Chapter 5

Seeing and Listening to Kubrick’s Films: The Embodied Film Viewer

In this concluding chapter, we shift the focus from a discussion of embodied visual meaning in the cinema of Kubrick to the film-goer who attends it with its senses. We will assess the film viewer through an examination of two theoretical dilemmas. The first dilemma is inherent to the experience of seeing films and involves the question as to how viewers are able to discover the situational meaning of a film (e.g., mental causation), and thus are potentially susceptible to the experiential states of narrative absorption and suspense, notwithstanding the fact that they in a strict sense reside outside the narrated events. In proposing an answer to this question, we will take into account the neuroscientific notion of embodied simulation as it recently has been argued to mediate our capacity to share the meaning of actions, intentions, feelings, and emotions with others. The second dilemma has already been mentioned in the introduction to this book and arises from the relationship between meaning and music. It involves the question as to how musical sounds, as they abundantly accompany Kubrick’s images, can convey meaning notwithstanding the fact that they lack a reference model. In contrast to the previous dilemma, this question does not explicitly mention the viewer. Nevertheless, as this chapter will argue, it will be precisely the embodied viewer to which we will have to turn to in order to come to terms with the paradox of musical meaning.

1. Discovering the meaning: The role of embodied simulation

We started this book with a discussion of the paradox of cinematic meaning. This paradox was directed at the relationship between meaning and film. How are films such as those of Kubrick able to convey concepts despite the fact that film essentially is an iconic and visual medium? Subsequently, in the next four chapters we attempted to
approach this question systematically from the perspective of embodied cognition, rather than the film-as-language view. Now that we have arrived at the end of this book, we can raise a somewhat similar paradox, this time not with respect to the above mentioned relationship, but with respect to the relationship between the film and the film viewer to whom the embodied visual meaning of the film relates to. This paradox is rooted in the question as to how viewers are able to discover the situational meanings of a film, given the fact that they, as observers, reside outside the events that define these meanings. Resolving this dilemma is important, for the answer to it could well explain why the films of Kubrick are overall perceived as highly engaging. Indeed, as many cognitive film scholars have stressed, there is an intrinsic link between the film audience’s strong attentional focus on the events of the story-world, on the one hand, and the film audience’s enjoyment of watching films, on the other hand. Ed Tan and his colleagues have proposed to refer to this intense engagement with the story-world, which is said to go hand in hand with a decreased awareness of the self and one’s immediate surrounding, as “narrative absorption.” As Garreth Brown’s quotation in chapter 2 already made clear to us, a good way of making sense of this experience is by observing the language that film viewers use to describe it. An interview study conducted by Bálint and Tan has revealed, for instance, that film viewers have a natural tendency to describe the content of their experience of absorption by resorting to the dynamics of the containment schema (e.g., “To be lost in a film,” “To be pulled out of the story,” “To be drawn into the film”). This may be rendered in a most efficient manner, as the authors have done, by resorting to a superimposition of two of the dynamic patterns of containment as discussed in this book, namely entry and enclosure. The authors coin this embodied mental model for absorption the “Into Film” model and can be represented as in figure 5.1. In contrast to the figure proposed by Bálint and Tan, we opt to show both patterns separately. In the first, the motion is attributed to the viewer’s self. The viewer’s self “travels” into the film’s story-world. Once inside, the portrayed story can execute more “force” on the viewer’s self. This is where the pattern of enclosure takes over. Likewise, one might represent the opposite, the decreased awareness of a fictional narrative, by the patterns of exit and enclosure, respectively.

![Figure 5.1](image)

Figure. 5.1. Representing narrative absorption through A, entry, and B, enclosure.

The concept of narrative absorption has also been closely associated with that other strong felt aspect of cinematic experience, namely suspense. In its most general sense, suspense has been defined as an “emotional response to narrative fictions.” Although suspense has been sometimes argued to be more emotional than cognitive, as
compared to narrative absorption, it has also been argued to share with the latter a strong dependence on the viewer’s or reader’s knowledge of the events. In the literature this relationship is often further explicated in terms of a delay of the “outcome event.” The outcome event is “an event of high importance that usually represents the resolution of a conflict (e.g., the car of the protagonist explodes when he steps in).” The event that “announces the occurrence of the outcome event in the immediate proximity” is called the “initiating event” (e.g., “the villain places a bomb in the protagonist’s car”). Upon perceiving the latter, so the argument goes, the audience desires to see the outcome event, and the longer the expectations are held without fulfilling them by an outcome event, the more uncertainty, and hence suspense, will be experienced. There is probably no better way to illustrate this principle than with the final duel scene between Barry Lyndon and his step-son Lord Bullingdon. This duel distinguishes itself from the ones shown earlier in the film in that the two men are not shooting each other at the same time, but take turns with each turn marking an initiating event in its own right. Tension is built as the outcome event is postponed twice, first by Bullingdon whose first shot is a misfire, and second, by Barry who chooses to spare his step-son’s life, in an effort to heal their relationship, by firing his pistol into the ground. Eventually, the duel ends in a decisive outcome as Bullingdon decides to continue the gunfight and wounds Barry’s leg.

In sum, if our enjoyment of watching films, as articulated through the experiential states of narrative absorption and suspense, is closely tied to an understanding of the situational meanings, but the viewer is only an observer, and not a performer of the events that constitute those meanings, how, then, can such an understanding be achieved? For instance, how are we able to understand the acts of camera devices in terms of the psychology of characters, while we are not performing those acts ourselves when sitting stationary in the film theatre? It is in the search for an answer to this paradox that we may turn to the field of neuroscience, and in particular to Vittorio Gallese’s theory of Embodied Simulation (henceforth, ES theory). Central to this theory is the idea that individuals “reuse their own mental states or processes in functionally attributing them to others, where the extent and reliability of such reuse and functional attribution depend on the simulator’s bodily resources and their being shared with the target’s bodily resources.” Neurological evidence for this connection can be found in the discovery of so called “mirror neurons” in the macaque monkey brain and the discovery of a similar mirror mechanism in the human brain. Mirror neurons are claimed to map the sensory description of others’ expressive acts (for example, actions, emotions and sensations) onto the perceiver’s own motor, visceromotor and somatosensory representations of those acts. This mapping enables one to perceive the action, emotion or sensation of another as if she were performing that action or experiencing that emotion or sensation herself. Because they discharge both during the execution and the observation of a given behavior, mirror neurons have been argued to provide a neural basis for social identification and a variety of related concepts such as mind-reading, intersubjectivity, empathy and theory of mind. Hence, since film, like all other arts, exemplifies a form of intersubjectivity that mediates between the filmmaker and the film viewer, it can be assumed that ES also plays a significant role in the way audiences get hold on the events of films and hence, their situational meanings.

