

Hearing the Film: The Emotional Effect of Sound in Film

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Abstract

In the world of film, two distinct sensory mediums exist. The first and most mainstream medium is the visual. As the film has grown in the past century, what we see in a film has grown increasingly spectacular, moving from the black and white to the three-dimensional. Among all this growth in the visual, it can be very easy for filmmakers to focus far too much on this one sense, all but abandoning the quality of the second sensory medium, audio. Hiding in the subconscious, audio has always been an integral part of the post-1928 film. And, while the visual can supply our senses with the colorful and the extravagant pictures, it is essentially nothing without the accompanying audio, music especially, to give the picture its feeling and emotion. Music in the film subconsciously affects the viewer, whether they specifically listen to it or not. Darth Vader is just a man in a black suit without his musical introduction in the *Star Wars* series. *Nuovo Cinema Paradiso* does not express the loving connection between Toto and Alfredo without “Sé” playing in the background. What makes fantastic films is the combination of the visual and the audio. This essay will examine the effect that filmic audio, specifically music, has on the viewer, in combination with the visual. Using studies on music psychology, the physical action of sound and recording audio, I will create a possible reason for why filmic audio exists in the manner it does and how it affects the viewer.

What is Sound?

Throughout its history, film has offered a rich variety of sound to accompany its pictures. These sounds do not come from the pictures themselves. Instead, they are emanated, through speakers, into the theater, where the viewer unconsciously takes it all in with the pictures. Inside these speakers is where this examination of film audio will begin. First off, sound is not a physical thing. Sound is merely the term we have created to describe the effect of organized vibration of molecules. When two objects come into contact with one another, such as smacking two sticks together, their opposing forces cause them both to vibrate at a molecular level. This vibration causes a release of energy in all directions, similar to ripples in a pond*. This energy in turn, causes surrounding air molecules to vibrate and release energy themselves, which creates more vibration, etc. This slight motion of molecules forces them closer together. This action is called compression. When the molecules become crowded, they find a new space to occupy. After being forced together, the only space there is to fill is the space left behind by the molecules that were disturbed to begin with, so the molecules fill that space. This is called rarefaction. Eventually, the constant compression and rarefaction of air molecules reaches our ears. This disorganized disturbance is what we refer to as noise. Noise exists everywhere in our day-to-day lives, from the constant hum of an air conditioner to the explosion of a jet engine. But what makes a noise a sound? For the most part, these two terms are completely similar.

* Holman, Tomlinson. *Sound for Film and Television*. Boston, MA: Focal, 2002. Print.

Both create compression and rarefaction and both can vary in power level, depending on how much energy is introduced into the system. What is different about them is that every noise is created in exactly the same disorganized fashion while sound tends to show more of an organized approach. This is because sound tends to be directionally favored. To bring up an old adage as an example, “When a tree falls in a forest, does it make a sound?” In a purely scientific and physical sense, I would argue that this is not entirely true. The tree falls and creates a disturbance in an open space, causing the energy to expand out in all directions. Thus, the tree creates a noise, not a sound. However, when your friend walks up behind you and blasts an air horn in your ear, the energy created forces molecules mostly in one direction. This is a sound. The creation of sound is what allows humans to communicate with one another vocally. In order to talk to somebody, you create vibration in your vocal chords and send out the energy created from your mouth, which focuses the sound in the direction of your target, alerting them that you are attempting to communicate with them.

But why is sound so important to humans? All it is is a release of energy between air molecules. How come we pay so much attention to it sometimes? How come we don't notice it at all other times? The first and most physical way to answer all this is the inert, animalistic, survival instinct of humans. Our ears are a tool used in the localization of sound. When sound or noise connects with our eardrums, we are able to immediately tell at least the direction where the sound originated. This is because the placement of our ears on either side of our head provide an obstacle for sound to work around.

As a result, the extremely quick sound waves hit one ear ever so slightly before the other, providing a sense of direction when the sound is perceived by our brains. This process of localization was developed in humans to aid in survival. When our eyes cannot see danger approaching, sound can alert us where potential danger is coming from. When a tiger approaches from behind and it steps on a branch, the impact of the sound created can save the life of a human as it alerts him or her to the presence of a threat. Although the use of this ability for survival is very important, this is not to say that this ability only exists in a dangerous situation. That's merely how it evolved into the complex system we live with today. We use it constantly in our daily lives to simply locate objects in our surroundings. The science behind this localization is the effect of transient sounds. Transient sounds are the beginnings of sustained sounds and consist of short bursts of sound that last only a moment before the sustained sound is heard*. This sharp attack on the eardrum allows a human to determine where the sound is coming from, even before the sustained sound is fully perceived. Transient sounds exist in every sound that is created because, no matter how much energy is put into the air molecules, it still causes the molecules to exhibit a drastic change from relatively stationary to vibrating. The eardrum is fine tuned to pick up on these subtle differences in pressure that is created by this vibration. This explains why, when an air conditioner switches on in a quiet room, one is very quickly able to locate the air conditioner.

