



---

# Emotions in Sound: Audiovisual Metaphors in the Sound Design of Narrative Films

Kathrin Fahlenbrach

**Abstract:** This article discusses the ways sound design in film guides the emotional affect of both sound and pictures on the viewer. Following the theory of conceptual metaphors, the article proposes an approach to “audiovisual metaphors,” analyzing emotional and embodied aspects of film sound. It states that pictures and sound have to share emotional and physical characteristics that can be merged by sound designers conceptually and metaphorically in order to improve the emotional and physical affects of a fictional character or object in a film. Thus it argues that the *synchresis* (audiovisual fusing) of pictures and sound is most effective when embodied image schemata are used by sound design that guide, on an unconscious level, our perception of film. In audiovisual metaphors, image schemata as “force” or “balance” are projected on sound and pictures that create an audiovisual and emotional gestalt of the objects. Using examples from Stanley Kubrick’s *The Shining* and Francis Ford Coppola’s *Rumble Fish*, the article shows how the emotional attributes of fictional character, spaces, and objects can be conceptualized metaphorically, via their very materiality, by sound design—attributes that are perceived prominently on a presymbolic and preconscious level by the viewers but that communicate complex cultural and narrative meanings.

**Keywords:** audiovisual metaphors, embodied aesthetics, film perception, film sound, *Rumble Fish*, *The Shining*

Every time we perceive persons, objects, and spaces in audiovisual media, we are unconsciously guided by acoustic cues: the voice-pitch of a speaking person, the dull or sharp sounds of a moving object, the reverberation or frequency of a space. On the one hand, these acoustic cues transport physical and spatial qualities, such as the mass and materiality of bodies or the expanse of spaces. On the other hand, on a mostly unconscious but physical level, they depict narrative meanings of spaces, objects, and of the characters. Especially the emotional effects of audiovisual figures and spaces are fundamentally

influenced by sound. Sound design refers to deeply embodied gestalts that guide our perceptive, cognitive, and emotional experience. Due to its perceptive qualities and functions, sound can activate broad networks of bodily and cognitive associations.

In this article, I show that the sound design of narrative films explicitly makes use of these associative networks in order to produce emotional profiles of figures and spaces on the level of their audiovisual appearance—that is, in pictures and sound.<sup>1</sup> The acoustic quality of audiovisual objects and characters is intentionally linked in sound design with complex narrative, symbolic,<sup>2</sup> and emotional attributes. Because it is difficult to systematically describe the often diffused and associative semantics of sound in audiovisual media, it is necessary to consider the multidimensionality of perception and emotion. In this contribution I propose implementing the model of audiovisual metaphors (Fahlenbrach 2005, 2006, 2007) for this purpose. Starting with the presumption that metaphorical mapping is a basic mechanism in our perception and cognition, I demonstrate that this also affects the perception of audiovisual media. Metaphorical mapping is an effective mechanism, both in production and in reception of films, to synaesthetically fuse the appearance of figures, objects, and spaces with cognitive and emotional meanings on the level of narration.

Particularly those genres that aim to initiate strong and intense emotional and bodily effects in the viewer (such as horror films or thrillers) produce complex audiovisual metaphors that elucidate affective and physical experiences that go far beyond the communication of cultural symbols.

### **Three Dimensions of Emotional Experience and Emotional Communication**

The starting point for the emotional analysis of sound design and audiovisual metaphors for me is the presumption of the multidimensionality of emotions. In their study on emotional communication, Bartsch and Hübner (2007) analyzed canonical theories of emotion by investigating the levels of emotional experience, which stand in the fore of the different approaches. In doing so they demonstrate that the cognitive and neural processes of emotions are closely intertwined. Following the results of leading emotion theories, Bartsch and Hübner accordingly differentiate between three primary dimensions of emotional experience:

- Innate schema of stimulus and response (the neurological dimension)
  - Associative schema (the level of emotion prototypes and emotional appraisal)
  - Symbolic meanings (the cultural level of conventionalized emotional communication)<sup>3</sup>
-

Emotional communication, be it in interpersonal interaction or in media communication, thus happens on several dimensions at the same time. With regard to the production and perception of audiovisual metaphors, the first two dimensions are particularly relevant. Therefore they will stand in the core of the following argument.

On the level of stimulus-response patterns, emotional communication is produced by the reciprocal activation of emotion domains in the brains of communication partners. Here, processes of emotional contagion and affective mimicry are significant (Hatfield et al. 1994; Plantinga 1999). Thereby two physiological mechanisms are especially important—the cross-modal processing of multi-sensory cues; and sensory-motor action simulation.

Cross-modal processing is responsible for the fusing of diverse sensory data (visual, acoustic, olfactory, etc.) into unitary perceptions. This fusing is realized on the level of amodal qualities that are processed by all senses, like duration, intensity, position (Stern 1993). In relation to mental gestalts that are coded neurologically, cross-modal gestalts are produced that guide the non-verbal recognition and communication of emotions on the level of stimulus-response (Fahlenbrach 2005; Plantinga 2007).