Since these meanings are foremost represented visually in the cinema of Kubrick with the aid of such embodied principles as metaphor and metonymy, we have to ask ourselves as to what degree ES can be linked to the notion of embodied visual meaning. Gallese’s own collaborative work with film scholar Michele Guerra provides a promising start to explore this issue further. Extending ES theory to film spectatorship, both authors have
stressed that viewers are not only bodily engaged (in terms of sensory-motor cortex activation) with the actions and emotions of actors and actresses (the most obvious level of embodiment), but also with cinematic devices (e.g., camera movements, changes of shot scale, different editing techniques). Since these cinematic devises are the tools by virtue of which the embodied meaning is fleshed out visually, as the previous chapter revealed to us, we can well assume that ES theory offers us some valuable insight into the question as to how viewers are able to discover the situational meanings (and hence, are potentially capable of reaching the states of narrative absorption and suspense).

As a way of illustrating this assumption, let us consider Gallese’s and Guerra’s own analysis of a scene from Hitchcock’s *Notorious* (1946), which, by extension, might give us a better understanding of how viewers are able to connect to the situational meaning structure of mental causation, as discerned in the cinema of Kubrick. It concerns the scene in which the lead heroine Alicia (Ingrid Bergman) is going to enter Sebastian’s room to steal the key of the wine cellar. The scene is rendered as follows: first, we see Alicia as she approaches the camera until she is captured in medium-shot. Her eyes are directed toward the left space off-screen. From the metonymy eyes for seeing, the film subsequently cuts to her visual field, showing us in the background of the frame, Sebastian’s shadow as reflected on his bathroom door, and in the foreground, outside the bathroom, his desk. Next, the film cuts away from this static point-of-view shot, and back again to Alice who now lowers her gaze. The film repeats the same point-of-view, albeit this time the static shot becomes a moving one as the camera tracks closer to the desk so as to enclose the keys which are left unguarded on the desk. From this the viewer might infer that Alicia has left her initial place for the purpose of grasping the keys. Yet, this assumption is inconsistent with the following shot which shows Alice still standing on the same threshold, thus suggesting to the viewer that she has never left her location.

Gallese and Guerra consider this scene to be a striking example of how a cinematic technique prompts ES. As they write, “the tracking shot mimicks not only Alicia’s potential approach to the keys, but also, by means of ES, the viewer’s own potential approach, which turns into a grasping simulation the more the keys are made ready-to-hand, thus evoking the activation of the viewer’s canonical neurons.” Thereby the authors emphasize the workings of two distinct simulation processes. There is the simulation process of approaching the desk which brings the keys on the table within the viewer’s simulated peri-personal space. The keys are turned into potentially graspable objects. This, in turn, allows for the simulation process of grasping the keys which is triggered by the activation of the viewer’s canonical neurons. Consequently, because the simulated actions of approaching and grasping constitute important source domains for our understanding of the abstract concept of desire, it may be assumed that the viewer is perfectly capable of understanding the tracking shot, and the pattern of inclusion which it embodies, in terms of Alice’s desire for the keys. The viewer is further encouraged in this hypothesis by the upcoming shot which shows Alice actually fulfilling her desire by taking hold of the keys.

If the observation of an action of the camera activates in the film viewer the same neural mechanism that is triggered by executing the action oneself (e.g., approaching), then we might well assume that the film viewer also simulates all of the other actions that accompany the dynamic patterns of the filmic frame (e.g., entering, distancing, exiting, excluding, including). Since these dynamic patterns are the tools by virtue of which the viewer makes sense of the conceptual structure of mental causation, as this book has demonstrated, we might well conclude that ES plays an equally important role in making the viewer aware of the embodied visual meanings of Kubrick’s cinema. In other words, the viewer is able to understand the dynamic patterns of containment, as manifested in the work of Kubrick,
in terms of various concepts of mental causation, because ES allows us to simulate the experiences that lie at the heart of these patterns and that are central to our own everyday embodied understanding of these concepts.

From the above consideration we may now infer the following hypothesis: by employing cinematic devices, and thus imposing image schematic structures on the visual content, the film director is able to exert more control on the viewers’ responses or brain states. Since these states are widely believed by most neuroscientists and many philosophers to be tightly related to the viewers’ mental states, controlling viewers’ brain states, for our purpose, is the same as directing the viewers’ attention toward the situational meanings of the film (e.g., mental causation in the case of Kubrick). Naturally, this begs the question of evidence: are there any notable neurological differences to discern across viewers of structured movies and viewers of arbitrary and unstructured segments of reality? An answer to this question has been proposed by neuroscientist Uri Hasson. Together with his colleagues he proposed a method for assessing the effect of a given film on the brain activity of viewers. They dubbed this method the “inter-subject correlation analysis (ISC).” What is significant about this analysis is that it allows one to measure similarities in brain activity across viewers of a same film by comparing “the response time course in each brain region (e.g., in a small region of the visual system of the brain) from one viewer to the response time courses obtained in the same brain region from other viewers.” With this definition in mind, they compared the ISC for an unstructured real life event (i.e., filmed without the employment of cinematic devices), with the ISC for a tightly edited and structured film (i.e., a segment from Sergio Leone’s *The Good, The Bad and the Ugly*). Subsequently, it was revealed that the former evoked far less ISC across viewers than the latter, thus suggesting that “a mere mechanical reproduction of reality, with no directorial intention or intervention, is not sufficient by itself for controlling viewer’s brain activity.” In other words, the more a filmmaker imposes image-schematic structure on the visual content with the aid of cinematic devices, the more control the filmmaker will exert on the viewer’s responses, and the more he or she will be able to direct the viewer’s attention toward the film’s referential meanings. It is precisely in this sense that filmmakers such as Leone, Hitchcock and Kubrick can be seen to assert a considerable degree of control over the viewer’s mind.

