Silence: The Forgotten Sound Element in Film

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<u>Abstract</u>

Although there is a very clear classification scheme for film sound nowadays (Dialogue, SFXs, Foley, Music, Background), the researcher proposes in this thesis that silence should also be reasonably classified as a sixth sound element. In this thesis, the definition of silence is questioned, and it is divided into two types of silence: complete silence and prepared silence. The researcher believes that each type of silence has been very maturely used in modern life. Not only in the fields of audio description, psychoanalytic and art, but also in film and television sound design, where silence plays an important role. She suggests that silence in sound design can play a role in facilitating communication, saving space and stimulating imagination, thus achieving increased emotional resonance between the audience and the work.

To test this idea, she designed separate grouped controlled variable experiments for different types of silence and ways of using them. By analyzing the data after the experiment through online distribution, the experimenter verified her own suspicions. Videos/audios that were altered by the properly used silence received stronger responses from the participants in terms of emotional ratings. Such data verifies the researcher's suspicions. Even if people do not classify silence as an outlier among the top five sounds, it still has a great role in the field of film sound, which can subconsciously affect the audience's viewing experience.

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Chapter 1 Introduction and Justification

Since the beginning of the art form of film, people have been trying to figure out how to make the audience experience what is happening on the screen more immersed in it. From the beginning, the lack of sound-track technology resulted in the creation of silent films, people realized the importance of sound to the viewing experience. At that time, the silence was a thing that was strongly avoided. Because people would feel very distant from the screen due to the quietness around them and could not immerse themselves in the story. Directors often dealt with it by having orchestration play on the set so that people's hearing would not be too empty. With the development of both sound and film technology, people found the best way to break the silence ---- people found the recording and post-processing and other methods to match the sound with the picture on the screen. It was at this point that people found that sound played a crucial role in helping audiences immerse themselves in the movie.

It was also at this time that people began to take the time and effort to study the role that sound could play in a movie. And gradually, people divided the sound in movies into several categories. Even though everyone and every organization have a little bit of variation in their classification, the summation is as follows: Foley, Hard Effects, Dialogues, Background/ambiance, and music. In the next section: "Literature Review", the researcher will also be giving the reader a short explanation and introduction according to each category.

Nevertheless, a film released in 2018, A Quiet Place, has provoked the researcher to question this widely practiced classification. The storyline of this film is such that the use of sound in this film will determine the success of the whole film or not. In the process of analyzing this movie, the researcher found that in addition to the five most common categories, the most important sound element in this movie is: silence. Which led her to think about whether the

absence of sound should also be incorporated into the consideration of movie sound. So, I started my research on silence.

In the course of research, the researcher found that most people think of silence only in terms of "absolute quietness" or "the absence of sound". However, what people do not realize is that most people have never really experienced silence, and that silence is not just about spacing out the sound or quieting the audience along with the sound, but also about many other things. In some specific areas, for example, silence is seen as a prime time to be exploited. Although there is a little sound or nothing much is going on, this gap can still be put to good use.

In this thesis, the researcher will first introduce the current classification of film sound in the traditional sense and briefly describe each category. Then she will explain the definition of silence in several different subject areas and connect it to the use of silence in movies. The first is the psychoanalytic field. While research scholars conduct psychoanalysis through verbal communication, silence can also be a good communication tool. Although there is no verbal exchange, silence is a good tool to set a solid tone for communication. Then there is the field of audio description. Even though silence is defined as no obvious audio, silence is still seen as the "prime time for interpretation" in this field. This is because at this time the interpreter can be assured that the surroundings and additional content will be interpreted without fear of covering up some important content.

In any field of art, silence, or a certain lack of content, can be put to good use by the artist, and this is especially true in film. Controlling the amount of content can leave enough room for the audience's imagination, increase their empathy with the screen, and accentuate the emotions the author wants to express.

Chapter 2 Literature Review

If one wants to explore the role of silence in a film or television production, one must first understand its bigger hierarchy, the role that sound plays, and how it plays in a film. In this section, researcher will be approaching silence from different academic areas and how they relate to the use of silence in the film.

2.1 History of Sound Design

Since the birth of film as an art form, there has been a long time when audiences and directors have focused all their attention on the visual expression of the film's script, images, and cinematography. Films have been in the public eye since the late 19th century. The earliest days of cinema consisted of black and white pictures without any soundtrack. Back then, "video publishers [] systematically offer silent films with organ or orchestral accompaniment, often based on period scores" (Altman, 1996). As technology developed, films became longer and longer, and it was not until 1930 that synchronized radio ended the mission of inserting subtitles, liberating filmmakers from more narrative techniques, and becoming an integral part of filmmaking ever since. Yet even though the role of sound in the film is brought to the fore, the sound department of the film production team has not been given the attention they deserve. Until 1979, "the usual credit, Supervising Sound Editor or Sound Editor, was generally accepted as a purely technical role on a film crew" (Finan, 2016, pg2). The first person to be honored with the title "sound designer" was Walter Murch, a title bestowed upon him by Francis Ford Coppola in honor of his important contribution to the film Apocalypse Now. From then, people really began to look at the importance of sound for a film or television production, and also began to give the sound people recognition and appreciation. For the role of sound designer, co-owner of

Boom Box Post Finan (2016) defines it according to Wikipedia as "[a role that] most commonly involves the manipulation of previously composed or recorded audio, such as sound effects and dialogue" (pg6). Then, as time went by, the definition of sound design became clearer and clearer, and many people specialized in sound design by classifying it into different categories, from which different areas of expertise were derived.

2.2 Sound Design for Film

There are two types of sound in film, as defined by Vesna Dakic (NA), the "hyper-reality" one and the "correlation with a picture" one, which together play the roles of "story supporting" and "storytelling" (pg5). Storytelling, according to Dakic, can be achieved by "using dialogues, monologues or off-narration", whereas story supporting is done by "special sound effects and music"(pg5). Story supporting sound effects' role is to make the plot of the film more intense by utilizing sound and to shape the viewer's and listeners' perceptions of the film. As a result of research and experimentation over the years, sound in film can be divided into several major categories, and these apply to almost all genres of film and television.

Dialogue

This category contains all the fragments of a work that are presented in verbal form. This includes, but is not limited to dialogues, ADR (Automated Dialogue Replacement), monologue, VO (Voice Over), etc.

Music

There are many different categories of music in movies, the common ones are live music, background music, recorded music, etc.

Sound effects

Hard Effects

Foley Sound Effects

Background / Ambience

2.2.1 Dialogues

When the movie initially went from silent to sound era, people's attention was first focused on the dialogue. Dialogue is inarguably the most important and primary component of a film in most cases, and its textual content is one of the most intuitive ways to present the plot of a film and to show the audience the development of the story in the clearest fashion. Generally speaking, there are three types of dialogue in movies: the spoken dialogue between characters, narration beyond the story, and internal monologue of characters. And irrespective of which category they fall into, their main role is to move the storyline forward or to reveal to us the inner thoughts of the characters.

2.2.2 Music

Generally speaking, music that would appear in a film project can be divided into two big categories: one is when the musical performance is visible to audiences' eyes or happening in the scene; the other one plays the role of background music to support the story plot and to set off the emotion. The former is always referred to as the "diegetic music", while the other one is "non-diegetic music". Non-diegetic ones are crucial to the development of the entire film's plot. Sometimes when the same sequence is set to a different style of the soundtrack, it can almost dramatically change the direction of the later film.