* Farnell, Andy. *Designing Sound*. Cambridge, MA: MIT, 2010. Print.

However, when one walks into a room where the air conditioner is already running, it becomes harder to determine where the object is because the listener is hearing sustained sound, which is a lot harder to localize because the sound has reached both ears by the time it is noticeable to the listener.

Why, then, are we able to conduct a full conversation with somebody in a crowded hall, where everybody around us is talking at the same time? Due to the effects of sustained sound, one should not be able to, in theory, understand what the person talking to them is saying. However, due to a combination of the directional capabilities of sound and the ability of the human mind to focus on one sound, we are able to conduct successful conversations in this environment. First of all, the sound you hear around the room can really be classified more as noise than sound. The conversations you hear from every person around you in the room comes quite literally from every direction, which blends them all together into a sustained rabble, which allows for slight ignorance of the noise*. Second, when a person in this room talks directly to you, they are directing their sound at your ears specifically, giving this sound slightly higher volume as the energy passes between a lesser number of air molecules. But, beyond these two facts, the remainder of the sound differentiation occurs in the perception of the sound in the brain.

Expectation plays the largest role in the differentiation of sound. This expectation, when holding a conversation with someone, exists in two ways. The first way is previous engagement.

* Holman, Tomlinson. *Sound for Film and Television*. Boston, MA: Focal, 2002. Print.

If the person who talks to you is someone you know and have talked to before, you expect a certain sound to be produced by him or her and you listen for it. This occurs because of the way our brains analyze sound. The perception of sound can be broken down into five categories: location, timbre, fundamental frequency, contrast with previous sound, and time-varying pattern. The first category is one already described in this paper. Where a sound comes from helps to distinguish it from other sounds. Localization of sound helps us to identify this. The second category is probably the most important one in distinguishing sound. It's difficult to describe fully, but the fact is that different sounds sound...different to us. This is because the varying frequencies of sound waves cause our eardrums to vibrate in different ways. A longer frequency produces a lower-pitched sound while a higher frequency produces a higher-pitched sound. Based on the texture of the object that made the sound and the surfaces the sound bounces off of, the frequency can fluctuate gently, violently, or not at all. The combination of these two properties of sound is what creates what we call timbre. Everything that produces sound has its own distinct timbre, which is why it helps us to determine what is creating the sound we hear. With this in mind, the third category, fundamental frequency comes into play. Since before we were born, our bodies have heard countless amounts of noise and sound. Despite how well we consciously listen to these sounds and noises, we remember the timbre of whatever made the sounds. When a bush rustles or when a baseball is hit with a wooden bat, we remember how it sounds and recognize it the next time we hear it.

Even as an embryo in our mother's womb, we constantly hear our mother's voice and recognize it as a soothing presence after we are born. This remembrance of sound is called fundamental frequency. This is why we are able to pick out a friend's voice when they talk to us in a crowded room.

What happens when someone you have never talked to before decides to start a conversation in this crowded setting? That's where the fourth category comes in, contrast with previous sound. While in this setting, you have been exposed to the indirect sounds of many people talking at once for likely a long period of time before this conversation. The sudden change to sound that is directed towards you specifically is startling enough to get you to recognize exactly who or what made the sound or noise. When this contrast occurs with a fundamental frequency, it becomes even easier to distinguish the sound being directed at you. Once the human mind has discovered the source of the sound, it becomes a lot easier for it to focus on that sound and tune out any other sounds that try to mask the source sound.

The final category of the perception of sound is called time-varying frequency. Every day, we hear all different kinds of sounds from a variety of sources. The way humans discern how any sound is perceived is via the frequency of that sound. If sound waves hit the eardrum at a slower rate, the frequency is low and the sound is deeper, while, conversely, higher pitched sounds are created by sounds with a higher frequency and which hit the eardrum more frequently. This helps humans to determine what objects made the sounds they hear.

Generally, larger objects create lower-frequency sounds because the energy for the sound is spread over a larger surface area before affecting the air molecules around it. Same goes for smaller objects and higher frequency sounds.

The Sound of the Film

“Film and Television editors and mixers tailor sound tracks to fit the human psyche, just as much as they fit it into any technical requirements*.”

