

How do musicians across diverse genres utilize specific musical techniques to evoke emotional response in listeners?

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Have you ever listened to a song and felt something profound? Maybe the song made you sad, or scared, or gave you goosebumps. This visceral reaction is not random. Throughout all genres of music, artists utilize specific techniques to create these emotional responses, including “Wonder, Joy, Power, Tenderness, Nostalgia, Transcendence, Peacefulness, Tension, and Sadness” [1]. The explanation for these emotional reactions lies within the domain of music theory. Music theory “seeks to define processes and general principles in music” [2]. By understanding the fundamental elements and principles of music theory, we can begin to explain how musicians strategically use techniques to evoke those powerful emotional responses we feel.

Before we begin, a word of note: The feelings that music evokes are completely subjective. A study by Professor Albert Balz in the Journal of Philosophy and Psychology stated that “the emotional response to music is fundamentally an internal and individual response” [3]. A song that evokes wonder in one subject may evoke power in another, or vice versa. While there might not be one emotion that a song will evoke in every listener, we can still look at general trends and musician intentions to identify emotions that a song evokes.

Emotion: Emboldenment

One underlying emotion within the world of music is Emboldenment or Power. This emotion can be found everywhere, from classical music, to adventure movie soundtracks, and even in 80s pop music.

A study from the University of Geneva, renowned for their psychology research, found that positive, “high-arousal emotions,” such as tension, power, and joy, correlate with with activation in the right striatum and orbitofrontal cortex of the brain [4]. Music that plays into the emotions can influence our emotional experience and behavior. Activation in the right striatum, which controls reward and motivation, and orbitofrontal cortex, which controls emotion and decision-making, suggests that music evoking power and emboldenment can create feelings of pleasure and drive.

Main Title theme from Star Wars: A New Hope - John Williams

John Williams' *Main Title theme* from *Star Wars: A New Hope* is a cinematic icon, introducing listeners into the world of Star Wars. The theme's power lies in its ability to evoke a strong sense of emboldenment through instrumentation, melodic contour, and cultural recognition.

Emotion: Emboldenment (ii)



Through the use of powerful brass instruments, the instrumentation in Star Wars' main theme creates a strong sense of power and importance. The prominent opening brass fanfare functions as an immediate and attention-grabbing call, generating anticipation and excitement. The bright timbre of the trumpets, often associated with heralding important events, combined with the resonant quality of other brass instruments, contributes to an overall feeling of significance and sets the stage for the epic narrative.

Aside from the brass instrumentation, the main melody's ascending contour, characterized by leaps of perfect fourths and fifths, creates a sense of rising action. The theme's harmonic progression, primarily rooted in the tonic (I) and dominant (V) chords, with occasional use of subdominant (IV) harmonies, provides a sense of stability and resolution. The final cadence, a strong perfect authentic cadence (V-I) in the major key, reinforces the feeling of triumphant hope.

Emotion: Emboldenment (iii)

Lastly, the theme's widespread cultural recognition amplifies its emotional impact. The iconic melody and orchestration have become deeply associated with adventure and heroism, which triggers shared emotional responses through the familiarity of the melody.

The theme's musical elements, when combined with its profound cultural significance, create a powerful and immediate emotional experience that evokes feelings of emboldenment and inspires a sense of heroic potential, which demonstrates the ability of music to shape our emotional responses and feelings.

Prelude in G minor - Sergei Rachmaninoff

But Emboldenment doesn't have to be all major chords and brass instruments. On the other side of emboldenment lies *Prelude in G Minor*, 'Alla Marcia', composed by Sergei Rachmaninoff.

Emotion: Emboldenment (iv)

Alla Marcia

The musical score is for the beginning of Rachmaninoff's Prelude in G minor. It is written in 4/4 time and G minor. The tempo marking is *Alla Marcia*. The score shows the first 10 measures. The first five measures are marked with a Gm chord, and the next five measures are marked with Gm, Gm/D, Bb, Am⁷, and D^Δ chords respectively. The music features a march-like feel with dynamic contrast, utilizing large chord voicings.

