

Film Music

About Music

Music differs in many ways from other forms of expression. A text or an image (to choose two examples) can point to something in reality. The word “dog” or an image of a dog refers directly to the real animal dog. But music cannot directly refer to something outside itself; music lacks reference.

Because music is so open and does not refer directly to something outside itself, it provides great freedom to insert personal (subjective) and culturally determined (intersubjective) associations. Music does not depict something, but it gives rise to mental images.

However, it is not entirely true that music completely lacks reference. A note on a piano must reasonably be able to point to the object piano, in the same way that the word “piano” does. From a social or cultural perspective, considering social classes, music genres, age differences, and social status, the boundary for reference becomes increasingly difficult to draw. Moreover, there are forms of music that can give rise to associations that are so well-known and generally accepted (intersubjective) that they can almost be said to be references.

We interpret the messages or meanings (associations) of a piece of music based on our culture. The meaning is not only in the musical movements, but we ourselves add it. The summer hymn “Den blomstertid nu kommer” does not evoke the same feelings in England as it does in Sweden. If another form of expression with the same cultural meaning is added, our understanding of the music increases.

Pierce, a philosopher and logician, developed a theory of signs, where the concept of a sign can have three different levels of how a sign relates to the object it denotes (the reference). The first level is the icon. An icon must have a resemblance to the object. A map is an icon of the area that the map shows, a photograph is an icon of the person depicted on the card, and the image showing that you have parked in a handicapped space is an icon. The second level is an index. An index must have a direct connection, which is regular, to the object. No index can exist without an object. Smoke is an index of fire. Sneezing, hay fever, and watery eyes are (in summer) an index of pollen allergy. The third level is the symbol. A symbol is connected to its object through a convention, an agreement, or a law. A word is usually a symbol. A number is a symbol, because there is no reason for the shape of the number 2 to refer to a pair of objects; it is only through convention and rules in our culture that it does.

If the concept of a sign in Pierce’s theory is replaced by music, a result is obtained that is interesting to consider in the discussion of reference and association. Beethoven’s Pastoral Symphony contains musical icons for natural sounds. Thus, sounds made on instruments can be icons of natural sounds, such as birdsong or thunder. A note on a piano is an index of a piano. In other words, no piano note without a piano. “Den blomstertid nu kommer” is an index for school graduation and summer vacation. Different music styles are also indexes for different groups, e.g., metalheads or punks. The title music for a TV or radio program is an example of music as a symbol.

After this review, it becomes even more difficult to say that music lacks reference, that music does not refer to something outside itself. For music can refer to something outside itself both iconically, indexically, and symbolically.

Music lacks a simple and clear systematic, intersubjectively valid semantics. Despite this, music speaks directly and unmediated to us. Music has a bodily appeal; one can also call it the psychoacoustics of music. The rhythm in music can make the listener tap the beat or start to dance, or it can make the listener slow down and relax. A crescendo is registered in the body as well as in the ears, and bright and dark tones can be felt just as well as they are heard. The movements of music can be experienced as different directions, peaks, rises, or falls. Different rhythms are associated with movements and repetitions in nature, the mother's heartbeat during pregnancy, or society's various functions.

In the 1800s, Helmholtz and Fechner attempted to use physics, physiology, and aesthetics to understand the basic elements of music. They measured the body's reactions to pitch, rhythm, tempo, and timbre. Today, physiologists measure reactions in the autonomic nervous system and brainwaves, for example with EEG. Many have attempted to answer why music evokes emotions and certain moods in humans. Plato believed that music reaches into the human being if they have an intellectual ability to perceive the musical structure. Aristotle wrote that rhythm and melody create imitations of emotions such as joy, anger, and fear. Many music theorists have built upon the ancient Greeks' notion that music can create imitations, and only imitations, but never true emotions.

James Harris, an aesthete from the mid-1700s, believed that music, through movement and sound, could imitate emotions, phenomena in nature (such as wind and rain), and animals (for example, singing birds). Other aestheticians argue that Plato and Aristotle have been translated incorrectly. They claim that music does not imitate but represents emotions, etc., and that this was the perspective of the ancient Greeks.

