BA Creative Music Production

Professional Project

Brad Hennessy

How Does Melodic Structure Impact Emotional Response in Recent Film Scores?

26/4/24

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Abstract:

This research paper explores how melodic structure influences emotional response in recent movie scores. The research explores the intricate connection between music and emotions within film by combining quantitative data and theoretical analysis. It starts by examining survey results that show how specific melodic features affect responses among participants. Ascending contours and limited pitch range with low levels of dissonance typically evoke positive feelings, while descending contours with more dissonance often trigger negative reactions, which aligns with existing literature on melody and emotions.

The research then goes on to analyse selected film scores like those from "Interstellar" "Hereditary," “The Theory of Everything”, "Up," and "Finding Nemo" in detail. This analysis explains how composers use techniques strategically to evoke emotions and enhance the storyline of films. For example, composers use repetition and variation to deepen connections over time, orchestration and instrumentation to create emotional atmospheres, and contrast and certain melodic contours to convey many different emotional experiences.

By combining insights from both quantitative data and theoretical analysis, compared against the previous literature, this research offers a thorough understanding of how melodic structure impacts emotional response in film scores.
The findings of the research have implications for composers, filmmakers and scholars providing perspectives on how music can be used to evoke emotions in film. Although there are limitations like sample sizes and cultural influences, this study adds to the ongoing discussion about how music influences emotional responses in film scores, opening up opportunities for further exploration in this field.

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Introduction:

Music composition obtains the power to elicit and impact a large variety of emotions. At the core of this lies the complex formation of melodic structures, an intricate relationship of notes and ideas that forms the beautiful structures of sound we call music. This project explores the collaboration that is melodic structure and emotional impact, examining the ways that an arrangement of notes can guide the emotional experience for both composer and listener.

Within music composition, the melodic line acts as a major channel for conveying emotion, somewhat exceeding cultural boundaries. Throughout this study of melodic structure, it is crucial to look at the main cornerstones of the structure itself. This includes the close examination of pitch, harmony, rhythm, tonality, some cultural influences, and the use of music within film. This is needed to break down the techniques that musicians use to employ these emotions. Through an approach that pulls from music theory, psychology and cultural influences, this project attempts to explain the remarkable, multifaceted relationship between melodic structure and emotional resonance.

Throughout this study of melodic structure, the exploration of the musical elements mentioned communicates to elicit emotion through composition. From melodic contour to harmonic progressions, the effect of tempo and rhythm to the influence of mode and tonality, this project investigates their relationship in emotional impact. By examining a range of research on this topic, this research aims to understand and further the knowledge of the emotional impact of melodic structure.

The aim of this study is to further the understanding of the connection of melodic structures and emotional impact, but also to recognise the application of this within music composition. This project is constructed and catered to answering the research question: How Does Melodic Structure Impact Emotional Response in Recent Film Scores?

Literature Review:

Introduction:

For many years, the relationship between music and emotion has been reviewed by experts in attempts to understand the intricacies presented in the field. Within this area of study, melodic structure presents itself as a key factor that shapes the emotional response of a listener. The understanding of a melodic structure's impact on emotion provides a great advantage in composition. This literature review will delve into themes, breaking down melodic structure into its constituent elements, whilst other themes will give insight into cultural and genre influences and the use of music in films impact on emotional impact. These themes include:

The emotional impact of pitch:

- Melodic Contour: The shape of the melody, looking at the impact of ascending, descending or whether the pitch remains constant.
- Intervallic Relationships: Focusing on the distances between pitches giving influence to the character of a melody

Harmony:

- Harmonic Progressions: Sequencing of harmonies influencing the listener's emotional state
- Harmonic Rhythm: The rate of change within harmonies.

Rhythm:

- Note Durations: Length of individual notes affecting overall melodic rhythm
- Rhythmic Patterns: Sequences of short and long notes and other rhythmic variations
- Meter: The pulse within the melody, giving overall rhythmic structure

Tonality:

- Key signature: The tonal centre of the melody, influencing pitches and harmonies.
- Modes: Organisation of distinct tonalities within a sequence of notes in any parent scale.

Cultural and Genre Influences:

- Cultural Variations**:** How cultural factors may influence the emotional interpretation of melodic structures.
- Genre-Specific Conventions**:** Exploring how different music genres utilise melodic structures to evoke specific emotions.

The Use of Music in Films:

- A Visual Analysis of the Impact of Music on Perceived Emotion of Film
- The Influence of Music on Moral Judgement within Film Scenes

Pitch and Harmony:

The emotional influence of intervals and melodies has captivated the interest of many researchers. Studies indicate that the emotional reactions to pitch contours and intervals can elicit an array of feelings and interpretations among listeners. For instance, ascending melodies have been connected to emotions like fear and surprise, while descending melodies have been associated with feelings of boredom, pleasantness or sadness. (Schellenberg et al. 4)

Moreover the effect of changes on emotional responses to melodic progressions has been investigated, revealing that specific emotional states evoked by music can be categorized into distinct feelings such as wonder, transcendence, tenderness, peacefulness, nostalgia, power, joyful engagement, tension and sadness. Additionally, the development of the Geneva Emotional Music Scale (GEMS) in the paper "Emotional Responses to Music: The Need to Consider Underlying Mechanisms" allowed for an exploration of these emotions triggered by music. It demonstrated that music possesses the ability to evoke a spectrum of emotional reactions based on pitch sequences and tonalities. (Juslin et al. 38)

Various studies have delved into examining and documenting the impact of different pitch sequences within melodic compositions. The research article "Perceiving Emotion in Melody: Interactive Effects of Pitch and Rhythm" by Schellenberg and colleagues emphasizes the importance of pitch over rhythm in conveying expressions through music. According to the study listeners tend to derive emotional meaning from pitch patterns than rhythm patterns.

Furthermore the study notes that melodies in major or minor keys are typically associated with positive or negative emotions and these associations become more pronounced over time. (Schellenberg et al. 13)

The exploration of the impact of harmonic modulation in melodic structures is a nuanced and intricate area of study influenced by various factors such as tonal proximity, mode, melodic direction and musical style. This aspect is elaborated upon in a study titled "Emotional processing in music: Study in affective responses to tonal modulation in controlled harmonic progressions and real music" by Korsakova Kreyn and Dowling. In their experiment, the researchers delve into how individuals respond emotionally to modulations within controlled harmonic progressions, highlighting the significance of key and mode changes in eliciting emotional reactions. This study found that the tonal proximity and the musical mode played a role in evoking emotional responses, which is consistent with existing theories on expectations and relationships based on music theory principles based on the circle of fifths as explained in a later section of the literature. (Korsakova-Kreyn and Dowling)

Furthermore, the research indicates that emotions triggered by changes in tonality within melodies are influenced by the direction of the melody and the musical style, shedding light on how these elements impact how emotions are perceived in music. It's important to recognize that examining how tonal changes interact with melodic direction and musical styles adds complexity to understanding emotional reactions in music, emphasising the need for a thorough exploration of how harmonic modulations affect emotional expression. (Korsakova-Kreyn and Dowling)

Research by Lindström on "The Impact of Melodic Organisation on Perceived Structure and Emotional Expression in Music" delves into how melodic organization affects our perception of structure and emotional expression in music. The way accents are placed (emphasizing aspects of melody such as melodic patterns, rhythmic groupings or accent patterns) within harmonic progressions is believed to influence listeners' interpretations of stability, tenderness, happiness and sadness with certain notes conveying varying degrees of emotional intensity (Lindström 32)