2.2.3 Hard Effects

Other than music and dialogue, the most important part of a film's soundtrack is the sound effects. The sound effects are generally more subtle, influencing the audience's perception and empathy for the film in a more subliminal way. For example, we have become very accustomed to the sound of fingers tapping the keyboard in our daily lives, if you see a person on the screen typing without making any sound, you will always feel that there is something odd about this scene. Hard effects are the sound effects that "[were] obtained from a source other than a production sound, Foley, or ambiance, and the sound was cut in by a sound-effects editor to match the picture" (Dakic, NA, pg6). This in short means that hard effects are not recorded from objects on the screen that are supposed to produce sound but are most likely obtained from an outside sound library. The sound editors would usually find the right sound effects and then edit and change them to align with the timing and quality of the on-screen sound, so that the sound is perfectly integrated into the sonic world of the film, making it more immersive for the audience.

2.2.4 Foley Effects

Foley sound effects are sounds that were created by "Foley artists perform the acting more or less synchronously with the picture" (Dakic, NA, pg7). Foley art was invented by Jacke Foley and is broadly employed by almost every film nowadays. Foley is significant to the film and is one of the essential sound elements. Early sound films only had dialogue and music, and even though it was a huge step forward compared to silent films, it still always felt like the film was not realistic enough and had many blank segments. Because people have become so accustomed to the fact that almost any action made in daily life is accompanied by sound

feedback. It's like when you play music and don't hear any sound, you subconsciously think there's something wrong with the sound settings or the headphones are broken. When people look at the characters on the screen to make some action but no sound feedback, people will also feel that there is a mistake and will feel empty.

2.2.5 Background / Ambience

If the sounds made by people's daily actions are already shaped in their minds, the ambiance is the most inseparable, yet almost imperceptible sound in their daily lives. "Ambience most typically consists of more or less continuous sound, often with a low-frequency emphasis associated with the background noise of spaces", Dakić (pg7) suggested. In everyday life, you hear ambiance wherever you are; in the street, it's the wind, the birds, the cars passing by; in the room, it's the blast of the air conditioner, people talking outside, the clock ticking, and the kitchen refrigerator "roaring". The ambiance is so subtle and easy to get used to that one doesn't realize it was ever there until the sound is gone.

2.2.6 Silence

Silence does not lie in any category mentioned above, but it's a very crucial element not to be forgotten. I will use a lot of space and literature to present silence in the following, a brief introduction will be given here in this section. Silence, according to the definition given by Merriam-Webster dictionary, has three definitions: forbearance from speech or noise; absence of sound or noise; absence of mention (Webster, 2022). Bela Balazs (2002) describes silence as "one of the most specific dramatic effects of the sound film". Because "[n]o other art can reproduce silence, neither painting nor sculpture, neither literature nor the silent film could do

so" (2002). The definition of silence given by many people is the complete absence of sound, and I strongly disagree with this view. In the next few sections, I will discuss the definition and application of silence, drawing on the literature of other experts.

2.3 Silence: Complete Silence?

Some people say silence means not hearing the sound at all. That is, of course, the most straightforward explanation. But when you think about it, have you ever really heard a silence with no sound at all? Almost no matter where you are, you can hear some sound. Even in the quietest room, you can always hear the sound of the annoying neighbors walking and talking upstairs and downstairs, hear the birds coming from the window, and in most cases, hear your breathing. "There's no such thing as silence", John Cage(2010) said, "You could hear the wind stirring outside during the first movement. During the second, raindrops began pattering the roof, and during the third people themselves made all kinds of interesting sounds as they talked or walked out".

Someone tried and succeeded in building a room where all and any sound would be "eaten" by the walls, called the anechoic chamber. The chamber is hidden in the depths of Building 87 at Microsoft's headquarters in Redmond, Washington (Gray, 2017). The room was originally built to test Microsoft's new device and was awarded in 2015 "the official world record for silence when the background noise level inside was measured at an ear-straining -20.8 decibels" (Gary, 2017). This statistic means that the sound you can hear in that room is 4 times quieter than your normal breathing. Due to its unique design: no direct contact with any surrounding buildings, and 4ft-long wedges of sound-absorbing foam on every surface, this room has managed to become the quietest room in the world. However, this quiet room does not bring

peace of mind to the visitors but makes them feel extremely uncomfortable. Hundraj Gopa, the principal human factors engineer at Microsoft, and also the lead to the team that built the chamber suggests that "some [visitors] want out within a few seconds. They say they just can't be in there. It unsettles almost everybody. They can hear people breathing on the other side of the room and hear stomachs gurgling. A small number of people feel dizzy" (Gary, 2017). People may be surprised by this phenomenon, but it is very well understood. People's hearing is always changing in comparison with the setting. When you are in a silent valley, the slightest flow of a stream and the distant chirping of birds can become vivid and clear. And when you are in the MTA subway station, the ear-piercing sound of railroad tracks will make your music, which has been turned up to maximum volume, inaudible. The different sounds are not just superimposed on each other. They have the effect of setting off and masking, each other. When you are in a room where even your breath is deafening, your ears will slowly open up, and you will notice that you can hear sounds you have never heard, or never noticed. The builder of this room, LaSalle Munroe's feedback for this room is, "[after standing] still for a few moments in his 'office', something unsettling can happen – he can hear the blood rushing around his body and his eyes squelch as they move in his skull" (Gary, 2017).

2.4 Silence: What does it do?

From a linguistic point of view, Michal Ephratt argues that silence, especially eloquent silence, "conveys information in the referential function", and is an "iconic effective way of expressing emotions" (Ephratt, 2008). In his article, The Function of Silence, Ephratt (2008) argued that silence can be seen as absence: "absence of speech, and absence of meaning and

intention". He also suggested that "eloquent silence alone (not stillness, pauses, or silencing) is an active means chosen by the speaker to communicate his or her message" (Ephratt, 2008).

"[P]resent work discusses silence as a phenomenon", said Pilar Orero (2016). Silence has a very important role not only in language but in music and film as well. Even in the early silent movies, it is difficult to feel the real sense of silence. early silent movies, to prevent people from being completely silent affect the viewing experience to reduce the ability to empathize with the plot of the film, but also deliberately in the background to find the orchestration to set the mood, to help people immersed in the film. So, when the silence is not handled properly, the sudden disappearance of sound will give the viewer or listener a bad experience. However, when silence is used properly, the results obtained can be unparalleled.

2.4.1 Silence in Psychoanalytic: to facilitate communication

When it comes to silence, many people think of resistance, and some of the most common and brutal scenes in Chinese films depicting the war period are when a Chinese soldier is tortured to confess, even though he suffers inhumane pain, but still clenches his teeth and refuses to reveal any classified information about the army. The same understanding is applied to the psychoanalytic domain. The former president of the American Psychoanalytic Association, Jacob Arlow(2012) stated in his paper that, "silence was identical with resistance. The silence was resistance carrier to the nth degree since it ran counter to the direction of the therapeutic effort which was to facilitate the flow of accumulated drive cathexes denied discharge by the barrier of repression" (pg46). This is also true in the field of filmmaking. In the earliest silent movies, people always felt extremely distant from the screen, and the most important reason for

this was the lack of hearing, which is silence, which always prevented people from empathizing with the characters on the screen.

However, Jacob also points out later in the article that silence does not mean resistance in all cases. "[Silence] has a unique quality by virtue of the special relationship which exists between patient and therapist", said Jacob (2012, pg47). He noted that in the opinion of analysts, silence "acts as a persistent motivational pressure on the ego" and is in many ways a method to facilitate communication (Jacob, 2012, pg47).

