Experienced emotional intensity when learning an atonal piece of music. A case study.

Arantza Almoguera¹, Mari Jose Eguilaz², Jose Antonio Ordoñana³, Ana Laucirica⁴

¹Universidad Pública de Navarra, España

²Universidad Pública de Navarra, España

³Universidad País Vasco, España

⁴Universidad Pública de Navarra, España

 $^1 arantza. almoguera@unavarra.es, \ ^2 mj. eguilaz@yahoo.es, \ ^3 jose.ordonana@ehu.es, \ ^4 laucirica@unavarra.es$

ABSTRACT

Background

Different studies point out that music is one of the most effective inducers of intense emotional experiences. Nevertheless, almost all the studies found are focused on the listener's emotion, without taking into account that the causes of the enjoyment experienced by the performer are different from the causes of the listener's enjoyment (Waterman, 1992).

Due to its characteristics, it's more difficult that atonal music generates positive emotions, both in the audiences and among interpreters and students. In fact, several authors, as Raffman (2003), consider that atonal music is "emotionally" incomprehensible, and that's the reason why atonal music is less widespread in music education centers than tonal music.

Aims

The goal of our study is to investigate into the emotional intensity experienced by five Flute students when learning an atonal piece for Solo Flute, comparing that emotion in different moments of the learning process and observing if the pieces played share musical characteristics that influence the emotional intensity.

Method

Participants were recorded playing the piece both at the beginning and at the end of the learning process. They were also asked to mark on the score in both sessions the passages they consider emotionally most intense. The pieces performed are: "Mei" by K. Fukushima, "Música Matérica XVII" by C. Galán, "Sequenza I" by L. Berio, "Image" by E. Bozza and "Density 21,5" by E. Varèse.

Results

Analysis of records and passages marked by the students allows us to verify that dynamic contrast is greater in the final performances and that passages marked on the score match with points where records show the lowest or the highest amplitude of wave. Moreover, the passages marked by the students have acoustic and musical similarities related with interpretative changes and contrasts (tones in the extreme registers, sudden changes in nuances, tones whose duration contrast with the rest of the piece...), and with points containing effects as frullatto, whistle tones,...

Conclusions

Authors as Meyer (2001) or Lerdahl and Jackendoff (1983) suggest that the best way to apprehend musical emotion is apprehending musical structure. Results point out that the deeper knowledge of the music reached in the learning process and the successive listening to the piece entail more familiarity and a better understanding of the music played, and, therefore, students are able to find emotionally intense passages, as it happens with tonal music. Consequently, we don't agree with all those theories that suggest that atonal music is unexpressive and emotionally incomprehensible, and we confirm that

cognition has a positive influence in the emotion felt when playing atonal music.

This work is part of the Research National Project I+D 2008-2011, code EDU- 2008-03401 "Audition, cognition and emotion in the atonal music performance by high level music students", funded by the Ministry of Science and Innovation of Spain.

Keywords

Atonal music, emotions, performance