In this study the researchers mention that various investigations have supported the common belief associating major and minor modes with happiness and sadness. Further emphasising

the importance of harmonic structure, rhythm and melodic contour in conveying emotional expression. (Lindström 88)

Rhythm and Tempo:

A research paper titled "Influence of Tempo and Rhythmic Unit in Musical Emotion" by Fernández-Sotos et al examines how tempo and rhythmic unit affect emotion regulation. It delves into how tempo, the speed of the rhythm of a composition, and rhythmic unit, which aligns with pulses on an underlying metric level, influences the listeners' experience conveying positive and negative emotions (Fernández-Sotos et al. 2). The study presents experiments that aim to identify factors related to tempo and rhythmic unit. Furthermore, it explores how rhythm, tempo and affective responses are interconnected, revealing that tempo plays a role in determining whether music evokes feelings of sadness or happiness, while the rhythmic unit also plays a significant role in shaping emotional outcomes. (Fernández-Sotos et al. 11)

The article "Emotional and Psychophysiological Responses to Tempo, Mode and Percussiveness" by Van Der Zwaag delves into how tempo influences emotions in music with slower tempos often evoking feelings of sadness and faster tempos eliciting a sense of happiness. It also explores the connection between mode and emotional response, noting that minor modes are often associated with sadness while major modes often convey happiness. Tempo affects arousal levels while mode influences valence forming the foundation of the valence–arousal model crucial for understanding emotional responses to music.
(Van Der Zwaag et al. 3)

Also, whilst not directly related to the research topic, the research paper "Relationships Between Musical Structure and Psychophysiological Measures of Emotion" by Gomez and Danuser sheds light on how musical structure impacts physiological responses. The study reveals that faster tempo and pronounced rhythms are linked to changes in breathing patterns increased ventilation rates and heightened skin conductance levels. This underscores the role of rhythm in shaping physiological reactions to music and underscores the intricate interplay, between rhythm and psychophysiological effects.
While this research doesn't explicitly talk about emotional response, the discussion on rhythm and how our bodies react provides valuable insights into how rhythmic elements affect our physical and mental responses.(Gomez and Danuser 8)

Tonality and Mode:

A journal article by Marina Korsakova Kreyn and W. Jay Dowling delves into how tonality and tonal modulation impact emotional reactions. Their study, whilst looked at previously, examines responses to changes in both controlled harmonic progressions and real music, focusing on factors like key proximity and mode. The findings suggest that specific distances in tonal space perceived through functional harmony, play a role in how people emotionally connect with tonal music. Different shifts in tonal changes trigger emotional reactions tied to feelings of valence, potency and pleasantness, showcasing how communication between melodies and harmonies influence emotional responses to tonal music. (Korsakova-Kreyn and Dowling 15)

Additionally, the study looks into reactions towards tonal modulations by considering factors like melodic direction, harmonic settings and musical styles. It emphasizes the associations brought about by differences between major/minor distinctions, underscoring the impact of tonality and mode on our emotional experiences with music. (Korsakova-Kreyn and Dowling 15)

Further research indicates that various diatonic modes convey specific emotional meanings.
For instance, the Ionian mode is commonly associated with feelings of ecstasy, joy and serenity, whereas the Dorian mode is connected to vigilance, anticipation and interest. The emotional essence of these modes can be influenced by variables like tempo, harmony, pitch range and interval size as discussed in sections of this analysis. The perception of emotions conveyed by modes is also influenced by the persons musical background. This study reveals that individuals with more musical experience tend to have more aligned emotional responses towards the modes compared to those with less experience. Furthermore, this study hints at the importance of exploring how aspects of music interact with emotional interpretations and individual musical proficiency, as outlined in this particular research. (Straehley and Loebach 3)

Cultural and Genre Influences:

The way people perceive emotions in music is influenced by both cultural norms and psychophysical cues as discussed in a research paper titled "A Cross-Cultural Investigation of the Perception of Emotion in Music: Psychophysical and Cultural Cues" by Balkwill and Thompson. Cultural aspects, like a community that is used to a specific tonal system, can impact how emotions are understood in music. Some experts argue that the meaning of music is solely shaped by cultural influence, suggesting that how we interpret emotions in music depends entirely on being immersed in a particular musical system. (Balkwill and Thompson 19)

However, the study proposes that there are also cues that go beyond cultural boundaries and have a significant impact on how listeners interpret emotions in music regardless of their cultural backgrounds. These cues could include aspects such as tempo, complexity and volume which are not tied to any culture and could serve as universal indicators for evaluating emotions across all types of sounds. (Balkwill and Thompson 4)

It is suggested that when familiar cultural markers are missing, listeners might focus more on sensory cues, like tempo and complexity, to grasp the overall emotional message conveyed by the music. This implies that both cultural and psychophysical factors play a role in how we interpret emotions from melodic structure in music. (Balkwill and Thompson 4)

The way people from cultural backgrounds perceive emotion in music may not always align with their familiarity with harmonization styles like major and minor modes. A study showed that participants who were not familiar with western music did not associate major and minor harmonization styles with significantly different emotional responses unlike Western participants who did. While Western participants could distinguish emotions based on the mode, non-Western participants did not make the connection (Athanasopoulos et al. 10). Therefore knowing about expressions like major and minor modes might not always lead to effective emotional communication across diverse cultural groups.

In the research paper titled "Are the Emotions Expressed in Music Genre-specific? An Audio-based Evaluation of Datasets Spanning Classical, Film, Pop and Mixed Genres " the focus is on exploring genre-specific acoustic features that influence how we perceive emotions in

music. This study examined nine datasets representing various categories such as classical music, film scores, popular music, and mixed genres. The findings highlighted that emotions linked to valence operate differently depending on the genre. This study identified the consistency of effects in different music genres, listing a set of features most likely to have a universal impact. (Eerola)

Furthermore, insights from this research shed light on how various music genres can elicit both positive and negative emotional reactions. It pointed out that certain genres, like film music and classical music, tend to evoke more positive emotions, while pop and mixed genres evoke a range of emotional responses. The study emphasized the importance of considering genre emotions in music. (Eerola 14)

In contrast, Cook et al.'s study, "Music as an emotion regulation strategy: An Examination of Genres of Music and their Roles in Emotion Regulation", delves into the connections between genres and strategies for regulating emotions. It underscored the need for future studies to explore how lyrical content influences emotions and why individuals choose genres to regulate their emotions effectively. The research also highlighted that different music genres may be linked to emotion regulation strategies, emphasising the significance of understanding how specific aspects of a genre characterize different emotions.

In summary, these studies help us grasp how various music genres evoke different emotional reactions and emphasise the significance of exploring genre-specific musical attributes concerning emotions.

The Use of Music in Film:

A research study titled "Analysing the Effect of Music on Perceived Emotions in Films" conducted by Robert Parke and colleagues delves into the role of music in shaping emotions in experiences. The study involved pairing film segments with emotive music, where participants were tasked with listening to the music separately, viewing the film alone and then combining both elements. Results indicated that the emotional responses differed when experiencing music and film together compared to experiencing them, suggesting that music plays a pivotal role in influencing the emotional tone of movie scenes.

To gauge the impact of music on participants' emotions, researchers employed a model comprising three emotional dimensions: stress, activity and dominance. Notably, feelings of dominance emerged as the most significant dimension concerning emotional reactions. By comparing assessments when exposed to music alone, film alone, and both combined, researchers could anticipate viewers' emotional states when watching movies with accompanying music. This insight serves as a resource for composers and filmmakers alike. The study underscores the influence that music wields over eliciting emotions in film. (Parke et al.)