It can be very easy to overlook the exact implication of sound in a film. The human senses tend to place the sense of sight at a higher priority than any of the other senses, including hearing. And since the mind has a lot of trouble focusing on more than one thing at a time, the effect of sound and music tends to be muddled and clouded by the sea of pretty colors and lights of the screen. But, have you ever thought what your favorite movies would be like if the sound didn't exist? It would be nothing. It would have little emotion. Little feeling. The magnificence of the film comes from the way sound the picture and sound play off of each other to make an emotional, invigorating experience for the viewer. The fact is that, just as sound completes the effect of the picture, picture completes the effect of the sound¹. To show exactly what is meant by this interaction to create emotion, I will provide examples from some of the most emotional films of our time.

* Holman, Tomlinson. *Sound for Film and Television*. Boston, MA: Focal, 2002. Print.

Sound as a Signature: *Star Wars*

Action films have been a very popular genre for many decades now and has become a staple in the film industry. In fact, some films base their entire premise on the idea of action and filling the screen with motion and color. However, it is very difficult to argue against any filmmaker using action better than George Lucas and John Williams in the *Star Wars* series. When it was first debuted in 1977 with *Episode IV: A New Hope*, people crowded to the theater to see one of their favorite sci-fi novels acted out on the big screen. This film would set the stage for one of the greatest trilogies of all time. With an intriguing plot where an innocent boy, Luke Skywalker, is stripped from his home planet and forced to mature in order to save the Princess, Leia, and fight against Darth Vader and the evil Imperial Empire, this film provided a great dynamic between good and evil*. By the end of this film, even those who had not read the book were able to fall in love with the good characters and despise the evil ones. This was all done with music. From the opening sequence of the film, where Leia is captured aboard her space cruiser by Darth Vader and his crew, the viewer is made very aware of who are the bad guys. As soon as the first shots are fired on Leia's cruiser and the towering Imperial star destroyer appears on screen, intense, heart-pounding, minor key music plays at a high volume in the background, dominating the scene.

* *Star Wars*. By George Lucas and George Lucas. Dir. George Lucas. Perf. Mark Hamill,

Harrison Ford, Carrie Fisher. Twentieth Century Fox Film Corp., 1977. DVD.

This music continues for the entirety of the battle as the Imperial forces invade the cruiser, breaking only slightly when Leia puts the stolen Deathstar plans inside R2D2 for safe-keeping. This small, seemingly insignificant break in the intensity, provides the viewer with enough diversity from the intense music that they are able to make the connection, when coupled with the visual size differences in ships and color differences in protagonists, that Leia and her crew are the victims of the overwhelmingly powerful Darth Vader and his Imperial forces. This motif continues throughout the film. Characters like Luke Skywalker and Han Solo are associated with the less-intense music that breaks tension, while any Imperial Forces are associated with the high-intensity, minor music that creates tension. But this association with good and evil in this film was only the set up to the most iconic music theme in the series and, arguably, action films in general.

After the enormous success of *A New Hope*, three years past before the next installment of the trilogy was created. *Episode V: The Empire Strikes Back (1980)*, was, yet again, another action/adventure film continuing the story of Luke Skywalker and his battle against Darth Vader and the Imperial Empire. For this film, it was expected that viewers who came to see *The Empire Strikes Back* had seen the previous installment of the series. Thus, the viewers were supposed to understand which characters are good and which characters are evil. But, being the genius filmmaker and composer George Lucas and John Williams are, respectively, they shocked audiences around the world with what they created for this film.

For the first 20 minutes of this film, there is mostly simple exposition used to get the viewers back into the story by filling them in on what happened in between films, while at the same time, introducing the “good” main characters to anyone who had not seen the first film. Brief use of suspenseful, high-intensity music when Luke is attacked by the Wampa and empowering music when he escapes the creature gets the audience to garner sympathy for the character and recognize him and his friends as the friendly protagonists. However, immediately following this opening sequence, the film circle-wipes to the Imperial fleet gathered together in space. As soon as this picture appears on screen, a distinct tune takes over the scene. As the Imperial star destroyers fly around, appearing in and out of the screen, the viewer can hear drums, a French horn, and various string instruments play a minor tune at a steady pace, quickly ramping up the intensity and tension of the scene. After this introduction goes on for a brief moment, the piece begins in earnest with horns blasting in and towering over the scene, playing the famous “Imperial March.” This music plays for about 30 seconds while the picture shows the extensive size and formidable power of the Imperial Fleet through various shots where the viewer is shown either a close-up of one of the ships, which shows how large each ship in the fleet is, or a wide shot of a section of the fleet, which shows how many ships are gathered there. Then, just before the music cuts out to make way for dialogue, the camera switches to a shot from behind Darth Vader as he surveys his enormous fleet. This use of such a powerful, yet minor piece, in stark contrast to the previous music, alerts the viewer, beyond the shadow of a doubt, that they are looking at the evil force of the film.