This can also be applied to the film field. In movies, silence is often used as a way to accentuate the emotions of the drama. Matthew Harriott (2021) argued that "silence makes a scene feel important, and if the viewer deems a scene important then they are more likely to pay keen attention to it" (paras. 5). As in everyday life, when there is so much going on and so much noise going on around you, it is easy to get distracted from something and pay attention to something else or the right cause. In an extremely quiet movie, people will more easily focus on what the director wants them to pay attention to, whether it's dialogue or some small sound, people are not as easily distracted.

A good example of the use of silence is the movie Fences. Thanks to the careful and deliberately reduced use of music in the film, the leads have more room to bring their emotions and acting skills into full play. When there is no music in the background to set the mood, the characters' emotions are more viscerally presented through the actors' interpretation and expression. It also forces the audience to put themselves into the psychological world of the characters.

2.4.2 Silence in Audio Describing: to spare space

Silence can be very controversial in this area of audio description. Audio Description, defined by the Federal Government, to be:

Audio Description(AD). Narration is added to the soundtrack to describe important visual details that cannot be understood from the main soundtrack alone. Audio description is a means to inform individuals who are blind or who have low vision about visual content essential for comprehension. Audio description of video provides information about actions, characters, scene changes, on-screen text, and other visual content. Audio description supplements the regular audio track of a program. Audio description is usually added during existing pauses in dialogue. Audio description is also called "video description" and "descriptive narration".

Therefore, it is easy to see that silence and AD are themselves two words with opposite meanings. However, silence in AD can also be treated as a "great opportunity to add narrative, since there is neither music nor dialogue to be disrupted" (Orero, 2016). What this means is that the moments of silence in AD are very golden moments that can be used to interpret without worrying about overshadowing already existing music or dialogue. Similarly in the field of cinema, many voices may express many different messages, but a single moment of silence can always convey the desired message to the audience more subtly and insightfully. When they don't have to worry about missing important details because of dazzling eyes, viewers can finally settle down to enjoy the limited details and savor the message behind the makers' intentions.

2.4.3 Silence in All Art: to trigger imagination

Silence, or lack, is a very common device in every form of artistic expression. In painting, there is the minimal art of a whole picture with only one line; in music, there is the ebb

and flow of a single melody after the climax; in architecture, there is the furniture and buildings with only black and white squares; in film sound, there is the silence expressed by only the sound of wind and cicadas. "[Silence] gives a context to the experience, whether that be an emotional revelation or a tension building setup" (quick class, 2017).

"Silence is awkward", suggested by soundsnap(2016) in their article. People have probably never experienced complete silence, so they get uncomfortable when the sonic world around them suddenly dies into nothingness. When a sound environment has just the right amount of sound, enough to make them feel connected to real life, but not enough to make them feel at ease, the audience will fill that space with their imagination in their heads involuntarily. Matthew Harriott(2021) suggested that "filling in the blanks causes the viewer to become more intimately attached to the film, thus leaving them more emotionally exposed and vulnerable". This is a very common sound technique in film productions. When the audience subconsciously becomes part of the "film production team", it is easier for them to put themselves into the emotions of the characters and thus resonate with the film. A pioneer of Symbolist art, Odilon Redon(1840-1916) wrote "[my] drawings inspire, and are not defined. They place us, as does music, on the ambiguous realm of the undetermined".

This is one of the most common techniques used in movies, stripping the audience of the hilarious scenes after an intense sound crescendo, leaving only a single shrill sound that takes away all their sense of security and makes them experience double the helplessness and terror. The film A Quiet Place shows this technique to the fullest with the help of the deaf daughter's perspective, which I will introduce in detail in a later section.

2.4.4 Silence in all: to reinforce the emotion

Regardless of the field of view, any intentional silence exists to achieve a certain goal. Especially in film, when silence is directly linked to the form of sound, its expression becomes even more essential. Soundsnap(2021) introduced the concept of Yin and Yang in their article, "[because] of the sudden contrast in volume, each quiet detail compounds the intensity of the moment. We are left to quietly reflect on the jarring scene, instead of being barraged with loud information".

2.5 Silence: How to use it in the film?

We mentioned roughly two kinds of silence earlier: one is the silence obtained by contrast when the sound that should be very low volume becomes audible and you can tell that the surroundings are very silent. And one is the literal silence - the silence without any sound, dead silence. Both are very common uses in film and are great tools to help directors and producers enhance the emotions they want to convey.

2.5.1 Silence: Compared Quietness

There is a very classic word used to describe the quiet environment, which is "quiet around even the sound of a pin dropping on the ground can be heard clearly". The depiction of silence here is very vivid because one knows that the sound of a needle falling on the ground is relatively very minimal, and when such a small sound becomes audible, it proves that the

surrounding environment has been silent to such an extent. This quietness can be used to set a lot of different scenes.

For example, when the protagonist feels inner peace after fighting the final boss, the quiet environment will allow the audience to follow the end of the event all tend to peace. Similarly, when there are some exquisite emotional scenes, quiet scenes are also one of the most chosen techniques by the directors. When the audience is quiet along with the main character on the screen, they can better immerse themselves in the world of the main character's thoughts and better empathize with the characters on the screen, thus gaining a deeper understanding of the film.

2.5.2 Silence: Complete Silence

The complete disappearance of sound in the film is a very uncommon practice, where many directors and sound mixers will even avoid such a situation. Sound is a very important part of the film to help the audience empathize with the role of the film. When we only see the characters doing the action with the eyes and nothing is audible to the ears, they will inevitably be torn away from the screen and feel unreal. At the same time, because people have been so accustomed to life with a variety of sounds around, the sudden disappearance of sound will make people feel very discomfort. Yet many adept filmmakers know how to use this feature to increase the tension and horror of their films.

One of the most common examples is when the monster is approaching the protagonist from behind, we are in the protagonist's point of view and cannot see, but with the passage of time and the sound of the emotional buildup, we know that the monster is approaching. When all the emotions are rendered to the extreme, all the sounds suddenly disappear, and the next second the monster lunges at us with a bloody mouth. The sudden and huge drop in this high-pressure

situation will give the audience great psychological pressure and a sense of urgency, thus achieving the director's purpose.

2.6 An Example of Silence: A Quiet Place

An example of very good use of silence is the movie A Quiet Place. In the production note for A Quiet Place, director John Krasinski mentioned that "hearing can scare you more deeply than seeing" (2018, pg,13). For the listener, the sound is very subjective and has a great deal of imagination for each listener. The co-writer Woods (2018) says that "Sound is all about what you don't see. A film like this where sound is rare allows the audience to use their imagination in ways that make the story ever scarier". The essence of this movie is that if you make too much noise, the monster will take you out without mercy. What is unique and fascinating about this film is that it forces all viewers to listen to the smallest sounds around them in a way that they have never experienced before. When you are forced to pay attention to the smallest sounds around you, your mind becomes highly charged and you begin to care about the smallest sounds that you have never paid attention to before. For example, the rustle of your clothes when you move your body, the rustle of your hands when you touch your body, and so on. These sounds, which we normally almost ignore, are dramatically amplified in the movie.

2.6.1 A Quiet Place: Compared Silence

Even for those who have not seen the film, it is easy to imagine after understanding the general story, the entire film emphasizes "silence". The film producer Krasinski(2018, pg14) mentioned in the production note that,

"Re-thinking sound was huge for us the whole way. We all had to learn to be quiet in ways we've never been before on a set. And from that quiet, the importance of sound design started to become more and more apparent. When you're so quiet, and then you suddenly hear water or trees blowing in the wind. It's astonishing. You realize that in this day and age with the phones and everything, we don't often get a chance to just listen to the world. So, we were all very excited about the idea that in this film, the audience is going to pay attention to every sound in ways they maybe haven't before."

