Analyzing Patterns In Music Composition Within The Film Industry

# Analyzing Patterns In Music Composition Within The Film Industry

Research Question:

The purpose of this project was to determine if the consistency in soundtrack selection of various music supervisors influences the emotional portrayal of certain scenes in films.

Data Analysis & Results:

Tempo in the Soundtracks of Joyful and Content Film Scenes

Methodology:

We decided on six films, each from unique directors. We separated them into different genres that correlate with a targeted emotional response.
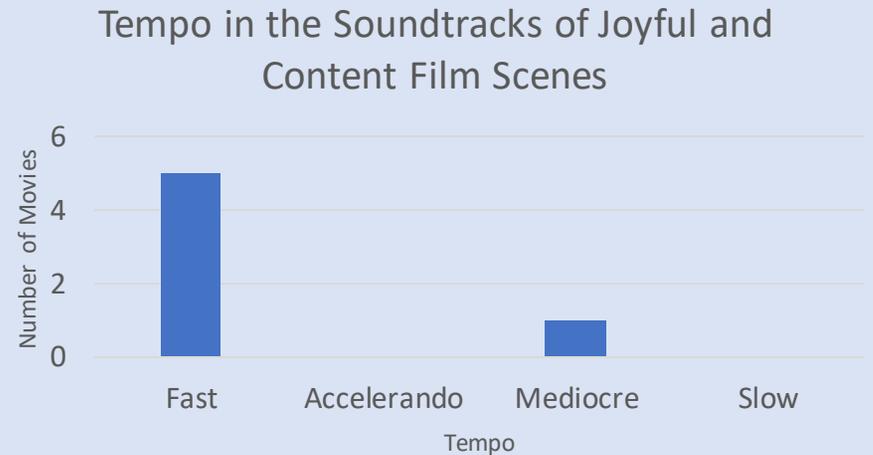
Interpretations & Conclusions:

We ended with various types of results that aligned with a consistent arrangement of patterns for how different types of emotions were recorded due to different scenes in films.

Introduction Abstract

In this project, our group studied a variety of films by conducting an experiment that involved analyzing the relationship between emotions and sound within their studio productions. Before our investigation, the three of us turned to electronic research to gather a plethora of intel and insight on the "how's" and "why's" of human reactions. We then began our inquiry by selecting six films that are heavily concentrated in songs and background music scores. Each film has its individual signature from stylistic independent directors. By evaluating the music composition of the soundtracks that were paired with various attractive scenes, we organized the segments by genre and broke them down into four instrumental and lyrical components: tempo, timbre, sounds of dialogue, and tone of lyrics. Once we recorded and collected our data, we assessed our results and constructed a conclusion from the apparent patterns we observed. The reason we chose this project is due to our interest in the magical intricacies of the film and entertainment industry, as well as our curiosity about the question as to what triggers certain feelings and why we may experience them. Smaller projects such as ours can help instigate a gateway to future research for psychologists and scientists involved with neurological studies. Connecting senses such as sound with memory can influence new solutions to mental issues such as Post Traumatic Stress Disorder and Alzheimer's, or to increase success in interviews with impaired witnesses for state and federal justice cases. This project was very engaging and would be an inviting experiment for younger kids to participate in as well; studying a topic so big yet simplified into this all-inclusive basic procedure. Overall, we had a fun time interacting with this assignment and found our results incisive to analyzing film tactics.

Question/problem and predictions

How can the selection of soundtrack influence the emotion being portrayed throughout the film?

The purpose of this project was to determine if the consistency in soundtrack selection of various music supervisors influences the emotional portrayal of certain scenes on films.

If the soundtrack break down results consist of uniform characteristics, then we can conclude that general music composition within the film industry follows the same principal criteria regardless of its production studio.

Procedure:

- Five selected movies and sheets of paper, for each chosen emotional attractive scene, were prepared before the watching session began

- A movie was selected on the device

- While the movie was playing, notes were jotted down about the changing soundtracks for emotional portrayal in certain scenes throughout the movie.