The distinction between imitation and representation is interesting to study more closely. If music imitates something, the music resembles it. Then it is a question of an icon. If music represents something, the music is a symbol for it. An icon is easier for multiple people to understand. A symbol requires that all listeners share the same convention if everyone is to understand the music in the same way. The experience or understanding of an icon is closer to the emotional, while the experience of a symbol is more cognitive. Compare this to music evoking emotions. The concept of "evoke" lies outside Pierce's theory of signs. If music evokes a feeling of sadness, the listener becomes sad. The cinema audience does not experience an imitation of sadness nor a symbol of sadness, but the audience becomes sad. Can music evoke emotions in the audience, or only imitate or represent? Some argue that music cannot evoke emotions, but that it is a matter of social, cultural, and learned phenomena in humans.

That music can refer to something outside itself, we have seen above, but how and why humans experience it this way has been attempted to be answered by, among others, the structuralist Claude Lévi-Strauss. He considered music to be a myth built from sounds instead of words. Music created only an illusion of well-being and a belief that everything will be fine. Freudians argue that there are similarities between the musical structure and how the human subconscious operates. Others (some sociologists and

group psychologists) argue that human reactions to music can be explained from a cultural perspective. They claim that music is a very important linking part of a group identity, and that humans therefore react differently to different pieces of music.

Psychoanalytic theory sees the human strong experience of music as directly linked back to the child's first developmental stage, when it lacks language but still wants to express feelings.

The aesthetics of music have had, and still have, many disagreements, as we have seen above. It is interesting to illuminate one of them more closely: Where is the meaning (message or significance) in music? Is it intramusical or extramusical (referential)?

By intramusical meaning is meant when music evokes emotions by breaking the musical norms that exist for the listener. A short melody makes the listener expect a certain continuation, typical for their cultural affiliation or musical style. For the music to elicit any response, the audience must be competent listeners. That is: if the audience does not understand the music, they do not understand it when the music breaks the norms, which leads to no emotional response. Extramusical meaning does not require as much musical knowledge as intramusical meaning.

By extramusical meaning is meant when music evokes associations or images, that is, indexes or icons, which create feelings in the listener. But extramusical meaning can also give rise to emotions without going via associations, through the listener becoming aware of how the music feels in relation to their own emotional experience.

Intramusical or extramusical meaning does not need to exist separately; they can occur together and then influence each other.

From the above, we can draw the following conclusion: To understand the message of music, the listener must be socialized into the same society and culture as the composer, even though there are physiological bonds that extend across cultural and social barriers.

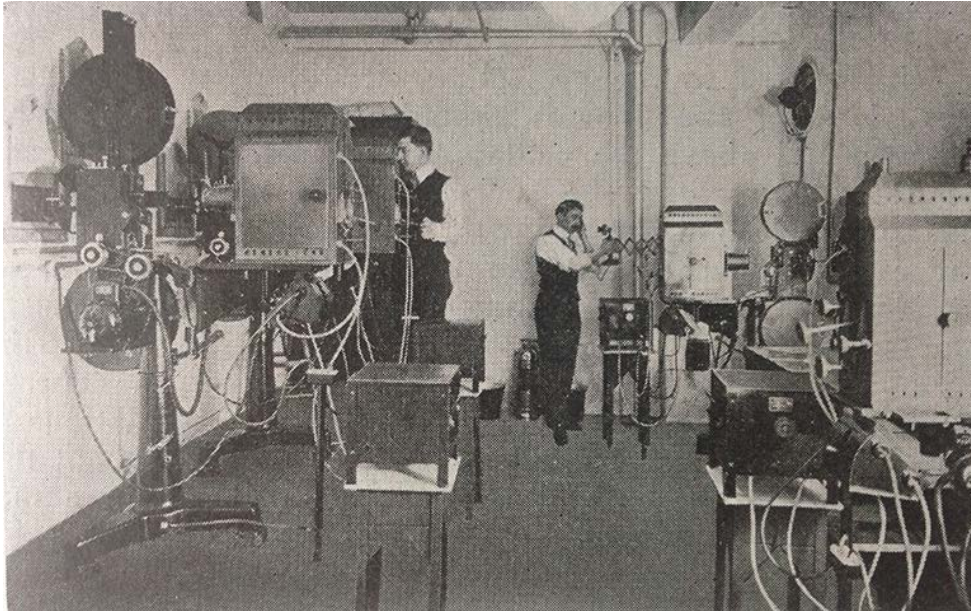
That some form of musical semantics exists, even if it is not clear and universal, can be inferred from the above reasoning. What is important is that composers know what code competence the audience has and what opportunity the cinema audience has to understand what the music points out (imitates or represents) and its emotive meaning.

