The effects of music on emotions

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Introduction
Introduction

• Music and human behavior has been shown historically to be tied to one another.
  • Mozart Effect
  • Music, Mood, and Marketing
  • Alteration of Mood via Music
• There are various reasons as to why humans listen to music.
  • Motivative reasons
  • Enjoyment/Creativity
  • Mood/Emotional regulation
    • Relaxation
    • Managing of emotions
Our study

• Purpose
• Hypothesis
• Design
  • IV: Song in each condition
  • DV: Participants emotions
Methods
Methods

• Participants

  - 31 participants (13 males, 18 females)
  - ages 18-55 ($M= 22.74$, $SD= 7.26$)
  - Participants randomly placed in one of the 3 conditions prior to the study by using random.org
Methods

• Materials

- A sheet of paper with three feeling thermometers.

- Writing utensil for participants to mark their responses.

- Cellular device to play the music tracks.

- Some participants listened with headphones while others listened through the experimenter’s device.
Methods

• Procedure and design

  - Design: One independent variable with multiple levels between groups subjects design with three dependent measures.

  - Participants were randomly assigned in three conditions (conditions were the songs)

    - Condition 1: Soundscape to Ardor
    - Condition 2: Whistle and Clap
    - Condition 3: Upbeat Ukulele
Methods

• Prior to the listening session all participants were asked to self report their emotion on three feeling thermometers: happiness, sadness, and excitement.

• Sadness thermometer participants self-reported their feelings: not sad, somewhat sad, very sad.

• Happiness thermometer: not happy, somewhat happy, very happy,

• Excitement: not excited, somewhat excited, very excited
Methods

My feeling thermometer

very [insert emotion]

somewhat [insert emotion]

Not [insert emotion]
Methods

• **Condition 1: Soundscape to Ardor**

• **Condition 2: Whistle and Clap**

• **Condition 3: Upbeat Ukuele**
Methods

• Each participant listening session was 45 seconds long. After listening to the song corresponded to the condition they were assigned to, participants were asked to report their emotion again on a second set of thermometers using the same scale. After the study participants were debriefed and thanked for their participation.
Results
Results for sadness

- Participants in condition 1 became sadder than participants in condition 2 as sadness increased ($\rho = .02$).
- Sadness also increased between condition 1 and condition 3 ($\rho = .03$).
- Participants in condition 2 and condition 3 displayed no significant difference within emotion change ($\rho = .89$).
Results for excitement change

- No change in excitement levels
- Participants in condition 1 and 2 ($\rho=.35$) and condition 1 and 3 ($\rho=.34$) did not change excitement levels
- Also no significant difference within condition 2 and condition 3 ($\rho=.93$)
Results for happiness change

- Participants in condition 1 and condition 2 displayed significant change within happiness levels ($\rho=.001$).
- Happiness also increased between condition 1 and condition 3 ($\rho=.02$).
- However, participants in condition 2 and 3 displayed no significant difference within emotion change ($\rho=.37$).
Happiness change descriptive statistics

Table 1:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Soundscape to Ardor</td>
<td>2.20</td>
<td>.632</td>
</tr>
<tr>
<td>2 Upbeat Ukulele</td>
<td>1.33</td>
<td>.492</td>
</tr>
<tr>
<td>3 Whistle and Clap</td>
<td>1.56</td>
<td>.527</td>
</tr>
</tbody>
</table>
Discussion
Our findings show that changes in a participants emotional state in regards to a certain emotion were most heavily influenced by music said to fit that emotion.

With the exception of excitement, both sadness and happiness were influenced by songs that would be described as fitting to that emotion.

The special case for excitement most likely stems from its similarity to happiness.
This goes to show that music, what can be described as nothing more than vibrating air, can have a significant impact on us to the point it elicits an emotional response.

This is important in showing that many stimuli in our lives can have an astonishing effect on us based on how we perceive them.

So much in fact that the actions we take deal with these emotions often involve stimuli we have formed this emotional connection with.
This can be incredibly helpful in forming good habits on how to cope with negative emotions as well as helping others who are in a less than optimal emotional state.

Things ranging from therapy, music therapy to be precise, to simple actions we take to help a friend get over a breakup.

Understanding that we form connections with the world around, not just on a cognitive level, but an emotional level as well, can help us in dealing with difficulties we will encounter as we move onward through life.
References