Another important aspect for the perceptive and presymbolic dimension of emotional communication is the sensory-motor action simulation. Gallese and his colleagues demonstrate in their studies that the perception of significant movements of others activate in our sensory-motor system multimodal mirror neurons that enable us to simulate neurologically and mentally primary action tendencies and intentions of others (Gallese 2005; Gallese and Lakoff 2005). We are therefore able to reflexively recognize simple intentions of others immediately and to simulate the related sensory and emotional associations. This is especially relevant for primary emotion expressions (mimics, gestures, voice timbre, etc.) that communicate via their cross-modal gestalt and via significant movements of key information about a person's emotional state. This also holds true for the perception of audiovisual figures in narrative films. The production and perception of cross-modal gestalts and of multisensory action simulation are especially important for the aesthetics of audiovisual metaphors, as is demonstrated later in the article.

The second dimension of emotional communication are associative schemata. Emotional communication on this level lies in the activation of emotion scripts (Bartsch and Hübner 2007). Fisher, Shaver, Carnochan (1990) define emotion scripts as cognitively generalized structures that include the knowledge about prototypical emotion cues as well as affective schema of emotion reactions and coping strategies. They assume that each primary emotion is linked with a script that schematically memorizes prototypical reaction schema and social events that typically characterize one specific emotion (e.g.,

---

fear or disgust) (Fischer et al. 1990: 92). On the level of associative schemata, emotional communication is generated, according to Bartsch and Hübner, by the appraisal of intentions and action tendencies of the communication partner. It is obvious that this level is also a relevant reference for audiovisual media, which is explained below.

On the third level of emotional communication, namely the level of symbolic meaning, communication partners evaluate and interpret the perceived emotional cues of their vis-à-vis reference to culturally and socially conventionalized rules and codes of emotion. Each primary emotion is related to a behavioral set of rules and codes that are respected by the members of a social group or society (e.g., the conventionalized communication of sorrow). Narrative film respects these emotion rules, and influences them by showing new styles and codes in the emotional communication of fictional characters.

Following this model of emotional experience and communication, the three dimensions are cyclically interrelated and build a multidimensional network, including (neural and mental) perception and (higher) cognition (Eder 2007; Eder and Keil 2005).

### **Emotion Metaphors**

Considering the complexity of emotions, it is always difficult to describe and to communicate them in everyday life as well as in academic discourse. Conceptual metaphors are therefore important for both the understanding and the communication of emotions, as is the case with abstract ideas and concepts or other “invisible states.”

The theory of cognitive metaphors, established by Johnson (1987), Lakoff (1987), Kövecses (2002, 2003), and others, assumes that we conceptualize in our thought and experience abstract concepts (such as time or death) and complex experiences like emotions on the level of conceptual metaphors. Accordingly we continuously use in our thinking and feeling metaphorical strategies in order to concretize such complex and invisible concepts and states. Thereby we refer to physically rooted image schemata that conceptualize, for example, emotions as a “physical force” or time as a “path.” Thus we are able to metaphorically seize, diffuse, and abstract domains on a pre-symbolic level.

One such embodied image schema fundamentally guiding physical and emotional experience and thinking is the force-schema. The meaning as well as the gestalt structure of the force-schema relies on physical experience. This experience is mentally represented in redundant patterns that integrate movement, direction of action, intensity, and causal structures of interaction. Examples of gestalt ele-

***Considering the complexity of emotions, it is always difficult to describe and to communicate them in everyday life as well as in academic discourse. Conceptual metaphors are therefore important for both the understanding and the communication of emotions.***

---

ments of force include compulsion, blockage, counterforce, diversion, removal of restraint, enablement, and attraction (Johnson 1987: 45).

Linguistic metaphors such as “to struggle with one’s anger” or “to be seized by a fit of depression” thus refer to emotional metaphors of thinking and feeling. Besides their conventionalized form of expression, they articulate physical and presymbolic meanings that characterize emotional experience in a concrete sensorial way. These cognitively and bodily rooted emotion metaphors recur on all three levels of emotional experience (cf. Bartsch and Hübner 2007): 1. to innate stimulus-response-patterns; 2. to associative schema; and 3. to symbolic meanings.

Zóltan Kövecses (2003) broadly studied the linguistic conceptualization of emotions in everyday language and in academic discourse, especially considering fundamental prototypical metaphorical mappings. As a result he observed the following metaphorical attribution; for example, for fear:

- Fear is fluid in a container
- Fear is a hidden enemy
- Fear is a supernatural being
- Fear is an opponent in a struggle,
- Fear is insanity, is illness
- Fear is a natural force
- Fear is a burden
- Fear is a social superior
- The subject of fear is a divided self. (Kövecses 2003: 23)

These metaphorical attributions indicate that emotion metaphors refer to all levels of emotional experience. The recourse to mental image schema activates innate stimulus-response patterns that play an eminent role for the perception of emotion protagonists and antagonists; in other words, of the emotion object and the subject of an emotion. Linguistic emotion metaphors like “to be overcome with sorrow,” for example, conceptualize emotions as powerful antagonists. They not only activate conceptualized knowledge, but also bodily associations and patterns of experience, neurologically and mentally related to the force-schema.