- Each musically implemented scene correlated with a certain emotion, as did certain patterns within the music composition

- On the observation paper, notes of the different tempos, rhythms, and lyrical differences were written down for the designated scenes in the movie.

- This procedure was repeated five times with each movie that was picked.

- Finally, patterns were compiled from the collected data that compared the film scores of all five movies. A conclusion was made that pertained to the ideal directorial tactics of music directors in the entertainment industry.

The Categories and Their Meanings:

Tempo (pacing):

- Fast

- Accelerando – slow to fast

- Mediocre – medium speed

- Slow

Timbro (instrument classes):

- Idiophones – e.g. triangles, cymbals, bells, maracas, xylophones

- Membranophones – e.g. drums, tambourines, bongos

- Chordophones – e.g. violin, guitar, piano, harp, electric guitar, cello, viola, bass, banjo, keyboard

- Aerophones – e.g. trumpets, horns, flutes, saxophone, trombone
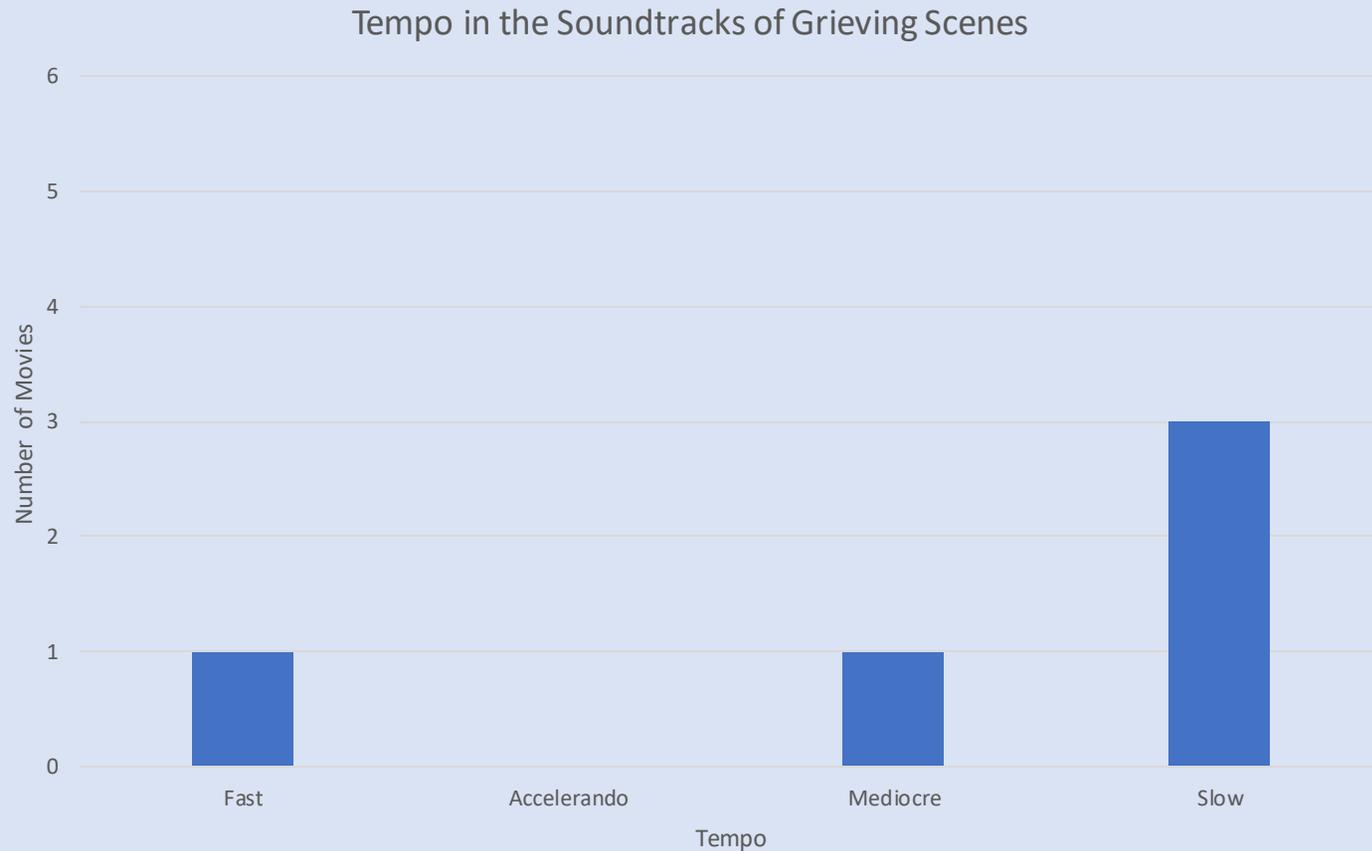
Sounds (volume of dialogue):

