum

When we consciously focus on a task, our Explicit, Egocentric system activates, and we sense our agency. During this stage, the prefrontal cortex maintains our focus on the task, while the Parietal Lobe gathers and integrates relevant sensory information. The parietal lobe then relays all of the necessary information back to the prefrontal cortex, where further decisions are made. This dorsal pathway of information relaying is called the Task Positive Network, and the activation of this network can be observed through fMRI, when participants are concentrating on a specific task. Up to this point, we are conscious of our decisions, intentions and efforts, because the prefrontal cortex is involved. But as we push forward with the task, and when attention becomes effortless, the role of our prefrontal cortex becomes unnecessary, and the Task Positive Network slowly deactivates. This is the entrance to the Implicit, Allocentric mental state. Because of the lack of prefrontal involvement, this neuro-representation is also called hypo-frontality, which is identified by a decrease in cerebral blood flow in the prefrontal region. During this state, sensory information flows through a more ventral pathway, involving the temporal lobe rather than the parietal lobe. In the temporal lobe, information is processed as a cluster of anonymous sensory input, as opposed to being labeled as relevant or irrelevant to the task.

This spontaneous, lucid state is actually similar to schizophrenia, but some say that, if controlled correctly, it can be used as a creative tool. Here, I used multiple terms: Meditative Flow, Implicit / Allocentric state, and hypo-frontality, but my interpretation is that these all point towards the same, subconscious state of mind. Some neuroscientists consider this state to be the *key* to unlocking our potential in intuitive motor processing, which, in some cases, can be more efficient than our conscious, effortful actions. Without the constant energy consumption of our explicit, Task Positive Network, it is thought that other brain areas involved in implicit motor functions receive more energy, and their potentials become unlocked.

Of course, these are all extremely new ideas which need much more testing and confirmation, but nonetheless, it provides me with a sense of direction for my remaining two questions: What are observable movement qualities caused by Meditative Flow? And is there a way to measure this objectively?

I have yet to develop an effective angle to examine these two questions, but I am sure today will be another fruitful day for me to continue on my journey.

Thank you.

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