2.6.2 A Quiet Place: Complete Silence

In this movie, there is a special use for dead silence, in addition to the strong emotional contrast. The role of the daughter in the main character's family, Regan is set to be a deaf person, who can be said to be on thin ice in a world where sound can be a deadly weapon. The sound mixers Ethan Van der Ryn and Erik Adadahl were there to help the audience immerse themselves in Regan's world and to help the viewers better understand her sonic world. In their interview with Lessons from the Screenplay, they suggested that "Experiencing the film from the sonic perspective of Regan helps the audience empathize with her character, but it's also the fact that these shifts so start that helps make thems powerful" (Aadahl, 2018). The specific

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presentation is that when the camera pans to the daughter Regan, they often mute all the voices very abruptly to let people know what the world is like in her head.

There is a very classic scene when Regan and her brother are trapped in the car, and the monster is outside trying to break into the car when. However, when the emotion of the whole film reached its peak, Regan pulled off the ear-splitting hearing aid, and the audience, who had been in the sonic world of her mind, was exposed to the deadly silence. Before this happens, along with the violent shaking of the body, two children screaming in terror, and the hissing sound of the monster, all the audience's emotions have been raised to the throat. However, in such a situation of high mental tension and fear, all the sound suddenly disappeared completely, leaving the audience with only the tension of being hanging in the air, and the fear of the unknown situation. This uncertainty and loneliness with nowhere to rely on intensified their fear, and also made a very good emotional padding for the appearance of the monster in the next second.

Even in some non-scary phases, when the surroundings are very quiet, the sudden disappearance of sound in the face of Regan will still startle the audience. "I believe strongly that the hearing part of it is half of the experience", said Adadahl (2018), "We tend not to notice how important sound is until it's absent". This also applies to our daily lives. When people hear a sound (in most cases a background sound) for a long time, their brains get used to it and accept it, and over time they automatically filter it out without giving it any attention. And the next time people are noticing the sound, it is often when it disappears. People's brains then notice that something is missing and thus perceive the disappearance of the sound.

Chapter 3   Goals and Methods

Through the opportunity of this thesis, I would like to interpret the importance of silence as an underrated sound element for film production from a different perspective from a more rigorous academic approach. I will design and conduct experiments for each of the several silence categories I listed in the last section, "Literature Review". The methods will include examples of well-established film works based on each category.

The definition and interpretation of silence in the "Literature Review" will serve as a knowledge base for my readers and scholars interested in the importance of silence, while my experiments will be primarily aimed at a general audience that does not know much about film audio production. This will allow me to get a pure "listening" experience, instead of observation out of critical listening by the professionals.

My main intention is that through comparative experiments people will gradually become aware of how silence can play an essential role in driving the plot of a film. The effect of silence on the audience in a clip can be best expressed visually through a comparison experiment with controlled variables. Ideally, we would like to get feedback from viewers for a clip who have not seen the film, which I believe would be the most realistic and valuable data to use. I will then describe in detail my current plan for the experiment, which may be changed at any time during its future implementation.

3.1 Method

In this method section, the designed experiment will be introduced through several aspects of participants, materials, procedure, and data analysis. At the same time, the author will also briefly explain the researcher's process and ideas for designing each set of stimuli in sound design.

3.2 Overview of experimental design

Since the thesis argument is closely related to audio post-production, the researcher thinks the best way to test her ideas is to present the important role that silence plays in sound design for film/tv to the audience in the form of works.

In the literature review, it is mentioned that silence can be divided into two larger categories: complete silence and compared silence. At the same time, silence has taken its important place in other fields that cannot be ignored. When designing her study, the researcher made audio/video clips in the form of groups for the different kinds of silences presented in the literature review. Under the premise of control variables, clips with some identical and different variables are put together, and participants are asked to rate these clips numerically or to compare them both in the form of one or the other.

At the time this version of the method was written, a total of 6 sets of stimuli had been set and the sound design work had been completed. Each of the selected stimuli or group of stimuli will be described in more detail in the following stimuli section

3.3 Participants

In this experiment, questionnaires will be distributed in a combination of a convenience sample and snowball sample. In other words, researcher will use her own network as a basis to reach as many participants around her as possible and encourage the participants around her to pass out this survey to others around them. Ideally, she would be collecting data from 100-200 participants.

The researcher envisions the participants to be Chinese, Pakistani, Indian, American, and Korean, of all ages and genders. She will ask the participants in the questionnaire how much they like the movie and how well they know the sound design of the movie. The researcher believes that when participants have some knowledge of audio post-production, they will have more unique insights into the use of sound, which will also have some influence on their feedback. Researcher hopes that her participants will include a similar number of public listeners as well as "professional" listeners so that her experimental data can be more fully represented.

3.4 Materials

A total of 6 groups of stimuli have been selected and put into the questionnaire, the content of which has been completely sound designed.

The first group (stimuli #1) consisted of two ambience design clips. This set of stimuli focuses on my definition and understanding of "compared silence". In the literature review, it is suggested that people almost never feel complete silence in their lives, that is, without any sound around them. And when people say they are in a silent environment, the "silence" is usually formed by the contrast of common sound elements in everyday life that create a discrepancy in

volume or perception. For example, you can easily assume that your surroundings are quiet when some sounds that are usually considered small and easy to ignore become clearly visible.

The general design idea behind these two audio clips is to change the listeners' perception by changing the volume level of the same track.

The elements consist of bird-chirping, wind/breeze, some street ambience with factory sound in the background, some street ambience with traffic, and lastly some people walla. These are all common sound sources that people are very familiar with in their daily lives, and some of them are even unconsciously and frequently exposed to people. As shown in Figures 1 and 2 below, here is the screenshot for both clips for stimuli 1. The compositional tracks of both clips are composed of the exact same sound sources, the only thing that changes is the volume relationship between them.

The first clip being presented to the audiences was the "louder" version of the two. By bringing up the traffic and people walla and lowering the birds and chirping, the researcher intentionally made the audio image louder and busier. An EQ was added to the walla. Boosting

Figure 1 ProTool Session for Clip2

around 1000Hz brings the sound image more in the front. Correspondingly, bird sounds that are commonly thought to be more whispered are masked.