Coming to the end of our discussion of the first dilemma, a critical reader may wonder where emotions and top-down processes, these two other important components of the film experience, fit in the picture? What role do they play in the viewers’ discovery of the situational meanings of a film? Here, we may turn to Torben Grodal’s general model of visual aesthetics, which he labels the PECMA flow (short for perception, emotion, cognition and motor action). We have already seen above how the discovery of the situational meanings is made possible by the activation of embodied simulation processes inside the film viewer. These processes allow the viewer to connect to the image schemas upon which the situational meanings, as visually manifested in the films, are grounded. In the light of this claim, Grodal has argued that the viewer’s connection to these significant patterns, which he situates within the first stage of the flow, works in tandem with positive emotional responses from the limbic system. As he argues, “the function of the visual cortex is finding salient forms in the chaos of information that arrives through the eyes and the brain receives a small emotional reward every time it discovers a significant form.” He finds support for this in Ramachandran’s and Hirstein’s neurological theory of aesthetic experience. This theory proposes a list of “eight laws of artistic experience”—“a set of heuristics that artists either consciously or unconsciously deploy to optimally titillate the visual areas of the brain.” One of these laws is based on a psychological phenomenon called the “peak shift effect”: “If a rat is taught to discriminate a square from a rectangle (of say, 3:2 aspect ratio) and rewarded for the rectangle, it will soon learn to respond more frequently to the rectangle.”
is remarkable, however, is that the rat’s response to a rectangle that is even longer and skinnier (say, of aspect ratio 4:1) is even greater than it was to the initial prototype on which it was trained. As the authors point out, what this neurological finding tells us, is that the rat “is not learning a prototype but a rule,” an image schematic one at that, of “rectangularity.” It is precisely this principle that is said by the authors to provide a key to our understanding of the evocativeness of much of visual art. As they explain, what artists essentially try to do (either consciously or unconsciously) “is not only capture the ‘very essence’ of something” (what Hindu artists call “the rasa”), but also to “amplify” it, much in the same way as caricaturists do when they simplify or exaggerate the features of their subjects, “in order to more powerfully activate the same neural mechanisms that would be activated by the original object.” Something similar might now also be said of Kubrick’s films in which the psychological essence of the conveyed stories is significantly amplified in visual terms, and, as we shall see in the second part of this chapter, also in musical terms. Since this audio-visual amplification goes together with a recognition of image schematic patterns, and hence, pleasurable “rewarding” sensations, it could well explain why the discovery of the situational meanings in Kubrick’s film (which rests on this pattern recognition), is overall experienced as exceptionally pleasurable and gratifying (in contrast to the more word-driven films).

Furthermore, Grodal has claimed that emotions also have a significant role in the second stage of the PECMA flow, the process of associating or matching the significant input to stored memories and schemata. As he writes, these memories are stored with an “emotional tag or marker” that indicates how to relate to these significant forms. This stage can be seen as a top-down procedure insofar as this matching or reconstruction requires the “reconstruction of the past without much help from your senses.” Another top-down flow which is worth mentioning here is what Grodal refers to as “cueing attention.” Underlying this process is the neurological notion that only a fraction of the information will get focal attention. This priming and cueing of the viewer’s attention can be considered as a top-down process in that this selection process is influenced by forms of implicit knowledge that occur “unconsciously and with seemingly little effort.” Thus, one can assume that the viewers’ discovery of the situational meanings is not only mediated by patterns that are emotionally gratifying, but also by patterns that already have been selected for attention.

Having provided a general and tentative answer to the first dilemma, let us now turn toward a consideration of the role of music in Kubrick’s films.

2. The bodily grounding of meaning in the film music of Kubrick’s films

Although the films of Kubrick are widely acknowledged for their visual sense, they are equally well known for their use of music. This has not to come as a surprise as music, in addition to pictures and acting, provides Kubrick with an additional means, and a powerful one at that, to confront the film as language metaphor. From the powerful effects of Strauss’s Also sprach Zarathustra in 2001, and the beauteous “Ode an die Freude” from Beethoven’s 9th Symphony in A Clockwork Orange to Ligeti’s piercing Musica ricercata, each excerpt was carefully chosen by the director himself to match the meanings of his films. As McQuiston has argued: “For Kubrick, a director who habitually compared filmmaking with music and devoted his characteristic scrutiny to music in his work, music is primary and generative to the films’ themes.” This, in turn, begs the following question: if the music in his films...
is neither to be conceived of as postproduction afterthought nor as background music, but as the core to the films’ meanings, as McQuiston argues, and these meanings can be to a significant extent understood in terms of mental causation, as this book shows, how then does this relationship actually come about? For instance, how is music capable of expressing mental states of characters non-verbally? As we have demonstrated in this book, images were able to convey meaning visually because they are capable of expressing the same kind of tools of embodied meaning-making (i.e., metaphor and metonymy) which in language were responsible for fleshing out the conceptual structure of mental causation. When we consider these tools with respect to music, however, we seem to be confronted with a dilemma that, at least from a theoretical perspective, seems to be more problematic and puzzling. If we say that the music in the films of Kubrick is an expression of the underlying themes, we silently take for granted that some external reference is the source of the music’s expression (e.g., a character’s emotion). This assumption, however, is problematic because it assumes, as Leman has pointed out, that music just like words or iconic images “relies on a reference model.”

Music, however, is abstract and non-representational. In what sense, then, can we say that music expresses, or is expressive of a certain state of mind? As Baker, Paddison and Scruton write, this question is a philosophical one, and “reflects the profound uncertainty in contemporary aesthetics over the most important concept bequeathed to it by the Romantic movement.” The same uncertainty also arises when we extend the embodied view of meaning to music. If our understanding of abstract meaning is bodily grounded in such spatial patterns of sensory-motor experience as containment and motion, and music is not capable of expressing these spatial patterns due to its abstract nature, how then can we say of a piece of music that it is equally capable of expressing abstract meaning? In language as well as in moving pictures there is a reference model in which these patterns are signalled, the symbolic model and the iconic model, respectively. Music, however, lacks such a reference model, and therefore its status as a meaningful art form becomes questionable.

Before taking into consideration the embodied cognitive view on this issue, let us first say a few words about what has been for long time considered the dominant approach to the problem of meaning in music. It should not come as a surprise for the reader that this approach is informed by the same linguistic view of meaning that, as we have seen in the introduction, dominated the discussion of meaning in film. From the widespread preconception that only language can be meaningful, it follows that music like any other art form that is not substantially linguistic in nature, can only be meaningful if it is structured like a kind of language, “where passages in music are conceived as sentences, with individual notes or clusters of notes taken to be the equivalent of words.” In accordance with the film as language metaphor, as outlined in the introduction to this book, we can call this projection of language onto music, the music as language metaphor. References to language in our theorizing about music are abundant as evidenced by such terms as “musical ideas, music sentences, propositions, punctuation, musical questions, and other quasi-linguistic phrases.” One merely has to cast a glance at the vast amount of literature on meaning in music to see how widespread this metaphor actually is. As Johnson observes: “One always has the sense that the key terms of linguistic theory gets twisted and stretched, sometimes to the point of breaking, as theorists try to make the music as language metaphor work.”

