

***"IT'S MY VOICE, NOW GIVE IT BACK!"***

---



The Healing Power of Reclaiming One's Voice Using Music Therapy

"When man loses  
his deepest  
liberties, he sings  
more."

- Francesco Lotoro

---





\*Composed music  
using toilet paper and  
charcoal medication

## RUDOLF KAREL

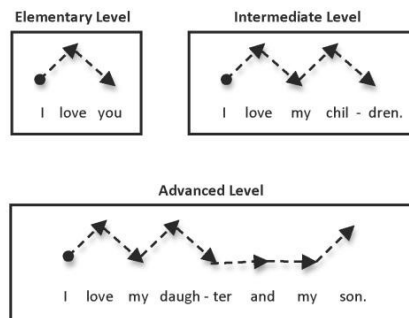
1880 - 1945



"In the end it shows what mankind is made of and even through intense sufferings our intelligence is not choked off but can be multiplied." -Lotoro

# Melodic Intonation Therapy

\*MIT: pairing words with a melody in order to circumvent language deficits



Adapted from: Helm-Estabrooks, N., Nicholas, M., & Morgan, A. (1989). *Melodic Intonation Therapy program*. Austin, TX: PRO-ED.

Melodic intonation therapy (MIT) is a type of speech-language therapy that uses melodic and rhythmic components to purportedly assist in speech recovery for individuals with non-fluent aphasia. Norton et al. (2009)

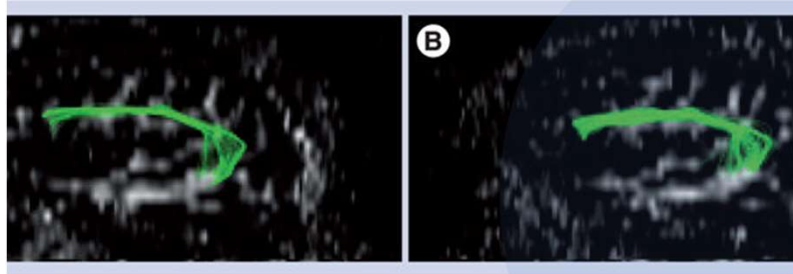
GOTTFRIED SCHLAUG, MD, PhD  
Associate Professor, Neurology,  
Harvard Medical School

- Music is the most complex form of auditory stimulation. **Listening to and making music is not only an auditory experience, but a multisensory-motor experience which has the potential to change brain structure and function.**
- Music making may have therapeutic potential. There is good (preliminary) data from several experimental trials using appropriate music-based interventions and developing an understanding of how and why it could work.
- Therapeutic effects seem to last when the therapy changes/rewires the brain. Schlaug, et al. (2010)



---

Diffusion tensor imaging scans of a patient before and after an intense course of melodic intonation therapy



For patients with large left-hemispheric lesions involving language-related regions of the fronto-temporal lobes, their only path to recovery may be through recruitment of homologous language and speech-motor regions in the right hemisphere (Rosen et al., 2000; Schlaug et al., 2008). For these patients, therapies that specifically stimulate the homologous right-hemispheric regions have the potential to facilitate the language recovery process beyond the limitations of natural recovery (Rosen et al., 2000; Schlaug et al., 2008, 2009).

High levels of alexithymia have been found in subjects with Eating Disorders.  
(Nowakowski, McFarlane, Cassin, 2013)

