



# I Think I Like What I'm Feeling: A Pilot Study Examining One's Liking of Happy and Sad Songs

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## Background

- The paradox that people listen to sad music even though it makes them feel bad was of major interest. Past research has shown that feeling sad can be both beneficial and hazardous to our health. One benefit, Levinson (1997) suggests, is that people are rewarded through listening to sad songs by liking the experience of having the emotion. Schellenberg, Peretz, and Vieillard (2008) investigated liking happy versus sad songs on familiarity, but they did not analyze the relationship between the strength of the emotions felt and liking for the song.
- Even though past experiments have found that slow music in a minor modality is sad and that fast music in a major modality is happy, their method chosen to determine this dichotomy was that of forced choice between happy and sad (Larsen & Stastny, 2011; Webner & Weir, 2005) in addition to pleasant and unpleasant feelings (Hunter, Schellenberg, & Schimmack, 2008). Therefore, more analyses need to be done to see if happy and sad music could evoke different emotions or if they are purely happy and sad.

## Hypotheses

- One of the purposes of this study was to see if liking for sad music is positively correlated with the felt intensity of the sad emotion like Levinson (1997) suggested happens. The second purpose of this study was to see if either sad or happy music evokes other emotions. Therefore, the following hypotheses were proposed.
  - Hypothesis 1: Sad music will evoke sadness, and happy music will evoke happiness.
  - Hypothesis 2: People will like the happy songs more and the sad songs less than the neutral songs.
  - Hypothesis 3: People will feel happiness from the music stronger than they feel sadness from the music.
  - Hypothesis 4: There will be a significant correlation between felt intensity of sadness and liking sad music

## Method

- A total of 21 (two males and 19 females, mean age: 19.25) participants were assigned to listen to six songs total, two to induce happiness, two to induce sadness, and two intended to be neutral
- Happy Songs: 1) Vivaldi's *Concerto (Sinfonia) in D Major*  
2) Mozart's *Concerto Number 23, Third Movement*
- Neutral Songs: 1) Moby's *Hymn*  
2) John Adam's *Common Tones in Simple Time*
- Sad Songs: 1) Debussy's *Prelude: Des Pas Sur La Neige*  
2) Albioni's *Adagio*
- After each song, the participants rated how much they felt each emotion on a 1 (not at all) to 5 (extremely felt) Likert scale. They rated the following items on a 1 – 7 bipolar Likert scale on agreement (strongly disagree to strongly agree): finding the song pleasing, liking the song, feeling warmth from the song, using the song in everyday life, easily identifying the emotions, wanting to learn to play the song, wanting to own the song, wanting to listen to the song again, finding the song beautiful, listening to similar songs, getting emotional information from the song, and getting personal information from the song.

## RESULTS

### Hypothesis 1

- One-way repeated measures ANOVA for sadness, happiness, and liking were run. There was a significant main effect for sadness scores by songs,  $F(4.19, 83.69) = 46.29, p < .001, \eta^2 = .70$ . Refer to Figure 1 for the means. Bonferroni post-hoc comparisons revealed that the two sad songs evoked more sadness than the other songs ( $ps \leq .001$ ), and the two sad songs were not significantly different ( $p = 1.00$ ). The Moby song's scores were in between the happy and the sad songs ( $ps \leq .001$ ), but the Adams song was not statistically significant from the happy songs ( $ps > .05$ )
- There was a significant main effect for happiness scores by songs,  $F(3.75, 74.94) = 30.39, p < .001, \eta^2 = .60$ . Refer to Figure 1 for the means. Bonferroni post-hoc comparisons revealed that the happy songs evoked more happiness than the other songs ( $ps < .05$ ) except for the Adams ( $p > .05$ ). The two happy songs produced the same amount of happiness and as well as the two sad songs. The Moby song scores were in between the happy and the sad songs ( $ps < .05$ )

- Figure 2 shows the mean ratings of the other emotions by song.

### Hypothesis 2

- There was a significant main effect was found for liking,  $F(5, 100) = 8.02, p < .001$ . Refer to Figure 1 for the means. Bonferroni comparisons revealed that the Albioni song was liked significantly less than all of the songs ( $ps < .05$ ) except the Debussy ( $p = 1.00$ ).

### Hypothesis 3

- A 2 (Emotion: Happiness versus Sadness) X 6 (Songs) repeated measure ANOVA was also run. The results indicated a significant main effect for emotion; pairwise comparisons of happiness scores ( $M = 2.61, SE = .14$ ) regardless of the songs were higher than the sadness scores ( $M = 2.18, SD = .13$ ),  $p = .03$ . The results indicated a significant interaction between felt emotion and the songs,  $F(5, 100) = 52.60, p < .001, \eta^2 = .73$ . Refer to Figure 1 for the means. Pairwise comparisons revealed that within each song, scores between happiness and sadness were significantly different ( $ps \leq .001$ ) for every song but the Moby ( $p = .82$ ).