Another fascinating research study in this field includes “The Influence of Film Music on Moral Judgments of Movie Scenes and Felt Emotions” by researcher Jochan Steffens. The study aimed to explore whether music could sway the judgments viewers make about actions portrayed in films by evoking emotions. The researchers hypothesized that music evoking positive emotions would lead to actions in films appearing more morally acceptable, while music evoking negative emotions would render those actions morally unacceptable. The results partially supported this hypothesis, with emotions enhancing the moral acceptance of actions in two scenes and negative emotions diminishing it. However, the expected outcomes were achieved in one out of four instances. These conflicting results suggest that the influence of music on judgment is intricate and not easily predictable, as initially assumed by the researchers. Steffens recommended an investigation in a more controlled setting, possibly through qualitative interviews, to delve deeper into this area. (Steffens)

Conclusion:

In conclusion, the literature discussed in this review provides an in-depth look at the main themes of this project. Each of these themes serves as an aspect of the study, offering valuable insights into the research topic. By examining these themes as pillars, it has advanced the understanding of the subject matter. The emotional impact of melodic structure is shaped by factors such as pitch, harmony, rhythm and tonality, as well as cultural and genre-specific elements. The findings also suggest a connection between music and evoking mixed emotions, suggesting avenues for further exploration. To summarize, the literature review underscores the interplay between melodic structure and emotional responses, the impact of individual variations, and the complex nature of emotional reactions to music.

Methodology:

Introduction:

The aim of this project was to have a greater understanding of how melodic structure influences emotional response within music. With this understanding, it gives a composer a vast number of techniques and ideas to work with when creating for a specific feeling, showing this subject's importance in modern music composition. This methodology was constructed after thoroughly reviewing the existing literature and methods used within their studies, taking that inspiration. A use of quantitative and theoretical methods, explained in this section, was used to give scope to the research question “How Does Melodic Structure Impact Emotional Response in Recent Film Scores.”

Quantitative Method:

Research Objectives:
The study aimed to explore the impact of melodic contour, intervallic movement, pitch range, and melodic dissonance on the emotional perception of music. It sought to understand how variations in these musical parameters influenced listeners' emotional responses and to examine the interaction between several aspects of melody in shaping emotional experiences in music.

Research Questions:

Key questions included:

- How did melodic contour (ascending, descending, arched) impact the emotional perception of music?
- What was the relationship between intervallic movement (stepwise, leaping, mixture) and emotional responses to melodies?
- How did pitch range (narrow, moderate, wide) influence the emotional impact of music?

- What role did melodic dissonance (low, moderate, high) play in shaping listeners' emotional experiences, and how was this melodic dissonance created through utilising different intervals?

Research Design:

The study adopted a design in which participants listened to multiple melodies systematically varied in melodic contour, intervallic movement, pitch range, and melodic tension. Melodies were created based on predefined constraints using an L9 orthogonal array. Each participant listened to all nine melodies to control individual musical preferences and perception differences.

Melody	Contour	Intervallic Movement	Pitch Range	Melodic Dissonance
1	1 (Ascending)	1 (Stepwise)	1 (Narrow)	1 (Low)
2	1 (Ascending)	2 (Mix of Stepwise and Leaping)	2 (Moderate)	2 (Moderate)
3	1 (Ascending)	3 (Predominantly Leaping)	3 (Wide)	3 (High)
4	2 (Descending)	1 (Stepwise)	2 (Moderate)	3 (High)
5	2 (Descending)	2 (Mix of Stepwise and Leaping)	3 (Wide)	1 (Low)
6	2 (Descending)	3 (Predominantly Leaping)	1 (Narrow)	2 (Moderate)
7	3 (Arch)	1 (Stepwise)	3 (Wide)	2 (Moderate)
8	3 (Arch)	2 (Mix of Stepwise and Leaping)	1 (Narrow)	3 (High)
9	3 (Arch)	3 (Predominantly Leaping)	2 (Moderate)	1 (Low)

Independent Variables:

Variables included melodic contour (ascending, descending, arch), intervallic movement (stepwise, leaping, mixture), pitch range (narrow, moderate, wide), and melodic dissonance (low, moderate, high).

Explanation of Independent Variables:

Melodic Contour:

- Ascending: Primarily ascending contour.
- Descending: Primarily descending contour.
- Arched: A contour that starts low and reachs the high within the middle section but then ends low, where it started.

Intervallic Movement:

- Stepwise: The melody generally moves in steps.
- Leaping: The melody generally moves in leaps.
- Mixture: The melody combines the two movements.

Pitch Range:

- Narrow: Use of one octave in the melody.
- Moderate: Use of two octaves within the melody.
- Wide: Use of three octaves within the melody.

Melodic Dissonance:

- Low: Primary use of intervals such as: perfect fifths, perfect fourths, major sixths and major thirds.
- Moderate: Primary use of intervals such as: Minor third, major second, minor sixth, and major seventh.
- High: Primary use of intervals such as: Tritone, minor second, minor seventh

Dependent Variable:

Participants rated their emotional responses to each melody by deciding whether it made them feel Positively, Neutrally or Negatively; from here, the participants picked out from a list of emotions which best suited their reaction from said category.

Control Variables:

This survey aimed to understand the importance of these fundamental melodic characteristics, to keep the testing between each melody constant, the construction of each melody kept simple rhythms, using only crotchets and quavers.

Sampling:

The target population consisted of adults aged 18+ with varying musical experience. Convenience sampling was employed, recruiting participants from local communities, universities, and online platforms. There were 39 participants recruited to ensure statistical power.

Data Collection:

Participants were briefed about the study, and informed consent was obtained. They listened to each melody individually and completed a questionnaire rating emotional responses after each melody. The scale used was developed for easy use whilst informing the degree of detail needed. It was suggested that the melodies be played through headphones, and Likert scales were designed to collect the emotional intensity of the emotion felt for each melody.

Data Analysis:

The collected data on participants' emotional responses to the musical stimuli was analysed using descriptive statistics. The descriptive analysis will provide insights into the patterns and characteristics of participants' emotional responses to the musical stimuli. By examining central tendencies and variability and the distribution of emotional ratings, the analysis aims to identify dominant emotional experiences elicited by variations in melodic contour, intervallic movement, pitch range, and melodic tension.

Conclusion:

The study aimed to provide insights into how specific musical elements contributed to emotional experiences in music, offering practical implications for composers, musicians, and music therapists based on the results. Suggestions for future research are invited to elucidate the relationship between melody and emotion further.

Theoretical Method:

To answer the research question “How Does Melodic Structure Impact Emotional Response in Recent Film Scores?” an analysis of recent film music has been undertaken. Through careful examination of the researched literature and results of the first quantitative approach, a framework of informed analysis was set up to examine recent film scores. The use of five most-answered emotions within the qualitative survey was used to decide the film scores chosen for analysis.
To analyse the music, deconstructions of the scores and an informed analysis approach were used to source the intricate techniques used to convey its emotion.

Conclusion:

This Methodology was sculpted to use the best methods to answer the research question, “How Does Melodic Structure Impact Emotional Response in Recent Film Scores?”
Through a thorough quantitative survey method, giving way to the theoretical method in the analysis of deconstructed melodic structures within recent film scores. These methods, when combined and compared, gave a clear and concise route to answering the research question at hand.

