



Elke Wünnenberg

- **Studies:** Diploma in Psychology
- **Occupation:** Psychotherapist and music teacher. She worked for a long time as a clinical therapist. Currently she is working on a research project about Parkinson's disease and singing.

1. Experiences with motor learning/Parkinson's disease

- Interested in clinical pattern: How can I support people with music in coping with their illness? First practical side, second research project.
- When basal damage has occurred and movements that have been learned are impaired. This brings with it the fascination of not looking at people in the classical way with input-output-dependencies rather their expectation, motivation and willingness to practice an activity can change their current agility.
- Why does someone lose the ability to react in many different of ways? Why does thinking “get blocked”? How can we reduce that “blocking effect”? Basal stimulation has its justification but my approach is different. I believe that through singing (which is a kind of stimulation) the “blocking effect” reduces. And also the social interaction that occurs in these kinds of activities, which implies emotion stimulation, has an impact on the “blocking effect”.

2. Which problems arise in your working field?

- On the one hand it is a great way to be active and not to isolate oneself, on the other hand it is difficult and some patients stop participating.

3. Your method:

- Parkinson's patients are quickly overwhelmed when complexity becomes high.
- Approach:
 - Rhythmic music: Many trials and we ask questions in order to adjust the method accordingly.
 - Rotational movements: We invite patients to approach to it playfully.
- A patient says: "If I don't sing, I probably couldn't talk." If she/he ain't singin', her/his motor skills become stiffer, the language becomes blurred and his/her gait becomes much more stooped. Wünnenberg says: "When the patient stands next to the piano, she/he straightens up otherwise this never happens"



4. Expectations of the Movement Academy and the idea of two people from completely different fields coming together and exchange ideas:

- It is a chance to get into conversation, to exchange ideas and to tackle the topic integrally. In addition, everyone can have a contribution. The idea of two people coming together enhances inspiration and the own approach to the topic becomes clearer.

5. Goals:

- Dealing with people's ability to change, creating good framework conditions, strengthening patients' personal competence.
- Singing has interesting power. The way of thinking is overcome when you look at the big picture. My inner passion. Life can do more than mechanics.



Prof. Dr. mont. Mario Kupnik

- **Studies/ Profession:** Professor at the Faculty of Electrical Engineering for Measurement and Sensor Technology.

1. Experiences with motor learning/Parkinson's disease

- Looking forward to meeting new people and gaining new learnings. Since we are engineers, we are not experts in the field of Parkinson. But we are currently working with doctors in the field of medical robotics.
- The stance of patients is stabilized by stimuli on the sole of the foot. We tested on healthy people, so far not tested in patients with a Parkinson's disease.
 - Procedure: A "Tickle" with a few 100Hz is induced, the patient feels nothing, but it shows a reaction in the stance: There is no application yet, but something similar is used in insoles.
- A kind of research question would be whether this could also work for Parkinson's patients. So far, there is no literature that links the two.

2. Which problems arise in your working field?

- Difficult to get to patients in research.
- Patients are often very suspicious and want to know too much thereby often negative repercussions on studies and investigations.
- It is not easy to experiment with people because there are many regulations.

3. Your method:

- Classical research: Our approach is the induction of stimuli on the foot. Are other places on the body possible? This is not our expertise. With certainly there is probably much more possible. We would have to research more specifically in this area, but honestly that hasn't happened in this field so far.

4. Expectations of the Movement Academy and the idea that two people from completely different areas come together and exchange ideas:

- It can only be an enriching experience and especially when you are dealing with people who are approaching a topic from completely different angles.
- Others perspectives and points of view are very important in research.

5. Goals:

- To give something to the next generation and achieve collective success.

THE MOVEMENT ACADEMY

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- My profession generally enables us to work quite freely, but the strong bureaucracy often stands in the way, and makes the job often laboriously.
- It drives us to inspire young people, but also to get ideas and creativity from them. And enables free thinking, away from school character.