---

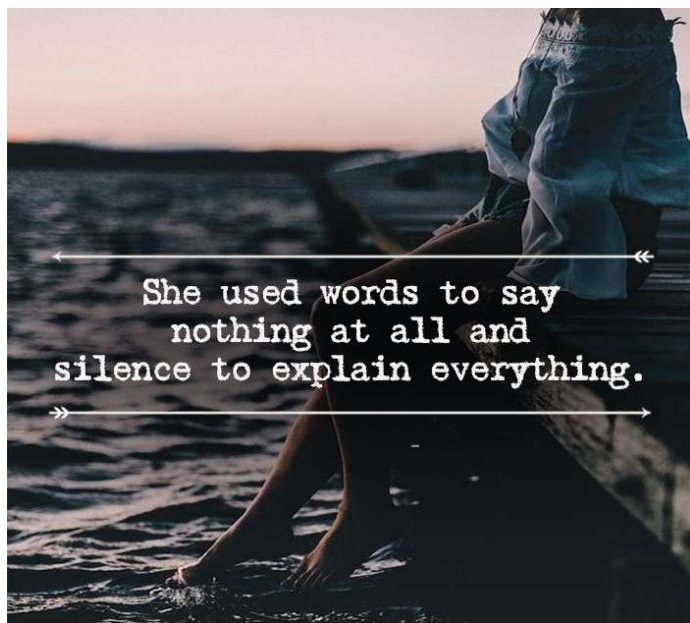


# ALEXITHYMIA

In 1972, Peter Sifneos introduced to psychiatry the term ALEXITHYMIA which (derived from the Greek) literally means HAVING NO WORDS FOR EMOTIONS.

Alexithymia is a multifaceted personality construct which encompasses difficulties in identifying and expressing feelings along with an externally oriented cognitive style. (Vermeulen, Toussaint and Luminet 2010)

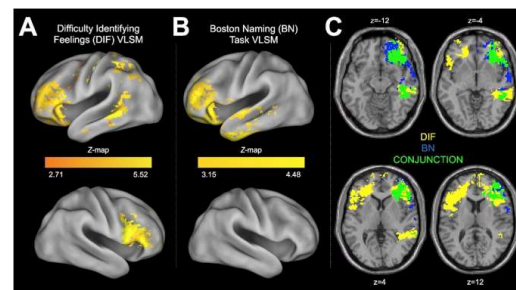
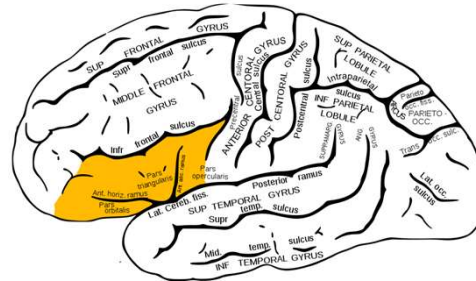
“Often people who have failed at outpatient therapy do so because they either cannot use words or use words extremely well as a \*defense.” (Justice, 1994)





Lateral surface of left hemisphere viewed from the side. Inferior frontal gyrus shown in yellow

Language and Alexithymia: Evidence for the role of the inferior frontal gyrus in acquired alexithymia. HannahHobson, JeremyHogeveen, RebeccaBrewer, CarolineCatmur, BarryGordon, FrankKrueger, AileenChau, GeoffreyBird, JordanGrafmani. Neuropsychologia Volume 111, March 2018, Pages 229-240



## THE SECONDARY VOICE

\*Speaking is NOT an example of a secondary voice

# MUSIC THERAPY INTERVENTIONS

---

SONG WRITING

---

INSTRUMENTAL IMPROVISATION

---

DRUMMING

---

SINGING

---

SOUND HEALING

---

TONING

---

BODY PERCUSSION

## SONG WRITING

\*Song writing helps someone struggling with alexithymia by using symbolism and metaphor to re-route language.

Some, who have been in treatment and have struggled for years, can talk circles around their therapists. Music can be used to move past these defenses to connect with deeper issues through symbol and metaphor. As soon as we use words symbolically and metaphorically, we switch from left to right hemisphere processing, circumventing any left hemisphere issues such as alexithymia (Kenny, 1982). These symbols can be solidified through graphic arts or writing. For example: clients were asked to write a song describing feelings associated with their eating disorder. The following song demonstrates how powerful symbolism and metaphor can be used to accurately describe the acuity of pain and fear.

## THE VOICE IN ME



Alone in the darkness, dreading the light  
Trapped by emotion, paralyzed with fright  
Hardly nourished, hardly whole  
I've lost my body to gain control.  
Trying to become what I cannot.  
I'm in a battle that can't be fought.

Chorus:

Can't take any more hating the girl I see  
It's time to let go, it's time to break free.  
The voice is no longer hidden in me  
It's time to let go, it's time to break free.

Scared and alone hearing nothing but lies.  
Trying to be perfect but dying inside.  
Losing my freedom, and so much more  
Watching my life walk out the door.  
I need your help to hear my cries  
Don't ignore worry, the pain in my eyes.  
Chorus

Waves of emotion spill from my heart,  
Looking ahead, where do I start?  
Life's not simple, it never will be.  
How do I break the chains that bind me?  
I want healing, not torn apart;  
A beautiful spirit, courageous heart.

