Abstract: During the last decades, a growing body of research has focused on the psychological and educational factors affecting the aesthetic reaction to musical stimuli. Many studies have shown that musicians and non-musicians tend to react differently to certain genres of music (country, twentieth century symphonic music, choral music). These significant differences may be due to familiarity with a specific genre, but mostly to the musical practice within a determined musical domain. The present theoretical research concentrates on several key experiments that proved that musical experience is an important factor regarding people’s aesthetic reaction. Educational implications of these findings are discussed in the concluding remarks.

Key words: aesthetic reaction, musical experience

Introduction

One relevant argument supporting the importance of music listening within music education could be the evidence of significant differences between musicians and non-musicians concerning their aesthetic reactions. Price (1986) considers that aesthetic reaction is a learned behavior which results from one’s history of interaction with musical stimuli. Bharucha (1994 *apud* Misenhelter & Price, 2001) suggests that musical training generates better knowledge regarding compositional techniques and therefore higher expectancies in music perception, and this fact modifies the esthetic reactions. Also, the cognitive processing of complex musical information may strengthen and refine the emotional states deeply connected with the aesthetic reaction.

Davies (1978) has shown that subjects’ musical preferences and music complexity have a significant effect on aesthetic reaction which is described by a reversed U shape where the maximum intensity of aesthetic response matches the medium levels of music complexity. Experimental studies have demonstrated that there are important differences between musicians and non-musicians regarding aesthetic reaction and these differences manifest themselves both in a quantitative and qualitative manner.

Investigating Aesthetic Reaction to Country Music

John Lychner (2008) has noticed that most experimental studies used academic music stimuli in aesthetic reaction investigations and stated that, in this manner, generalizations regarding the aesthetic response may be biased. Instead, he focused on observing the aesthetic reaction towards commercial genres. Consequently, he used the continuous response digital interface (CRDI) to record the aesthetic response of 64 students during the audition of a country song (*Drive for Daddy Gene* by Alan Jackson). Half of the participants were musicians. Lychner was interested to see if the aesthetic reaction of both musicians and non-musicians would be influenced by the presence of video
images during music listening. Therefore, he created an experimental design where subjects’ aesthetic response was measured in two conditions: audio only and audio-video condition (where the students listened to the song Drive for Daddy Gene concomitantly with watching the video created especially for the same piece). Results have revealed a series of significant differences regarding presentation format (audio versus video) and participants’ musical experience (musicians versus non-musicians in both experimental conditions).

First, the audio only condition resulted in higher aesthetic responses from all subjects compared to the audio-video condition. Therefore, contrary to the general expectation, Lychner’s findings have shown that adding video to an audio stimulus did not appear to enhance participants’ aesthetic response. Although it seems logical to expect an enhanced aesthetic response from an audio-visual stimulus compared to its audio only format, experimental research revealed otherwise. Previous studies (Frego, 1999; Lychner, 2002) have found similar results. The authors explained the phenomenon by stating that in the audio-video condition participant’s attention becomes divided within the tasks of listening and watching. Lychner adds that it is possible that the addition of video to an aural stimulus may actually detract from the participants’ aesthetic experience.

Second, musicians and non-musicians have shown big differences in their aesthetic response to country music. Overall, non-musicians had a stronger response to the stimuli than musicians, particularly in the audio-video condition. Moreover, the CRDI graphics were very different in each group: in the audio condition, musicians’ reaction indicates a more stable line, while the non-musicians’ response has many peaks and valleys according to changes in the music discourse. In the audio-video condition, the situation is reversed: non-musicians response rises and then plateaus, while musicians react with more peaks and valleys according to changes in the video stimulus. The author explains the differences by discussing the perception of country music among professional musicians which may judge this genre in a less favorable manner due to its simplicity and commercial features. He draws attention to the fact that their responses may be biased by this preconception.

In conclusion, Lychner’s study shows that musical experience can be an important factor for one’s aesthetic reaction to musical country. Non-musicians tend to have stronger response compared to musicians who tend to react less intense to this commercial genre.