For the remainder of this film and *Episode VI: Return of the Jedi* (1983), the Imperial March, also called “Darth Vader’s Theme,” returns to accompany many different scenes. Every time it makes an appearance in either film, Darth Vader is either empowered in some way or in control of whatever situation he and his allies are in. For example, when the Imperial forces overwhelm the Rebel base on the planet Hoth in *The Empire Strikes Back*, the music plays very subtly in the background as the walkers blow up the Rebel shield generator. When Darth Vader begins to take control in his fight versus Luke in *Empire*, the music can clearly be heard over the action. And, in a startling change in the use of the music, when Vader is dying and wants Luke to remove his mask so that he can see him clearly for the first time, the Imperial March is heard at such a low level and slow pace that it is almost inaudible and unrecognizable, which causes this music to actually garner sympathy for Vader. Outside of this one example, though, every other use of this music works to get the viewer to hate Vader and his intentions. This is because of the psychology behind how this music was put together. To begin the analysis of this piece as a whole, I will first bring to light the timbre of the piece.

As explained earlier, The Imperial March is used many times throughout the *Star Wars* series, especially in Episodes V and VI. It gets used so many times that it actually turns into more than just a music background that creates a tense mood in the scene. In essence, this piece becomes the signature of the Imperial Empire. After hearing it a few times, even someone who is not looking at the screen while this music plays has an idea of what is going on in the picture.

They know the Imperial Empire is making a powerful move and/or Darth Vader is feeling particularly strong at the time. This idea of a signature in these films helps to convey the emotion associated with the music much easier than if someone was hearing it for the first time, despite the fact that this emotion is conveyed easily anyway. This is indirectly because of the third category of perception of sound, expectation*. Since the viewer has heard the Imperial March over and over again in similar scenario of Imperial power, as soon as they hear it any time afterwards, not only does expectation help them predict what is transpiring on screen, but it immediately puts the intense emotion associated with the theme music in the viewers' heads. Those that are rooting for Luke and the Rebel forces feel the suspense, knowing that the implications of whatever the Imperial forces are planning will affect the Rebel forces negatively. And if, for some reason, someone is rooting for the Imperial forces, they feel the power and control that the move the Imperials are making provides. Regardless, this music sets up the picture so that the action on screen has full emotional effect on the viewer. Without the music, the story would still make perfect sense to the viewer. However, the emotional impact of what is on the screen would fall off dramatically, taking away all emotional investment the viewer has put into the film, not only pertaining to Vader and the Imperials, but to the entire film as a whole.

* Holman, Tomlinson. *Sound for Film and Television*. Boston, MA: Focal, 2002. Print.

For example, when Luke experiences all of his emotional ups and downs while interacting with Vader, from his first confrontation with him at Cloud City, to the dream sequence in the Degobah system with Yoda, to his final battle aboard the new Deathstar where he finally converts Vader to the Light Side of the Force, the viewer would feel so much less fear, suspense, triumph, and heartbreak without the music to instill who Vader is as a character. In effect, Darth Vader would merely be a man in a black suit without the theme music behind him wherever he goes. He loses all the fear he instills in the viewer as soon as the film relies solely on the visuals.

The Emotion of Sound: *Nuovo Cinema Paradiso*

Outside of the action film, sound in film has no problem maintaining a strong influence in the cinematic world. Horror films scare viewers using sound. Comedies use sound to make viewers laugh. But in no other genre is sound more important and effective than in the drama. Emotion plays such an enormous role in these films as its protagonists experience many occasions where emotions run extremely high, such as falling in love or the loss of a friend. In my experience with this genre, only one film comes to mind that uses its sound to fully encapsulate the richness of the emotion the genre creates. That film is Giuseppe Tornatore's *Cinema Paradiso* (1988). Never in a film have I seen such emotional highs captured by the music as in this film.

Throughout the entire film, which follows the flashback of Salvatore “Toto” Di Vita, played by Salvatore Cascio (child), Marco Leonardi (teenager), and Jacques Perrin, as he reflects on the impact his mentor, Alfredo, played by Philippe Noiret, had on his life, very potent musical troupes appear to convey points of high emotion*. The first instance of this occurs late in the child Salvatore segment of the film. After a close bond had developed between Alfredo and Toto over the love of film and fondness of the projector, the pair decide to try and appease angry townsfolk by turning the projector image so that it projects outside the theater, onto a large white building instead of the screen inside. This sequence opens with Toto watching the film from the window of the projection booth, high above the crowd below, Alfredo standing right beside him, enjoying the scene just as much as the boy, the camera cutting between them, each in their own shot. After a brief back-and-forth of the camera between the pair, Alfredo asks if Toto wishes to go down and watch the film from the ground level. Toto shows no hesitation in his excitement as he leaves the booth, the sound of the film playing softly in the background. As Toto reaches ground level, he steps into a shot of the Priest of the town, who is panicking, trying to find out how to get the crowd to pay for seeing this film. The camera then flips around to show Toto, still excited, running towards the crowd in front of the film.