We have already spent a considerable amount of time arguing why linguistic or grammatical approaches to meaning are no longer sustainable in the light of the embodied turn in cognitive science. Therefore, we will not elaborate further on this issue. Instead, we will immediately pick up where we left off above and try to explain, albeit from an embodied perspective this time, what music makes meaningful in view of the absence of any referential
content. As we already have pointed out above, addressing this question entails, foremost, that we find a solution to the question as to how music can be meaningful if the bodily patterns that are responsible for structuring this meaning cannot be regarded as intrinsic properties of musical sounds. A possible resolution to this problem has been proposed by Johnson and other followers of the embodied (cognitive) theory of meaning such as Aksnes, Brower, Larson, McKee, Saslaw and Zbikowski, who all have argued that the answer is not to be found in the music itself, but within the embodied hearer who conceives and makes sense of the music. As the argument goes, physical properties such as motion, gravity and containment may well not be properties of music, they nonetheless play a crucial role in our understanding and conceptualization of music. As McKee put it, “not only do we perform music with and through our bodies but we also conceive of and analyse music, whether we realize it or not, with and through our bodies.” This reference to spatial phenomena becomes especially clear in our discourse about music which speaks of such terms (as quoted from Walton): “ascending and ‘descending’ motives, ‘thick’ and ‘thin’ textures, ‘strain’ and ‘repose,’ ‘conflict’ and ‘concord,’ ‘movement,’ ‘return,’ ‘destinations,’ ‘renewal,’ ‘soaring’ and ‘whispering’ melodies, ‘throbbing’ rhythms, etc.” These verbal metaphors are not merely colorful ways of describing music’s formal or acoustic properties. Rather, they are verbal manifestations of conceptual metaphors that result from cross-domain mappings of image schemas onto music. Following McKee we may list four such metaphors as in table 5.1.

| Conceptual metaphor | Entailments |
|---------------------|-------------|
| MUSIC IS MOTION     | Music is purposeful motion operating within a field of musical forces, with gravity being the most important. Music moves at different speeds. Motion follows a path or trajectory with beginning points and goals. |
| PITCH RELATIONSHIPS ARE RELATIONSHIPS IN VERTICAL SPACE | Musical pitches, events, and motions are plotted on a vertical axis. Scale-degree 1 is the Grundton (ground tone), the bottom floor of diatonic pitch space. |
| MUSIC IS CONTAINED WITHIN BOUNDARIES | Motion occurs within bounded spaces with beginnings, middles, and ends. Gestures, motives, phrases, sections, and pieces contain musical content. Typically, a tonal work will begin in one key and, at some point, modulate out of that key and into another key. Triads may be prolonged resulting in a prolongational area. Music and instruments have registral boundaries. |
| MUSIC HAS WEIGHT    | Tonic is a gravitational field to which other pitches/chords are attracted. Ascending motion requires more effort than descending motion. Cadences (from the latin cadere, “to fall”) tend to fall into a point of repose. Lower pitches are heavier than higher pitches. Meter is a gravitational field in which downbeats attract contextually stable events. Downbeats are heavier than upbeats. |
While it lies beyond the scope of this book to discuss the entailments of each metaphor in detail, which would require knowledge about such complex notions as pitch, chord, scale, and so on, it nevertheless gives the reader a general sense of the pervasive role of metaphor in our thinking about music. Not surprisingly, the primary source domain that people use to make sense of music is also the source domain that we resort to when making sense of other target domains (including mental causation), namely motion. This gives rise to what is perhaps the principle metaphor for conceptualizing music, the *music is motion* metaphor. According to this metaphor, changes of states are understood in terms of a motion schema; musical states in terms of bounded regions or locations, and difference between states in terms of a distance between locations. Another important source domain is that of gravity. We already encountered in chapter 3 how Arnheim applied the notion of physical weight to visual perception. In one of his later, lesser known works, he extended this idea also to music. As he writes, “moving upward on the pitch scale carries the connotation of a victorious liberation from weight, whereas descent is experienced as a passive giving in to weight.”

Inspired by Arnheim, among others, the musical theorist Steve Larson developed this idea of musical forces more elaborately in his book *Musical Forces: Motion, Metaphor, and Meaning in Music*. The author claims that musical forces “affect our perception of both melody and rhythm, by analogy to our embodied (and cultural) understanding of physical forces.” Through the unconscious mappings of these and other image schemas, we are able to create, as McKee writes “an imaginary world in which we hear music as a transmutation of physiological impulses, as gesture.” Although these image schemas are strictly speaking not to be found in the music itself, they are nonetheless “experientially real and essential properties of our understanding of music.”

It is here that one begins to see how the problem of expressiveness might be resolved with respect to music. As Walton already foreshadowed in his article on music and meaning, if our language about music necessary involves reference to spatial phenomena, then this fact will be “welcomed by those who hope to find a subject matter for music.” Music is able to express meaning about something other than itself because our embodied understanding of the music is structurally similar to our embodied understanding of the meaning. For instance, in his own analysis of the hymn topic in classical music, McKee has demonstrated convincingly how music is capable of depicting spiritual states (“a sense of walking in the spirit”) through the use of the popular chord progression known as I-V7-I. As he writes, this progression, when used with other attributes of the hymn topic, is apt to depict spiritual states, because “its conceptual structure closely correlates to our embodied understanding of exalted states of consciousness.” He refers in this regard to such image schemas as *verticality*, *gravity*, and *light* (brightness/darkness) which are all central to our understanding of spiritual states. These states, he writes, are commonly conceptualized as “weightless, unaffected by the force of gravity, and bright, radiant and illuminated.” The structural similarities between the two domains thus allow one to easily map the domain of meaning (i.e., spirituality) onto the domain of music.

Something similar can now be said about the music used in Kubrick’s films. The viewer experiences the latter as meaningful (e.g., as capable of expressing the concepts of mental causation), because the bodily means that he or she draws upon to make sense of this music are structurally similar to the bodily means that he or she uses in ordinary life to make sense of the meaning, the same bodily means that were also used to flesh out the referential meanings visually.
As to the question how this attribution of expressiveness to music is achieved, we may turn once more to the importance of mirror mechanisms inside of the perceiver. Marc Leman in this regard speaks of a process of “corporeal imitation.” As he writes, “in corporeal imitation, moving sonic forms (the changing physical energy) are fully taken into the body, and via the body they are turned into action-oriented precepts that associate with expressions.” The author regards this process as a sufficient source for the induction of expression. In other words, for Leman the search for a possible source of this expression or the possible intended meaning (e.g., an emotion) is only optional, not necessary. He backs his claim by inviting us to think about a suite by J.S. Bach, which, despite its relation to dance, might be characterized as abstract. As such, it does not express nor imitate something specific. Nevertheless, many listeners attribute a very concrete expressiveness to the music when articulating it. As he concludes, “listeners can engage in different degrees of involvement with music without having to draw upon a reference or to know what this music expresses.”

In this book, however, we are not dealing with music as such, but with film music or musical soundtracks, that is, music that was carefully selected by the director to “influence the interpretation of images that they accompany.” Since these visuals provide the viewer with the cues from which he or she construes the films’ narratives, it might be assumed that the image schemas that we use to make sense of the musical sounds, are not there for their own sake, but there to be linked to our understanding of the situational meanings of the films. Since the latter depends considerably on the structure of mental causation, as demonstrated in this book, we may well ask ourselves to what degree music contributes to the expression of such concepts as feelings and emotions. Burt suggested something similar when he wrote that film music has “the power to open the frame of reference to a story and to reveal its inner life in a way that could not have been as fully articulated in any other way.”

