15th International Conference on Music Perception and Cognition 10th triennial conference of the European Society for the Cognitive Sciences of Music. University of Graz, UNLP, University of Concordia, University of SNW, Graz, 2018.

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ICMPC15
ESCOM10
2018

Abstract Book

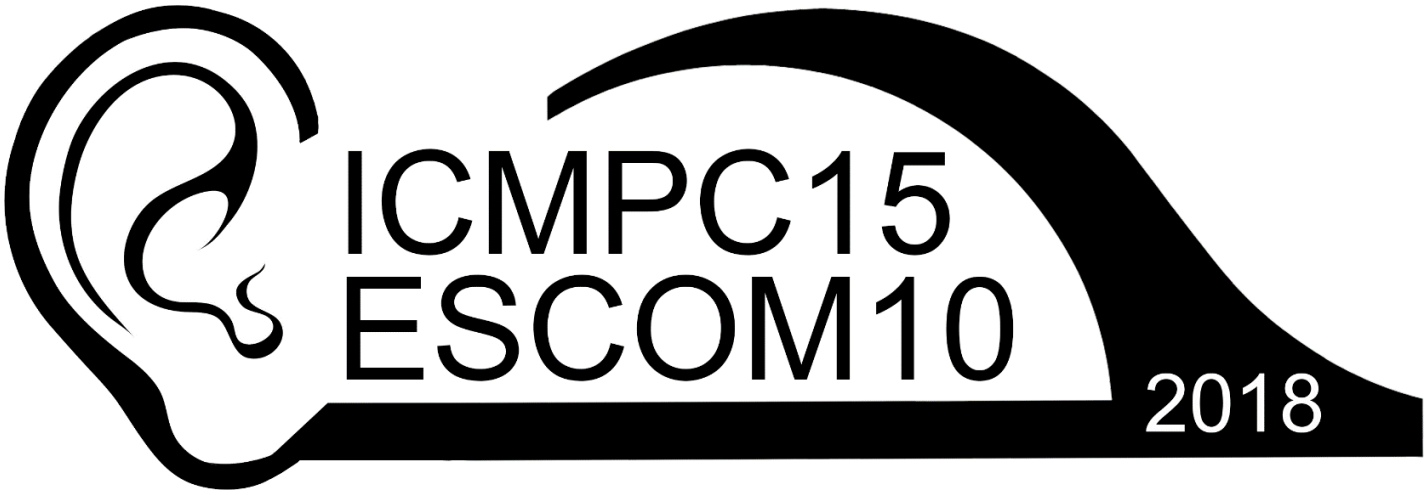
Graz

La Plata

Montréal

Sydney

How to cite this booklet:
Richard Parncutt and Sabrina Sattmann (Eds., 2018). ICMPC15/ESCOM10: *Abstract book (electronic).* Graz, Austria: Centre for Systematic Musicology, University of Graz.



15th International Conference on Music Perception and Cognition

10th triennial conference of the European Society for the Cognitive Sciences of Music

La Plata, Argentina
Montreal, Canada
Sydney, Australia
Graz, Austria

23-28 July 2018

Abstracts

Edited by Richard Parncutt and Sabrina Sattmann

T3P: Short Talks 3 - Improvisation

Time: Wednesday, 25/Jul/2018: 20:00 - 21:00 · *Location:* La Plata
Session Chair: Clara Marcia Piazzetta

EFFECT OF MUSICAL IMPROVISATION IN AFFECTIVE MEMORY. A STUDY WITH OLD ADULTS

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Background

As a part of the set of complex creative behaviours, musical improvisation is a high-level cognitive process characterized by contextually significant generation of new sound and music ideas. It requires sudden elaboration of music components such as melody, harmony or rhythm. Musical improvisation, from a music therapy perspective, is a technique that is widely used with different populations understanding that any person could perform such a creative act (Abrahan & Justel, 2015). Despite its wide use in music therapy, little is known about the direct incidence of musical improvisation in modulating general cognitive processes such as affective memory (Justel & Rubinstein, 2013). Besides, research in music-therapeutic improvisation, particularly from the neuropsychological point of view, is relatively incipient. Recently, some studies indicated that both music perception and musical improvisation could modulate memory in young adults.

Aim

This study aims to investigate the effect of musical improvisation, as a music-therapeutic technique, on visual emotional memory of old adults without musical training.

Method

Fifty-four participants without musical training (67% female), over 60 years (M: 70.07, SD: 0.88), participated in this study, from different cultural and social senior' centres', randomly assigned to three different conditions (improvisation, imitation and silence). Thirty-six images from the International Affective Pictures System (IAPS) were selected: 24 of them were emotionally activating (12 with positive and 12 with negative valence) and 12 were neutral. Firstly, participants had to observe the images and to rated (in a 10-point scale) how emotional the images were for them. Then, they were exposed to a three-minute experimental treatment (a free musical improvisation, with a musictherapeutic orientation. In this condition, participants improvised musical patterns with instruments, their voices or bodies, spontaneously creating some musical feature) or control conditions (no music stimuli or imitation condition). We evaluated the memory through two tasks: Free recall (the participant had to write the images that they remembered) and recognition (the participant had to recognize within a set of 72 images, the original 36 ones), both immediately and deferred (after a week).

Results

The general result of this study indicate that emotional stimuli are better remembered and recognized than neutral information [$F(2, 102)=95.689$, $p<0.0001$ ($\eta^2p=0.652$)]. Besides, improvisation condition's participants achieved higher scores in deferred free recall $F(4, 102)=5.869$, $p<0.0001$ ($\eta^2p=0.187$) and immediate recognition [$F(2, 51)=4.393$, $p<0.0001$ ($\eta^2p=0.978$)]. Meanwhile imitation condition's participants achieved lower scores in free recall and recognition for emotional images.

Conclusions

These results reinforce previous evidence showing that playing music would be more effective in improving certain cognitive functions than merely listening to it. However, the data here emphasize that it is not the same to perform in an improvised way that to adjust the performance to a model. Because music improvisation modulates emotional memory, music treatment may provide a simple, safe and effective method of preventing the potentially harmful physiological concomitants of memory impairment.