- Loud dialogue

- Leveled dialogue

- Quiet dialogue

Tone of Lyrics:
- Optimistic
- Pessimistic
- Solemn
- Distressed

Soundtracks of Grief

Soundtracks of Grieving Film Scenes:

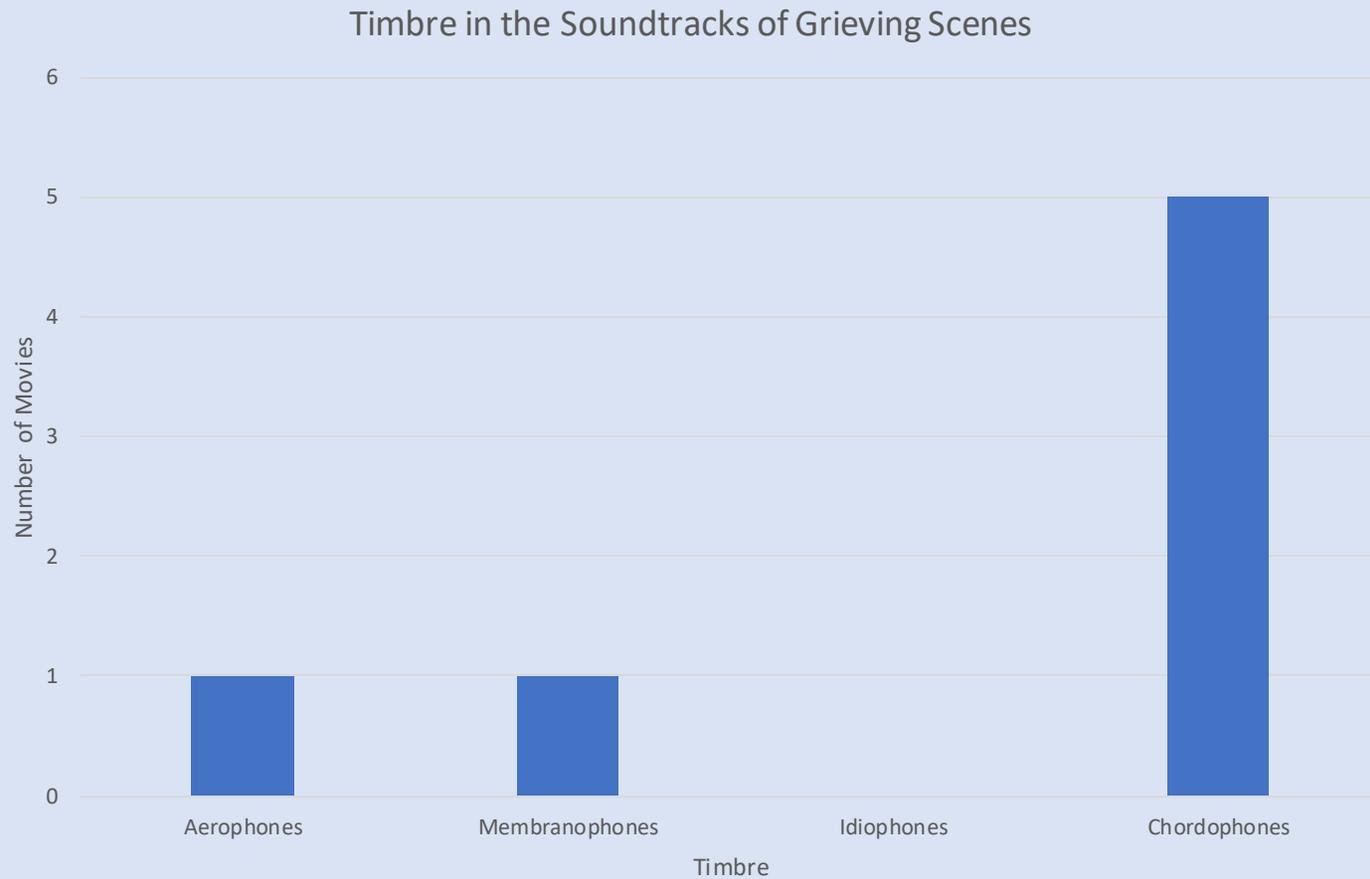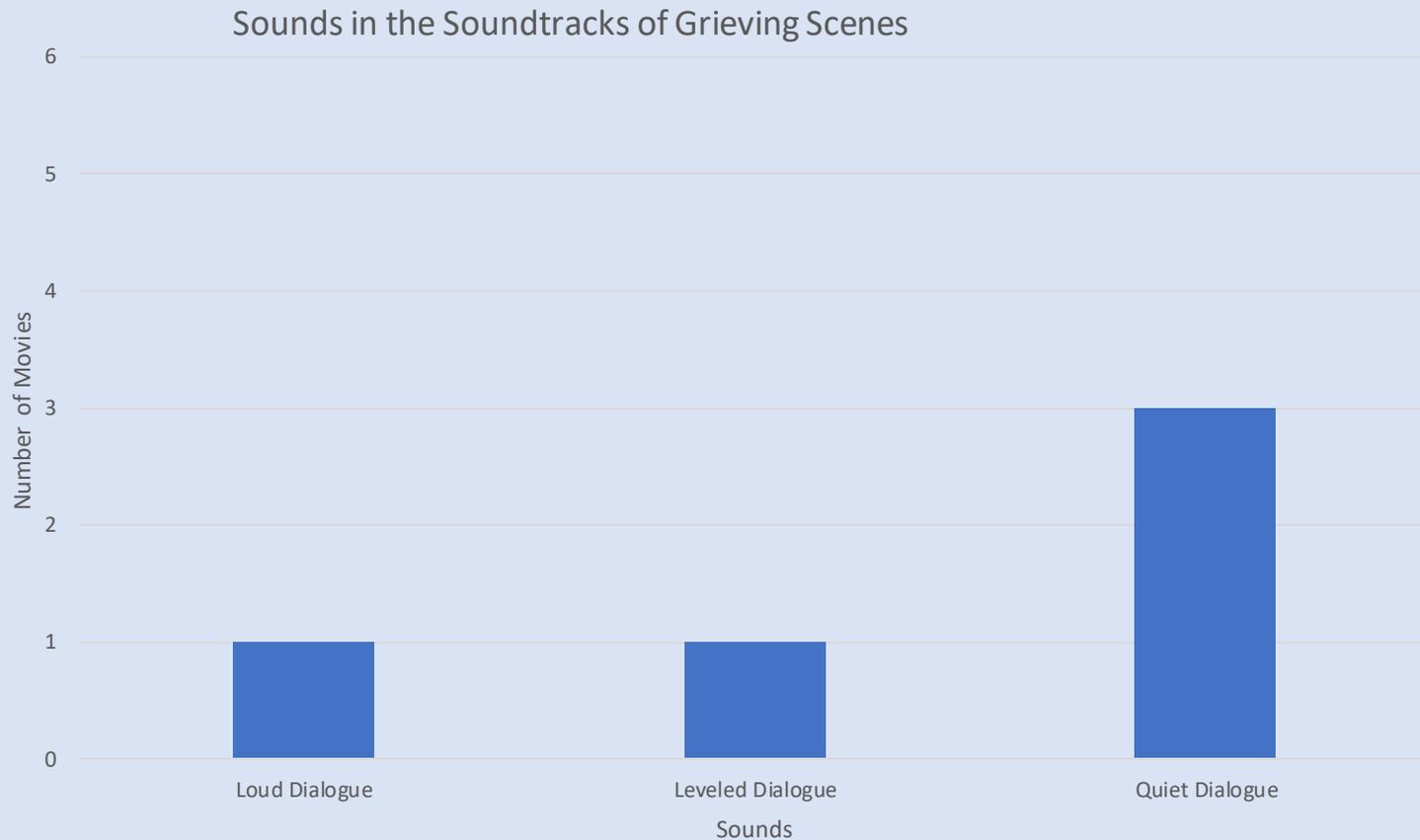Tempo in the Soundtracks of Grieving Scenes