Emotion metaphors furthermore refer to the second dimension of emotional experience, that is to associative schema, especially to emotion scripts. The mentioned metaphors of fear, for example, relate to prototypical elements in the emotion script of fear. The metaphorical focus on emotion scripts is especially obvious if we consider the event structure of emotion metaphors. Emotion metaphors refer to actions, processes, and changes and they are mostly causally structured. This means that certain (emotional) events are linked to concrete causes. Kövecses demonstrates that emotion metaphors

---

are regularly based on event structures that correspond to the different phases of emotional experiences, as they are stored in emotion scripts—to a cause, to a (basic) emotion, to control or loss of control, and to behavioral response. Emotion metaphors focus most often on at least one of these prototypical elements of an emotion and relate them to the above-mentioned image schema. The container-schema is most frequently used to conceptualize the emotion state. Thereby the cause is often conceptualized metaphorically as a force, the emotional state as a bounded region, and the emotional change as movement (Kövecses 2000: 55 ff.). To mention just a few examples: If the emotional state is metaphorically conceptualized, the container-schema is usually used in the mapping, like “boiling with anger” or “to overflow with love.” The cause of an emotion can be conceptualized in reference to the force-schema—for example, “waves of depression” or “burning with passion.” The loss of control often refers to movements in metaphors like “to be magnetically drawn by someone” or “to be overcome by joy.”

Referring to the force-schema, emotions can thus be conceptualized as a physically embodied force. Thereby emotions are often personified metaphorically. On the basis of causal event structures, emotion metaphors personify the object or the subject of an emotion by referring to the force-schema. Consequently the subject and the object of an emotion are conceptualized metaphorically as 1. a protagonist (or “agonist” to use Kövecses’s term) and 2. an antagonist, who is the emotion object that exerts force on the protagonist, the protagonist now ceasing to be inactive and producing an emotional response (Kövecses 2000: 61ff.). Accordingly different tendencies of force can be communicated in emotion metaphors corresponding to a certain prototypical reaction or an emotion state.

While observing in his study this basic structure of the force-schema in all emotion concepts, Kövecses states that this is the connecting element of all emotion metaphors (2000: 85). The force-schema links not only all emotion metaphors but it is also their basic source domain. Besides their reference to embodied and associative structures of experience, emotion metaphors also refer to symbolically conventionalized forms of emotional articulation. It is this symbolic dimension that stands at the core of traditional metaphor theory in literature and linguistic studies. In contrast the theory of cognitive metaphors focuses on metaphors relying on embodied structures. Accordingly, linguistic metaphors that are strongly conventionalized like “boiling with rage” are successful just because they are based on primary conceptual metaphors that seize the emotional and physical dimension of emotions.

### **Audiovisual Metaphors: Emotion Metaphors in Audiovisual Media**

Although conceptual emotion metaphors are rooted presymbolically in our minds, they are not only articulated on the symbolical level linguistically but

---

also by way of other symbolic systems. In particular visual and audiovisual media are able to communicate effectively the embodied dimension of emotional experience, because they represent the embodied schema of emotion metaphors concretely in pictures and sound. In contrast, linguistic representations of conceptual metaphors are linked with arbitrary abstraction. This is especially relevant for the connection of visual and acoustic cues into cross-modal gestalts and for the representation of significant movements in space. If these cues are integrated in audiovisual metaphors they enable viewers to reflexively seize the bodily intensity and dynamics of primary emotional intentions in a metaphorical form. Therefore, to observe conceptual metaphors in audiovisual media does not entail a linguistic orientation. In contrast, the presymbolic and physical gestalt of emotion metaphors appears in a much more concrete way than is the case with language.

Audiovisual metaphors may refer to cognitive and emotion metaphors of thinking and feeling in a dual sense:

1. By referring to cognitive and emotion metaphors in the creation of metaphorical motifs, often highly conventionalized symbolically.
2. By representing cognitive and emotion metaphors stylistically while providing their conceptual mappings a concrete visual and sensorial gestalt that viewers may experience physically.

### **Emotional Motifs in Audiovisual Metaphors**

Emotion metaphors of thinking and feeling are manifested as linguistic, visual, or audiovisual metaphors and their symbolic form is rooted cognitively in the mind of single individuals as well as culturally in the discourse and collective memory of a society or group (via the use of language and media). Nevertheless linguistic, visual, and audiovisual metaphors may change their gestalt and their symbolic form while referring, simultaneously, to the very same underlying emotion metaphors.