Results Section:

Introduction:

This results section represents both interpretations from the quantitative method and theoretical method described in the methodology section. The results from these two methods are also compared in the discussion section of this thesis to get a more solidified answer to the research question, "How does Melodic Structure Impact Emotional Response within Recent Film Scores?".

Quantitative Method Results:

In this survey, participants listened to nine melodies systematically varied in melodic contour, intervallic movement, pitch range, and melodic dissonance. After listening to these melodies, they rated their emotion as Positive, Neutral, or Negative and specified an emotion in its category; the participant then rated the intensity of the emotion felt on a Likert scale. These results help to see how these melodic variations are perceived emotionally.

This survey had 39 participants. From these participants, 21 identified as male (54%), and 17 identified as female (44%), representing quite an equal split between these two genders. The remaining participants identified as non-binary (2%), reflecting a lack of diversity amongst gender representation. The age range of the participants suggested a predominantly younger group, most falling into the 18-24 year-old category; a smaller number fell into older categories, with three in the 25-34 year-old group and just two in the 45-54 year-old group. Approximately half of the people who took part in this survey reported having studied music academically, with a split of 20 participants having studied and 19 reporting they had not. Whilst advised on headphone usage, only 22 of the 39 (56%) participants reported using them for the survey.

Melody One: (Refer to Appendix A)

Responses:

Positive:	Neutral:	Negative:
24	13	2

Based on the survey responses for this melody, characterised by these specific traits (Ascending, Stepwise, Narrow Pitch Range, Low Dissonance), the results indicate a predominantly positive emotional response.

Within the positive responses, participants mostly reported a sense of contentment (16 responses) with smaller percentages reporting a sense of hope (4), happiness (3) and excitement (1).

Within the neutral responses, there were reports of calm (6), boredom (6) and curiosity (2).

There were only two reports within the negative responses. They reported a feeling of sadness and unease.

When asked to rate the intensity of the emotion felt, the results are as follows:

- Very High: 0 responses
- High: 2 responses.
- Moderate: 19 responses
- Low: 18 responses
- Very Low: 0 responses

Melody Two: (Refer to Appendix B)

Responses:

Positive:	Neutral:	Negative:
16	20	3

Based on the survey responses for this melody, characterised by the traits (Ascending, Step and Leap, Moderate Pitch Range, Moderate Dissonance), the results indicate a mostly Neutral and Positive emotional reaction.

The participants who reacted positively mostly reported a sense of Contentment (6) and Hope (6), but some also reported a sense of Happiness (4).

Those who reacted neutrally reported a sense of Calm (8) and Curiosity (8), with some reporting feelings of Boredom (4).

Within the Negative responders, there were mainly reactions of sadness (2) and unease (1).

When asked to rate the intensity of the emotion felt, the results are as follows:

- Very High: 0 responses
- High: 8 responses.
- Moderate: 14 responses
- Low: 15 responses
- Very Low: 1 response

Melody Three: (Refer to Appendix C)

Responses:

Positive:	Neutral:	Negative:
1	7	31

The responses to this melody, which is based on these characteristics (Ascending, Leaping, Wide Pitch Range, High Dissonance), indicate a predominantly negative response.

The participant who responded with a positive reaction reported a sense of Excitement.
Those with a neutral reaction all reported a sense of curiosity (7).
With the negative responses, the participants mostly responded with a sense of unease(24) and others with a sense of anxiety (7).

When asked to rate the intensity of the emotion felt, the results are as follows:

- Very High: 4 responses
- High: 17 responses.
- Moderate: 14 responses
- Low: 4 responses
- Very Low: 0 responses

Melody Four: (Refer to Appendix D)

Responses:

Positive:	Neutral:	Negative:
1	11	27

From these overall reactions to the melody, which is was created with the traits (Descending, Stepwise, Moderate Pitch Range, High Dissonance), it can be seen that the results point to a mostly negative reaction.

The one positive response was reported by a participant who felt a sense of contentment.
The participants who responded neutrally reported feelings of curiosity (7), Boredom (3) and Calm (1).
The majority, who responded negatively, mainly reported a sense of unease (12), Anxiety (7), annoyance (6) and sadness (2).

When asked to rate the intensity of the emotion felt, the results are as follows:

- Very High: 1 response
- High: 11 responses.
- Moderate: 14 responses
- Low: 13 responses
- Very Low: 0 responses

Melody Five: (Refer to Appendix E)

Responses:

Positive:	Neutral:	Negative:
25	14	0

When looking at these overall results given by participants after listening to this melody which was made with these systematic traits (Descending, Step and Leap, Wide Pitch Range, Low Dissonance), it can be seen that the overall result is positive.

The participants who responded positively reported a sense of contentment (11) and hope (7), whilst others reported happiness (5) and excitement (2)
When looking at the neutral responders, the main response reported was a feeling of curiosity (7), whilst others felt calm (5) and bored (2).
There were no negative responders to this melody.

When asked to rate the intensity of the emotion felt, the results are as follows:

- Very High: 2 response
- High: 12 responses.
- Moderate: 19 responses
- Low: 6 responses
- Very Low: 0 responses

Melody Six: (Refer to Appendix F)

Responses:

Positive:	Neutral:	Negative:
1	14	24

The overall reactions to this melody, which was made with these traits (Descending, Leaping, Narrow Pitch Range, Moderate Dissonance), point to mostly negative emotional responses.

The one participant with a positive reaction reported a sense of Hope.
The participants with a neutral reaction reported senses of Curiosity (5), Boredom (6) and some calmness (2).
The majority, with negative reactions mainly reported feelings of unease (14) and anxiety (4), whilst some felt annoyance (5) and sadness (1)

When asked to rate the intensity of the emotion felt, the results are as follows:

- Very High: 2 responses
- High: 10 responses.
- Moderate: 14 responses
- Low: 12 responses
- Very Low: 1 response

Melody Seven: (Refer to Appendix G)

Responses:

Positive:	Neutral:	Negative:
7	25	7

The overall response to this melody, which was made with these traits (Arched, Stepwise, Wide Pitch Range, Moderate Dissonance), show a neutral response.

The participants who responded positively reported feelings of hope (3), contentment (2), excitement (1) and happiness (1).
The majority, who responded neutrally, reported a sense of curiosity (10), Boredom (9) and calmness (6)
Those who responded negatively reported a sense of unease (2), sadness (2), annoyance (2) and anxiety (1).

When asked to rate the intensity of the emotion felt, the results are as follows:

- Very High: 1 response
- High: 6 responses.
- Moderate: 17 responses
- Low: 13 responses
- Very Low: 2 responses

Melody Eight: (Refer to Appendix H)

Responses:

Positive:	Neutral:	Negative:
0	13	26

From the overall reactions to this melody (Arch, Step and Leap, Narrow Pitch Range, High Dissonance), there is a mainly negative response.

There are no reports of positive responses.
Those with neutral responses reported feelings of boredom (8) and curiosity (5).
The participants who responded negatively, reported a sense of unease (17), anxiety (7) and some felt annoyance (2).

When asked to rate the intensity of the emotion felt, the results are as follows:

- Very High: 0 responses
- High: 10 responses.
- Moderate: 16 responses
- Low: 13 responses
- Very Low: 0 responses

Melody Nine: (Refer to Appendix I)

Responses:

Positive:	Neutral:	Negative:
30	8	1

The overall responses to this melody (Arch, Leaping, Moderate Pitch Range, Low Dissonance) show a mostly positive result.