Claim Statement: Slow tempos were most consistent during the decrease of mediocre and fast while accelerando use remained at 0.

Soundtracks of Grieving Film Scenes:

Timbre in the Soundtracks of Grieving Scenes

Claim Statement: The amount of Chordophones, Membranophones, Aerophones increased while idiophones remained with no use. Chordophones were the most used.

Soundtracks of Grieving Film Scenes:

Sounds in the Soundtracks of Grieving Scenes

Claim Statement: All of the dialogues increased at some amount, however the use of quiet dialogue was more frequent.

Soundtracks of Grieving Film Scenes:

Tone of Lyrics in the Soundtracks of Grieving Scenes
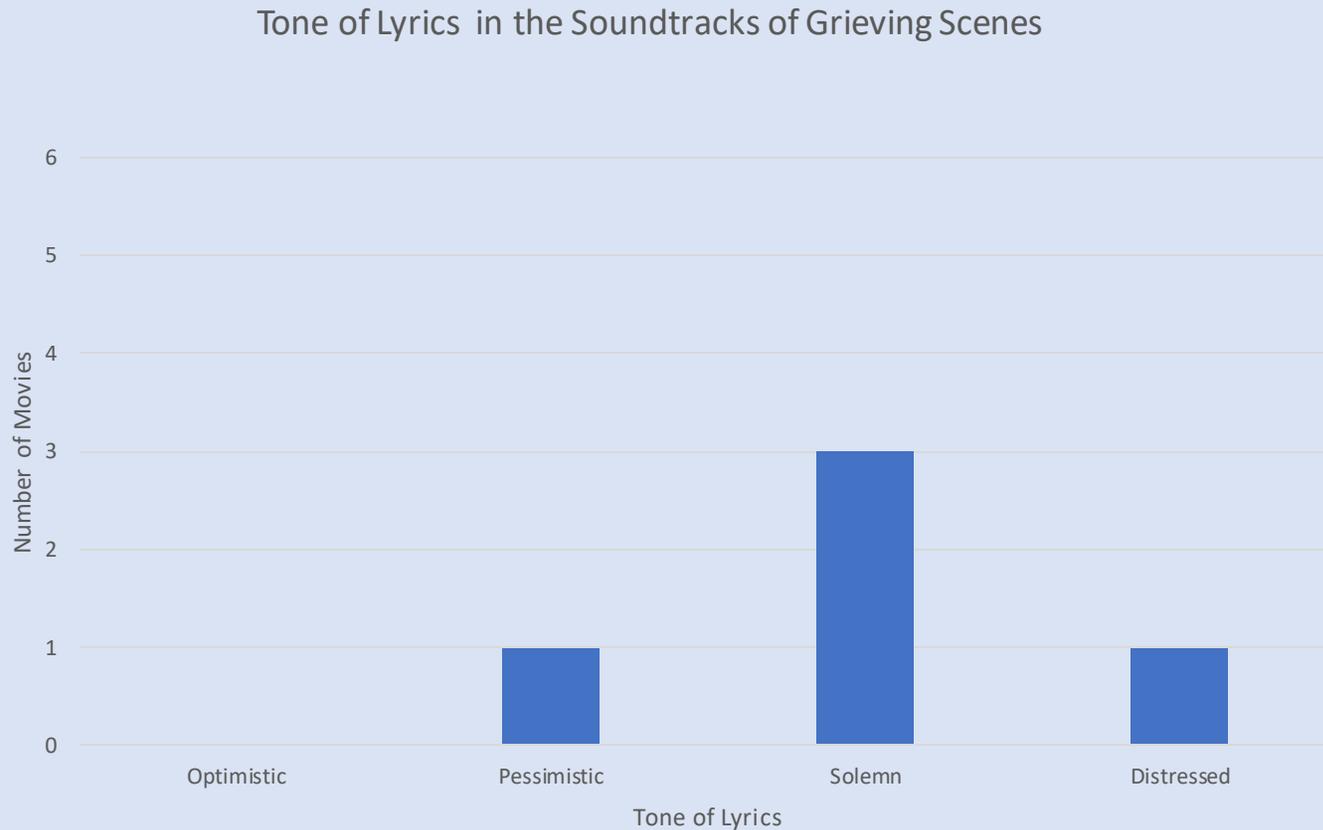
Claim Statement: The change in tone of solemn, distress, and pessimism remained in use while optimism was at the low. Solemn tones were most used.