As already argued, the embodied schemata play an important role in audiovisual metaphors. At the same time the conceptual knowledge, being influenced socially and culturally, can be used in metaphorical mappings to concretize the complex emotional experience. An often used metaphorical mapping in this regard is the personification of emotions that conceptualize them metaphorically as antagonists or protagonists (see above). In audiovisual metaphors this personification especially matters for the creation of emotional motifs:<sup>4</sup> machines, animals, buildings, or natural forces are used metaphorically to concretize emotions that fictional characters have to deal with and that are furthermore addressed to the viewer of a film. The deeply anchored metaphorical semantics of motifs showing spaces, persons, and objects are, at the same time, related to emotion scripts. Being metaphorical

---

personifications of emotions, they represent the cause of an emotion or the proper state of emotional experience.

To start with a visual example, let us take the maze in Stanley Kubrick's *The Shining* (1980). The maze is a spatial leitmotif in this film that permanently gives a physical impression of a growing threat. Thereby it efficiently communicates to the viewers the anxious feelings of the mother and child, Wendy and Danny, when they are on the run. The motif of the maze has both a symbolic meaning and form and a presymbolic gestalt, referring to conceptualized knowledge. It represents in its gestalt a hermetically closed system full of nooks and crannies, which guide its visitors toward the center of the maze, which is a trap from which they can only escape with difficulty. Kubrick uses this basic gestalt structure as a leitmotif and varies it throughout the whole film.<sup>5</sup> Thus the topological order of the rooms in the hotel refers to the labyrinth-motif. Via camera shots and editing the spatial orientation of the viewer within the hotel, where Wendy and Danny seem trapped, is hindered. From the exterior we recognize that the building is big and extended; from the interior the camera only shows us single perspectives of the rooms that we are barely able to combine into a coherent space-map.

On the one hand, the maze-motif produces spatial disorientation and mediates an emotional state of growing fear and panic in the protagonists (most of all in Wendy). On the other hand, the hotel-building is conceptualized metaphorically as an emotional object or as an antagonist that exercises power and force on Wendy and Danny. This personification of the place is intensified by the motif of the haunted house: while the ghosts of the dead employees and guests of the hotel invisibly reign, the hotel develops an inscrutable dynamic that permanently reinforces Wendy and Danny's anxiety.

In relation to the motif of the haunted house, the labyrinth serves, on the metaphorical dimension, as a personification of the fear that Wendy and Danny experience. Thereby both these motifs recur as emotion metaphors for:

- Fear is a hidden enemy
- Fear is a supernatural being
- Fear is an opponent in a struggle
- Fear is insanity, is illness (Kövecses 2000: 23)

The emotions of the protagonists are communicated to viewers through complex and omnipresent metaphors of fear and panic.

### **Emotional Aesthetics: Cross-Modal Gestalt and Embodied Meanings of Audiovisual Metaphors**

The embodied concepts of emotion metaphors as they appear, for example, in the described metaphors of fear, may be used not only in the creation of cer-

---



tain motifs but also in the stylistic design of audiovisual settings. Pictures and sound may aesthetically refer to emotion scripts and to innate stimulus-response patterns.

To continue with an example of acoustic cues, let us take another scene from *The Shining* that demonstrates the metaphorical value of sound and music: the well-known stair-sequence. In this sequence Wendy is being propelled slowly by her insane husband through the reception hall of the hotel and up the stairs. The camera, the editing, and the sound concretely mediate in their audiovisual gestalt the opponent metaphor: “fear is an opponent in a struggle” (Figures 1 and 2).



*Figures 1–2. The Shining: The opponent metaphor of “fear”*



Besides significant elements of fear in the emotion script, innate stimulus-response patterns are activated, which are performed synaesthetically or cross-modally. The camera transports the physical threat by showing Wendy through the point of view of Jack, who is propelling her in front of him. From this perspective we see her anxious and panicked expressions mostly in close-up as well as her helpless attempts at self-defense with a huge baseball bat.

The above-mentioned sensory-motor action simulations are activated by camera movement, editing, and the movements of the characters (such as Jack's grabbing of Wendy). The aggressive intentions of Jack, as well as Wendy's flight reflexes, can be physically simulated by the viewers. Together with the music and the voice timbre of the characters, further key stimuli are triggered on the reflexive level of bodily response that is linked to the opponent metaphor: The high frequency of Wendy's voice and the dissonant sounds of the music contrast with the slow movements of the two characters through the hall. The sound thereby communicates Wendy's fear and panic on two channels, that is through music and voice. The contrast between sound and picture further intensifies the suspense and the feeling of threat. At the same time the pictures are dominated in terms of tempo and rhythm by Jack's menacing movements. His calm but decisive and aggressive advances in the pictures (focusing on his movements and mimics) and in the sound (his slow but insistent voice) contrast with Wendy's audiovisual performance. Consequently, the abovementioned opponent metaphor attains a concrete audiovisual gestalt via the cross-modal matching of duration, tempo, and intensity in pictures and sound.<sup>6</sup>

The example demonstrates how audiovisual metaphors convey aesthetically in camera shooting, editing, lighting, colors, sound, and music throughout a sequence the experience and the bodily qualities of specific emotions. For this aesthetical and metaphorical performance, the event structure of emotion metaphors provides important mapping qualities. The change from a non-emotional to an emotional state is often metaphorically connected with movements in space.<sup>7</sup> The event structures of emotion metaphors characterize the prototypical kind of emotional reactions and action tendencies, while correlating emotional change and coping strategies of the characters with movement and force in acting, pictures, and sound. Accordingly the event structure of emotion metaphors affects above all the aesthetical and stylistic performance of emotions in pictures and sound. With regard to the representation of the bodies, it is relevant that the cross-modal gestalt of expression, gestures, and movements is performed prototypically<sup>8</sup> so that they are perceived and experienced by the viewers reflexively. Space, physical force, and movement are key source domains in audiovisual media for the metaphorical conceptualization of emotional states, causes, and coping strategies.