The second clip being presented is the "quiet" version of the two. The dominant elements are now the bird chirping and slight breeze sound, and the rest of the elements were lowerd down.
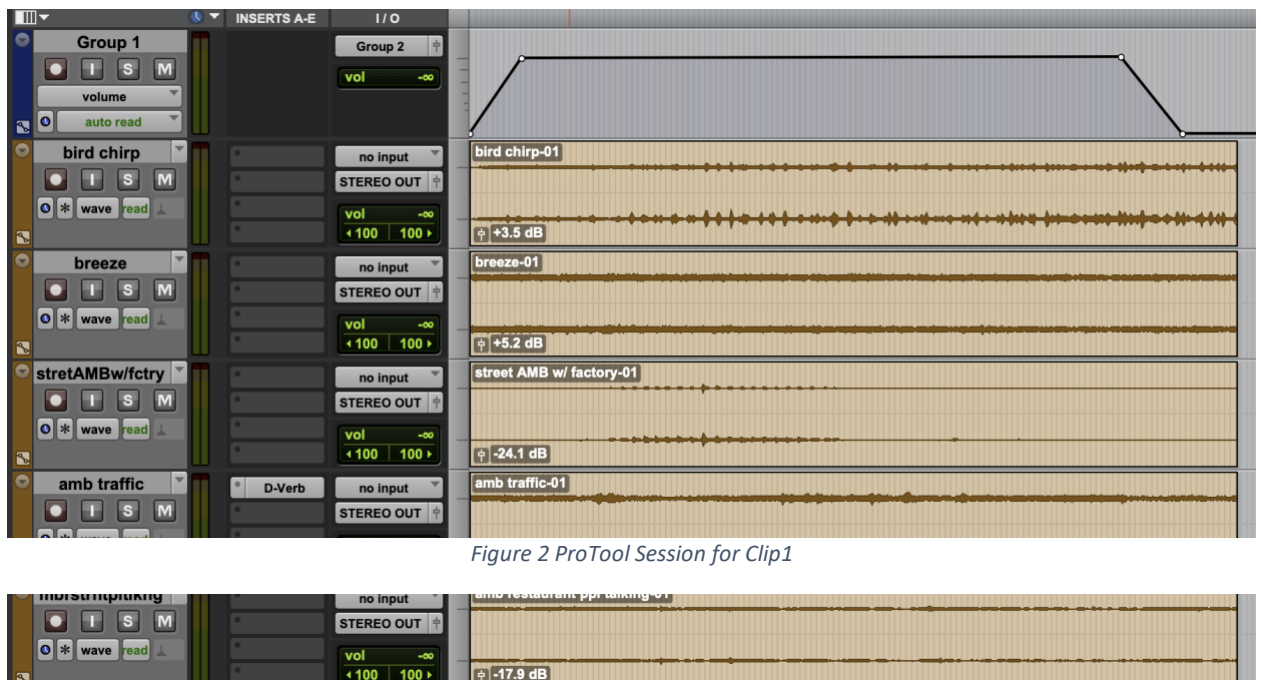

Figure 2 ProTool Session for Clip1

A slight amount of reverb is added to the "amb_traffic" track that consists of traffic ambience. This is intended to give the sound source more sense of distance so that it doesn't sound too overwhelming to the balance.

Figure 3 EQ for Clip2_traffic

Participants are asked to predict what time of the day they think the audio clip was recorded, whether it's a busy time and the reasons for that. They were also asked to compare the two clips to choose which one they think it quieter.

The second group of stimuli is consisted of two versions of a dialogue scene in the language of Korean. The design concept of this set of stimulis is to verify the researcher's proposal about how silence is critical in sparing space for the listeners. She mentioned in her literature review that when a movie / TV scene takes place in a very quiet situation, the viewers are always more inclined to think that the scene to be very important. And when they hear too many details at the same time, it makes them unable to focus on a particular element.
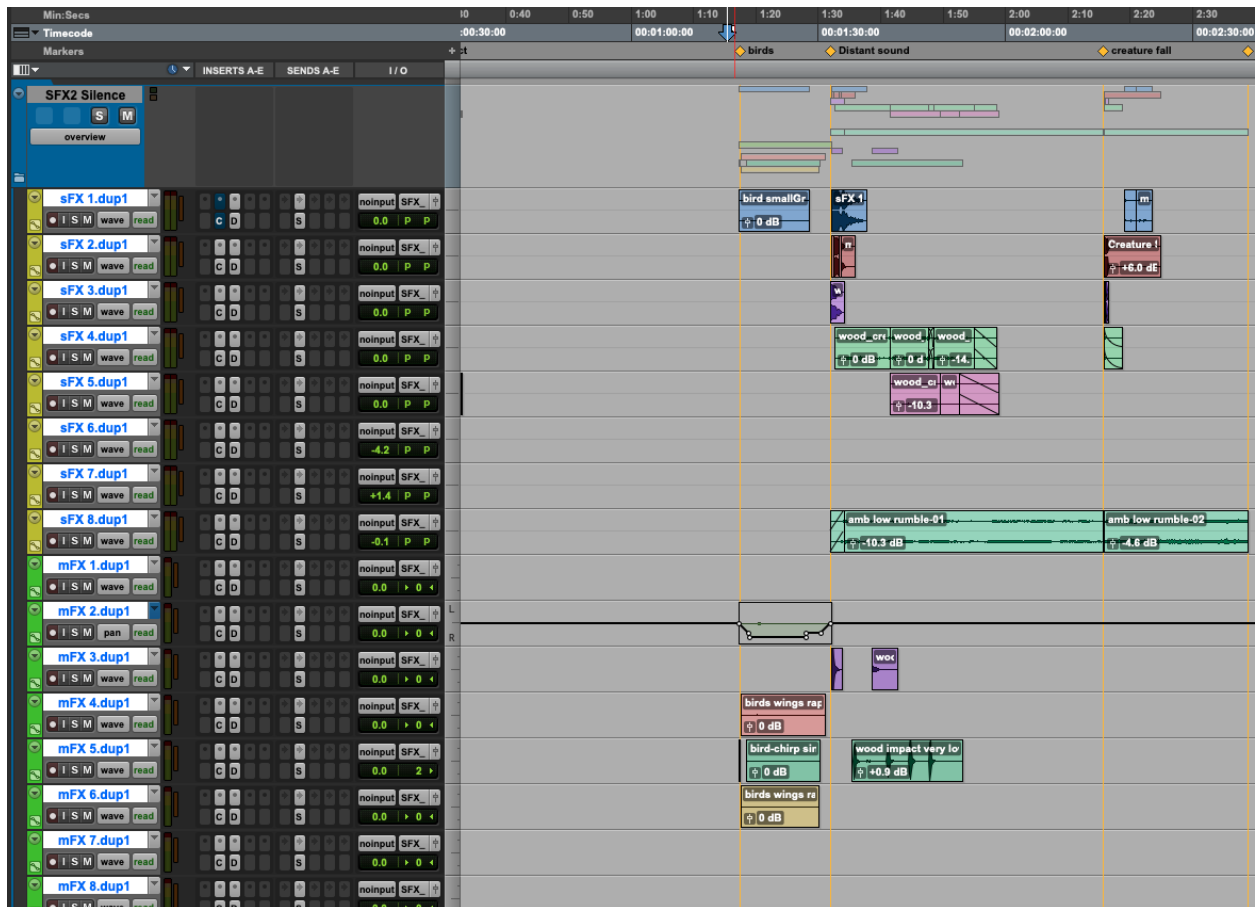
The researcher designed these audio clips initially with the idea of trying to use a language that most of the participants don't understand to avoid bias, and Korean was the most qualified language that she had access to at the moment. This conversation, intercepted from the Korean drama Reply 1988, is a daily chat with little emotion or importance.

There are two stimuli in this set of audio clips, and each participant will get to listen to one of them at random. With the same dialogue audio track on the top, the researcher puts in different elements as ambience to change the scene in which this dialogue takes place. First of all, in the first clip, she added the noisy restaurants and traffic ambiences, and also the people walla sounds. The dialogue, on the other hand, was deliberately slightly masked with ambience . She put very little ambience in the second audio clip, where the main components are distant bird chirping and the light wind breezing sounds. Therefore, listeners will tend to focus more on the conversation, even though they may not understand what it is about.

There are a few questions after each listening. Firstly the audiences were asked whether they understood the conversation since that will change their perception of the scene. Then the researcher asked the audiences to guess whether this dialogue had a plot-driving effect on the development of the film, that is, whether it was a very important dialogue. Also, she provided several options for them to guess what the scenario of this conversation would look like when it occurred. The options include "having a lunch and chit-chatting" (not important), "having a really important discussion that will change their lives" (important), "relaxing together and chilling" (not important), and "having a disagreement" (might be important).

