



Muzica - un factor al devenirii si
al reglarii fiintei sociale

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Anul II MG

Educatia → integrare activa in societate



Intelegerea conceptelor → competente

Sanatate mentala → comportament adecvat

Ce ne poate ajuta
sa devenim si sa
ne mentinem???




Muzica, un
raspuns?

Devenirea ...

Studii realizate pe copii :

- cu varste cuprinse intre 5 si 9 ani;
- auditia unor compozitii (scari minore si majore);
- stimulii erau reprezentati de sunete dizarmonice.

-S-a urmarit activitatea electrica a creierului.



Rezultate:

- stimulii au modificat activitatea electrica a creierului;
- emisferele in care s-a realizat perceperea sunetului sunt aceleasi cu cele ale procesarii limbajului la copil.

Concluzii:

- Copii prescolari au o reprezentare cognitiva corecta a sistemelor tonale;
- Spre deosebire de adult, copilul realizeaza o legatura mai stransa intre limbaj si sunete.

J. Cogn. Neurosci., 2003 Jul 1;15(5):883-93

Children processing music: electric brain responses reveal musical competence and gender differences.

Koelsch S, Grossmann T, Gunter TC, Hahne A, Schulze E, Friederici AD.
Max-Planck-Institute of Cognitive Neuroscience, Leipzig, Germany. mal@stefan-koelsch.de

Abstract

Numerous studies investigated physiological correlates of the processing of musical information in adults. How these correlates develop during childhood is poorly understood. In the present study, we measured event-related electric brain potentials elicited in 5- and 9-year-old children while they listened to (major-minor tonal) music. Stimuli were chord sequences, infrequently containing harmonically inappropriate chords. Our results demonstrate that the degree of (in)appropriateness of the chords modified the brain responses in both groups according to music-theoretical principles. This suggests that already 5-year-old children process music according to a well-established cognitive representation of the major-minor tonal system and according to music-syntactic regularities. Moreover, we show that, in contrast to adults, an early negative brain response was left predominant in boys, whereas it was bilateral in girls, indicating a gender difference in children processing music, and revealing that children process music with a hemispheric weighting different from that of adults. Because children process, in contrast to adults, music in the same hemispheres as they process language, results indicate that children process music and language more similarly than adults. This finding might support the notion of a common origin of music and language in the human brain, and concurs with findings that demonstrate the importance of musical features of speech for the acquisition of language.

PMID: 12955942 [PubMed - indexed for MEDLINE]

Ⓢ Publication Types, MeSH Terms

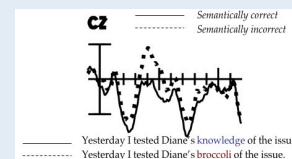
Ⓢ LinkOut - more resources

Cursuri de muzica...

- 48 de copii, varste 4-6 ani
- ½ a luat parte la cursuri de muzica;
- ½ a luat parte ca cursuri de arta vizuala;
- cursurile au fost prezentate folosind acelasi mijloc (diapozitive proiectate).



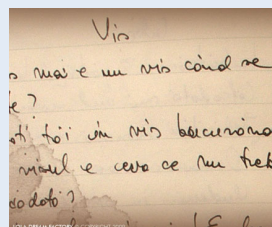
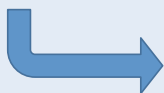
- Inainte si dupa 20 zile de cursuri, simultan cu masurarea activitatii cerebrale (analiza ERP), copii au fost supusi unor teste de vocabular.



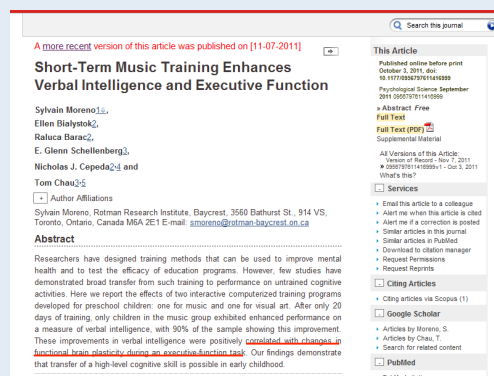
Rezultate: 90% din copiii care au urmat cursurile de muzica:

↑ inteligenta verbală,

↑ capacitati de intelegere a cuvintelor.



Potentarea
compatimentului
cognitiv



Mentinerea...