* *Cinéma Paradiso = Nuovo Cinema Paradiso*. By Giuseppe Tornatore and Blasco Giurato. Perf.

Philippe Noiret, Jacques Perrin, Salvatore Cascio, Marco Leonardi, and Agnese Nano. *Ariane Vidéo*, 1988. Videocassette.

After a brief sequence where the camera switches between shots of Toto enjoying the film, Alfredo keeping an eye on the crowd, the Priest's assistant trying to get people to buy tickets, and the crowd protesting to this, the camera finally settles on the film itself, which is showing a scene from *The Firemen of Viggiu* (1949), where funnyman Nino Taranto has a gun to his head. As the crowd laughs along with the picture, the film suddenly begins to melt. The camera quickly switches to the reaction of both Alfredo and Toto, separating the quick cuts with shots of the projector and film catching fire. As soon as this occurs, the music, which had been absent for quite some time, chimes in with string instruments playing dissonant chords. To follow this, the camera begins to show shots of the crowd turning around to look at the theater and becoming panicked, as well as shots looking into the projector booth, where orange light can be seen flickering, clearly simulating a growing fire. Then, the camera cuts back to the inside of the projector booth, where it shows Alfredo in a series of closeup shots and reverse shots as he battles the fire. As the flames get higher and higher and Alfredo begins to lose the battles, the dissonant chords from the string instruments turn into minor arpeggios, moving up the scale in half steps while increasing in volume. After a closeup of the booth from outside the theater shows the glow from the flames getting brighter and smoke emanating from the booth, the camera shows an extreme closeup of the film reel housing of the projector opening quickly, flames shooting out of it, followed by the reverse shot of Alfredo's panic-stricken face as the camera zooms in on him, indicating that the flames were hitting him square in the face.

After this, the camera cuts back and forth from crowds of people piling out of the smoke-filled theater to Alfredo falling to the floor, holding his burnt face. By this time, the music has shifted from long-held notes to short, staccato notes. The remainder of the sequence follows Toto as he runs into the theater to save Alfredo, the music remaining the same but adding a horn that plays long, loud and dissonant notes overtop of the existing tune once Toto enters the building. The sequence ends with the camera swapping shots of the priest and Toto, both yelling Alfredo's name, the priest yelling in rage, Toto in panic and sadness as he tries to get Alfredo to wake up. Once the yelling is seen and heard, the fast-paced, staccato music cuts out to make way for low and long bass notes which continue to play as the camera cuts to an extreme closeup of Alfredo's burnt, unconscious body.

This sequence shows the pinnacle of suspense in this film. Prior to this sequence, the viewer has become attached to the character of Alfredo and his relationship with Toto. At the time of the sequence, the relationship between Toto and Alfredo could not have been closer. They had become close friends and Toto was learning so much from Alfredo about running a projector. The beginning of the sequence captured this feeling perfectly with the excitement on both Toto's and Alfredo's faces as they tried something innovative to please the townsfolk. However, the choice of no music during this part of the sequence leaves the viewer feeling strange. They understand from the picture that this is a happy sequence for the protagonists. But without happy music to accompany it, a feeling of foreboding exists that makes the viewer wonder if everything is truly going to end happy in this sequence. And, sure enough, the fire breaks out.

The moment this happens, when the film melts, the background music wastes no time in kicking in, providing the sound for the majority of the action that is about to take place. This sound, which starts out as the dissonant string chords and turns into the minor scaling arpeggios, immediately causes tension in the viewer. This is because of the way minor-sounding and dissonant music is perceived. According to Andy Farnell, a dissonance in notes creates a roughness in the music we hear*. When something sounds rough to a person, an unsettling feeling is created that discomforts the person. It's the same technique used in horror films to alert the viewer that something isn't as it seems. This discomfort is what creates the tension that is felt in this sequence. Then, as the music gets louder, the tension rises. This is because localization of sound has taught us to recognize that sounds that increase in volume are getting physically closer to us**. While this is clearly not the case in film music, the same idea is used to alert the viewer that the climax of the scene is approaching fast, creating a similar uneasiness. This allows the viewer to be at maximum tension when the flames shoot out of the projector and hit Alfredo. After that, when Toto runs in to save Alfredo, the horn begins to play on top of the existing music. This sudden addition of the sharp-hitting notes of the horn keeps the tension of the sequence at its peak, which is extremely necessary since Toto, the other protagonist that the viewers have fallen in love with, is about to risk his life and potentially meet the same fate as Alfredo.

* Farnell, Andy. *Designing Sound*. Cambridge, MA: MIT, 2010. Print.