The third group of stimuli is the researcher's re-design of a short clip from the movie A

Quiet Place. The clip she chose has two jumpscare places, and before each jumpscare occurs

there is a period of a fearful blank. During these two gaps, the main characters do not know what

they are about to face, but most likely deadly monsters. In all, it makes the clip a good material

to discuss her definition of "complete silence".

The researcher made two different sound design versions of the same video clip.

In the first clip, the audience didn't have drones to serve as a cue for the time. All they

could hear was the distant unknown creaking of wood, if any, and the rapid breathing of the main

characters.

And in the first clip, during the blank clip before the second jumpscare occurs, there are several rising drones in a continuous emotional mobilization. As the pitch rises and the end sound effect is exacerbated, the audience's heart slowly raises and has a probable prediction of when the jumpscare will occur.

After watching each version, the participants are asked to rate how scary they find the clip to be, and also which element they think makes the clip to be scary in the most effective way. After watching the second time, they are instead asked to rate from an objective perspective since they already had the anticipation of what is going to happen. They are also asked to

compare which version they find scarier, and which one is more effective in conveying

"unexpectedness" and in creating a sense of suspense or scariness.

The fourth group of stimuli is a video clip extracted from a factory documentary. In this

28-second clip that was intercepted, the visual content is a girl standing in front of a huge wind

box on the roof of a building, her hair and coat fluttering along with the fierce wind. The

segment was chosen because there is little to no visual variation in this segment. Also, since the

visual content is abstract, it leaves a lot of room for imagination. This group of stimuli will study

whether silence leaves a great deal of room for the audiences to use their imagination. The

researcher thinks that when the audience can't help but fill in the gaps with their own conjectures,

they are more likely to empathize with the emotion that the creator is trying to convey.

Similarly, she did two different sound designs for this same video clip. But the

participants will only see one of the two versions at random. In the first clip, the researcher didn't

employ much complex sound design. The main content is a few abstract and metaphysical

drones, as well as a shrill wind sound that caters to the visuals. At the same time, the participants

were told that this clip was taken from the end of an award-winning anti-war documentary. The purpose of this step is to make them subconsciously think that this piece may contain some hidden messages from the producer, thus they will try to use their own understanding to interpret it. As for the second clip, the researcher didn't tell the audience that it was from an anti-war documentary. Instead, she included a lot of war elements in the sound design, such as explosions, gunfire, helicopters, etc. This tells the audience in a very aural way that the story is set in a time of war. At the same time, the participants could hear very clearly that the designer (as well as the researcher) arranged the sound of a fighter jet coming closer and closer near the end. And when the fighter jets approach from a distance to close, the whole picture stops abruptly, leaving a lot of room for the audience's imagination.

After viewing, participants are expected to answer several questions about the emotions they felt from the clip. The first question was whether they perceived any emotion from the girl in the film, and the options included negative emotions such as "sadness, fear, desperation" and "I sense nothing". They were asked to rate the intensity of the perceived emotion and the degree of sympathy for the girl. In the end, the researcher also asked them to answer whether they thought the creators were trying to convey some hidden messages through this video.

At the very end of the survey, the participants were asked to provide whether there are any feedbacks that they want to share with tehe researcher.

3.5 Procedure

The survey was distributed online, and participants were expected to finish the survey individually in a relatively quiet environment with little to no interference possible. Any sound monitor system can be sued, but it's preferable that they would finish the survey using headphones for accuracy. The researcher also provided two test tones at the beginning of the study for the participants. The two test tones were designed to be the quietest and loudest volume of all of the stimuli, respectively. The purpose of this step was to give the participants an idea of the dynamic range of the experiment and to adjust the volume of their sound system accordingly. The survey was distributed through the Qualtrics platform and data collection will be performed through the platform's functionality.

3.6 Survey Distribution and Data Collection

After getting the IRB approval, the researcher first started sending from her own side and used different channels. These included but were not limited to private messages, group chats, discord sharing, etc. Also, she sought help from the NYU community. She shared the link to her experiment by contacting adjunct faculty Parichat (Pari) Songmuang and emailing it to all students who are studying Music Technology.

At the same time, she has also set up a reward mechanism. After all the data is collected, several participants who participated in the experiment will be randomly selected and will receive a reward in the form of a YouTube annual premium memberships or cash.

With the help of publicity and incentives, the researchers managed to collect 157 responses before the start of April, fulfilling the very first data expectations.

Chapter 4   Results

After collecting 157 responses, the researcher decided to stop the collection of responses from the general public and imported the final report provided by Qualtrics into SPSS 29 for data analysis.

4.1 Group 1

For the first group of stimuli, the researcher has collected the following output.

Group 1(the "loud" one): 19.8% of people chose early morning, 58.5% of people chose morning. 21.7% of participants chose noon, afternoon, evening, or night. 88.2% of the participants said they heard a lot of birds; 75.5% of them said they heard a lot of traffic; 88.2% of them said they heard construction noise; 91.2% said they heard a lot of people talking in the clip.

Group 2(the "quiet" one): 57.8% of people chose early morning, 22.9% of people chose morning. 19.3% of participants chose noon, afternoon, evening, or night. 98% of the participants said they heard a lot of birds; 80.2% of them said they didn't hear a lot of traffic; 71.3% of them said they didn't hear much construction noise; 69.3%% said they didn't hear a lot of people talking in the clip.

When looking at the two sets of data separately, it can be seen that the "loud" version was considered by the majority of participants to have been recorded during the "morning (8am-11am)". The "quiet" version, on the other hand, was considered to be recorded during "early morning (5am-8am)".

In the first clip, it can be seen that the researcher's move was successful, with almost 80% of the audience noticing the deliberately amplified noise of traffic and construction. Similarly, up to 98% of people in the second clip heard the crisp call of the bird (quiet element), yet only about 20-30% of the audience said they heard a lot of noisy elements.

When the audiences were asked which version sounded quieter, 85.3% of the answered participants chose the second version.

4.1.2 Discussion on Group 1

From the above data we can conclude that the definitions proposed by the experimenter for compared silence and complete silence are valid. As she mentioned in her previous article, even though the most common definition of silence is "the absence of sound," people almost never experience the complete disappearance of sound in their daily lives. Rather, people refer to "silence" more as a contrast of levels between different sounds. This idea was also successfully verified by this comparative experiment.

In the second audio clip, the experimenter amplifies sounds that generally go unnoticed in life: the sound of birds and the wind. These kinds of sound are easily reminiscent of a quiet valley and are only put into the sight of attention when there is no other noise around. With all sound elements identical and only the balance presented to the listener's ear differing, 85% of the experimenters thought that the picture presented in the second clip was quieter than the first one. This confirms that we may use the word "silence" to describe the moment when the smallest sounds in our daily lives become extremely easy to recognize.

4.2 Group 2

For the second group of stimuli, the researcher has gathered the following data.

Clip #1(the traffic scene): regarding to whether dialogue has a key role in driving the plot of the film, 8.1% of the participants strongly or somewhat disagreed, 56.8% neither agreed nor disagreed, 30.6% somewhat or strongly agreed. When asked to take a guess on what might be happening in the scene, 43.2% (highest score) of participants agreed that "characters are having a lunch and chit-chatting".

Clip #2(the casual scene): regarding to whether dialogue has a key role in driving the plot of the film, 14.7% of the participants strongly or somewhat disagreed, 44.1% neither agreed nor disagreed, 41.2% somewhat or strongly agreed. When asked to take a guess on what might be happening in the scene, 52.9% (highest score) of participants agreed that "characters are having a disagreement".