Moreover, the visuals that go together with the music are also referential. This entails that the image schemas that we map onto the music (e.g., musical movement), when hearing it, may well correlate with the image schemas, as physically instantiated in the visuals (e.g., visual movement). Juan Chattah in similar terms calls this correlation, “structural congruence.” This gives rise to such conceptual metaphors as pitch frequency is motion in vertical space according to which “upward motion correlates with increasing pitch frequency, and downward motion correlates with decreasing pitch frequency.” There is probably no better way to illustrate this “musico-visual alliance,” as McQuiston coins it, than with the famous Blue Danube sequence from 2001 in which the sonic qualities of a Viennese dance waltz are carefully aligned with breathtaking images of spinning satellites and moving spacecrafts. As McQuiston observes, “among the first clues as to this alliance is the strong suggestion of ascent; the effortless, ascending arpeggios of the melody in the introduction each conclude with one note that remains afloat, almost always the highest pitch of each phrase. These high, held notes create an open feeling and keep the melody suspended with respect to its key (the ground).” A point of harmonization, then, can be created when the verticality schema, as mapped onto these high notes, accompanies visual images in which the same feeling of ascent is suggested. As we have seen in chapter 3, a strong sense of rising might be provoked on-screen by visual compositions that instantiate the high-low schema in such dynamic patterns of containment as entry and inclusion. A powerful visual manifestation of the latter is shown in figure 5.2. While the highest pitch carried by cellos and horns is hearable, the camera slowly moves upward, away from earth (O1) and toward the long spacecraft that is entering the frame overhead (O2).
Figure 5.2. Musico-visual alliance in *2001*: ascending INCLUSION as accompanied by Johann Strauss’s *The Blue Danube* (sheet music excerpts for horns and cello, respectively).

The function of film music, however, is not limited to enhancing on-screen visual movement. As stated, Kubrick, like many other narrative filmmakers of narrative cinema, carefully selects the music on the basis of whether or not our embodying understanding of it mirrors our embodied understanding of the inner psychological states of characters. Chattah refers to this as “semantic congruence” to contrast it with the earlier notion of “structural congruence.” In what follows, we will examine the relationship between film music and
the conceptual structure of mental causation more closely by considering the expressive role of music in three scenes as they were already analysed in visual terms in the previous chapters. They concern Moon-Watcher’s epiphany scene from 2001 (Richard Strauss’s *Also sprach Zarathustra*), the scene from *The Shining* in which Danny enters Jack’s bedroom, approaches and talks to his destabilizing father on the bed (Béla Bartók’s *Music for Strings, Percussion and Celesta*), and lastly, Bill’s emotional breakdown at the end of *Eyes Wide Shut* (György Ligeti’s *Musica ricercata*).

**2001: A Space Odyssey**

It is not difficult to see how the opening melody to Richard Strauss’s tone poem *Also sprach Zarathustra*, a slow giant of a fanfare, fits well with Moon-Watcher’s moment of epiphany as well as with the later transformation of Bowman into the Starchild at the end of the film. The title refers to Friedrich Nietzsche’s eponymous work by the same name in which the German philosopher put forward the idea that man, as evolved from apes, has the potential to surpass himself and thus become what he calls an “Übermensch” or “Superman.” It is precisely this idea of evolution that Strauss was inspired by when he wrote the music. As the composer himself put it:

> I did not intend to write philosophical music or portray Nietzsche’s great work musically. I meant rather to convey in music an idea of the evolution of the human race from its origin, through the various phases of development, religious as well as scientific, up to Nietzsche’s idea of the Übermensch.69

What is it about Strauss’s music, then, that allows one to hear it as an expression of intellectual evolution? Likewise, we may argue that the opening melody is appropriate because our embodied metaphorical understanding of it is similarly structured to our embodied metaphoric conceptualization of evolution, as also manifested visually in the film. To clarify this point, let us have a look at the structure that is responsible for conveying this idea.70 This structure consists of three identical, ascending statements of a brass melody with each statement containing three elemental pitches, coming in intervals of a fifth and octave, as C–G–C (also known as the “Nature” motif or the “Dawn” motif).71 The first statement, as shown in figure 5.3, comes right after the appearance of the celestial alignment with the monolith and conjures with the image of Moon-Watcher as he suspends his instinctive search for food (see figure 3.39D). The mapping of the verticality schema onto the music resonates in the image of Moon-Watcher lifting up his head and directing his gaze toward the bones in front of him (cfr. the head for thinking metonymy). This suggestion of ascending motion, however, is counterbalanced at the end when the phrase lands on a minor chord, as if the music, through this downward gesture wants to suggest that Moon-Watcher has not yet “arrived” at the idea, or solved the “riddle” as McQuiston describes it, thereby referring to “The World Riddle,” a label that Arthur Hann ascribed to the opening theme in a guide that Strauss himself agreed on.72 There is still the force of gravity holding him down, preventing him from capturing the idea in the fullest. As McQuiston writes, “the major chord, by virtue of associations accorded to it in Western music, may sound like an optimistic revision of the answer to the first phrase, yet the riddle remains unsolved.”73
Figure 5.3. First statement and beginning of second statement of Richard Strauss’s Also sprach Zarathustra as in Moon-Watcher’s epiphany scene from 2001: the riddle remains unsolved.

The second entrance of the theme, as shown separately over figures 5.3 and 5.4, conjures with the image of Moon-Watcher as he picks up and inspects one of the bones (see figure 3.39F). The melody continues to convey the sense of rising as echoed in the first statement, yet, this time, the phrase does not land on a minor chord, but on a major chord. The cadence pushes upward rather than downward, thus fostering the idea that something momentous is about to happen.
Figure 5.4. Continuation of second statement and unfoldment of the third statement of Richard Strauss's *Also sprach Zarathustra* as used in Moon-Watcher's epiphany scene from *2001*: the riddle is solved.

When, finally, Moon-Watcher stands nearly erect, using both hands to wield his club against the pile of bones, the melody reaches its final resolution. The third statement culminates in a grand musical gesture that “sticks the landing” and triumphantly shouts, “Ta-daaaa!,” at the same time as the viewer sees Moon-Watcher crashing
the bone onto the head of the skeleton (see figure 3.40). As McQuiston writes, this last cadence “seems to be ‘right’ way to end,” because it “allows the music to move not only to a new key (from C to F) but also into a more fully developed and grand cadence that seems to energize the entire orchestra. As the last and most grandiose, this third statement carries connotations of progress or breakthrough by virtue of the musical topics it employs.”