The majority of participants who reacted positively to this melody reported mainly senses of Hope (12) or contentment (8), while others felt excitement (3) or happiness (7).
Those who reacted neutrally reported a sense of calm (5), boredom (2) or curiosity (1).
The one participant who reacted negatively to this melody reported a sense of annoyance.

When asked to rate the intensity of the emotion felt, the results are as follows:

- Very High: 2 responses
- High: 16 responses.
- Moderate: 16 responses
- Low: 5 responses
- Very Low: 0 responses

Limitations:

When dissecting this study's framework, there are some notable limitations. The first concerns the sample size of just 39 participants, with gender representation skewed slightly towards the male gender and a lack of diversity amongst other genders. It was also apparent that the age distribution leaned towards a younger demographic. Another variable included the listening environment of the participants and the headphone usage. These limitations concerning the participants may affect the generalisability of the results. Setting up the melodies with systematic variation through brief excerpts may not fully gauge the complexity of emotional perception in music.

Despite these limitations, the study does provide valuable insights into the relationship between melodic structure and emotional perception. Whilst this section acknowledges the potential shortcomings of this survey, it shows the significance of the results in this area of study and its hopes for further research.

Conclusion of quantitative method:

In conclusion, this survey provided valuable data into the impact of melodic structure on emotional response, whilst the limitations are acknowledged. This framework and data provided serve as a comparison in the discussion section of this thesis, being compared to multiple recent film scores with diverse emotional perceptions. This research lays a foundation for further study into the complex relationship between music and emotional response.

Theoretical Method Results (Film Score Analysis):

Introduction:

This part of the research paper represents the results of the theoretical approach explained within the methodology section. Each of these compositions was used as it represents a certain emotion. These specific emotions were chosen to analyse as they correlate with the five most answered emotions in the survey carried out in the previous section. These answered emotions include Hope, Unease/Anxiousness, Sadness, Happiness, Calm. This allows for a comparison between the carefully constructed melodies within the survey to the techniques used by these decorated composers within the films. The film scores chosen include:

- Interstellar Main Theme - Hans Zimmer (Hope)
- Hereditary – Colin Stetson (Unease and Anxiety)
- The Theory of Everything – Johan Johannson (Sadness)
- "Married Life" theme from Up - Michael Giacchino (Happiness)
- "Nemo's Egg" from Finding Nemo – Thomas Newman (Calm)

"Interstellar" Main Theme Analysis:

When analysing the main theme of Interstellar, it is important to grasp the film's plot to begin to understand the musical decisions made by Hans Zimmer. The film is set in a dystopian future where Earth will soon be inhabitable. The story surrounding space and time consists of a father who is challenged with leaving his family in hopes of finding a habitable planet for humans to live. This main theme is also known as the "Love theme," as it is heard when the father is seen bonding with his daughter for the first time in the film; the theme is then set to grow throughout the storyline. Interstellar also won Oscars for 'Best Original Score,' 'Best Sound Mixing' and 'Best Sound Editing.'

The main theme is set in the key signature A minor, and the time signature is 3/4. It is also good to note that Zimmer opted for using the organ, specifically London Temple Church's 1926 Four-Manual Harrison & Harrison organ for this theme. They chose this instrument as Zimmer

wanted a more traditional approach and thought the organ would bring a sense of religiosity to the film's unknown and mystical nature.

Zimmer offers a minimalistic approach to this theme, taking his time with the subtle changes. This is shown within the repetition of, and the way the music revolves around the E note in all parts of the score within multiple octaves. This can be perceived as a use of musical symbolism by Zimmer, using the E note to represent time as a constant, which it is.

When looking at this theme, it is split into two parts: the first part is seen as the rising, leaping melody repeated throughout, with different variations in rhythm but keeping the original intervallic leaps. The second part is the harmonic movement that comes in the form of a four-chord progression. The four chords consist of Fmaj7-Em7/G-Am-Em7/G. These two parts are not always heard together throughout the film, this chord progression can be heard a lot in different intensities, strengthened by the bulk of the orchestra when needed. Zimmer may have kept this chord progression as the underline even in a more intense environment to remind the spectator of the underlying reasoning of the film, even if it be subconscious.

In an analysis by Mark Richards at FilmMusicNotes.com, he wrote about the bassline of the chord progression. He pointed out how the bassline here starts on the sixth degree of the scale, which usually leads to a fall to the dominant or fifth. However, Zimmer wrote it to ascend to the seventh and then to the tonic. Richards talks on how the sixth degree is usually pulled to the five like a gravitational pull, explaining Zimmer's decision, another symbolism to the picture. (Richards)

When developing the theme, Hans Zimmer uses many different tools, from the addition of instruments or thickening of instruments to dynamic increases. Another technique seen used by Zimmer throughout 'Interstellar' is his use of octaves with this theme, he is constantly jumping octaves to create variation. Another source of variation comes whilst the harmonic progression continues but without the themes' melodic line, but replaced with an arpeggiated and step-wise rising idea from the organ, creating a sense of anticipation or wonder.
Overall, this theme elicits a sense of wonder, hope and awe to its listeners or spectators. Whilst the melodic line of the theme pushes this narrative, the chord progression gives the underlying feeling throughout different intensities and environments.

“Hereditary” Analysis:

The movie "Hereditary" delves into the story of a family grappling with grief and uncovers their rooted ancestral ties to a cult. Their unsettling discovery unfolds in an twisted manner leading them to engage with supernatural forces.

Colin Stetson, known for his expertise in saxophone and wind instruments composed the films score. Stetson employed methods, including dissonance and unconventional instrumentation to evoke feelings of tension and unease throughout the movie. In discussing his process for the score he emphasized steering clear of sentimental or nostalgic tones treating the music itself as a character within the narrative. This unique approach eschews thematic elements in favor of establishing connections with different story components and characters.

Stetson took a stance against using typical horror film instruments like strings, synths and specific percussion sounds that had become overly familiar, to audiences. Opting instead to play to his strengths Stetson utilized saxophones, multiple clarinets and his own voice while incorporating an array of techniques to craft the score.
Stetson chose to steer of the typical scare tactics found in traditional horror movies yet he incorporated musical elements reminiscent of iconic horror films like Psycho, Halloween and Jaws. One striking technique he used was the second interval, notably featured in the chilling "shower scene" from Psycho where the strings subtly descend by just a minor second creating a discordant chord that adds to the eerie atmosphere.

In his work on Hereditary Stetson weaves these seconds into a haunting drone like backdrop. Minor seconds are known for their dissonance in music theory evoking a sense of unease and unpredictability. Stetson highlights how the absence of jump scares in the film is compensated by these prolonged seconds and interspersed moments of silence intensifying feelings of apprehension and anticipation.

Additionally Stetson diverges from harmonic structures by leaving unresolved dissonant intervals in his compositions—a departure from typical musical scores. This deliberate choice to maintain dissonances and introduce surprising harmonic shifts contributes to the overall mood of uncertainty and tension that he skillfully constructs.

By employing techniques, on his instruments Stetson effectively magnifies feelings of discomfort and anxiety throughout his musical score.
One method that musicians use is called " breathing," where they breathe in through their nose while simultaneously pushing air out from their cheeks allowing for continuous play. In Stetsons recordings listeners can hear the sound of his breaths and the percussive effect of his fingers on the saxophone keys adding to a sense of tension. Other unconventional techniques include multiphonics (producing pitches on a wind instrument) and over blowing, resulting in somewhat distorted and harsh sounds. Additionally various electronic enhancements are utilized to shape the music at times rendering the instrument evoking feelings of unease.