---

### Audiovisual Metaphors and Emotions in Sound Design

How can sound design guide the emotional meaning and effects of audiovisual metaphors? Sound-designers use not only their knowledge intuitively, but they also use, explicitly and consciously, metaphorical strategies in order to conceptualize and realize the sound of a feature film. Sound designer David Sonnenschein demonstrates that the metaphorical condensation is actually employed in the practice of a film production. In his 2001 handbook on sound design, Sonnenschein suggests producing a mind map during the conceptualizing stage, which would characterize the general qualities of objects and characters along key binary categories, such as force/weakness, rationality/emotionality, life/death. He mentions “mental archetypes” that can be activated by language or single significant sounds and that can trigger specific material or bodily associations. These general categories offer clues along which typical physical, cognitive, and emotional characteristics of objects and figures can be marked throughout a plot. Consequently they can be characterized during the film’s preparation stages by specific acoustic and visual features that are interrelated conceptually. As a result sound designers might produce a semantic network around objects and figures that offer concrete conceptual clues for their audiovisual representation. Within such a relational arrangement they may realize hierarchies, polarities, contrasts and similarities among objects, figures, and spaces, which can be marked by specific acoustic qualities (Sonnenschein 2001: 201ff.).

With regard to film reception this kind of conceptualization provides an important advantage: that is, if the typical and primary attributes of an object or a figure are pre-conceptualized in this way, their changes throughout a film can also be marked conceptually. As soon as primary attributes are primed in the mind of the viewers, partial changes of object qualities or their selective representation (e.g., in the off-screen-space) can be better recognized conceptually in the reception process. In other words, the recognition of object permanence is manifested conceptually for the viewers.

The contextualization of objects and characters within the relational network also affects narration. Each acoustic attribute, once introduced by an object or character, is connected to the narrative. Consequently, every acoustic quality can be a separate narrative element (e.g., the ticking of a clock as a narrative clue for the passing of time in the action and also as an element of suspense). When visual and acoustic qualities of objects and characters are developed from the beginning on in the production process with reference to general conceptual categories, it is possible to anchor cognitive and emotional attributes presymbolically in their very material and bodily gestalt. By doing so the associations of a viewer can be guided and the objects attain a coher-

***Each acoustic attribute, once introduced by an object or character, is connected to the narrative. Consequently, every acoustic quality can be a separate narrative element.***

ent and evident gestalt during a film. This is pivotal for the construction of audiovisual gestalts because objects and characters relate coherently in their acoustic and visual appearance on the level of cross-modal associations. Thereby it has to be considered that pictures and sounds are psychologically processed differently: sounds are primarily perceived in terms of time patterns, whereas visual stimuli are primarily perceived in terms of space (Chion 1994: 11). Furthermore, the acoustic processing is much faster than the visual one, because single acoustic stimuli can be perceived reflexively, whereas visual stimuli are holistically processed as complex mental gestalts. In addition, it takes more time to isolate single visual elements within these gestalts.

Preconditions of acoustic and visual perception have a substantial influence on audiovisual aesthetics. Because sound is perceived temporally and faster than the pictures, it manipulates the temporal structure of the pictures. Thereby most of the time the pictures get their temporal structure from the sound (Chion 1994: 13, 14). This temporalization is the basis for the audiovisual fusing that Chion calls “synchresis” (“syntheses” and: synchronisation,” [Chion 1994: 4]).

As demonstrated above the cross-modal processing of pictures and sound is responsible on the level of sensory perception that the stimuli received by ears and eyes be coherently related. This integration of visual and acoustic perception is thus realized on the level of amodal qualities like duration (e.g., long/short), intensity (strong/weak), position (above/below, central/peripheral, close/distant). Here are examples for the simultaneous appearance of amodal qualities in pictures and sound:

- *Duration*: the rhythm of movements in picture and in camera movements—acoustic time-pattern and rhythm.
- *Intensity*: the intensity and contrast of colors and forms in the picture—acoustic loudness, timbre, and the pitch of sound.
- *Position*: visual closeness or distance in camera shots and perspective, spatial foreground and background in the picture—acoustic closeness or distance as well as acoustic foreground (e.g., via the acoustic point-of-audition) and background on the level of sound.

For the sound designers these amodal qualities are important for the sensorial conceptualization of sound in film (Holeman 2002; Sonnenschein 2001). In their practical handbooks they demonstrate how the material, bodily, emotional, and cognitive attributes of objects may be changed via the modulation of primary acoustic features. By linking them cross-modally with corresponding primary visual features, very different meanings can be produced in the audiovisual representation.

