

**Natureza do trabalho:** Resumo

TÍTULO

*THE INFLUENCE OF MUSIC BASED ON THE MIRROR NEURON SYSTEM*

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RESUMO

**Introduction:** This study aims to review the relationship between music and the mirror neuron system, involving not only its learning but also the emotional feeling. This perception was demonstrated by comparing a musician and an untrained person. **Literature review:** While the subject listens to the music, pre-motor cortex and inferior frontal gyrus regions are activated as if the own listener was performing the movements to play the instrument. And this phenomenon facilitates the learning process of this music. The more instructed is the subject the better is his/her emotional feeling regarding the music, mainly on vocal sounds. When monitoring specific instruments, it is possible to understand that when someone listens to a melody, the superior temporal gyrus is activated and, soon, the postero-inferior frontal gyrus areas as well, as if the listener were executing it. In addition the insula does a connection with the limbic system, which will evaluate the emotional condition of the music. Therefore, the postures and gestures are caused by the activation of BA44 and insula, during an emotional state. To confirm the emotional bond to the musical environment, a test was made with 22 subjects to determine what type of feeling would be transmitted while listening to a song. A Chopin's work was then chosen, named "Tristesse". During the tests, it was shown that the fluctuating times caused cerebral waves in consonance with the music. As a result, this influenced an emotional response in every subject. Thus, it can be concluded that the song proceeded to affect the mirror neuron system from the learning process until music emotional and sentimental consequences. **Conclusions:** It is possible to confirm the importance of the mirror neuron system in music; however more research is needed.