Look at me now, who I'm fighting to be,  
The woman inside, the beauty that's me.  
I'll never give up; I'll fight till the end,  
'til that girl in the mirror is my best friend.

Won't take anymore, I'm changing my destiny.  
I'm letting go, I'm breaking free.  
The voice is no longer hidden in me.  
I've let go. Now....I am free.  
I am free....I am free....I am free....

## INSTRUMENTAL IMPROVISATION

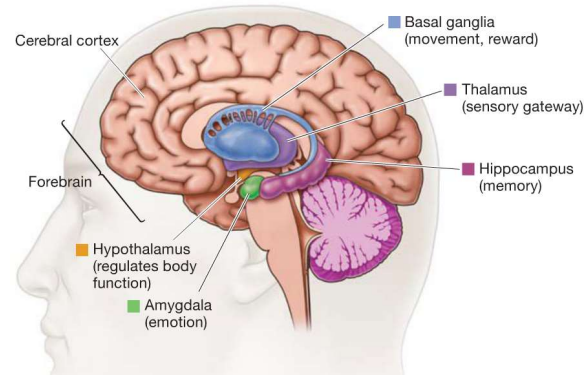


\*The amygdala was shown to decrease activation during instrumental improvisation (Moore, 2013).



## AMYGDALA

The amygdala processes complex feelings associated with fight, flight or freeze responses (Fehlhaber, 2013)



## DRUMMING

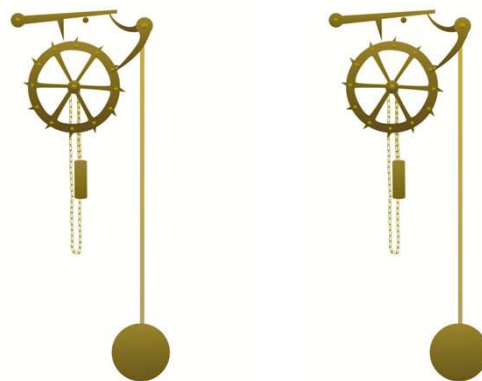
“I love drumming  
because I can scream  
without screaming”

- Former Patient





Christian Huygens 1629 - 1695



## ENTRAINMENT

The locking into phase of two previously out of sync oscillators. Thaut et al. (2014)

\*Entrainment: a heartbeat and a drum beat synchronizing

## SINGING

**"I realized I had a voice,  
and it was okay to use it!"**

– Former Patient



## Music Therapy

Singing is incredibly therapeutic. Studies suggest that our heart rates may sync up during group singing, resulting in benefits similar to a guided group meditation.



## NEUROTRANSMITTERS/ NEUROHORMONES

\*Elevated Serum melatonin, norepinephrine, epinephrine levels. Melatonin levels remained at increased level at six-week follow-up. (Kumar, 1999)

# SOUND HEALING, TONING

\*Sound healing: sound waves and sound vibration creating balance within the body.

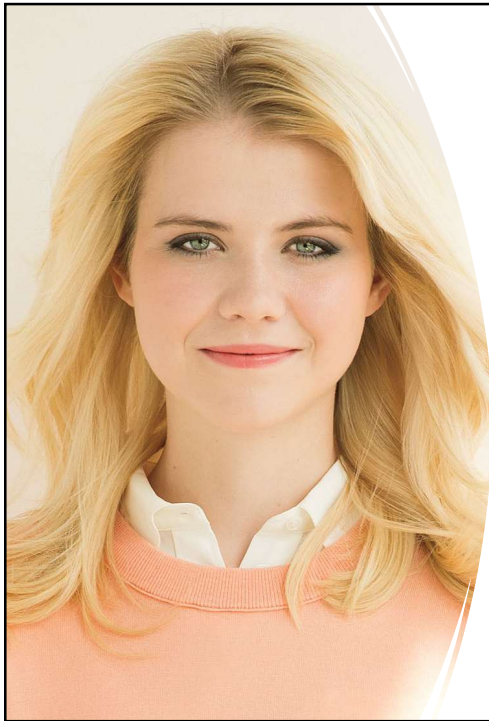




# BODY PERCUSSION

\*Body percussion involves communication between mind and body.