Analysis of "The Theory of Everything":

"The Theory of Everything" delves into the life of renowned physicist Stephen Hawking shedding light on known aspects of his journey. The film explores Hawkings life pre diagnosis with motor neuron disease. Chronicles his remarkable resilience through lifes challenges uncovering both physical and emotional struggles faced by him and those close, to him.
The music score was created by Johan Johannsson. Although it contained some uplifting and proud moments this analysis will delve into the musical techniques employed by Johannsson to emphasize the underlying sadness and challenges in the narrative.

In the opening scene of the film Johannsson seizes an opportunity to establish a bond with the audience. The scene starts with a depiction of Stephen’s situation before transitioning to a flashback of Stephen in his college days fully healthy joyfully biking through Cambridge with a friend. Here Johannsson gradually builds up the orchestra. Introduces a motif for Stephen. This motif consists of a series of four chords in a key reflecting Stephen’s youth and vitality during the flashback; however this stark contrast serves as a poignant reminder of Stephens current state depicted earlier. This technique of contrast is recurrent throughout Johannssons score serving as a nudge to the audience.

When this motif reappears on it is played on a celeste instead of strings and orchestral accompaniment as before. The melody played on the celeste with minimal accompaniment evokes feelings of solitude and melancholy. The musical theme shifts to a key this time around, with a slower tempo that elongates each note.

The music also includes a more resonant hum at this point accompanied by higher strings playing in a trembling style. These changes suit the scene well transitioning from a theme when the character was healthy to a deeply sorrowful tone as the illness takes its toll. In this moment we witness Stephen attempting to climb stairs while his young son waits at the top; it seems that the addition of the celeste resembling a glockenspiel hints at the presence of the child since its often associated with children.

Another significant element of the music score is Johannssons focus on dynamics and orchestration which play roles in advancing the storyline and evoking intimacy and emotion as needed. Whether thick or thin his layering of orchestration adds depth. Gives the music a character that complements the visuals.

Johannssons attention to shape and phrasing in his score allows him to convey feelings of sadness and introspection effectively. The use of descending melodies sustained notes and motifs that evoke sighs contribute to a sense of melancholy. When crafting harmonies he emphasizes progressions known for their impact by incorporating non diatonic chords or notes from parallel or relative keys to introduce complexity and tension, within the music.

"Married Life" from "Up" Analysis:

The song "Married Life" by Michael Giacchino is a well known piece from the Disney Pixar movie "Up". This music captures a sense of joy through its melodies and its connection to the storyline of the film. It plays during a montage depicting the life journey of the couple, Carl and Ellie from the beginning. The music acts as a backdrop that highlights the beauty and fragility of life.

The piece is composed in the key of F major creating a positive and uplifting mood that mirrors the happiness experienced by the couple. In terms of orchestration Giacchino chose instruments that were popular during the 1930s era in which the characters lived, including horns, strings and piano. The orchestration complements moments in their story; for instance using glockenspiel when they contemplate starting a family and vibraphone to symbolize their aspirations and dreams.

Furthermore there is a waltz quality to the composition that underscores their journey, through life together while also reflecting on traditional partner dances common during their time. This waltz element adds depth to Giacchinos intention of capturing their essence through music."The consistent tempo and rhythm of the music flow smoothly throughout the song creating a sense of continuity. However there are moments in the music where it may appear to slow down as we will explore further.

In the beginning the main melody of the song lands on the note in the scale (playing an F7 or dominant seven) which typically could introduce instability to the song but instead adds a touch of compassion and gentleness to the chord. The simplistic single line melody adds an element by portraying them as almost isolated in their own world rather than seeking a grander sound often found in movies.

As the melody of the song develops it follows an arc shape that mirrors the highs and lows of the relationship depicted on screen. This is complemented by progressions that are straightforward yet profoundly resonant evoking a sense of solace and coziness for viewers.

One captivating aspect of this composition is Giacchinos adeptness at shifting emotions. The film portrays struggles within a couple to conceive a child leading to emotional turmoil as one partner falls ill and eventually passes away, towards the end.
When these scenes play out you can hear a shift in the music to a key bringing a somber tone to the audience. The composer plays with the volume in these sections creating moments with gentle fades. While the main theme of the song is cheerful the modifications by the composer infuse it with a sense of sorrow. The absence of orchestration and waltz rhythm transforms the motif into a solitary melody. The piece concludes with a four chord progression starting with a 7th note as its foundation. Though these chords are not typically considered melancholic, the cold and strained execution matches the sadness portrayed on screen.

Although not central to this study, it's intriguing to observe how music interacts with visuals and transforms a concept into one tinged with sadness and isolation when paired with, on-screen melancholy. This concept echoes similarities found in "The Theory of Everything ", using contrasting themes to convey nostalgia-infused sorrow.

"Nemo's Egg" – Finding Nemo - Analysis

This theme is composed by well-decorated film composer Thomas Newman; "Finding Nemo" was his first Disney Pixar score. This theme was chosen to represent the calm emotion within this analysis section. This is considered the main theme. It is presented to the viewer at the beginning, setting the tone of calm and peace in the ocean's coral reef, where the main characters live before the rest of the plot is introduced. Here, Newman almost creates a soundscape before introducing the rest of the instruments. He uses drones within the strings to create this environment or atmospheric feel, with seemingly enhanced electronic effects such as reverb and filtering adding more depth to the sound.

The soundscape Newman creates is quickly joined by the main piano part, which takes the piece's melody and is then accompanied by strings, creating a fitting consonant harmony. The piece uses a few main motifs that are repeated and varied throughout. These motifs use both ascending and descending contours, almost like swelling waves; Newman uses the dynamics and phrasing to his advantage to create this feeling. His use of percussion throughout the piece is subtle, this can be heard through the use of the marimba. Added embellishment and ornamentations from the instruments somewhat add to the nature of the soundscape whilst fitting perfectly into the music.

The style of Newman's' composition for "Nemo's Egg" shares qualities commonly found within meditation music, which is understanding with its calming nature. The minimalistic approach to the music allows space for introspection, and whilst involved within a spacious, ambient soundscape (often found in meditation music), this introspection can be inviting. It can also be said that the repetitive patterns and motifs found within this composition keep the listener's attention easily and comfortably, with them almost knowing what to expect, with no worries of dissonance interrupting the thought. The slow and steady tempo combined with the sustained tones or drones also facilitates this sense of meditation and relaxation. The accurate comparison of the meditation music to this main theme shows the calming nature of it, and maybe shows the way Newman approached this opening scene.

Conclusion of theoretical method:

In conclusion, the analysis of these film scores provides a great insight into the musical techniques employed by these composers to create and enhance the film's emotional narrative. Breaking down the unique techniques each of these composers uses for different emotional experiences provides valuable information for composers. This also serves as a great comparison to the qualitative method undertaken, using the constructed melodies to find similarities and differences to provide a more solid answer to the research question, “How does melodic structure impact emotion in recent film scores?”.

Discussion:

Introduction:

Exploring how melodic structure influences responses in recent film scores provides valuable insights into the intricate relationship between music and emotions. This section will analyse the survey findings alongside theoretical insights on film scores, drawing from relevant literature to contextualise these results.

Interpretation of results:

This study sheds light on how melodic structure impacts emotions. The survey revealed that certain characteristics across nine melodies significantly influenced responses. Notably, the level of dissonance emerged as a main factor, lower dissonance levels led to more positive reactions, while higher levels resulted in more negative responses. Melodies with ascending contours and minimal dissonance consistently evoked emotions like hope, happiness, and contentment. Conversely, descending contours with broader pitch ranges and increased dissonance triggered negative emotions such as unease and anxiety consistently.
The arched contours had effects, mostly neutral, prompting different reactions, this contour relied on other features to sway emotions.