---

The practical advice of Sonnenschein reveals the psychological potential of metaphorically conceptualized film sound. He suggests guiding the acoustic imagination of the public by conceptualizing the relation of pictures and sound on the basis of concrete metaphors. He understands metaphors here as the comparison of sound with an idea or a concrete mental image visualized in the pictures (e.g., a scream with a blinking red light; see Sonnenschein 2001: 55).<sup>9</sup>

By relating typical acoustic attributes of objects or figures with general concepts and categories, sound design systematically construes metaphorical structures that use universal and kinaesthetical patterns of experience like the force-schema or the path-schema. In connection with cognitive and emotional metaphors these image schemata provide structurally rich clues for creating visual and acoustic gestalts that are additionally coupled with other sensorial, cognitive, and emotional experiences and knowledge. This might be a relevant reason why sound in films and in other audiovisual media may activate a wide range of cognitive, emotional, and bodily associations that channel audiovisual perception in an elementary way.

### **Audiovisual Metaphors of Anger in *Rumble Fish***

Through a close analysis of a sequence from Francis Ford Coppola's *Rumble Fish* (1983; sound designer Richard Beggs), this section of the article demonstrates how sound design may metaphorically perform bodily patterns, mental schemata, and emotion scripts of anger. The gang fight (or rumble) scene from *Rumble Fish* shows us two hostile gangs of young men that meet in the disused hall of a railway territory. When gang leader Rusty paces the empty corridors of the building the atmosphere is heavy with a threatening silence, further intensified by individual sounds (such as the yowling of a cat or dripping water). At the beginning this acoustic atmosphere establishes a tense mood that anticipates an emotional change: from fear to anger and rage. Besides the corresponding emotion expressions emotional states are directly coupled with the spatial atmosphere, prominently produced by the sound design.

After Rusty's gang arrives at the meeting point of the battle, the tense nervousness soon changes into aggression and rage (Figures 3–5). This emotional change is performed audiovisually with recourse to the machine metaphor for anger: people who are angry act like machines (e.g., in linguistic expressions such as “that really got him going” [Kövecses 2000: 21]). Shortly before the hostile gang enters the scene a train rages past the back of the hall with loud blasts and white steam. The train immediately intensifies the nervousness with its visual and acoustic appearance and also functions as what Greg Smith (2003) calls an “emotion cue.” This change of mood is intensified by the simultaneous entrance of the hostile gang. The appearance of the train and that of the hostile gang are conceptually connected. The opponents enter

Figures 3–5: Rumble Fish: *The machine metaphor of “anger”*



before the train has left the scenery, coming from the same direction in the background with pugnacious gestures and screams. The direction and the intensity in the movements of the antagonists and of the train correlate cross-modally and metaphorically. While the buzzing and steaming train accompanies the first confrontation of the opposite gangs, this machine-metaphor audiovisually marks Rusty's change to anger: only a moment before he looked nervous but the provocative appearance of Bill Willcox and his devotees provides the current motivation for Rusty's anger and his aggressive reactions.

The kind of aggression between the opponents is further performed during the course of the battle by spatial reference to the machine-metaphor in picture and sound. Here sound plays a key role. The moment Bill pulls his knife, the acoustic atmosphere changes radically. Introduced by the sharp sizzling of the knife, we are confronted with an atmosphere that densely merges aggressive human sounds of the fight—shouts, kicks, and punches—with mechanical sounds—thumping noises of machines, falling metal objects, and trains passing in the background of the scene, acoustically accompanied by loud sirens. The emotional stress of all this aggression is further reinforced by drum beats and, later, by single sounds of a trumpet, underlining the escalating violence. Overall, sound design and soundtrack produce a highly condensed atmosphere of aggression and violence, projecting acoustic qualities of powerful machines onto the fighters.

In addition to the rhythm, the acoustic hall also reinforces the battle noises. The spatial dimension of the hall and the intensity of the fighters can be experienced physically by the viewers. Because the hall reflects the battle noises, the dynamic of the fight fuses conceptually with the spatial dimension of the hall. Thus picture and sound build a close synthesis or *synchresis* in reference to the machine metaphor. Camera and editing adopt the aggressive rhythm of the music and show the movements of the fighters in sequences of quick cuts. The sequence thereby produces the impression of a mechanical room by combining pictures and sounds of falling, rumbling, and bursting metallic objects with the fighting movements and actions of the characters that become—quasi-mechanically—autonomous.

In this sequence another emotion metaphor is closely related with the machine metaphor: "Anger is hot fluid in a container." This metaphor entails structurally rich clues for the audiovisual performance of the emotional reactions. The sound design here also refers to the event structure of the underlying emotion metaphor, while using both mappings of the machine metaphor and of the container metaphor of anger.