The Shining

The wordless scene from 2001 was dominated by an intimate liaison between music and image. Our second scene under investigation, by contrast, provides us with an example in which the music does not so much interact with the visual action, as there is almost none to observe with exception of Nicholson’s facial performance inside the predominantly visually static scene, but with the dialogue. It involves the moment in The Shining when Danny enters the frame from behind the set by opening the door that gives entrance to the bedroom where Jack is residing, as shown in figure 4.28, whereupon he approaches and talks with his destabilizing father. Although Kubrick initially did not want any music to this scene, he ultimately agreed on using the first forty-five bars of the third movement of Béla Bartok’s music for Strings, Percussion and Celesta (1936), an idea that was suggested to him by his music editor Gordon Stainforth. McQuiston sees this as comparable to the music editing history of the iconic shower scene from Psycho (1960) where Alfred Hitchcock similarly (and wisely) dropped his initial plan of using no music at all in favour of Bernard Hermann’s screeching string music. John McCabe has described the effect of Bartók’s third movement aptly in terms of a sense of “remote feeling” and “inhuman iciness,” and the “touches of frozen humanity.” Undoubtedly, Kubrick must have regarded these musical features as particularly suitable for expressing the abstract psychological level of the scene where the narrative demands for an embodiment of the omnipresent but unseen evil that is lurking behind the banality of the conversation. Indeed, taken the dialogue in isolation the scene might even look as seemingly normal. It is only when we add Bartók’s music to it, in conjunction with Nicholson’s “worn-out” performance, that the scene reaches a level of psychological uncanniness rarely unequalled in cinematic history. As Mullen writes: “Were it not for the eerie music, what follows would seem tender at first. The camera cuts to a two-shot of Danny and Jack, who continues to caress his hair. Imperceptibly the dialogue . . . becomes more strained, each phrase becoming more charged with menace as Jack’s expression becomes more and more calculating and his tone more alarming.” Barham already did a very good job in diagramming the interaction between the music, the visuals, and the dialogue. With his permission we are reproducing it here in figures 5.6 and 5.7. The first three shots of a total of six shots have already been discussed in the previous chapter (see figure 4.12 for the first shot, figure 4.28A-C for the second shot and figure 4.28D-F for the third shot which is identical to the fifth shot). The longest shot and hence the largest part of Bartok’s music, however, is reserved, as Barham’s diagrams show, for the fourth shot which is also identical to the last shot, and which centres on a medium shot of Jack and Danny on the bed (see figure 5.5).
As with many other scenes of the film, one would expect that the images were predominantly choreographed to the music, that for instance, Bartók’s music was dictating Nicholson’s performance. This myth, however, which is still pervasive among many film scholars, as Barham has pointed out, has been undermined by Stainforth himself, who in a personal communication with Barham, has stated that “it was all done completely the other way round.”

The following significant observations can now be made with reference to Barham’s diagrams. First, there is the swish-pan that embodies Danny’s perception of Jack through an exclusion of the PR in favour of an inclusion of the OP (see figure 4.12G-I), which concurs almost precisely with the “first viola demisemiquaver” or “thirty second note.” A brief moment, but a noteworthy one for it is the only movement to discern in the total duration of four minutes and thirteen seconds that the scene lasts. Second, there is the lack of energy and vitality in which the scene is immersed. According to Barham this lack of movement, which is also echoed in Jack’s monotone voice that speaks in a manner as if he is mentally drained and “empty,” is matched at the musical level by “the pace, volume and relative inertness of the score’s kinetic content, often underpinned by extended pedals, and later by ostinato.”

Third, despite this lack of liveliness, there is nevertheless a clear trajectory to discern within the dialogue and Jack’s performance that runs from “seeming inanity towards the suggestion of violence.” Fascinatingly, this emotional trajectory follows a succession of upwardly and downwardly inflected and repeated questions and answers that are all aligned, as Barham observes, “with changes in the music’s texture, degree of linearity and intermediate moments of climax.” For instance, when Danny first inquires “Dad?,” the balance is distorted by “an upward glissando that breaks the pattern in the strings and upsets the atmosphere.” Similarly, the pivotal scene-altering question, “You would never hurt mummy and me, would you?,” is echoed by string glissandi suggesting parallel directed motion. Subsequent questions such as “What do you mean?”
and “Did your mother say that to you?” are all aligned with, to quote Barham, “piano and celeste chords at the beginnings of bars 31, 21, and 33, which interrupt the prevailing linearity of the musical activity and pulse.” The tenderness of what should be an emotionally positive and reassuring linguistic token of a father’s love for his child (the linguistic meaning, “I love you more than anything else in the whole world and I’d never do anything to hurt you” as uttered by Jack at the end of the scene), is even completely altered and reconceptualized by our embodied (negative) understanding of the music, which Barham, in more technical terms, describes as a “passage from bar 35 of alternating ‘black-note/white-note’ pentatonic ostinato (rapidly covering ten of the twelve notes of the chromatic pitch spectrum) on celeste, together with piano and harp glissandi and intensifying string tremolandi.”

Figure 5.6. The use of the third movement from Bartók’s Music for Strings, Percussion and Celesta in The Shining (part one). Used by permission of Jeremy Barham.
Figure 5.7. The use of the third movement from Bartók’s *Music for Strings, Percussion and Celesta* in *The Shining* (part two). Used by permission of Jeremy Barham.

**Eyes Wide Shut**

Let us end this book appropriately by analysing the music to a scene which is not only one of the very last scenes of the filmmaker’s oeuvre, but also one of the finest cinematic renderings of mental causation ever put on screen. It concerns Bill’s confession scene as already discussed in visual terms in the previous chapter (see figure 4.20). As a musical accompaniment to this scene, Kubrick decided to use Ligeti’s second movement of the eleven movements that together constitute his *Musica ricercata*. This work, which the Hungarian composer composed in the 1950s under Stalinist oppression, is intriguing from a musical point of view in that each movement is limited to only a number of pitch classes, with each subsequent movement containing exactly one more pitch class than the last. The three pitches out of which the second movement is formed are E-sharp, F-sharp, and G. The first half of the piece is dominated by a heavy alternation between the first two pitches as they appear in the low register. This semitone is the main theme of the piece. After a pause, near the middle of the piece, the G appears as a stark high pitch. The pianist is instructed to play this note with both fingers at once. Once the G is introduced, the pianist is ordered to
gradually increase the tempo of the pitch until he or she repeats it as dense as possible (the “knife in Stalin's heart,” as Ligeti called it). The weight of the music is pushed down again as the main theme returns in the low register, this time louder. There is a menacing quality to it. Ligeti marks this section intense. The main theme and the high Gs are heard together in an unmetered tremolo. The repeated Gs fade away and the main theme eventually resolves into silence as the movement ends.

A close look at the interplay between these distinctive compositional features and the story of mental causation as narrated visually in the last bedroom scene (see figure 4.20), reveals rich and consistent connections. As we have seen in the previous chapter, this story consists of a causal succession of three key events: a perceptual one (Bill sees the mask), an emotional one (the mounting increase of emotional intensity inside Bill as a result of seeing the mask), and a behavioral one (Bill starts to cry and vows to his wife to tell everything).