When dissecting the analysis of film scores, it gives an insight into how composers use melodies and elements to evoke specific emotions in the stories narrative. In Hans Zimmers's music for "Interstellar", the main theme takes a minimalistic approach with ascending contours to convey a feeling of hope and wonder, reflecting the survey results on these aspects. Similarly, in Michael Giacchino's "Married Life" from "Up ", a bright key signature and harmonic progressions create a sense of joy, echoing the survey findings on dissonance and ascending shapes.

Within Colin Stetson's score for “Hereditary”, he makes use of dissonant harmonies and unconventional instrumentation to employ a sense of unease in the viewers and listeners, this being a main finding through the survey: wider pitch ranges and high dissonance creating negative responses. Also, within “Nemo’s Egg” composed by Thomas Newman, his use of

minimalism, repetition within the motifs and narrow pitch ranges align with the survey's results with positive emotion and calm reaction.

The findings on intervallic and contour shape align with the analysis of the film scores, the survey results show that stepwise movement with low dissonance are usually associated with positive response, which is highly reflected in "Married Life" from "Up". Arched contours provide a more interesting or complex emotional experience as seen in "The Theory of Everything" or "Nemos Egg" where the shapes can be varied. It must also be said that within both compositions, each composer smartly used motifs that were originally used for positive reactions, and then when the storyline presented challenging or sad moments, these motifs were altered, slowing down the tempo, using minor modes and stripping back instruments, to make enhance the feeling of sadness, which is very interesting.

Another factor in influencing emotion is orchestration and instrumentation. Each composer carefully utilised different arrangements of instruments to convey specific emotions and atmospheres. This can be seen within "Interstellar" and the choice of the organ to display a sense of religiosity to the score, pushing the theme of hope and wonder. The instrumentation also played an important role in "Married Life" to give a sense of nostalgia and warmth to "Up". Finally, this is also an imperative part of the score for "Hereditary", Stetson's unconventional techniques and choice of instrumentation help to portray an overwhelming sense of unease and anxiety for the audience.

The comparisons made between the survey results and the analysis of these film scores highlights the music's huge impact on emotion and a film's narrative. These comparisons offer a deeper understanding of some of the fundamental melodic characteristics and structures that impact emotional response.

<u>In comparison to previous studies:</u>

The emotional impact of the melodic contours noted in the survey aligns with studies conducted by Schellenberg et al. and Lindstrom. The findings indicate that melodies with rising contours generally evoke emotions like contentment and hope. On the other hand, melodies with descending contours and increased dissonance tend to evoke negative emotions, such as anxiety and unease, echoing previous research suggesting that descending contours may trigger

feelings of sadness or boredom by Schellenberg et al. And Lindstrom. (Schellenberg et al.) (Lindström)

A study by Korsakova Kreyn and Dowling delving into modulation in melodic structures further reinforces the emotional responses observed in the survey. The association between major and minor sounding modes and positive or negative emotions persists in this study's findings, demonstrating that participants responded more positively to melodies based on major modes. The researchers also emphasised how a melodic direction alongside these modes plays a role in evoking emotion, which aligns with our current study. By comparing the results from the survey to existing literature on structure and emotional response, we can establish stronger connections between melodic structure and the emotions they evoke in listeners.(Korsakova-Kreyn and Dowling)

When examining the analysis of film scores, it is evident that Schellenberg and colleagues' study on how pitch patterns influence emotional responses aligns with the use of repetition and variation around the E note in Hans Zimmers's music for "Interstellar." This suggests that repetition with small variation heightened the audiences emotional engagement gradually.(Schellenberg et al.)

In Colin Stetson's score for "Hereditary", he employs instruments and dissonant intervals to evoke a sense of unease, echoing the findings from Balkwill and Thompsons' research on psychophysical cues in music. The study proposes that when familiar cues are absent listeners may focus more on cues like dissonance to grasp the intended emotions in the music. (Balkwill and Thompson)

Comparing this analysis with existing literature reveals how Johannssons utilization of contrast and shape in his composition for "The Theory of Everything" aligns with Lindstrom's work on melodic structure and emotional expression. Lindstrom emphasized the significance of structure and melodic shape in conveying emotions. (Lindström)

The study also draws parallels between the composition of "Nemos Egg" by Thomas Newman, known for its slow rhythmic style and the work of Gomez and Danuser on how music and rhythms affect psychophysiological responses. It suggests that the atmospheric qualities and rhythms in music can elicit physical reactions in listeners. (Gomez and Danuser)

By citing these studies, the research strengthens the link between composers' methods and the emotional reactions elicited by viewers. This enhances the understanding of how structures and techniques influence emotional responses in modern film scores.

Implications and Limitations:

The research project sheds light on the interplay between melodic structure, emotional interpretation, and film music. By blending analysis with theoretical approaches the study deepens our understanding of how composers strategically employ melodic structure and musical elements to elicit specific emotional reactions from viewers. These findings hold value for composers, filmmakers, and scholars by enriching the exploration of music's emotive impact in cinematic narratives.

However, despite its insights, the research project is not without its limitations. The reliance on a sample size in quantitative analysis and the nature of theoretical examination may restrict the applicability and reliability of the results. It is worth noting that in the quantitative analysis section, high levels of dissonance may have skewed outcomes related to melodic aspects since they closely mirrored dissonance levels. It may also be said that the choice of film scores based on emotion is a subjective matter and could be reconsidered. Furthermore, focusing purely on Western film scores and predominantly youthful participants might overlook cultural and demographic variances in emotional responses to music. Future studies could address these limitations by using more diverse samples, integrating cross-cultural perspectives, and incorporating objective metrics for emotional responses to enhance result validity and consistency.

Conclusion:

To conclude this discussion section, this study highlights the relationship between melodic structure and the way emotions are perceived in modern film scores. By combining quantitative and theoretical perspectives, this research offers a thorough foundation for understanding how

melodic structure influences emotions in film. Ultimately, by gaining more of an understanding how music evokes emotions, composers and filmmakers can create a more immersive story.

Conclusion:

This research on how melodic structure influences emotions in recent film scores has provided insights into the connection between music and emotions in cinematic storytelling. By combining quantitative data with theoretical analysis, the study has illuminated how composers use specific melodic elements to evoke different emotional responses from audience members.

The quantitative examination revealed patterns in reactions to aspects of melodies. For example, ascending melodies, specific pitch ranges, and minimal dissonance were found to evoke feelings of hope, joy and contentment. On the other hand, descending melodies and increased dissonance were associated with sensations of unease and anxiety. These survey results align with existing literature in this field, further emphasising the role of structure in shaping responses.

Through analysis of chosen film scores, a deeper comprehension emerged regarding how composers employ features within movie narratives. The accomplished composers examined demonstrated the use of melodic contour, harmonic structures, decisions on instrumentation and orchestration techniques to steer audiences towards emotions. The explored compositional techniques highlighted the approaches that composers adopt to create experiences. By comparing these insights with established literature, an understanding emerges of the relationship between melodic structure and emotional reactions in modern film scores.

The results of this research have implications for music composers, filmmakers and scholars offering insights into the blend of art and science in composing music for movies. By exploring how the structure of melodies affects responses composers can engage audiences effectively. Enhance their viewing experience. Additionally, this study paves the way for investigations into cultural viewpoints, unbiased evaluations of emotional responses, and the significance of melodic structures across different genres.