Besides other direct references, such as a leaking water pipe, the whole place is presented as an aggressively bubbling space. This is presented effectively both by pictures and sound, and their dense audiovisual *synchresis*: on the visual level, we follow the movements of the fighters, which are perfectly

---

choreographed and consequently attain a collective gestalt (in reference to the opponent-schema). Further, we are visually guided by a swaying camera and by the fast sequence of quick cuts. The flickering of light accompanies the violent attacks. On the diegetic level, all sources of the sound elements are rooted in the pictures.

Merged diegetically and formally with the pictures, both sound and music reinforce the aggressive dynamic of the fight. At the same time sound and music add specific elements to the pictures that indicate the emotional intensity of the sequence: First, the reverberation of the sound reinforces the effect of all attacks and shouts on the acoustic level. It is through this reverberation that the size of the place and the power of the aggression can both be directly experienced by the viewer. Another level of audiovisual merging concerns the rhythm. The acoustic rhythm produced by the drum beats, by the noises, and by the human fighting sounds is even faster than the camera shots that we perceive visually. Accordingly, the sound design and music deliberately considerably intensify the emotional density by adding an accelerated rhythm to the pictures. When put together with the sound and the music, the visual scenery of the fight acquires a coherent emotional gestalt that is conceptualized metaphorically and can be experienced physically.

Thus the gang fight scene provides us with a prime example of the extent to which audiovisual media have established specific audiovisual metaphors of emotion that are successful in mediating all the physical qualities of emotions. Even when we recognize the genre stereotypes used in this sequence and are aware of the references to musicals such as *West Side Story* and to coming-of-age films such as *Rebel Without a Cause*, we are nevertheless drawn into and involved with the emotional situation on the screen. Through the deliberate strategies of manipulation employed by sound designers, through their aesthetical intensifying and stylization of significant bodily and affective patterns of anger, the analyzed audiovisual metaphors have a strong impact on the majority of viewers.

---

**Kathrin Fahlenbrach**, PhD, is Privatdozent at the Department of Media and Communication Studies at the Martin-Luther-Universität Halle. She is the author of several articles on emotions, cognition, and metaphors in film, television, and music videos. She just completed her post-doctoral thesis on *Audiovisual Metaphors: Embodied and Affective Aesthetics in Film and Television* (“Audiovisuelle Metaphern. Zur Körper- und Affektästhetik in Film und Fernsehen”).

---



## Notes

<sup>1</sup> This article is a revised English version of my German contribution in Bartsch, Eder, and Fahlenbrach 2007.

<sup>2</sup> I use the term “symbol” here according to the wider definition of cognitive theory, especially of social-constructive approaches. Symbols are understood here as a general term for conventionalised signs, and less in the narrow sense of Peirce, who defines them as a specific arbitrary semiotic category. See Nöth 2000: 178.

<sup>3</sup> The first level stands in the core of neurological studies on emotion; the second one is particularly investigated in studies on emotion prototypes; and the third level is in social-constructive approaches. See Bartsch and Hübner 2007.

<sup>4</sup> Following the German film scholar Hans J. Wulff, I understand motifs as “structural entities of thinking and communication” (Wulff 1999: 130ff.) that mostly provide, in the sense of the metaphor-approach presented here, strong metaphorical qualities, while referring to conceptual metaphors.

<sup>5</sup> Apart from the garden-maze, the motif of the maze also appears for example in the gestalt of the carpet on which Danny drives his go-kart. See Pallasmaa 2004.

<sup>6</sup> The term “cross-modality” refers to concrete processes of perception, whereas the term “synaesthesia” is used in a double sense (which is why it is often misleading). In terms of perception psychology “synaesthesia” describes, on the one hand, a pathological phenomenon, that is the *conscious* linking of different sensory stimuli, which we normally unconsciously relate (people suffering from synaesthesia may, for example, hear colors). On the other hand, the term is used in the history and theory of avant-garde aesthetics in order to describe artistic experiments with human perception. This is particularly the case in studies on sound art and the absolute film, but also in current audiovisual media. Because both uses of the term “synaesthesia” are often melded, I prefer to employ the term “cross-modality” in discussions of audiovisual perception and its effects.

<sup>7</sup> About the close interrelation between movement, emotion, and film space, see G. Bruno 2005.

<sup>8</sup> Daniel Stern investigated in his canonical study on the “Interpersonal World of the Infant” (1993) the cross-modal gestalt of emotion expression.

<sup>9</sup> Sonnenschein (2001: 55) also suggests conceptualizing pictures and sound as simile, hyperbole, allegory, irony, paradox, or vivication.