The development of film music

Today's film has developed from the silent film and, before that, from photography. In silent films, music was used to create atmosphere and mood, and to draw the audience's attention to particular details. In antiquity, music was used in the production of dramas. Shakespeare used music in the performance of his plays, and opera has held a strong cultural position. Tradition can thus be seen as a reason why silent films were shown accompanied by music. Furthermore, the film projector made a lot of noise, which was partly masked by the music, played either by a pianist or an orchestra. Music filled the void created by the fact that the actors' dialogues could not be reproduced in sound. In addition, music filled the flatness that the two-dimensional cinema screen presented, since music exists in three dimensions.

Even though the film projector was in another room, it made a lot of noise. By having a pianist play music, the attention of the cinema visitors was diverted from the noise.

According to a legend or myth, a failed concert pianist playing at a rural cinema began to immerse himself in the action, and started to improvise and change the tempo of the music depending on the action in the film. The music began to depict the film. This made the film feel more lively and exciting, and the cinema attracted larger and larger audiences. Eventually, filmmakers in Hollywood heard about the rural cinema that drew such crowds, and they traveled there to see why. Once there, they too were enchanted by the music, and after this, music began to be specially composed for films.



Music came to be used much as it is today. Music was used to show different historical periods and to place the action geographically. Finally, music was used to create continuity and tempo in the cuts and to create a sense of movement on the cinema screen. Initially, ordinary pianos were used, but over time enormous cinema organs were developed that, in addition to regular organ pipes, also included sound effects for thunder, gunshots, wind, etc.



When sound film then arrived at the end of the 1920s, much of the background music fell silent. Technical development had not yet progressed far enough for synchronized sound (dialogue, etc.) and background music to be mixed together. Instead, music was used between scenes with dialogue. But during the first half of the 1930s, technology developed so that background music could exist together with dialogue, and much of the silent film music returned.



The Jazz Singer from 1927 is considered one of the first sound films.

Most film music exists in the background and is perceived unconsciously by the audience. Because the music is experienced unconsciously, the audience is most receptive to manipulation. Image, sound effects, dialogue, and music are difficult to distinguish during the viewing itself. It is what happens, moves, or is said that the audience pays attention to.

Music makes the viewer less critical and more attentive. Music helps the audience understand what images and dialogue attempt to explain. In addition, music conceals the technical construction of the film and creates continuity. Music (and sound effects) directs the audience's attention to various details, a process referred to as auditory focusing. But at the same time, music can refer to the atmosphere or an acoustic landscape. In that case, music shows things, movements, and events that occur off-screen, but which contribute to the feeling of reality and grandeur for the audience.

Types of film music

Dramatic underscore

Dramatic underscore is the classical film music. The film music that exists in the background and enhances the impression of the film. Whether it is a symphony orchestra playing when the heroes die of hunger in the desert, or the up-tempo music during a car chase.



The Third Man (1949), Ben-Hur (1959), and The Grand Budapest Hotel (2014) are three films that all contain classical film music, so-called dramatic underscore. However, the music in The Third Man is slightly more interesting in its choice of instrument—the zither—compared to the other two films.

Pop music

Some films use pop music as film music. Either in the form of already well-known pop music, such as Roy Orbison’s song Pretty Woman (1964), which was used in the film Pretty Woman (1990), or where pop music in the film later became a well-known hit.



Good Morning Vietnam (1987), Saturday Night Fever (1977), and The Fault in Our Stars (2014) are examples of films in which pop music is used.

Source music

Source music is music that comes from within the film and is part of the action. Good Morning Vietnam and Saturday Night Fever are therefore also examples of source music. Since the music is part of the action, the characters hear the music.



The band rehearsals and recordings in Begin Again (2013), the piano music in the background in the diner in Pulp Fiction (1994), and Jerry Maguire (1996), where Tom Cruise sings in the car to the car stereo, are some examples of source music.

Music as a narrative tool and as part of the story

Within film, different forms of music are used: diegetic, non-diegetic, and metadiegetic music. Diegetic music refers directly to something in the film. A tape recorder being turned on, or music from an orchestra in a concert scene. Diegetic music is primarily used as sound and sound effects. Non-diegetic music is the music that exists in the background, the “inaudible” and influencing film music. Finally, there is the somewhat rarer (and above all harder to explain) metadiegetic music. Metadiegetic music belongs to the film through another narrator.

An example may be appropriate to explain more clearly. At the beginning of a film, a warm love scene is depicted between person A and a beautiful girl. At their meetings, a particular song is played. The love story ends unhappily, and many years later, person A and his best friend B meet at a café. B mentions the name of A's lost love. A sits still and looks thoughtful, and the music that existed in the scene with A and the girl comes. That the music is not diegetic is easy to understand, because there is no symphony orchestra at the café. The music is both non-diegetic and metadiegetic. It is metadiegetic because person A takes over the action, and we understand the action thanks to his "musical thoughts."