** Holman, Tomlinson. *Sound for Film and Television*. Boston, MA: Focal, 2002. Print.

The horn has an abrasive timbre compared to the string instruments, which, because it is also playing dissonant notes, keeps the viewer feeling uneasy*. For as long as Toto is under an immanent threat of this danger, this music is sustained. However, as soon as Toto has dragged Alfredo clear of the flames and is safe, the music cuts out quickly, leaving only the low bass notes played over and over until the sequence finishes. This choice of music is the perfect way to relieve the enormous tension of the scene because it not only provides a more relaxing timbre, but it also eliminates the dissonance that had been dominating the scene for some time. What makes this choice brilliant, though, is the choice to perform the sustained note using a bass. The bass, however relaxing a timbre it may have, also creates a sense of dire implications. The tension is being relieved, but the viewer is also being reminded of what just happened to Alfredo and what it may mean to the remainder of the story. Without the bass droning on in the background, the consequences of the scene are much less impactful on the viewer.

Cinema Paradiso uses music in other fantastic, highly emotional ways as well. When Salvatore grows into a teenager, he meets a girl, Elena, played by Agnese Nano, whom he finds stunningly beautiful**. During a confrontation in a confessional booth at the church, he even confesses his love to her. However, she does not reciprocate this feeling.

* Farnell, Andy. *Designing Sound*. Cambridge, MA: MIT, 2010. Print.

** *Cinéma Paradiso = Nuovo Cinema Paradiso*. By Giuseppe Tornatore and Blasco Giurato. Perf.

Philippe Noiret, Jacques Perrin, Salvatore Cascio, Marco Leonardi, and Agnese Nano. *Ariane Vidéo*, 1988. Videocassette.

Undeterred, Salvatore tells her that he will wait for her to love him back by standing outside her window every night until she has changed her mind. Throughout the entirety of 1954, Salvatore waits and hopes, but getting nothing in return. Finally, on New Year's Eve night, a glimmer of hope shines as Elena opens her window with midnight approaching. However, this was apparently an accidental opening of the window because she closes it right after, dashing Salvatore's dreams. Dejected, Salvatore trudges off towards the theater, which has become his second home. It is at this point where the music begins playing a large role in the emotion of the scene. Seen in long shot from behind, Salvatore walks down the noisy street, where people are throwing objects out of the windows and launching fireworks in celebration of the New Year. As he walks, a melody is heard, playing slowly in the background. This melody is a beautiful tune played by a chorus of strings harmonizing wonderfully with each other. The effect it immediately instills is sympathy towards Salvatore because this type of pleasant, harmonizing melody tends to move viewers in a happy way. Feeling at all happy during what is currently on screen aids any sort of sympathetic mood for the viewer because it takes kindness in order to feel sympathy. With the music continuing to play in the background, Salvatore arrives at the theater and tears up the calendar he had been keeping in the projection booth. As he throws the tiny pieces of calendar into the garbage bin and leans, exasperated, against the projector, the music still playing, Elena enters the frame in a red coat and gets Salvatore's attention. Realizing what this means, Salvatore takes Elena in his arms as they embrace and eventually kiss.

As soon as Salvatore embraces Elena, the music in the background immediately picks up in both tempo and volume, almost completely drowning out the sounds of the projector and fireworks in the background. This picking up of the music serves to intensify the good feeling from the music, causing the viewer to feel the love and passion these two kids have for each other. And, because of the stark contrast to the sympathetic feeling towards Salvatore, the viewer feels the love even stronger than the music itself could possibly provide.

This passionate melody, after setting its meaning of intense love, reoccurs three times throughout the film. The first reoccurrence happens when Elena had been away from Salvatore for a long period of time and suddenly returns to kiss him as he is laying down in the rain. In this instance, the music appears out of nowhere. Salvatore had been feeling sad the moment before Elena appeared. As soon as she did, though, the recurring melody kicked in immediately, revitalizing the passion from the pair's first kiss. The second time this melody reoccurs in this film is when Salvatore returns to his hometown after years of military service. Standing alone in the almost empty town square, staring at the theater he knew so well, there was no music whatsoever. However, as he stares at the theater, a dog approaches him, panting and wanting attention. As Salvatore leans down to pet the dog, the music plays at full intensity. Salvatore smiles wide as he is finally returned to the home he loves so dearly. And, because of the music, the viewer realizes how intense Salvatore's love for his home is.