The piece opens with a sequence of minor chords, and keeps this minor mood throughout the piece. Instead of portraying a sad or melancholy feel with minor chords, Rachmaninoff utilizes large chord voicings, a march style, and dynamic contrast to create an emboldening and heroic, yet slightly darker feel.

The “*Alla Marcia*” tempo marking, meaning, “in the style of a march,” indicates the fast and physical feel of the piece. In his popular paper, “The theory of music, mood, and movement to improve physical health,” Murrock identifies a link between how music can affect our feeling to “get up and move” [5]. Pieces, such as marches or other fast paced music, perfectly exemplify this effect. In Rachmaninoff’s Prelude in G minor,

Emotion: Emboldenment (v)

he creates the march feeling through the repeated low octave note. This creates a solid “up, down” feel that corresponds with the feeling of walking—or marching.

Beyond rhythmic drive, Rachmaninoff utilizes dynamics to shape the emotional landscape of the Prelude. The piece is generally loud and assertive, with frequent use of *forte* and *fortissimo* markings, which mean to play loud. However, Rachmaninoff utilizes dynamic contrasts to create moments of introspection and reflection. These brief moments of quiet, often achieved through *piano* or *pianissimo* passages, meaning to play quiet, serve to heighten the impact of the subsequent *forte* outbursts. This essentially makes the *forte* and *fortissimo* sections, such as the main-theme and the sub-theme, even more powerful and emboldening by comparison.

Through the use of large minor chord voicings, the march style, and dynamic contrast, Rachmaninoff's *Prelude in G minor* creates an undeniable sense of Emboldenment.

Emotion: Emboldenment (vi)

Don't Stop Me Now - Queen

Everyone knows *Don't Stop Me Now* by British rock band *Queen*. What people might not realize is that it is a masterclass in writing emboldening music. Through the use of syncopation and fast-paced lyrics, it creates a feeling of power and emboldenment in its own way.

The lyrics are a main contribution to the emboldening feel of *Don't Stop Me Now*. As Freddie Mercury compares himself to shooting stars, tigers, and race cars, it creates a fast-paced feeling that feels powerful, making you want to tap your foot to the music. As mentioned previously, this theory of “Music, Mood, and Movement,” originally identified by Murrock, can be seen in all kinds of fast-paced, emboldening music [5].

The syncopation of these lyrics adds to this fast-paced feel. Similar to the repeated bass notes in *Prelude in G minor*, the off-beat timing on the words “Don't stop me now” propels the motion of the piece, making it feel naturally fast and lively.

This song's undeniably emboldening drive, created through syncopation and memorable lyrics, makes it a perfect example of music that portrays feelings of power and emboldenment.

Emotion: Nostalgia

Another emotion that music tends to portray is Nostalgia. Nostalgia is defined as “a wistful...sentimental yearning for return to...some past period” [6]. Similar to Emboldenment, Nostalgia can be felt all throughout music, from beautiful piano pieces to electronic dance music.

Shelter - Porter Robinson, Madeon

Porter Robinson and Madeon’s *Shelter* is famous in the Electronic music scene. Through its use of complex, pop-derived chord progressions, vocal chopping, and heart-felt lyrics, it creates a sense of Nostalgia, despite being released in 2016.

Nostalgia in *Shelter*

This type of Nostalgia is juxtapositive. How can a song feel Nostalgic, while not reminiscing over anything in particular? Johan Norberg, senior fellow at the Cato Institute, identifies this juxtaposition as False Nostalgia. Norberg states, “Anchoring our identity in something enduring helps us when all that is solid seems to be melting into air. Everything changes, but we need a sense of stability and predictability” [7]. This perfectly explains the popularity of this song, and all nostalgic music in general. In times of frantic change, people want solidity and stability—feelings that music can provide. Listeners of *Shelter* identify this

Emotion: Nostalgia (ii)

characteristic in the song. One Reddit user said, “This is a song I try not to play on repeat because I never ever want to get tired of hearing it. And 8 years later, it still makes me so happy every time I hear the intro kick in. Life is so tough right now, as I’m sure is for a lot of us, but this song will always keep me going...” [8]. *Shelter* is a song that brings immense nostalgia to people. It brings a sense of “stability, and predictability” in an ever-changing world.