The Effect of Musical Experience on Aesthetic Response to Twentieth Century Symphonic Music

William Fredrickson (2000) has also found significant differences between musicians’ and non-musicians’ aesthetic reaction, this time by using academic symphonic music and by analyzing their CRDI graphic lines. In one experiment, a group of 30 instrumental performers listened to their own concert performance of the Chaconne from Gustav Holst’s First Suite in E flat. The control group comprised of 30 non-musicians listened to the same recording and followed the
same research protocol. The CRDI graphic showed similar reactions to changes in music, but non-musicians’ response revealed more variations in magnitude: in the places where musicians’ response rises, non-musicians’ response rises even higher; when musicians’ reaction weakens non-musicians’ reaction weakens even less. Also, musicians’ line included more subtle changes in aesthetic reaction, while non-musicians tended to react in a more flat manner.

In the second experiment, Fredrickson used another two groups of 30 participants each who this time listened to a musical fragment in a different tempo and with a different character: *Festive Overture* by Shostakovich. As in the first experiment, non-musicians tended to use more of the dial both in the direction of tension and release. This could mean that non-musicians are experiencing greater and lesser levels of tension during symphonic music listening. I looked like they were more impressed by Shostakovich’s music.

The author mentions that it is interesting how the same change in music determines similar reactions in both experimental groups, only that in non-musicians the reaction in more emphasized. Again, contrary to all expectations, it seems that the lack of musical experience brings more sensitivity to symphonic music. We should also take into consideration that per ensemble there were no differences between musicians and non-musicians regarding the general level of aesthetic reaction: non-musicians higher levels of perceived tension compensated with lesser levels of tension. Of course, we should also consider the limited number of auditions that were specific only to twentieth century symphonic music. This is why it is difficult to generalize Fredrickson’s findings to the entire genre of academic music. Nevertheless, his study has shown that musical experience mediates the aesthetic reaction to twenty century symphonic music in the sense that musicians’ reactions are more subtle, while non-musicians responses have a higher magnitude.

### The Influence of Choral Practice on Aesthetic Response of Musicians

Up to this point it has become clear that musicians and non-musicians react differently to both commercial and academic music. The next study reveals that even between musicians there may be significant dissimilarities regarding the aesthetic reaction. An American researcher (Davis, 2003) has compared aesthetic responses of two groups: 30 college students currently enrolled in a semi-professional women chorus and 30 college students enrolled in undergraduate introductory music classes. All respondents listened to a selected 2 min 17 second excerpt from a choral performance of two sequential movements of Benjamin Britten’s *A Ceremony of Carols: As Dew in Aprille* and *This Little Babe*. Half of the respondents from the first group have previously performed the choral movements included in the experiment. Both fragments were played in a fast tempo and moderately loud dynamics, two expressive elements designed to easily elicit preference. All respondents listened to the two fragments and manipulated a pointer on a Continuous Response Digital Interface corresponding to their aesthetic response.
Results have revealed that participants in the choir group showed a more complex and unstable aesthetic response. They changed their ratings across time significantly more than the control group (music students without choir practice experience). Non-performance participants tended to have lower, relatively stable ratings across music listening.

Anita Davis’s research focused on choral music suggests that music practice within a certain musical domain tends to modify one’s aesthetic response towards music from this specific musical domain, in the sense that one's response becomes more intricate and more sensitive to subtle changes in music. This finding confirmed previous results (Fredrickson, 2000; Lychner, 2008) which showed that musical experience within a given genre makes a person more receptive towards elusive messages hidden inside a complex musical discourse and this receptiveness is powerful enough in order to influence one’s aesthetic response. Indeed, non-professional musicians who were more familiarized with country music had more pronounced peaks and valleys in their CRDI graphic lines (Lychner, 2008), while instrumental performers tended to report more subtle changes in their response to symphonic music (Fredrickson, 2000).