Since the only other times the viewer heard this music was when Salvatore was in the middle of a passionate kiss with Elena, the only connection he or she can make is that this town means exactly the same to Salvatore as Elena does to him. Finally, after a long period of time without hearing this melody, it reoccurs one final time. After the grown up Salvatore visits his hometown for the first time in 30 years to attend Alfredo's funeral, he receives an old film reel that Alfredo had left for him as a final gift. When Salvatore returns to Rome, to his own theater, he watches the film alone in an empty viewing room. As the soft glow of what is on the screen can be seen hitting Salvatore's face, before the viewer even has a chance to see what exactly Salvatore is watching, the familiar passionate melody begins yet again. As it turns out, the film Salvatore is watching is a spliced together film reel of all of the kissing moments Alfredo had cut from films, at the request of the town priest. These bits of film from classic movies had been used as a bargaining tool by Alfredo early in the film to get little Toto to leave him be. Alfredo had told Toto that these bits of film were his if he would just leave him alone. This was never brought up again until this moment, when Salvatore was watching the final, spliced product. This collection of film expressed the immense love Alfredo had for Salvatore. The combination of the passion of the kissing on the screen and the feeling of love associated with the melody playing, louder than ever, in the background creates the most intense feeling of love and passion Tornatore's film provides, even greater than the love expressed between Salvatore and Elena. This concludes the film perfectly because there was no relationship in the film as strong and as passionate as the love shared between Alfredo and Salvatore.

And, because of how the film related the melody heard during this final scene to love, there was no other tune that would have captured the moment as the one that was played did.

It's difficult to explain exactly why the music of *Cinema Paradiso* affects viewers how it does, especially in the scenes previously mentioned. Many studies have been conducted to try and decipher why this is, but few have definitive results. Despite the lack of conclusive explanations, there is a huge amount of speculation that attempts to explain this phenomenon. First of all, in a broad sense, Julian Treasure, in his book *Sound Business*, points out that music just seems to affect us deeply and mysteriously and we may never know why*. Music is a very subconscious mode of communication with our emotions. In relation to film music, Farnell indicates that, "The audio-spectator 'agrees to forget that sound is coming from loudspeakers...'**. If this agreement never takes place or the sound becomes distracting and/or disorienting to the point that the viewer takes notice of it, music loses its meaning instantly and it just becomes white noise. This is true for all feelings music can provide. Horror films have no fear, action films have no suspense if the music is not done correctly, without immense distraction. When looking at *Cinema Paradiso* specifically, Treasure points out that love is "the topic on which music dwells on by far: music appears to be uniquely effective in communicating both the extremes of love and loss."*.

* Treasure, Julian. *Sound Business*. 2nd ed. Vol. 1. Cirencester: Management 2000, 2007. Print.

** Farnell, Andy. *Designing Sound*. Cambridge, MA: MIT, 2010. Print.

Treasure also hints that we have a hard time not feeling along with noise in general that is associated with strong feelings, such as pain or love. So, once that melody is connected to feelings of love, it becomes harder for that music to disrupt the flow of the film because the viewer thinks about the love that they are watching and connects with it more deeply than other emotions. Perhaps that is why this particular background music is able to be played louder when it is played. When the viewer is so engrossed in the passion, it takes a lot more disruption than normal to really have an impact on how the scene is perceived.

But what exactly connects this specific musical number to love? A lot of this is truly speculative but Farnell has some light to shed on this subject. He tells the reader that music contains overtones*. Overtones are essentially other tones that can be heard in a sound created by anything. When molecules get excited and vibrate, creating noise, they vibrate at a certain frequency, called the fundamental frequency. However, because the molecules are excited and continuously moving, the frequency they emit fluctuates very slightly, creating overtones. To the untrained ear, overtones are extremely hard, almost impossible to distinguish from the fundamental frequency. These overtones are the base on which harmonies are created in music. Depending on how other notes react with overtones, the music is defined as major or minor and is either smooth or rough on the ears, respectively. These overtones also have a certain quality about them, which helps to determine the perceived brightness of the notes. If the overtones are higher, the music is overall considered brighter.

* Farnell, Andy. *Designing Sound*. Cambridge, MA: MIT, 2010. Print.

If the overtones are lower, the music is considered more dull. For example, when a violin's thinnest string is plucked, very high frequencies radiate out to form the note that the listener hears. Because the fundamental frequency is high, the overtones that are created are also high. The same goes for when the thickest string on a bass is plucked. The fundamental frequency created is low, so the overtones are also low. In general, Farnell tells the reader that this is how the brightness of the piece is determined. In terms of the melody played overtop of the love scenes in *Cinema Paradiso*, the main instrument is the violin, which plays very high notes for the piece in question. This gives the piece an overall bright quality. This, perhaps, is why it's so easy to equate this piece to happy emotions like love. And when the picture that goes along with the piece supports this connection, the connection is created far more easily. Once the viewer relates this piece to love, it become much easier to bring back the piece if the director wants to convey the same emotion. Once all of the music fits into the film just like this, where it all has meaning, that's when the music becomes second-nature to the film and flows flawlessly.