To conclude, this study's mix of analysis and existing literature underscores the significant impact of melodic structures on emotional resonance in recent film soundtracks. By shedding light the connection between music and emotions, this research adds to our understanding of how melodic structures influence emotions in recent film scores.

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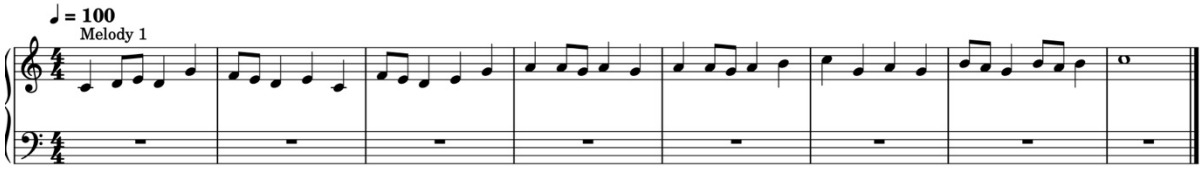
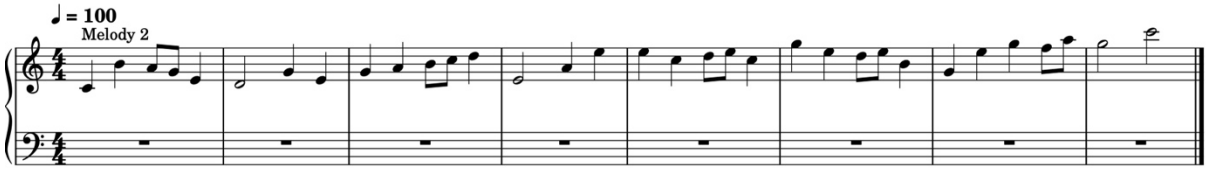
Appendix A:

Melody One: (Ascending, Stepwise, Narrow Pitch Range, Low Dissonance)



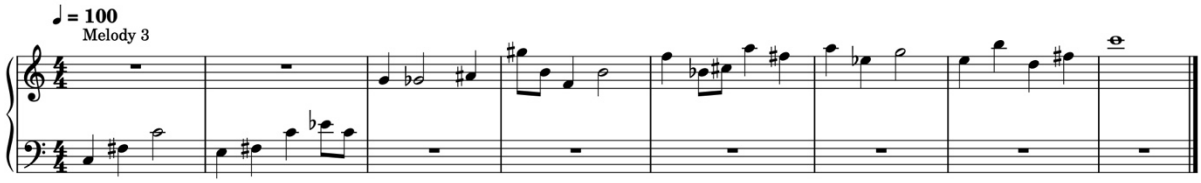
Appendix B:

Melody Two: (Ascending, Step and Leap, Moderate Pitch Range, Moderate Dissonance)



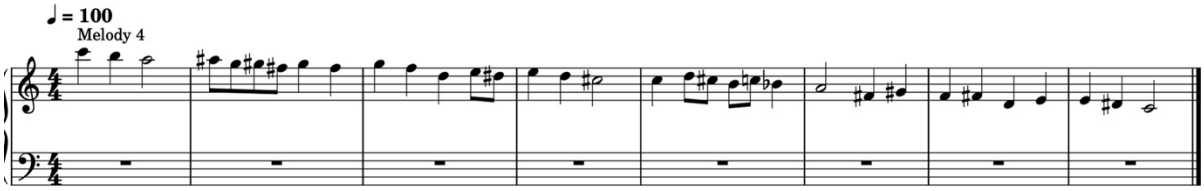
Appendix C:

Melody Three: (Ascending, Leaping, Wide Pitch Range, High Dissonance)



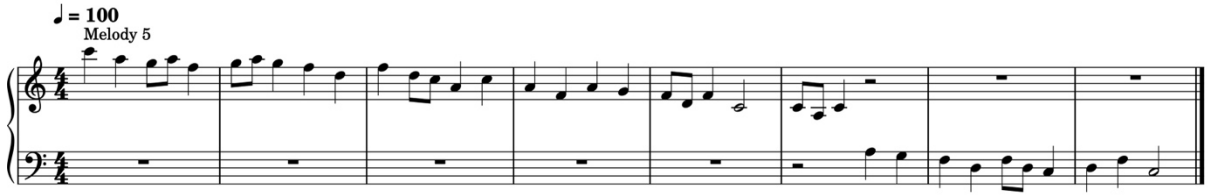
Appendix D:

Melody Four: (Descending, Stepwise, Moderate Pitch Range, High Dissonance)



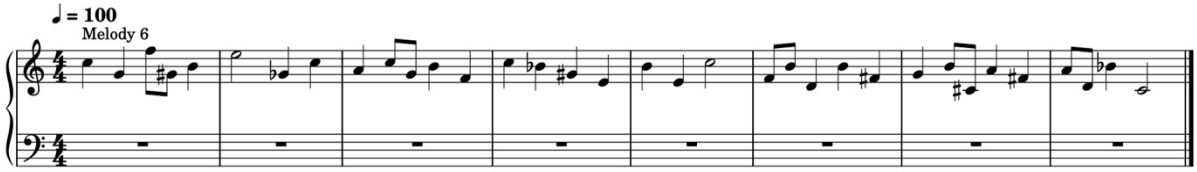
Appendix E:

Melody Five: (Descending, Step and Leap, Wide Pitch Range, Low Dissonance)



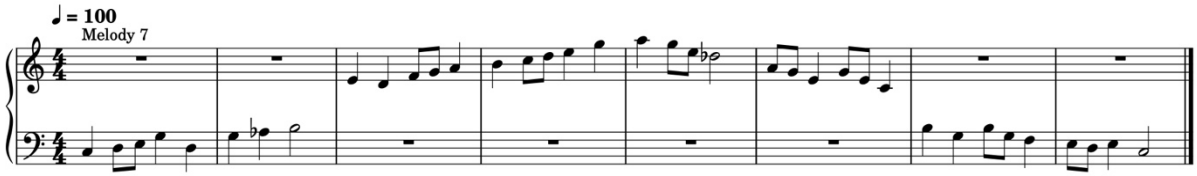
Appendix F:

Melody Six: (Descending, Leaping, Narrow Pitch Range, Moderate Dissonance)



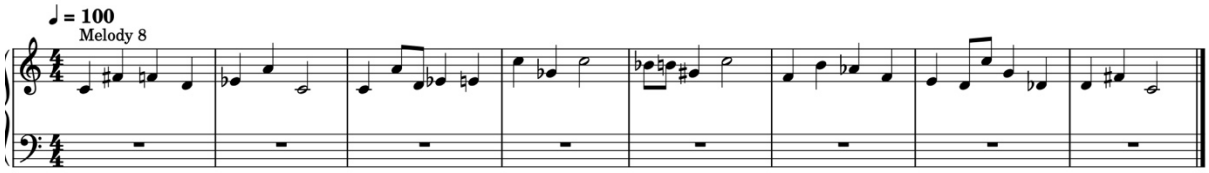
Appendix G:

Melody Seven: (Arched, Stepwise, Wide Pitch Range, Moderate Dissonance)



Appendix H:

Melody Eight: (Arch, Step and Leap, Narrow Pitch Range, High Dissonance)



Appendix I:

Melody Nine: (Arch, Leaping, Moderate Pitch Range, Low Dissonance)