But what technical elements contribute to this safe, stable emotion? Through the use of perfectly synthesized instruments, carefully crafted melodies, and heart-felt lyrics, Porter Robinson is able to craft these sorts of feelings in his music.

Emotion: Nostalgia (iii)

arr. David Emmel, MuseScore

The image displays a musical score for a piece titled "Emotion: Nostalgia (iii)", arranged by David Emmel using MuseScore. The score is presented in two systems, each consisting of a grand staff with a treble and bass clef. The time signature is 4/4. The melody in the treble clef is composed of eighth and sixteenth notes, often beamed together. The bass clef accompaniment features chords and single notes, with some measures containing triplets indicated by a '3' over the notes. The overall style is a simple, evocative piano arrangement.

Emotion: Nostalgia (iv)

The beginning of the song uses warm, synthesized pad sounds, along with a melody based on vocal chopping, to create its signature sound. Vocal Chopping is an electronic production technique that entails taking a vocal sample and playing sections of it out-of-order to make a new melody. This method of creating something new out of something old is an apt metaphor for nostalgia, a “longing for the past,” by taking something from the past and using it to make something new.

The contour of the melody also contributes to the feeling of nostalgia. It begins on the root note, C. Then jumps to the sixth, falls to the fifth, and returns back to the root note. Next, it follows the same pattern, except returning to the second before coming back to the root note. By continually circling back to the root note, it creates a grounding feeling, which contributes to the stable and solid feeling from the song.

The next section contains authentic vocals that also add to the emotion of the song: “And it’s a long way forward, so trust in me. I’ll give them shelter like you’ve done for me. And I know, I’m not alone, you’ll be watching over us. Until you’re gone...” (*Shelter*, Porter Robinson). By using words like ‘trust,’ ‘shelter,’ and ‘not alone,’ the song creates the aforementioned safe, stable environment.

Emotion: Nostalgia (v)

From these elements, it really is no wonder that *Shelter* is such an emotional, nostalgic song for listeners. Through its use of electronic, melodic, and lyrical techniques, it creates a stable and predictable environment, which in turn creates a feeling of immense nostalgia in listeners.

Sweden - C418

Another piece that creates a nostalgic feeling, this time paired with melancholy, slow piano, is *Sweden* by C418. Although much of the nostalgia from this song comes from

Through a simple pop chord progression, layered with a bright, ornamented melody, creates a sense of
The song creates a nostalgic feeling through a simple pop chord progression and a bright, ornamented melody.

Lo-Fi Music

Lo-Fi is a new style of music meant to be played in the background of other tasks, such as homework or playing video games. Through sampling, background noises, and imitating old sounds, Lo-Fi creates its undeniably nostalgic feeling.

Emotion: Nostalgia (vi)

A common trend in Lo-Fi music is to sample older music, such as vintage synth leads, memorable melodies, or drum breaks, and slow them down and filter them to create a nostalgic feeling. For example, the album *Zelda & Chill* by Mikel and GameChops, borrows almost all of its melodies from the popular video game *Legend of Zelda: Breath of the Wild*. For players of this game, the album creates deep nostalgia, reminiscing over the good times they had playing the game.

Another technique that Lo-Fi producers use is background noises, such as rain or vinyl crackling. It may seem counterintuitive at first—Why would someone who has the ability to make perfect-quality music choose to make it sound old and degraded? The answer is, again, to create Nostalgia. When people here sounds such as rain in the background of a song, they associate it with times that they heard that sound. Perhaps they were lying in bed, listening to the rain pour down, and calmly fell asleep. Now every they here calm rain sounds, they associate it with calm, sleepy feelings.

The last technique that Lo-Fi producers use to create nostalgia is immitating old sounds, such as analog synthesizers, or old, out-of-tune pianos. Similar to the background noises, the purpose of creating music that is purposfully “imperfect” is Nostalgia. The use of old sounds makes use of associations that the listener already has with “the good old times,” hence evoking Nostalgia.

Emotional build up

While not one single emotion, musicians can evoke emotion by gradually building tension, then releasing it. While methods of building tension differ between genre, this similar pattern can be seen in electronic music genres, such as Mid-tempo and Dubstep, as well as in romantic-era classical music, in pieces by composers such as Chopin and Beethoven.