Diegetic music can be very effective when it comes to expressing irony. A murder scene or a tragic love story in a nightclub, with a band playing cheerful music, gives the scene an irony that feels more natural than if the music had been non-diegetic. Music, which is diegetic and feels as if it comes spontaneously, is just as planned and calculated for its purpose as non-diegetic music.

Diegetic thus means that the music is part of the action and that the characters in the film also hear the music. Film music is often referred to as on or off. If the music is on, the source of the music is visible in the frame, for example if we film a radio, the music is then also diegetic. If we pan away from the radio, the music is off, but still diegetic.



In Woody Allen's film Bananas (1971), Allen plays with the distinction between diegetic and non-diegetic music on a meta level, as the typical film music, dramatic underscore, turns out to be a person practicing their harp in the wardrobe of the hotel room where the action takes place.

Principles of Film Music

The following seven principles can be seen as applying when composing, mixing, and editing (or cutting) for classical film music: Invisibility: The symphony orchestra does not need to be visible on screen when using non-diegetic music. Inaudibility: Film music should not be heard consciously. The image and dialogue are the most important in film. Carrier of emotions: Special moods and feelings are depicted and reinforced in the music. Narrative clues: Narrative: The music indicates perspective and establishes environments and characters. Connotative: The music interprets and illustrates events in the film. Continuity: The music fills gaps and builds a rhythmic continuity between

cuts and scenes. Cohesion: By repeating and varying, the music reinforces the film's structure and cohesion. It is possible to break any of the above points, but only if it is to the advantage of another point.

The Role of Film Music

Film music can enhance or change the mood in a scene, all according to the director's wishes. Film music has two ways in which it relates to the film's action (the narration), either it resembles a scene in the film or it does not. If the music resembles a scene, e.g., an image of a sleeping person, the music should be calm or peaceful. The audience would perceive that scene as harmonious. If the music were violent, the music would not resemble the scene, and the audience would get the impression that the sleeping person was having nightmares.

Film music also creates continuity, between cuts and between scenes, and creates expectations of what will happen in the next cut or in the next scene. Furthermore, the music marks and signals important things, guides the eye, and focuses on selected details.



When the Prototype Series 1000 Terminator “melts” back together into a complete robot in Terminator 2 (1991), the movements are highlighted by the music.

The music also clarifies movements, etc., in the image (with the extreme point being Mickey Mousing) and defines the physical environment. Furthermore, it places the action in space, and this is easiest with diegetic music because it is part of the action.



In Star Wars (1977), inside Mos Eisley Cantina, the music is diegetic, partly off (as on the left) and partly on (as on the right), thus placing the action within the space—bar counter versus stage, and so on.

Moreover, music can place the action geographically and in a certain historical period, although this may require slightly higher code competence from the audience in order for them to understand.



In the film *Minority Report* (2002), Peter Stormare plays a slightly suspicious Swedish doctor. He is assisted by a Swedish nurse who hums the song *Små grodorna* while they replace the protagonist's eyes.

Music also depicts the characters. In film music, themes are often used to, for example, present characters or different locations. This is a legacy from Wagner's "Leitmotifs" from the mid-19th century. A theme can have different meanings in different contexts, or mean the same thing but for different characters. Different arrangements or nuances can give the theme different significance. A motif is a theme that is always unchanged and always relates to the same thing. Title music is an important part of film (also in TV and radio). Title music has three functions: reveille (reveille = wake-up signal in the morning for troops; the title music should therefore awaken the audience), influential preparation (the title music should create the right mood for the audience before the film), and mnemonic identification (the title music should facilitate identification with and remembrance of the characters in the film).



The shark in *Jaws* (1975) and Superman in *Superman* (1978) both have distinct leitmotifs (written by John Williams). The shark's leitmotif is built from two notes (a minor second apart), while Superman's leitmotif begins with two notes (a perfect fifth apart). Apart from the octave, the perfect fifth is the interval that sounds most pleasing to our Western-trained ears, while the minor second sounds the least pleasant. Thus, the hero has the leitmotif that sounds best, while the monster has the one that sounds worst.

Finally, music can describe things that are not visible on screen, both by changing the experience of the film space, as previously noted, but also through associations that the music gives rise to.