The first clip was designed to be in a traffic-heavy place. Only 35.1% of people somewhat or strongly agreed that the dialogue has a key role in driving the plot of the film, and 43.2% think the characters are having a lunch and chit-chatting. The second clip was designed to be in a casual chatting scenario, with 41.2% of participants somewhat or strongly agreed that the dialogue has a key role in driving the plot of the film, and 52.9% think the characters are having an agreement.

When looking at participants' rating on how important they found the dialogues to be, the second clip has an average rating of 3.76, and the first clip has 3.23.

4.2.2 Discussion on Group 2

In designing this set of experiments, the researcher wanted to explore the question of whether the level of quiet around the environment affects people's perception of conversation. She suggested that especially in movies and television, when the surroundings are quieter, the more viewers will feel that what is happening on screen is more important and more worthy of attention. This set of experiments also better corroborates her idea.

In the first audio clip, a large part of what the audience hears is the sound of noisy restaurants, people, and traffic in the background. Such noisy scenes usually occur when the plot does not have many ups and downs, because the audience's attention will be divided by other different factors. That's why 43% of people think this scene was just characters having lunch and chitchatting, with an average rating of 3.2 on its importance. The background sounds in the second scene are much quieter than in the first, with only a few bird sounds and room tones noticeable; this design allows the listeners to focus more on the dialogue itself. Correspondingly, the average rating on importance (3.76) of this clip is significantly higher than that of the first traffic clip. Meanwhile, in designing the experiment, the researcher categorized several answers to the first question (Can you take a guess on what might be happening in the scene?). Among them, "having a lunch and chit-chatting", "relaxing together and chilling" two options were considered unimportant. The other two, "having a really important discussion that will change their lives" and "having a disagreement" were considered to be more important. And as we can see through the data analysis, for the first clip, most of the participants imagined the scene to be rather uneventful and would not be regarded as an important scene. They might not even have paid much attention to what tone the characters were using. The listeners of the second audio, on

the other hand, felt the importance of the conversation through the quiet surroundings and guessed that the characters were probably having a disagreement based on their tone.

Such results also validate the experiment designer's vision. When the overall sound around is quiet, people pay closer attention to what is happening on stage, in this case the dialogue that is happening. Thus, even though it was a language they did not understand at all, they were able to perceive the unpleasantness in the characters' tone more delicately and gave their judgment accordingly.

4.3 Group 3

For the third group of stimuli, the researcher has gathered the following data.

55.7% of the participants found that the first version (with dead silence) is scarier than the second version (with drone buildup); 44.3% of them found that the first one (with dead silence) is more effective in conveying "unexpectedness" than the second one; and 48.9% of the participants agreed that second version did a better job at creating a sense of suspense/scariness than the first version.

4.3.2 Group 3 Discussion

Through a simple analysis we can see that most viewers think that the second clip (with drone) is better than the first in expressing suspense and horror, but the first did a better job in presenting unexpectedness, which is one of the most important elements in all movies.

The researcher believes that this phenomenon is quite normal and expected. The constant drone-buildup in the second clip keeps the listener in a constant state of emotional tension, and the nervousness gradually increases as the pitch rises. This is also the most common means in

many horror films, before the climax jump-scare occurs, with this non-stop rising tone to raise the tension of the audience, so as to better achieve the purpose of creating the sense of suspense.

As the experimenter suggested earlier in the article, complete silence is generally used mostly in contrast to strong impact. In the first version of the video, she included a long segment of complete silence before racoon jumps scare on the audience. this segment of silence left the audience out of speculation and judgment about what was about to happen, causing them to be left hanging in mid-air emotionally. Without the help of drone, they could not anticipate what would happen at what time, which also increased the impact of the jump scare to some extent.

When the participants were asked which element(s) they thought better helped establish the horror of the film, one of them commented as follows:

"Too much of sound design is not that effective for this particular film. The one thing about the first film scared me more than this one was the racoon scene. In the previous clip, there's not too much of a buildup for when he looks out of the window. [The second clip] has a[n] exaggerated buildup and that's what took me out of the scene. I believe the best way to build suspense for this particular film is by making good use of the quietness in the film. The more minimal the sound design is, the more audience is kept in a realm of suspense as the audience starts anticipating things by themselves, which makes it more effective."

------Anonymous

This participant's comment coincided with the experimenter's belief. In the use of film sound, especially when some of the larger climactic impact part occurs, often through a strong contrast can play a better effect of influence. And the experimental results have just verified this idea. 55.7% of the experimenters said the first clip was scarier than the second.

4.2.2 Group 3 Limitation

However, the experimenter must acknowledge that there is a possibility of bias in this experimental data. This is because the participants saw the first and second versions in a chronological order. Whether participants had seen the movie before or not, the impact and novelty of watching the video for the first time would inevitably be stronger. Some people in the comments section also suggested that because they had already seen it once and were prepared for the shock, they could not help but relax a little and feel less frightened when they watched it again the second time.

Therefore, in future in-depth studies, experiment designers can avoid this bias by :

1. selecting two different but identical video clips and designing the sound for each of the two clips

2. having participants watch one of the two versions randomly but making sure that the sample size is large enough to avoid the other bias.
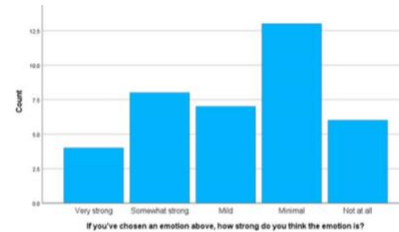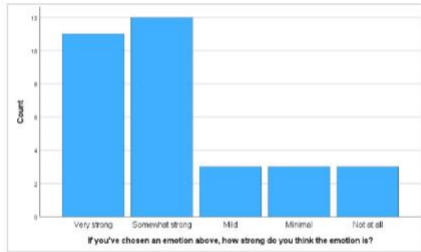
With these two methods, it should be possible to reduce the sense of familiarity due to expectation and thus better collect their sensory evaluations.

4.4 Group 4

For the last group of stimuli, the researcher has gathered the following data.

The average score of participants feeling sympathetic toward the characters are: 4.08 for clip 1, and 3.35 for clip 2.

About 71.9% of the participants very or somewhat strongly felt the emotion that they sensed from the first clip (titled as an anti-war documentary), and only 31.6% very or somewhat strongly felt the emotion that they sensed from the second clip (included a lot of war sound elements).

4.4.2 Group 4 Discussion

From these data, it is easy to see that the viewers felt stronger emotions for the girl in the first video and were moved by her. In the first video, the designer did not include specifics in the sound design, but instead were all about vague and abstract sound effects, such as drones, etc. It was only when the participants learned that the video was intercepted at the end of an award-winning anti-war documentary that it was natural to assume that the video might contain some special meaning. Although it can't be called over-interpretation, when people start to use their imagination to fill in the gaps they don't understand, they can often interpret some profound and inexplicable messages. The experimental designer also mentioned in the previous article that the appropriate amount of silence is a good tool to stimulate the audience's imagination. When

viewers put their own imagination and emotions into a work, they will more easily resonate with it.

The second version, on the other hand, does not introduce much about the work itself, leading the audience to be unsure of what they should expect. In the feedback, almost all participants speculated that the video might be promoting anti-war because they heard elements belonging to war (guns, explosions, soldiers, etc.). However, the presence of too many elements in sonic world led them to shift their focus to the events that might have happened at that time, rather than the emotions that the author wanted to express. This was also reflected in the data, as participants who watched the second clip only scored an average of 3.35 for their sympathy toward the character. And when it came to how strong their feelings were, they were more inclined to answer "mild, minimal, and not at all", with only 31.6% answering "very strong" and "somewhat strong".