The first G, as shown in figure 5.8, occurs right after a pause in the texture of the music and is perfectly synchronized with the image of Bill turning his head toward the mask on the pillow off-screen (see figure 4.20A), a swish-pan that bears a striking resemblance to the one from The Shining as analysed above. The alarming sound corresponds to Bill’s panic of seeing it. Chattah refers to this as the psychological tension is loudness metaphor according to which “soft sounds correspond to a relaxed state and loud sounds correspond to a tense state.”

The high G is immediately followed by the whip pan that excludes Bill in exchange for an inclusion of the mask (see figure 4.20B). The camera moves as fast as the G sounded loud.

![Figure 5.8](image)

Figure 5.8. The appearance of the high note G in Ligeti’s Musica ricercata, as aligned with the image of Bill seeing the mask on the pillow (Eyes Wide Shut).

The accelerated repetition of this note that immediately comes after the alarming signal of the G, voices the increase of emotional intensity that is taking place inside of Bill as a result of him seeing the mask (see figure 5.9). This increase of intensity is echoed at the visual level as Bill is no longer filmed in long shot, but in medium shot, a visual manifestation of a conceptual metaphor that we have identified earlier as the increase of emotional intensity is increase of substance in a container metaphor (see figure 4.20C).
Figure 5.9. The repetition of the G note in Ligeti’s *Musica ricercata*, as aligned with the increase of emotional intensity inside Bill as inflicted upon him by his perception of the mask (*Eyes Wide Shut*).

The return of the lower main theme can be heard precisely as Bill lowers himself into the frame from the top edge (see figure 4.20E-F-G). The direction of the entry path into the frame is congruent with the downward pull of the force of gravity. In a way this can be seen as standing opposite to *The Blue Danube* example as discussed above, or the *Utrenja* example from chapter 3 (see figure 3.12), where the dynamic patterns of inclusion and entry, respectively, were contesting the pull of gravity, thus evoking a sense of “floating in space” and a sense of “triumph,” respectively. The visuals as well as the music are in perfect alignment with our embodied understanding of intense negative emotions. They both suggest a heightened sense of weight and heaviness that is strongly correlated with feelings of sadness. The feeling of guilt is pulling Bill down to the ground (see figure 5.10).

When, subsequently, the high Gs continue to pierce through the main theme (figure 5.11), the tension builds up and the increase of emotionality reaches its culmination point. Bill loses his control over his emotions and he starts to cry (see figure 4.20I).

When Bill finally vows to tell everything and decides to keep no secrets from his wife the piercing Gs are gone and we can only hear the semitone music which now fulfills, as McQuiston pointed out, the “role of releasing tension” (see figure 5.12). The scene reaches its moment of truth and resolution, not of “the unsolved mysteries in the plot, but of Bill’s solitariness in his bizarre adventures.” As discussed in the previous chapter, this openness from Bill toward his wife is expressed at the visual level by the camera including Alice into the frame (of Bill) (see figure 4.20L).
Figure 5.10. The return of the lower main theme in Ligeti’s *Musica ricercata*, as aligned with Bill’s downward entry into the frame (*Eyes Wide Shut*).

Figure 5.11. The high Gs pierce through the semitones in Ligeti’s *Musica ricercata*, as aligned with Bill’s emotional collapse (*Eyes Wide Shut*).
Conclusion

In this concluding chapter, we set ourselves the task of addressing two theoretical problems. The first one had its roots in the distance between the film and the film viewer. How is the audience able to discover the meanings of a film given the fact that they are not performing the bodily actions that lie at the heart of the conveyance of those meanings? Resolving this issue is important, for an understanding of the situations of a film contributes considerably to our experiences of narrative absorption and suspense, and hence our enjoyment of watching films. A scientific argument for overcoming this problem was found in the neurological concept of embodied simulation which allowed one to transcend the distance between “doing” and “observing.” Viewers are capable of grasping the concepts of Kubrick’s films because simulation processes inside the viewer allow them to activate the bodily sources that were used to flesh out those concepts visually, and that are the same ones that viewers resort to when reasoning about them in their day-to-day verbal interactions. Although embodied simulation provides a promising lens to examine this issue, it should be stressed, however, that the viewer’s discovery of the meanings is most likely to be influenced by other factors as well, notably emotions and top-down processes. All these aspects (and their relations) should be taken into consideration in order to come to a fuller picture of the problem of how viewers are able to become aware of the films’ intended referential meanings. The second problem originated from the distance between meaning and music. How is music able to express something given the fact that music does not refer to anything unlike words and images? Following an embodied cognitive approach to music, we located the
answer not so much in the music itself, but in the embodied listener who makes sense of the music. Physical properties such as motion, gravity and containment may well not be signalled in music, they nonetheless play a crucial role in our understanding and conceptualization of music. It is precisely in this sense that it can be said that music expresses meaning because our embodied understanding of the former correlates to our embodied understanding of the latter. Moreover, if this music accompanies images in which the same embodied meaning is fleshed out in visual terms, the result is a *gesamtkunstwerk* in which both levels of expression interact for the purpose of conveying the meaning non-verbally. This was shown to be brought into perfection in Kubrick’s films where the music, like the images they accompany, serve the concepts of the overall narrative form.

**Notes**

1. Kubrick, “Words and Movies,” 14.
2. Tan, “A Psychology of the Film,” 10.
3. Hakemulder et al., *Narrative Absorption*.
4. Bálint and Tan, “It Feels Like There are Hooks Inside My Chest,” 63–88.
5. Ibid., 76–77.
6. Ibid., 65. For a discussion, see also Tan, et al., “Into Film,” 97–118.
7. Bálint, Kuijpers and Doicaru, “The Effect of Suspense Structure,” 177–198.
8. Carroll, “Paradox of Suspense,” 74.
9. Doicaru, “Gripped by Movies,” 34–71.
10. Ibid., 37.
11. Ibid., 37.
12. Theoretical accounts which treat uncertainty as conditional for suspense include, among others, Carroll, “Towards a Theory of Film Suspense,” 94–117; Gerrig, *Experiencing Narrative Worlds*; Ortony, Clore and Collins, *The Cognitive Structure of Emotions*; and Walton, *Mimesis as Make-believe*.
13. The condition of uncertainty, in turn, has led many scholars to raise the “paradox of suspense” or the phenomenon of “anomalous suspense.” This paradox is based on the contention that viewers can still experience suspense even after repeated viewings of the same film. In that case the uncertainty principle would no longer hold as the viewer is already familiar with the story’s outcome. For discussions of this paradox, see among others, Carroll, “The Paradox of Suspense,” 254–270; Gerrig, “Is There a PARADOX of Suspense?,” 168–174; Mag Uidhir, “The Paradox of Suspense Realism,” 161–171; Smuts, “The Desire-frustration Theory of Suspense,” 282; and Yanal, “The Paradox of Suspense,” 146–158.
14. This part is a recapitulation of the argument as elaborated in Coëgnarts, “Cinema and the Embodied Mind.”
15. Gallese and Sinigaglia, “What Is So Special About Embodied Simulation?,” 518.
16. Gallese, Fadiga, Fogassi and Rizzolatti, “Action Recognition in the Premotor Cortex,” 593–609; Rizzolatti, Fadiga, Gallese and Fogassi, “Premotor Cortex and the Recognition of Motor Actions,” 131–141.
17. Gallese and Sinigaglia, “What Is So Special,” 512.
18. Gallese, “The ‘Shared Manifold’ Hypothesis,” 33–50; Gallese, “The Roots of Empathy,” 171–180; and Gallese, “Mirror Neurons,” 519–536.
19. For a discussion of this question, see also Coëgnarts, “Cinema and the Embodied Mind.”
20. Gallese and Guerra, “Embodying Movies,” 183–210.
21. For empirical support of their claim, see among others, Heimann et al., “Cuts in Action”; Heimann et al., “Embodying the Camera”; and Heimann, Umiltà, Guerra and Gallese, “Moving Mirrors.” These studies show, among others, that the indicator of sensory-motor
activity (the so called “central mu rhythm ERD”) varies depending on the kind of editing system (for example, continuity editing versus violations of the 180 degrees rule) and the type of camera movement (for example, zoom, Steadicam, dolly). For instance, with regard to the latter, the sensory-motor areas of the brain were found to be more active in cases for videos that were filmed while approaching the scene with a Steadicam.