Electronic Music

Electronic music is based around the idea of a “drop.” A song will build up, using techniques such as snare builds, filter automation, and bass sounds, then “drop” into a louder, more complicated chorus. According to “Anatomically distinct dopamine release during anticipation and experience of peak emotion to music,” published in Nature Neuroscience, the reason this music is so enjoyable to listen to is because of the dopamine release it creates when tension is released [1].

Snare Builds create tension as they speed up, forming anticipation for the drop. The snare build from *Fire* by Elektronomia is a great example of this. It starts with straight quarter notes, building to eighth notes, sixteenth notes, and even thirty-second notes at the end.

Emotional build up (ii)



But snare builds are only one method of forming anticipation. Another one is automation. Automation refers to slowly tweaking a parameter about the sound to change the way it sounds. High Pass filters are a common choice to automate. A High Pass filter will filter out lower frequencies, while keeping higher

Emotional build up (iii)

frequencies. Raising the amount of low frequencies that are cut out makes the instrument sound like it is fading away. This makes the drop feel more powerful when the full range of frequencies come back.

Through these methods building anticipation and releasing it, producers are able to influence the emotions of listeners, creating a dopamine release in their brain.

Classical Music

But without drums or filtering, how do Classical musicians create tension? In classical music, there are also ways that composers create tension: glissandos, and complicating chords.

Glissandos can be found all over romantic-era classical music. One example is Beethoven's *Sonata No. 8 in C minor*, "Pathétique".

An example of both of these ideas in effect at the same time is in Chopin's *Ballade No. 1 in G minor, Op. 23*.

Classical music has a similar idea of building emotion, then dramatically releasing it (that one epic drop part)

Music that doesn't use theory

Although we can explain a lot of parts of music through theory, for some music, this is impossible, or at least infeasible. But it is undeniable that these types of music still evoke emotion. Experimental Electronica music, such as the album *Drukqs* by Aphex Twin, and Hardcore Punk Rock music are two examples of this phenomenon.

Aphex Twin

The album *Drukqs* by Aphex Twin largely avoids music theory altogether. Despite the songs' lack of common chord progressions or standard melodies, the music still evokes complex emotions in listeners. Through the use of complicated drum programming and abstract, synthesized melodies, Listeners say that the emotion evoked by this album is “useless trying to explain this track in words” [9]. A popular music blog, In Sheeps Clothing, explained the album this way: “*Drukqs* is a sycamore — one to marvel over once you notice the intricacies of its roots, branches and life unfolding throughout the bark and on its leaves. This album builds atmospheres that help exercise the mind in the same way that classical music, with its own palette of sounds, does” [10]. While it is not possible to explain this album in music theory terms, it is clear that *Drukqs* by Aphex Twin evokes complex emotional response.

Music that doesn't use theory (ii)

Punk Rock

Hardcore Punk Rock is another example of music that doesn't explicitly use music theory. Although music theory can technically explain it, it is better explained through the “patterns” that rhythms and riffs follow. David M Pearson, expert in the field of Hardcore Punk, explains the use of patterns over chord theory: “The guitarist and bassist play what could more properly be called riffs—in this case short, simple, fast-moving, and rhythmically emphatic melodic statements—rather than extended chord progressions. In this conception, riffs are melodic rather than harmonic statements” [11].

Although these two styles can't fully be explained with music theory, this doesn't discount music theory in general. While the more complicated aspects might not be fully explainable, the underlying principles—tension and release, rhythmic variation, etc—are still vital in understanding these styles. After all, Music theory doesn't just account for small excerpts of music, but the structure of the music as a whole. In “The Structure and Function of Music Theory,” Milton Babbitt states, “[Music theory] can supply the basis for...an adequately reconstructed terminology to make possible and to provide a model for determinate and

Music that doesn't use theory (iii)

testable statements about musical compositions” [12]. While individual excerpts of these styles might not be fully explainable, the inherent structure behind them most certainly is.

Conclusion

In conclusion, musicians strategically use musical techniques to evoke powerful emotional response through the music we listen to. While music theory might not cover every explanation for emotional response, it certainly can help us get a glimpse into the underlying emotions behind the music we listen to daily.

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