Chapter 5 Conclusion

The main purpose of this study is to verify the definition and usage proposed by the researcher for silence as a sound element, being used in audio production for film and TV. To corroborate her ideas, the researcher reviewed what other scholars have said in this area. This included not only the use of silence in film, but also the role of silence as a concept in other fields. Also, by designing the experiment and collecting the data, the researcher could so summarize her results of this experiment.

Silence not only is "absence of sound" as the dictionary defines it, but it is also a sensation created by the contrast of several different sounds in a sonic environment. So, silence could be divided into two categories, complete silence and compared silence. These two categories both have a very important role and function in the field of sound design for film/tv. Complete silence, as in complete absence of sound, is often used as a tool for contrasting before a huge impact, to give the audience a better sense of impact. Compared silence can be defined as a sensory result produced by comparing and contrasting.

There are many ways to use compared silence in audio production. The first is to spare space, and to facilitate communication, by making the surroundings quiet and directing the audience's focus and attention to where the producer wants it to be. Secondly, it can also play the role of triggering imagination. When people have certain expectations of a piece, but find that the place is deliberately left blank, they can't help but substitute their own understanding and imagination of the place into it. When people have their own emotions and understanding of a thing, they will have a strong empathy and be moved by it.

If loud booms and cacophony are suitable for sensory impact and shocking, the properly used silence is a very good and delicate means of emotional communication with the audience.

Chapter 6 Limitation and Future Work

Limitation on Definition

The ideas and experiments in this study are all based on the author's own definition and understanding of silence. The authors are not sure whether people can clearly perceive that there is no such thing as complete absence of sound around them. In future research, scholars can investigate this through experiments and argument formulation.

Abstract Idea of Compared Silence

In future research, the author would like to explore in depth whether there is a clear cognitive difference between quietness and her proposed compared silence.

Annotated Bibliography

Altman, R. (1996). The Silence of the Silents. In The Musical Quarterly (pp. 648–718). essay, Oxford Univ. Press.

This is a very detailed discussion about the roles of silence in the early silent movies. This article describes in great detail the history and passage of the development of silent movies to silent orchestra movies. Also, the author emphasizes the importance and necessity of the orchestra soundtrack that must be included in early silent films. This idea is very similar to one of the arguments in my dissertation: if there is inappropriate or excessively long dead silence in a movie, it will take the audience out of the movie.

Arlow, J. (2012). Silence and The Theory of Techniques. SAGE Publication.

This article describes how silence plays a role in the field of psychoanalytic. The article focuses on how the absence of silence as a voice helps analysts to build trust and understanding with patients. This helped my discussion about silence in the movie very much because it tells how it is possible to connect and relate to each other even when verbal deficiencies are present.

Balazs, B. (2002). Theory of the Film: Sound.

This article talks about how important sound and silence are, and also what role they are playing in a film. Its key fining being the irreplaceable characteristics of the aural factors in a film piece. This is very crucial to be included in my thesis because I will be mainly talk

about how important it is to pay attention to sound elements and also to tell a story with the use of sound and silence.

Dakic, V. (n.d.). Sound Design for Film and Television (thesis).

This article provides a very detailed introduction to sound in film. It also introduces and gives examples of each sound category separately. This was very helpful in prepping my dissertation, as I also needed a very detailed pre-thesis on the role and contribution of different kinds of sound to a film production.

Finan, K. (2017, July 20). The history of sound design. Boom Box Post. Retrieved April 1, 2022, from https://www.boomboxpost.com/blog/2017/7/16/the-history-of-sound-design

This online article brings the reader a very detailed introduction to the history of sound design. From the beginning of silent movies to the present fully developed high technology of sound in the film industry. This article was very helpful for my thesis because it made me understand that people don't care about sound design at the beginning. This led me to think more deeply about sound design.

Gray, R. (2017, May 28). Inside the quietest place on EarthR. BBC Future. Retrieved April 1, 2022, from https://www.bbc.com/future/article/20170526-inside-the-quietest-place-on-earth

This article describes a special room located in microsoft in which almost all sounds are amplified infinitely. Because of its special construction, it can be called the world's quietest room. Here visitors can feel the auditory experience never experienced before. This article

is a very good corollary to my argument that human senses of volume are influenced by the contrast of the environment.

Harriott, M. (2021, July 8). Silence and why it's important in film. Entertainment Creative Group. Retrieved April 19, 2022, from https://www.ecgprod.com/silence-and-why-its-important-in-film

This article introduces the important role that SILENCE plays in a film production in three different categories: emotional impact, creating deeper immersion, and creating intrigue. This gave me an enlightening introduction to the classification of silence and helped me to sort out the definition of silence in my mind.

Krasinski, J. (2018). Sound and Fear. In A Quiet Place (pp. 13–15). essay, John Krasinski.

This is the production note of the movie a quiet place, which has a very detailed introduction of the director, author and sound designer for the production of this movie. It also gave me a lot of inside perspectives on the whole film and their production ideas. It also gave me a lot of insight into their subtle sound concepts and added a lot of perspective to my own analysis of silence.

Lessons from Screen Play, Aadahl, E., & Ryn, E. V. der. (n.d.). A Quiet Place — How to Write Sound into a Screenplay. other. Retrieved April 1, 2022, from https://www.youtube.com/watch?v=T-s81-Wl2v0&t=10s.

This is a record of a close conversation with the sound designer and mixer of the movie a quiet place. I got a lot of ideas and insights from the professionals in it, and it made my understanding of silence go to the next level.

Notice of Proposed Rulemaking (2015).

This is the official definition given by the federal government for audio description, and the reason I included it in the article is that it gives my readers a very clear explanation of AD.

Redon, O. (n.d.). Odilon Redon's the art of silence: Art feature: Spirituality & practice. Odilon Redon's The Art of Silence | Art Feature. Retrieved April 20, 2022, from https://www.spiritualityandpractice.com/arts/features/view/28366/odilon-redons-the-art-of-silence

This essay is about painter Odilon Redon's interpretation of his art form and his idea of leaving room for the reader to interpret it.

Ross, A. (2010). Searching for Silence. The New Yorker.

This article is about John Cage and his idea that art should be felt in silence. This has also inspired my subsequent research on silence, making me understand that there is no absolute silence in the world, and that every small sound can become a very meaningful piece of artwork.

Orero, P. (n.d.). Audio describing silence: Lost for words. New Points of View on Audiovisual Translation and Media Accessibility. https://doi.org/10.13140/RG.2.1.5106.8881

This article explains silence and its role from the perspective of audio description. It's a perspective I've never thought about because it's not relevant to my life. This article brings a lot of new perspectives and interpretations to my thesis.

QuickClass. (2017, September 25). The power of quiet – silence in Filmmaking. Quickclass. Retrieved April 19, 2022, from https://www.quickclass.net/2017/09/25/power-quiet-silence-filmmaking/

This article briefly gives the definition of silence in their minds and the recognition of its importance. It also gave me a lot of unique insights about silence, which played a very important role in supporting my discussion of silence.

Soundsnap. (2021, May 6). Why filmmakers use silence. Soundsnap Blog. Retrieved April 19, 2022, from https://www.soundsnap.com/blog/why-filmmakers-use-silence/

This article divided the role of silence in film works into several categories and provided film and television works for each category to do supporting material. This is very helpful to me in choosing film clip for my future experimental design and has saved a lot of time in selecting films.