Results, Discussion, and Conclusion

Pattern Results:
Joyful and Content Scenes:
- Fast Tempo, Chordophones, Loud Dialogue, Optimism
Fearful Scenes:
- Fast Tempo, Chordophones, Loud Dialogue, Distress
Passionate Scenes:
- Mediocre Tempo, Chordophones, Equal use between Loud and Quiet Dialogue, Optimism
Grieving Scenes:
- Slow Tempo, Chordophones, Quiet Dialogue, Solemn
Anxious Scenes:
- Fast Tempo, Chordophones, Loud Dialogue, Distress

In this project, we recorded data from various types of films that contained music soundtracks. These music soundtracks were composed to portray many different emotions from what you may expect. This experiment helped predict how an audience may interpret the present character's feelings and mind set of the current scene by the use of musical scores. Our results consisted of uniform data, which led to the conclusion that general music composition within the film industry follows the same principal criteria regardless of its production studio.

Errors

Though our testing results were conclusively accurate, there are many factors that could have led to a variation of skewed data. One example could be the fact that most of the soundtracks of films are compiled with the use of multiple instruments and electronic sounds that could not all be accounted for in the data collection. Another, could be the mistake of confusing certain sounds with other instruments which would change the category the data would be marked under.

Scientific Explanation

- Human sounds convey emotions clearer and faster than words.

- Brain uses "older" systems/structures to preferentially process emotion expressed through vocalizations.

- According to researchers from McGill, It takes just one-tenth of a second for our brains to begin to recognize emotions conveyed by "vocalizations."

Click to add text researchers believe that the speed with which the brain 'tags' these vocalizations and the preference given to them compared to language, is due to the potentially crucial role that decoding vocal sounds has played in human survival.

- "The identification of emotional vocalizations depends on systems in the brain that are older in evolutionary terms," says Marc Pell, Director of McGill's School of Communication Sciences and Disorders.

- While understanding the emotions expressed in spoken language, on the other hand, involves more recent brain systems that have evolved as human language developed.

Ideas for future research and Real-World Application:

By analyzing neurological patterns associated with emotional response, basic studies like these can offer new experimental trials in various studies of psychology such as:

- compiling methods to prevent psychological triggers of past trauma, or in general, associating memories with sound

- proposing an unconventional approach to improving cognitive interviews that are frequently used in behavioral sciences like profiling

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