

August 2018

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**Location:** Boston, Massachusetts, USA

**Conference:** Movementis @Harvard Medical School

**Dates:** 27<sup>th</sup> – 29<sup>th</sup> July 2018

### ***Movement is ...***

**Movementis is the name of the conference I had great pleasure in contributing to at Harvard Medical School last month. With the support of a Lisa Ullmann travelling scholarship I delivered both an Oral and Workshop presentation collaboratively with US colleague Joanne Lara at the worldwide conference on Movement and Cognition.**

***‘Dance movement as a tool for educating individuals with autism:  
Theoretical and practical principles of applied neuroscience and  
educational theory’***



Presenting theory and research



Delivering some practical principles of applied neuroscience and educational theory

Sharing such a prestigious platform with some of the world's leading speakers in this growing interdisciplinary field of Neuroscience, Clinical and Artistic Practice was both daunting and exhilarating. <https://movementis.com/scientific-committee/>  
How is it possible to summarise this experience succinctly? As a process of reflection I started a series of tweets and it seems a great way of communicating and encapsulating such a broad ranging yet deeply complex area.

Anat Baniel highlighted '**Movement is** ...a way of focusing attention' an important aspect being "what a child feels as they move". Her work relates to autism and other neurodevelopmental disorders. This crosses over with my own area of research using an intentional dance-based approach #MovementWorks for autism.

Dr. Robert Melillo gave an inspiring lecture highlighting the parallels in brainstem, motor and autonomic development and their relationship to integrative function. <http://drrobertmelillo.com>

In neuroanatomical terms **Movement is** ... the pre frontal cortex (that which we attribute to executive function and academic learning) literally growing out of the motor cortex. From both an evolutionary and present moment perspective, #MovementWorks as a primary agent for thought.

Dr. John Ratey [https://en.wikipedia.org/wiki/John\\_Ratey](https://en.wikipedia.org/wiki/John_Ratey) affirms “Exercise is like Miracle Gro for the brain ... The neurotransmitters released through exercise create an effect like taking a little bit of Prozac and Ritalin.” **Movement is ...** a non-medical way to improve brain function. In this way #MovementWorks to enhance mental disposition and the learning potential for everyone.

Dr. Gerry Leisman <https://www.pubfacts.com/author/Gerry+Leisman> expounds it is easier to learn something when it is self-referential. **Movement is ...** a facilitator to learning because #MovementWorks to activate the brain\*.

### **Continuing the narrative through some personal highlights:-**

Through my Dance Science network I was also able to visit the **Boston Ballet Company** and talk with their physical trainer Heather Southwick about how dance science informs optimal performance in the elite domain. What a treat to watch class from the ultimate viewpoint. Dance **Movement is ...** kinaesthetic. #MovementWorks through rehearsed repetition - an intrinsic aspect of dance training.



The company's PT office overlooks the studio

Chaired by Dr Elizabeth Ossgood Campbell (ISMETA) with Dr. Michael Willoughby <https://www.rti.org/expert/michael-willoughby> Dr. Morris Bell and Dr. Lynne Kenney was an exciting symposium on **Embodied Cognition**, including its application to learning. Embodied Cognition (knowledge learned through the body) is now an established scientifically recognised phenomenon - one in which dancers have particular specialist understanding and expertise.

“The Movementis conference at Harvard Medical School brought together scientists from around the world. We need to get into universities and teach future teachers the research in motor-cognition assessment and intervention”. Lynne Kenney highlights the need to communicate that **Movement is** ... a vital tool for education.  
#MovementWorks for brain development.



Motor Proficiency - Not Moderate/Vigorous Physical Activity – is Related to Executive Function Skills in Early Childhood      **Michael Willoughby PhD**

And there was a **night of...(what else?) dancing!**

What a wonderful experience to see the scientists practicing what they preach and hitting the dance floor ☺. One of my dance partners was Movementis CEO Avraham Fried. **Movement is** ....fun. #MovementWorks to connect people.



The floor and stage set for a gala night of dancing -  
Vigilance<sup>1</sup>, Heart Rate, Arousal

1. In scientific terms Vigilance is defined as a state of alertness in which an appropriate response is made to a stimulus (Parasuraman, 1984) Advances in Psychology 1996

**My favourite anecdote** from the morning after the night before was from Dr. Gerry Leisman who presented a compelling lecture entitled 'I and Thou: Cognitive-motor interaction in the development of individuation. \*Leisman shared that he once found himself presenting a body-brain related lecture with Dr. Stephen Hawking in the auditorium. [https://en.wikipedia.org/wiki/Stephen\\_Hawking](https://en.wikipedia.org/wiki/Stephen_Hawking) Afterwards he approached Stephen to apologise in case any aspect of the presentation had inadvertently made him feel uncomfortable, to which Hawking replied, "*Not at all, in fact I totally agree, which is why I play tennis everyday.*" Both professors looked at each other and after a protracted pause, Hawking replied "*In my mind*". **Movement is** ... essential. From a neurological perspective #MovementWorks through intention.



Dr. Gerry Leisman

## Favourite Conference Quotes: - John Ratey MD

*“If you are in education you are in the business of brain development”.*

*“That which we call thinking is the internalisation of movement’ Llinas*

### The key take away observation:

Movement professionals are a passionate bunch. Perhaps we ‘take action’ because it goes with the territory, but notably across the 3 day schedule there were little to no delegates taking a break from lectures, hanging around in corridors except to try out some new dance moves! – sessions from Charleston to Jive to Salsa were ran daily during coffee breaks and lunchtimes ☺ **Movement is ...creative.** #MovementWorks to motivate.



I feel very proud to have made a small contribution in bringing a new perspective and research into this arena. Dance Science is now an established discipline, which is effectual in both validating and changing the way we think about the contribution of movement and dance to our wider world. Nevertheless, however far up the mountain we have come, there is still so much more ground to cover. We need to advocate for establishing pathways that carry this information more directly to educators and most importantly to those who have power to influence policy around the framework of how the curriculum is shaped and delivered.

We are hoping that our newest MovementWorks study with Greenwich University, which also focuses on Autism, Arts and Health will form part of an exciting symposium discussion at conference next year

<http://www.movementworks.org/research/>

You can cover the whole series of tweets here @Ali\_Golding and some related topics in more detail from the MovementWorks Facebook page

<https://www.facebook.com/movementworks/>

For those that have an interest in autism or want to learn more about the specifics of a dance intervention approach, I will be guest speaker on the Anna Kennedy Radio Show September 24<sup>th</sup> <https://annakennedyonline.com/media/radio/>

## Next steps on a worldwide platform

There was also time for a quick trip out of Boston to New Bedford, where Joanne introduced a fellow colleague based there. It was delightful to have opportunity to connect before we work collaboratively on a larger scale later this year. I'm very excited to be travelling again as part of a team of experts bringing the first full week of training in Autism and the Arts to Asia: -

**November 27<sup>th</sup> Delhi (Lara, Shore, Richardson, Golding & Howard)**

<http://www.movementworks.org/event/delhi-autism-expressive-arts-conference/>

**Dec 4<sup>th</sup> Bangladesh (Lara, Shore, Richardson, Golding & Howard)**

<https://www.faihbangladesh.org>

Details can also be found on [www.autismmovementtherapy.com](http://www.autismmovementtherapy.com)

**Movement is ... a continuum #MovementWorks for life.**



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