The Importance of Unity: An Interview with Jonathan Allentoff

I have made it quite clear exactly how important music is to film. But one thing I did not understand was how a composer creates a score to fit a film like how it does in *Star Wars* and *Cinema Paradiso*. In order to shed light on this topic, I sat down with Jonathan Allentoff, who is an arts for children major at the College at Brockport with a concentration in music and the Music Director of the Brockport Symphony Orchestra.

Recently, Allentoff created a score from scratch to accompany a silent film entitled *Ask Father* (1919). With his experience in creating a score for film, I wondered exactly how he did it, what decisions he made while creating it, and what general thought he had in general about audio in film.

First off, I asked Allentoff what goes in to writing a score for a film and what his thought processes were about what the score needs to fit with the film. There was one overlying idea throughout his answer to this question and that was unity*. According to Allentoff, the picture and the sound come from two very distinct worlds. Both are used to appease different senses. Both have different effects on people and are perceived differently. In fact, in many films, the sound is often recorded separately from the shooting of the picture. However, when they come together on screen, they both work together to form a completely new world where there exists one unified perception and understanding of the film. This is because the sound and the picture form unity with one another. When asked how a composer goes about creating this unity, Allentoff mentions a few ways this must be done. As sort of a general note about unity of the sound with the picture, Allentoff states that, when the picture moves, in any way, the sound, if it exists at the time, must move along with it to maintain unity. This works both physically and emotionally. If characters are moving about the frame, their spoken lines has to maintain the correct balance between the left and right speakers in order to maintain sound localization.

* Allentoff, Jonathan. Personal interview. 12 April 2013.

In the same vein, if the emotion of the scene rises, the music in the background must rise along with it or the impact is lost on the viewer. So even when, in romantic scenes, where very light, lush music fits the mood, if the characters go in for a climactic kiss, the music has to rise in intensity with the characters' passion. If it doesn't, all the viewers end up hearing kissing sounds between the characters and they feel like they are peeping in on a private scene, making them feel awkward. The same goes for when action falls in a scene. If a fight scene dies down and the music maintains high intensity, the music becomes a huge distraction, taking the viewer completely out of the film. Another idea Allentoff posed is that, "So much of film is repetition...if everything only came once, it wouldn't have a lot of unity." What Allentoff means by this statement is that the composer must create musical motifs with its melodies, a lot like what took place in *Cinema Paradiso*. This is because a lot of what the viewer sees in film comes up again, at least in an emotional sense. Sometimes the similarity can quite easily be lost on the viewer when looking at just the picture. But, if a musical motif is added in that was used earlier in the film, the emotion of that previous moment is brought back to the viewer, whether they consciously observe this or not. This is the backbone of unity in film. Nothing connects the sound and the picture more than the direct correlation of emotion and feeling from musical motifs. Allentoff used this idea very deliberately in his score for *Ask Father*. He specifically uses the same fanfare at both the beginning and end of the film. This brings the audience into the film and subconsciously tells them that the film is over at the end. Allentoff even uses elements of unity in his technical choices for the score.

Throughout the entire piece, which had music playing from beginning to end, the tempo never changes. Allentoff says that he chose to do this because it makes changing mood very easy for the instrumentalists, which helps them to really feel the music and convey emotion through their instruments. And, according to Allentoff, nothing in music can replace truly feeling and understanding what you play.

Conclusion

There is no doubt that music plays a humongous role in the perception of film and its conveyance of emotion. Without the proper unity, sound and picture merely just exist as separate entities. But, when unified correctly, the effect generated cannot be matched. The viewer understand the emotion of the scene and feels along with the characters, which allows the viewer to fully grasp the power and complexity of the film as a whole. If film score composers did not take the time to fully unify their scores with their corresponding pictures, there is no way there would ever be any films as emotional engrossing as *Star Wars* and *Cinema Paradiso*.

Works Cited

Allentoff, Jonathan. Personal interview. 12 April 2013.

Cinéma Paradiso = Nuovo Cinema Paradiso. By Giuseppe Tornatore and Blasco Giurato. Perf. Philippe Noiret, Jacques Perrin, Salvatore Cascio, Marco Leonardi, and Agnese Nano. Ariane Vidéo, 1988. Videocassette.

Farnell, Andy. *Designing Sound*. Cambridge, MA: MIT, 2010. Print.

Holman, Tomlinson. *Sound for Film and Television*. Boston, MA: Focal, 2002. Print.

Star Wars. By George Lucas and George Lucas. Dir. George Lucas. Perf. Mark Hamill, Harrison Ford, Carrie Fisher. Twentieth Century Fox Film Corp., 1977. DVD.

Treasure, Julian. *Sound Business*. 2nd ed. Vol. 1. Cirencester: Management 2000, 2007. Print.