## References

- Bartsch, Anne, and Susanne Hübner. 2007. *Emotionale Kommunikation. Ein integratives Modell*. PhD diss., Martin-Luther-Universität Halle. <http://sundoc.bibliothek.uni-halle.de/diss-online/04/07H050/index>. [access date: 18.08.08]
- Bartsch, Anne, Jens Eder, and Kathrin Fahlenbrach, eds. 2007. *Audiovisuelle Emotionen. Emotionsdarstellung und Emotionsvermittlung durch audiovisuelle Medienangebote*. Köln: Herbert von Halem Verlag.
- Bartsch, Anne, and Reinhold Viehoff. 2003. “Meta-emotion: In Search of a Meta-account for Entertainment by Negative Emotions.” *Siegener Periodikum zur Internationalen Empirischen Literaturwissenschaft* 22 (3): 309–328.
- Bruno, Guiliana. 2005. “Bewegung und Emotion. Reisen in Kunst, Architektur und Film.” Pp. 118–38 in *Umwidmungen. Architektonische und kinematografische Räume*, ed. Gertud Koch. Berlin: Vorwerk.
- Chion, Michel. 1994. *Audio-Vision: Sound on Screen*. New York: Columbia University Press.

- Eder, Jens. 2007. "Gefühle im Widerstreit: A *Clockwork Orange* als Herausforderung filmbezogener Emotionstheorien." Pp. 256–77 in *Audiovisuelle Emotionen. Emotionsdarstellung und Emotionsvermittlung durch audiovisuelle Medienangebote*, ed. Anne Bartsch et al. Köln: Herbert von Halem Verlag.
- Eder, Jens, and Andreas Keil. 2005. "Audiovisuelle Medien und emotionale Netzwerke." Pp. 107–32 in *Mediale Emotionen*, ed. Oliver Grau, and Andreas Keil. Frankfurt/M.: Fischer.
- Fahlenbrach, Kathrin. 2005. "The Emotional Design of Music Videos. Approaches to Audiovisual Metaphors." *Journal of Moving Image Studies* 3 (1): 22–28.
- . 2006. "Aesthetics and Audiovisual Metaphors in Media Perception." *Formamente. Rivista Internazionale di Ricerca sul Futuro Digitale. International Research Journal on Digital Future* 1 (2): 63–77.
- . 2007. "Embodied Spaces: Film Spaces as leading Audiovisual Metaphors." Pp. 105–24 in *Narration and Spectatorship in Moving Images*, ed. Joseph D. Anderson and Barbara Fisher Anderson. Cambridge: Cambridge Scholar Press.
- Fischer, K., P. Shaver, and P. Carnochan. 1990. "How Emotions Develop and How They Organize Development." *Cognition and Emotion* 4: 81–127.
- Gallese, Vittorio. 2005. "Embodied Simulation: From Neurons to Phenomenal Experience." *Phenomenology and the Cognitive Sciences* 4 (4): 23–48.
- Gallese, Vittorio, and George Lakoff. 2005. "The Brain's Concepts. The Role of the Sensory-Motor System in Conceptual Knowledge." *Cognitive Neuropsychology* 22 (4): 455–79.
- Hatfield, Elaine et al. 1994. *Emotional Contagion*. Cambridge: Cambridge University Press.
- Holeman, Tomlinson. 2002. *Sound for Film and Television*. Burlington, MA: Focal Press.
- Johnson, Mark. 1987. *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: University of Chicago Press.
- Kövecses, Zoltan. 2002. *Metaphor: A Practical Introduction*. Oxford and New York: Oxford University Press.
- . 2000. *Metaphor and Emotion: Language, Culture, and Body in Human Feeling*. Cambridge: Cambridge University Press.
- Lakoff, George. 1987. *Woman, Fire, and Dangerous Things: What Categories Reveal about the Mind*. Chicago: University of Chicago Press.
- Nöth, Winfried. 2000. *Handbuch der Semiotik*. Stuttgart and Weimar: Metzler.
- Pallasmaa, Juhani. 2004. "Das Ungeheuer im Labyrinth: Die Architektur von *Shining*." *Kinematograph. Schriftenreihe des Deutschen Filmmuseums Frankfurt/M.* Special Issue: *Stanley Kubrick* 19 (1): 198–208.
- Plantinga, Carl. 1999. "The Scene of Empathy and the Human Face on Film." Pp. 239–57 in *Passionate Views: Film, Cognition, and Emotion*, ed. Carl Plantinga and Greg Smith. Baltimore and London: Johns Hopkins University Press.
- . 2007. "Synästhetische Affekte: Szenarios von Schuld und Scham in Hitchcocks Filmen." Pp. 350–62 in *Audiovisuelle Emotionen. Emotionsdarstellung und Emotionsvermittlung durch audiovisuelle Medienangebote*, ed. Anne Bartsch et al. Köln: Herbert von Halem Verlag.
- Smith, Greg. M. 2003. *Film Structure and the Emotion System*. Cambridge: Cambridge University Press.
- Sonnenschein, David. 2001. *Sound Design: The Expressive Power of Music, Voice, and Sound Effects in Cinema*. Saline, MI: Michael Wiese Productions.
- Stern, Daniel. 1993. *The Interpersonal World of the Infant*. London: Karnac Books.
- Wulff, Hans J. 1999. *Darstellen und Mitteilen: Elemente einer Pragmasemiotik des Films*. Tübingen: Günter Narr.

## Filmology

Kubrick, Stanley. 1980. *The Shining*. UK and USA.

Francis F. Coppola. 1983. *Rumble Fish*. USA.

---