Another example comes from the film *M* (1939), where the murderer whistles Grieg's *In the Hall of the Mountain King* while committing a murder. Because this has been established earlier in the film, it is not necessary to show every murder; a shadow following a child is enough, followed by the whistling.

Some Film Musical Techniques

Good film music adapts its performance and its volume to the film, to the scene and the image (or, more precisely, to the director's intentions). This can be illustrated with the following scene from *Stagecoach*. In the scene, we see a stagecoach going up a hill. The music accompanies this by gradually slowing down. The uphill climb is tonally reinforced by trumpets playing an ascending melody. When the stagecoach has reached the top and is on its way down the other side, the music's tempo increases and the melody moves downward.



In *Stagecoach* (1939), *The Stagecoach*, the music reinforces the impression of the coach slowing down as it goes uphill and speeding up as it goes downhill.

A musical piece at a lively tempo without harmonic or rhythmic surprises creates a sense of machinery and mechanics. If a piece's key is changed from major to minor, the piece acquires a more sorrowful, dark, and distant character. If the key is changed back to major and the tempo increased, the effect is a more energetic and optimistic piece. By changing instruments, new variants of the same piece are offered. The timbre of the music is built up from different instruments, and the timbre is important for placing the music geographically or historically. If the piece is performed on a church organ, it has a different character than if performed on a tuba or a bagpipe. The articulation of the piece (accents and phrases) can also be changed, creating new variations.

Silence, i.e., the absence of music, is another useful way to draw attention to something or to convey a feeling. For example, in Hitchcock's *Psycho* when Stella sneaks up to the house to search for Mrs. Bates. Tension-filled music, climbing scales in dark tones (double bass and cello) and light tones descending (violin), accompanies her until she opens the door and goes inside. Then it becomes silent. We (the audience) can almost hear her heart beating, the wind whistling outside, and the sounds of the old house. But we do not actually hear them; it is the contrast between the music and the silence that creates the illusion. One almost holds one's breath in order not to disturb...

A good way to provoke reactions from the audience is to break expectations. There are usually three possibilities for deviations from the expected continuation of a musical piece: 1) The normal, most probable musical progression is set aside; 2) the tonal development is ambiguous, and several equally probable outcomes are presented; and 3) the tonal consequence produces an unexpected shock effect. To make it possible to provoke a reaction from a listener, he or she must have an understanding and expectation of how a piece will continue. The reaction may fail if the audience has a different musical tradition than the composer. Large differences in volume and tempo create greater effects on the audience. The same applies to notes; an octave jump can be highly emotionally charged.

The doctrine of the affects in the 18th century has meant, and still means today, a lot in composing music. Among other things, followers of the doctrine of the affects believed that C major represented the martial (the warlike), close to E-flat major's heroic character, F major was considered the key of spring, while C minor represented the tragic. Therefore, Beethoven wrote the Fate Symphony in C minor and the Pastoral Symphony in F major. Furthermore, small intervals were thought to express pain; the minor third was perceived as tender or bitter, the major third as happy, while the tritone was terrifying.

Listening to, and understanding, music in this way requires high code competence, and even if composers today do not think like 18th-century composers, they are still influenced through heritage and schooling rooted in 18th-century, and earlier, music.

Non-diegetic music becomes more inaudible the larger the orchestra performing it. This is because a larger orchestra has more timbre (more different instruments) and a "larger" sound, which gives a greater possibility to translate music and sound into subconscious influence. A piece performed by electronic instruments has an even greater potential to influence, since electronic instruments can produce sounds that no orchestra can make. The biggest change in film music in recent years is synthesizers and electronic sound processing, and thereby the creation of new timbres. For example,

it is possible with synthesizers and modern electronics and sound production to create, for instance, a car sound that resonates in C major, or E minor as needed. In such a case, the distinction between diegetic and non-diegetic music becomes difficult to determine exactly.

The sounds, or instruments, used in film music are very important. The sounds determine the timbre. They are icons for, for example, natural sounds such as thunder, wind, and birdsong. They are indices for different instruments and thus different environments (a church organ tone is an index for a church organ, and a church organ is an index for a church), and they are symbols for different geographic regions, musical styles, and social groups. Timbre is the musical element most easily understood by a musically untrained film audience.

If film music functions as an icon, it has the greatest potential to be understood. The music sounds like what it represents. As an icon, film music approaches synchronized sound and sound effects, and is best for describing the atmosphere. To convey emotions, using music as an indexical sign is the simplest way, using familiar conventions, for example: how does love sound?