22. Gallese and Guerra, “Embodying Movies,” 200–202.
23. Ibid., 201.
24. Hasson et al., “Neurocinematics,” 2.
25. Ibid., 1–26.
26. Ibid., 2.
27. Ibid., 8.
28. Grodal, “The PECMA Flow,” 1–11. See also Grodal, Embodied Visions, 145–157.
29. Ibid., 4.
30. Ramachandran and Hirstein, “The Science of Art,” 15–51.
31. Ibid., 15.
32. Ibid., 18.
33. Ibid., 18.
34. Ibid., 17.
35. Grodal, Embodied Visions, 148–149.
36. Shimamura, Experiencing Art, 133.
37. Grodal, Embodied Visions, 152.
38. Shimamura, Experiencing Art, 101.
39. For discussions of the music in Kubrick’s film, see, among others, Gengaro, Listening to Stanley Kubrick; McQuiston, We’ll Meet Again; Schultheis, “Expanse of Possibilities,” and Sperl, Die Semantisierung.
40. McQuiston, We’ll Meet Again, i.
41. Leman, Embodied Music Cognition, 130.
42. Baker, Paddison and Roger Scruton, “Expression,” 463.
43. Johnson, The Meaning of the Body, 235. See also Johnson and Larson, “Something in the Way She Moves,” 63–84.
44. Ibid., 235.
45. Ibid., 235.
46. Ibid., 235.
47. Ibid., 235–262; Brower, “A Cognitive Theory of Musical Meaning,” 323–379; Larson, “Musical Forces,” 55–72; Larson, Musical Forces; Mckee, “The Topic of the Sacred Hymn,” 23–52; Saslaw, “Forces, Containers, and Paths,” 217–243; and Zbikowski, “Metaphor and Music,” 502–524.
48. Mckee, “The Topic of the Sacred Hymn,” 23.
49. Walton, “What Is Abstract About the Art of Music?,” 354–355.
50. Mckee, “The Topic of the Sacred Hymn,” 31.
51. For discussions of this metaphor, see also Cox, “The Metaphorical Logic of Musical Motion and Space,” Johnson, The Meaning of the Body, 243–256; and Lockhead, “The Metaphor of Musical Motion,” 83–103.
52. Arnheim, “Perceptual Dynamics in Musical Expression,” 298–299.
53. Larson, Musical Forces, ix.
54. Mckee, “The Topic of the Sacred Hymn,” 30.
55. Ibid., 30.
56. Walton, “What is Abstract,” 355.
57. McKee, “The Topic of the Sacred Hymn,” 34.
58. Ibid., 34.
59. Leman, *Embodied Music Cognition*, 130.
60. Ibid., 131.
61. Cohen, “Perspectives from Cognitive Psychology,” 362.
62. See, for instance, Cohen, “Music as a Source of Emotion in Film,” 249.
63. Burt, *The Art of Film Music*, 4.
64. Chattah, “Film Music as Embodiment,” 83.
65. Ibid., 84.
66. McQuiston, *We’ll Meet Again*, 137.
67. Ibid., 137.
68. Chattah, “Film Music as Embodiment,” 86.
69. Williamson, *Strauss*, 28.
70. For a discussion, see also McQuiston, *We’ll Meet Again*, 157–159; and Gengaro, *Listening to Stanley Kubrick*, 87–89.
71. Gengaro, *Listening to Stanley Kubrick*, 88.
72. Ibid., McQuiston, *We’ll Meet Again*, 158.
73. Ibid., 158.
74. Ibid., 158.
75. Ibid., 158–159.
76. Ibid., 158.
77. Ibid., 79.
78. McCabe, *Bartók Orchestral Music*, 49, 52. See also Barham, “Incorporating Monsters,” 153.
79. Mullen, “Do You Speak Kubrick?,” 102.
80. Barham provides the following explanatory note: “The encircled numbers and the arrows extending to them in the example represent in order and as accurately as possible, the placement of either dialogue or action in relation to musical events.” See Barham, “Incorporating Monsters,” 159.
81. Ibid., 143.
82. Ibid., 153.
83. Ibid., 153.
84. McQuiston, *We’ll Meet Again*, 79.
85. In order to bring Bartók’s music and the scene to a satisfying end, Stainforth had to cut a few bars at the end of the music. In his personal communication with Barham, he recalls this painstaking editorial process as follows: “At first I first cut [the music] (simply reduced to ABA from an ABABA structure), it was still a bit too long for the scene, and it took all sorts of jiggery-pokery to make it fit really well . . . If my memory is correct . . . I had to cut out about 15–20 frames of the music, maybe more, with two very subtle cuts, and then we had to lengthen at least two of the cuts of Jack and Danny, and I think the very last cut to get the final chord to come right on the title ‘Wednesday’. . . Fitting classical music to a scene like this always involves many compromises, but a few cues had to be absolutely right. I remember an absolutely ‘key’ cue was where Danny says ‘You would never hurt me or mommy would you?’ and Jack says ‘What do you mean?’ Even then, to make it all fit, some of the picture cuts had to be changed slightly.” Barham, “Incorporating Monsters,” 154.
86. Ibid., 153.
87. For a discussion, see also McQuiston, *We’ll Meet Again*, 119–127; and Gengaro, *Listening to Stanley Kubrick*, 242–245.
88. Chattah, “Film Music as Embodiment,” 86.
89. McQuiston, *We’ll Meet Again*, 126.
90. Ibid., 125.