### Hypothesis 4

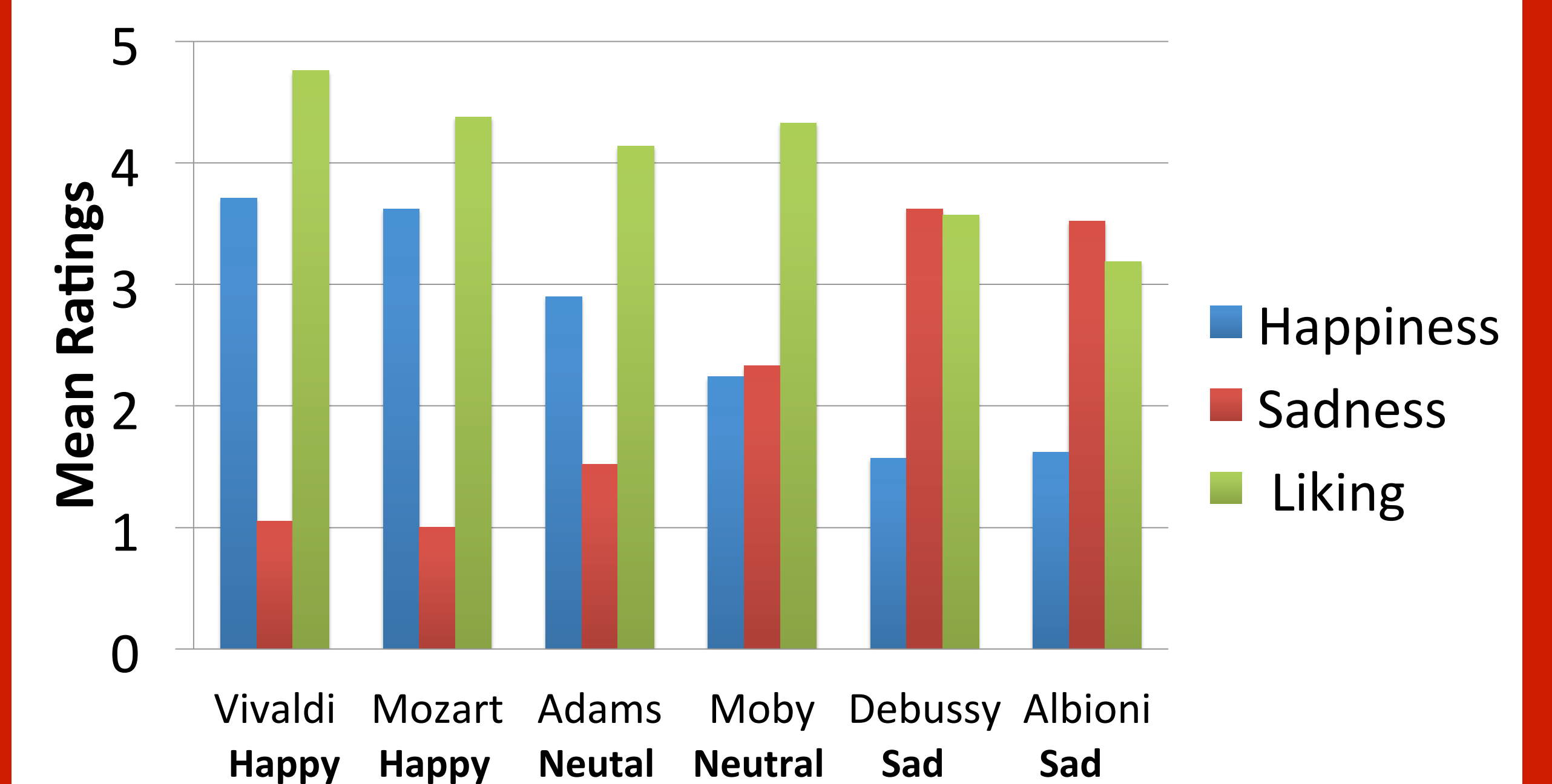
- Happiness scores were positively correlated with feeling proud and satisfied and with liking the song, wanting to listen to the song again, and listening to similar songs. Sadness scores were not significantly correlated with liking for any song except the Debussy, which was negatively correlated ( $r = -.52$ ). Although not hypothesized, feeling satisfied was positively correlated across multiple songs with seven out of the 12 items, including finding the song useful in everyday life and being told something about themselves.