Timbre

Instruments: Different instruments can represent (mean and convey) different things (for example, a muted trumpet is associated with night in the big city). It can be important for the composer to know what associations different instruments carry. If a particular feeling or era is to be associated with a specific instrument, the audience must have the same code competence regarding the instrument and the feeling. A combination of different instruments produces a different timbre and thereby different associations than a single instrument.



Miles Davis' trumpet with a mute can be an association with the night in the big city.

Synth sounds: The advantage of artificial sounds from synthesizers is that they do not require as high a code competence to be understood. Instead, the sounds can be used

without preconceptions or associations, and the sound itself is what affects the listener. The disadvantage is that they cannot as easily be used to evoke feelings through direct associations in the way a real instrument can. And when new, exciting, and modern synth sounds are created, will they still remain new and exciting after a while?



Vangelis created beautiful electronic music for the film Blade Runner (1982), but does the music still sound futuristic?

Musical elements

Melodies: Ascending melodic movements are more positive than descending ones. But melodic movements can also be used to mark and reinforce, for example, upward or downward movements in the film. However, melodies are of subordinate importance. For a melody to have an effect, it must be heard. But film music does not have that space; film music is meant to be experienced, not heard.

Tremolo and vibrato: Can increase tension, because these playing techniques are not static but have a rhythm that can increase activity. Tremolo means that the sound/music changes/vibrates in volume over time, while vibrato means that the sound changes in pitch.

Number of voices: A larger number of voices increases the timbre of the music and thereby increases the music's ability to convey emotions. The complexity of the music affects the audience's identification with the characters' emotions. A single instrument can feel more lonely and exposed than a larger ensemble.

Key: A piece in minor is generally sadder than a piece in major. But it is difficult to always make this distinction, because the overall impression of the music also depends on melodic movements, timbre, tempo, etc.

Pitch: Extremes, very high and very low tones, create more tension-filled music than tones in the middle register.



In the shower scene from *Psycho* (1960), the violins play piercing high-pitched tones that descend. In this way, the film music symbolizes the knife strikes.

Volume (sound level): Loud volume feels more intrusive and forward than a weak and modest melody.

Silence: Can indicate something very frightening, but also a completely ordinary afternoon walk. What makes silence effective is that it can easily and effectively break the expected. Moreover, in many cases, silence is a much more credible form of film music.

Psychoacoustic elements

Humans are affected by the psychoacoustic elements unconsciously. It is important not to see these points as separate from the other film music elements, or from the other narrative elements. It is important to keep in mind that the different points (usually) do not exist alone, but can influence and change each other's meaning. Moreover, film music exists together with other sound elements in the film, which are at least equally important.

Tempo: A weak signal at a tempo that deviates from a sleeping person's pulse changes the pulse so that it adapts to the other tempo. A slow tempo gives a calm scene. This scene can either be happily relaxing or a painful death. A fast tempo increases the tension of a scene, or perhaps a rush of joy whirling past amid laughter and singing. A high tempo is difficult to ignore and relax to.

Volume (sound level): Low and high volume function similarly to slow and fast tempo. But variations in volume can also create differences in the perception of space. Very loud sounds have a stronger impact and can evoke feelings of discomfort and pain.

Pitch: High tones increase audience activity, creating an impression of anxiety and unease, unlike lower tones, which produce calmer, reduced activity. Despite this, very low frequencies increase audience activity again, as they are felt almost more than they are heard.

Silence: Silence is the absence of psychoacoustic elements, which causes the body and human senses to react to the lack of musical stimulation. Breaking a piece of music into silence creates a sense of unease and indecision in the audience.

Other film music elements

Synchronous sound: Synchronous sound should never be drowned out by the film music. Good film music does not intrude on dialogue or natural sounds in the film. Film music is not heard; it is experienced.

Ambient sounds: Ambient sounds are added afterward to create an environment and atmosphere, as well as a sense of three-dimensional space. This is where the film music should exist, alongside birds, the rustling wind, and perhaps the hum of traffic.

Sound effects: Sound effects are also added afterward to emphasize and draw attention to particular details in the narrative. Music can also be seen as a form of sound effect that reinforces (or directs) scenes and emotions.

These other film music elements are described according to the newer form of film music, where the music is not meant to be heard consciously, but only experienced together with image, dialogue, and sound. Just as music exists alongside other sound elements, film sound (music, sound effects, dialogue, etc.) exists together with the image and movements on the screen. Together, sound and image work to tell a story to an audience. Film is sound-set image, not image-set sound.