Depresia si anxietatea

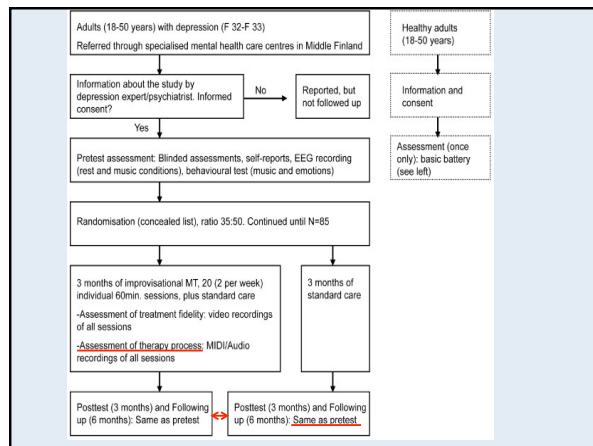
repercursiuni grave asupra individului, dar si asupra persoanelor din jur.

- psihoterapie
- cantatul la un instrument?
- IMT



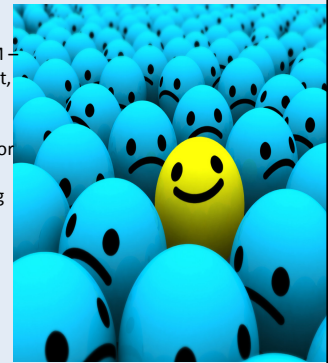
- 85 de participanti, 18-50 ani;
- diagnosticati conform ICD cu depresie;
- +/- abilitati muzicale
- o parte supusi unor tratamente standard;
- ceilalti: tratament standard + terapie muzicala;
- pretestari(EEG, comportamental).





Ce a rezultat?

- Cei care au beneficiat de TM au avut o îmbunătățire a stării de spirit, măsurată și obiectiv:
 - creșterea activității neuronilor, diminuarea stărilor depresive (EEG);
 - Montgomery and Asberg Depression Rating Scale (MADRS);
 - Hospital Anxiety and Depression Scale (HADS).



Vindecare
emotională



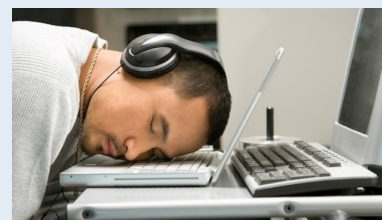
Ameliorare a
comportamentului



“Reintegrare”
utilă în societate

Efecte nefavorabile ale muzicii

Muzica ascultată la
serviciu scade
randamentul
intelectual...



- 25 persoane, cu varste
intre 18-30 de ani;

- supuse unor sarcini ca
reamintirea unor elemente
intr-o anumita ordine;

- muzica pe fundal, fie o
voce care repeta regulat o
cifra, fie mediu silentios..

- muzica preferata si
muzica neplacuta pentru
fiecare participant in parte.



Rezultate:

-scadere a randamentului in
timpul ascultarii muzicii, fie ea
preferata/nepreferata ...

...muzica distrage
atentia!
- Avertisment
pentru studentii
care invata
ascultand
muzica!

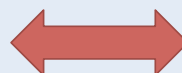


• Concluzii...

Copiii acorda o mai mare similitudine intre
muzica si limbaj- "achizitia" limbajului .

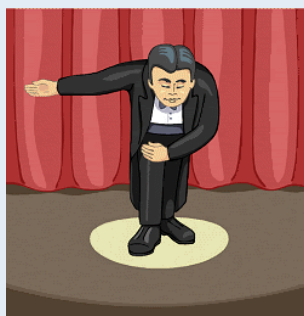
Pentru a-si pastra "functionalitatea", adultul
trebuie sa se reintoarca din timp in timp la
mijloace mai naturale de exprimare...

Muzica



Limbaj

Va multumesc!



- **Bibliografie**
- [J Cogn Neurosci](#), 2003 Jul 1;15(5):683-93.
Children processing music: electric brain responses reveal musical competence and gender differences.
- Psychological Science - Sylvain Moreno, Rotman Research Institute - **Short-Term Music Training Enhances Verbal Intelligence and Executive Function**, 2011, june.
- **British Journal of Psychiatry** - Individual music therapy for depression: randomised controlled trial.
- **The effect of background music and noise on the cognitive test performance**- **Applied Cognitive Psychology journal**, 2008, jun. 28; results- 2011 ,aug.
- **Journal of psychopharmacology** - Neuropsychological and neuroimaging evidence for the involvement of the frontal lobes in depression