“You be happy, Elizabeth. Just be happy. If you go and feel sorry for yourself, or if you dwell on what has happened, if you hold on to your pain, that is allowing him to steal more of your life away. So don’t you do that! Don’t you let him! there is no way he deserves that. **Not one more second of your life. You keep every second for yourself. You keep them and be happy...**”

-Elizabeth Smart, *My Story*

## REFERENCES

- The Influence of Alexithymia and Music on the Incidental Memory for Emotional Words. Nicolas Vermeulen, Julie Toussaint, Oliver Luminet, The Journal of Personality Volume 24, issue 6, October. 2010 pgs. 551-568
- The Effect of Songwriting on Knowledge of Coping Skills and Working Alliances in Psychiatric Patients: A Randomized Clinical Effectiveness Study. Michael J. Silverman, The Journal of Music Therapy Vol. 48 issue 1, March 2011.
- A Systematic Review on the Neural Effects of Music on Emotion Regulation: Implications for Music Therapy Practice. Kimberly Sena Moore, MM, University of Missouri-Kansas City, The Journal of Music Therapy, 50(3), 2013, 198-242
- Individual Music Therapy for Depression: Randomised Controlled Trial. Jaakko Erkkila, Marko Punkanen, Jorg Fachner, Esa Ala-Ruona, The British Journal of Psychiatry Volume 199, Issue 2 August 2011
- Neurobiological foundations of neurologic music therapy: rhythmic entrainment and the motor system. Michael H. Thaut\*, Gerald C. McIntosh and Volker Hoemberg. Frontiers in Psychology. Front Psychol, 18 February 2015 | <https://doi.org/10.3389/fpsyg.2014.01185>
- Language and alexithymia: Evidence for the role of the inferior frontal gyrus in acquired alexithymia. Hannah Hobson, Jeremy Hogeveen, Rebecca Brewer, Caroline Catmur, Barry Gordon, Frank Krueger, Aileen Chau, Geoffrey Bird, Jordan Grafman. Neuropsychologia Volume 111, March 2018, Pages 229-240
- Melodic Intonation Therapy: Shared Insights on How it is Done and Why it Might Help [Andrea Norton](#), [Lauryn Zipse](#), [Sarah Marchina](#), and [Gottfried Schlaug](#). N Y Acad Sci. 2009 Jul; 1169: 431-436.
- Alexithymia in eating disorders: therapeutic implications Federica Pinna, Lucia Sanna, and Bernardo Carpiniello. Psychol Res Behav Manag. 2015; 8: 1-15. Published online 2014 Dec 22.
- Alexithymia and eating disorders: a critical review of the literature. Nowakowski ME, McFarlane T, Cassin S. J Eat Disord. 2013;1:21. [PMC free article] [PubMed] [Google Scholar] J Eat Disord 2013 Jun 18;1:21. doi: 10.1186/2050-2974-1-21. eCollection 2013.
- Music Making as a Tool for Promoting Brain Plasticity across the Life Span Catherine Y. Wan and Gottfried Schlaug. Neuroscientist. 2010 Oct; 16(5): 566-577.
- "I've Started to Move into My Own Body": Music Therapy with Women Suffering from Eating Disorders. Annika Lejonclou & Gro Trondalen, Nordic Journal of Music Therapy Vol. 18, No. 1, Mar. 2009

### ADDITIONAL REFERENCE MATERIAL:

- Justice, R. Music Therapy Interventions for People with Eating Disorders in an Inpatient Setting, MI: National Association of Music Therapy Inc. 1994
- Kumar, (1999). Alternative Therapies, 5:49-57. Retrieved Oct, 2018 from [www.caregistry.com/dvk/music.htm](http://www.caregistry.com/dvk/music.htm)
- Kenny, C. *The Mythic Artery*. Atascadero, CA: Ridgeview Publishing, 1982.
- The Role of Music Therapy in reducing Post Meal Related Anxiety for Patients with Anorexia Nervosa, Bibb et. All. Journal of Eating Disorders, (2015) 3:50
- The Amygdala: A Full Brain Integrator in the Face of Fear. Kate Fehlhaber, 2013