These findings paved the way to a new question: are there any benefits of music experience in regard to aesthetic reaction? Should we become more familiarized with different and complex genres in order to enhance our aesthetic experiences? Is musical complexity appealing only to experienced musicians? The next two studies prove exactly that.

Musical Complexity in Jazz is Appealing to Experienced Musicians

John Coggiola (2004) wanted to know if there is a connection between knowledge of jazz music and aesthetic response towards complex jazz excerpts. He used one experimental group of 64 jazz musicians with at least 3 years of instrumental jazz ensemble experience, and one control group of 64 music majors without any jazz practice experience. All participants recorded their aesthetic response towards jazz excerpts. The musical stimuli were chosen with regard to melodic complexity during improvisations and performance quality. The experimenter selected the fragments by using certain national billboards. Afterwards, a panel of five independent jazz experts rated the complexity of the musical selections on four levels and obtained the following stimuli:

<table>
<thead>
<tr>
<th>Song/ Performer</th>
<th>Complexity level</th>
<th>Jazz musicians ratings</th>
<th>Non-jazz musicians ratings</th>
</tr>
</thead>
<tbody>
<tr>
<td>St. Louis Blues / Nat King Cole</td>
<td>Low</td>
<td>165</td>
<td>182</td>
</tr>
<tr>
<td>Slats / Count Basie</td>
<td>Intermediate</td>
<td>202</td>
<td>187</td>
</tr>
<tr>
<td>St. Louis Blues / Ella Fitzgerald</td>
<td>Advanced</td>
<td>197</td>
<td>200</td>
</tr>
<tr>
<td>Dr. Jekyll / Miles Davis</td>
<td>Highly advanced</td>
<td>202</td>
<td>161</td>
</tr>
</tbody>
</table>

Table 1. Aesthetic responses of jazz and non-jazz musicians to jazz excerpts of different melodic complexity in improvisation
Results indicated a significant difference in the CRDI mean response of jazz musicians and non-jazz musicians in the case of Nat King Cole’s *St. Louis Blues* and Miles Davis’s *Dr. Jekyll*. The first melody recorded an intense aesthetic response from non-jazz musicians and was Low labeled in level of complexity. It had a well-stylized melody in a moderate tempo with no instrumental or vocal improvisation. The last song (*Dr. Jekyll*) was labeled Highly advanced in level of conceptuality and inspired strong aesthetic reactions from jazz musicians. Its torrid tempo, lack of vocals, long and complicated solos, altered harmonic language, high level of improvised interaction between performers and the performers’ displays of virtuosic technique stimulated jazz musicians who responded to this complex kind of stimuli in a very positive manner. This finding suggests that greater instrumental jazz experience may be related to greater aesthetic responsiveness to highly advanced conceptuality in jazz music.

Another important result is the fact that the most complex song (*Dr. Jekyll*) recorded the biggest response difference between the two experimental groups. It seems that there is a certain level of complexity which probably makes certain songs inaccessible. Consequently, this finding creates a connection between aesthetic response (theoretically defined as an emotional-cognitive reaction) and knowledge about specific topics or stimuli.

**Conclusions**

There is enough body of research focused of different kind of musical stimuli that demonstrates a specific association between people’s aesthetic response and musical experience. Generally, lower levels of musical complexity engage stronger responses from people with lower levels of musical training or familiarity within a certain genre.

In reverse, musicians highly trained and familiarized with a musical domain or style, tend to react stronger to more complex music excerpts, maybe because the challenge of processing difficult pieces fits their musical skills.

One important educational implication of this finding draws attention to Price’s idea that aesthetic reaction may be a learned behavior. The more students get familiarized with a musical style, the more they will end up liking it. Nevertheless, we should take into consideration that developing aesthetic reactions to certain musical styles is a complex process which definitely does not resume only to exposure to musical stimuli. Personality factors, family and educational backgrounds may be equally essential in shaping someone’s aesthetic reaction towards musical genres, especially those of academic music.

**References**