## Discussion

- The happy and sad songs induced their intended emotions in the participants. They evoke other emotions, but the happy songs tended to induce other positive emotions, while the sad songs induced other negative emotions.
- The songs were probably unfamiliar to the participants and could explain the low overall liking scores. These overall means are similar to Schellenberg et al (2008) who used unfamiliar classical music to induce mood, but they found that liking for sad music increased only if people had heard the song before while doing an unrelated task and that music overall is liked more as the listener is exposed to it.
- Clair and Memmott (2008) states that people have to be satisfied with the music for them to engage in the treatment so that nonmusical outcomes can occur. Although engagement was not measured, feeling satisfied was positively correlated with nonmusical outcomes across multiple songs and seems to be an important element.

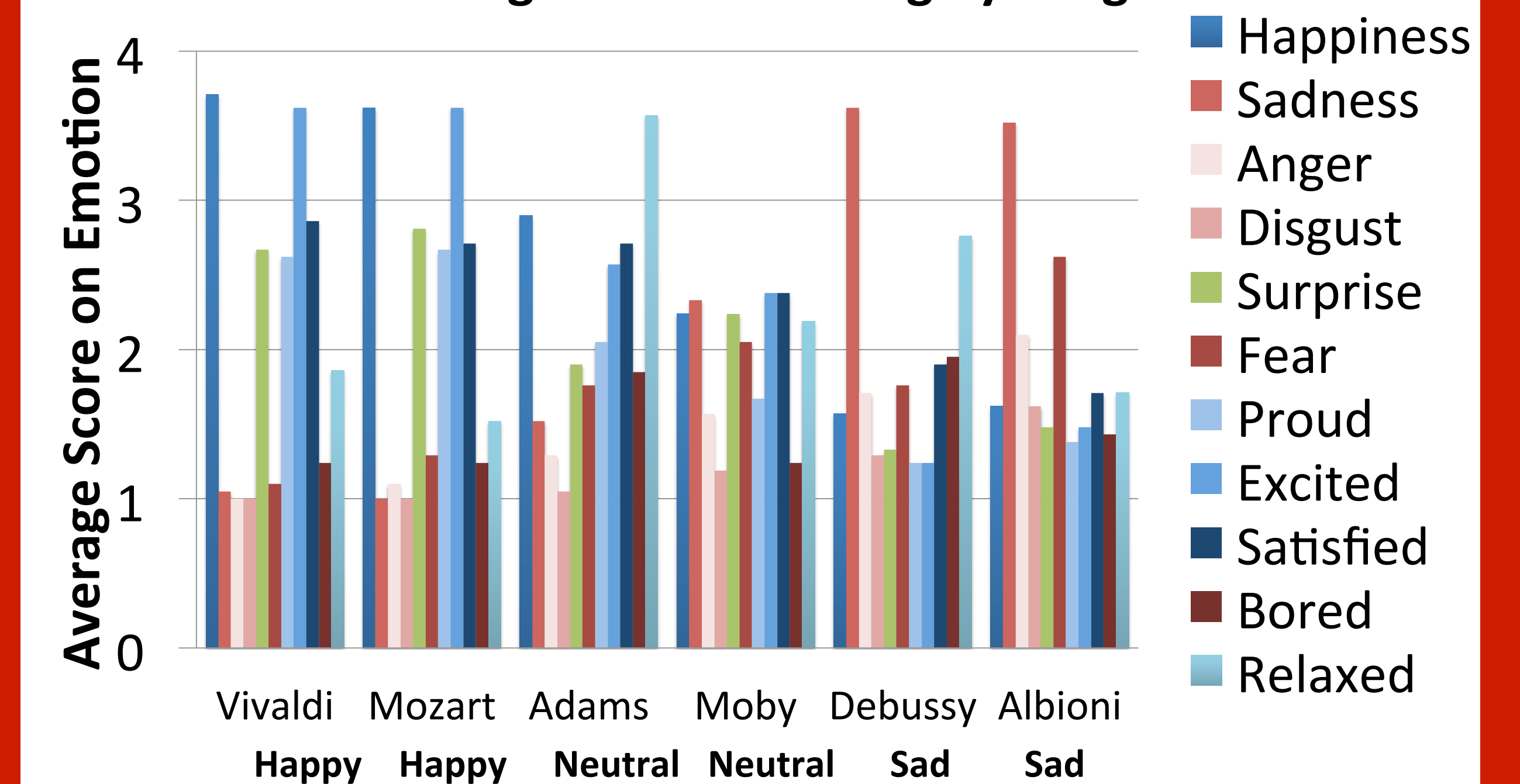
### FIGURE ONE

#### Happiness, Sadness, and Liking Ratings Per Song



### FIGURE TWO

#### Average Emotion Rating by Song



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