

Communicating the ideas and attitudes of spying in film music: A social semiotic approach

Frank Griffith, David Machin

Department of Music, Brunel University
London, UK
e-mail: frank.griffith@brunel.ac.uk

Department of Media and Communications, Örebro University
Örebro, Sweden
e-mail: david.machin@oru.se

Abstract. Taking the example of two 1960s popular spy films this paper explores how social semiotics can make a contribution to the analysis of film music. Following other scholars who have sought to create inventories of sound meanings to help us break down the way that music communicates, this paper explores how we can draw on the principles of Hallidayan functional grammar to present an inventory of *meaning potentials* in sound. This provides one useful way to describe the semiotic resources available to composers to allow them to communicate quite specific ideas, attitudes and identities through combinations of different sounds and sound qualities, by presenting them as systems of meaning rather than as lists of connotations. Here we apply this to the different uses of music and sound in *Dr No* and *The Ipcress Files* which allows us to show how we can reveal different ideologies of spying.

Keywords: Bond theme, music, social semiotics, multimodality, discourse, ideology

Introduction

There have been several traditions in musical research of identifying the underlying features of sound that create meaning, from Cooke's classic *The Language of*

Music (1959) to Tagg (1984, 2012) and Scott (2003) and into the specific cues in music that create different kinds of emotion (e.g., Gabrielsson, Juslin 2003; Juslin, Liljeström 2010). Juslin and Västfjäll (2008), however argue that there remains a lack of emphasis in research into the underlying mechanisms as regards the way that music communicates to us. There has also been a long tradition of semiotic work in music, often drawing on linguistics (see Monelle 1992), looking, for the most part, to identify the syntax or underlying structures of music. For Tagg (2012), here too there has been a lack of emphasis on studying the semantics of music (the relationship between sounds and what they stand for), or its pragmatics (the cultural and social aspects of production and reception). In this paper we are interested in the semantics of sounds and also, importantly, in the underlying resources of meaning making in sound, using a social semiotic approach to sound. However, we do not refer to syntax as a fixed structural grammar but rather as a functional one. Here sound, like other modes of communication, should be seen as a set of available semiotic resources which will be used creatively by communicators. Such resources do not have fixed meaning but *meaning potential*. Here, to some extent, we follow Gabrielsson and Lindström (1995) who looked for changes in meaning of the manipulation of musical features such as tempo and envelope, pointing to the way that different performers can achieve a similar effect by slightly different combinations. A social semiotic approach, however, seeks to create a more systematic inventory of the options available, or of the system of available *meaning potentials*. In this paper, drawing on observations found in earlier research, we apply social semiotics to the case of the signature tunes to two spy films, *Dr. No* and *The Ipcress Files*. In the tradition of social semiotics our aim is to reveal the kinds of ideologies loaded onto intelligence work by sound. Like the visual representations found in these movies, so too sound plays an important role in shaping public understandings of the nature of this work.

What is a social semiotic approach to sound?

According to Kress (2010), who draws on the principles of Hallidayan linguistics (Halliday 1978), all communicative modes can best be studied 'social semiotically'. This is the difference between seeing language as based on a fixed grammar, or as functional. A grammar approach sees people as following rules. A functional approach rather means that there is an emphasis on language use in contexts, where the analyst identifies patterns of use of meaning potentials. Here a mode of communication, like language, visuals or sound should be understood not through rules and structures but because of what it can accomplish. So we ask how people or institutions make communication achieve specific aims. An important principle here is

that modes of communication offer historically specific and socially and culturally shared options for communicating. We can think of these as 'semiotic resources'.

The study of sound from this perspective, therefore, seeks to identify and inventarize the semiotic options that are available to communicators and that they choose to make. Importantly these options should be seen not as fixed, but as having 'meaning potential' that is realized in context and in combination with other choices. In this sense the meanings associated with semiotic resources in sound are always, to a degree, in a process of change as they are continually applied in slightly new contexts.

One key set of concepts from Halliday's function grammar key to understanding semiotic modes is that of the three language metafunctions. Kress (2010) reminds us that for any semiotic system to be considered a system it must fulfill these three roles. The first is the ideational metafunction. Here, a semiotic mode must be able to communicate ideas outside of itself. In the case of language the word 'freedom' can communicate complex and powerful ideas. In sound, a very deep noise can potentially communicate the idea of danger very differently from a high-pitched sound. The second is the interpersonal metafunction. Here, a semiotic system must be able to communicate attitudes. In language we can use different moods of address to tell people about our relationship to our ideas. So we can tell someone through an imperative mood 'do that!', or use the interrogative mood and ask them 'could you do that?'. In sound, deeper sounds can suggest darker moods whereas higher pitched sounds can suggest higher energy. Thirdly, we have the textual metafunction. This suggests that a semiotic system must have coherence amongst its parts, as in grammar. Different sound qualities can be used to create relationships between elements in a soundscape.

The metafunctions are one starting point where we can begin to think about exactly what communicative role sound is playing in any instance. This allows us to identify *what* the sound maker is doing with the sound. The next stage is to identify *how* they do this. And, importantly, in one sense this can be thought of as one additional and useful way to think about and organize the kinds of observations on sounds meanings made by scholars such as Tagg (2012), Scott (2003), and Gabrielsson and Juslin (2003).

Social semiotic analysis has been used in linguistic and visual analysis particularly to reveal ideologies found in instances of communication (Kress, Van Leeuwen 1996; Kress 2010). This more detailed analysis of the ideological role of the details of sound and music can be found in the work of Scott (2003) and Machin and Richardson (2012). In this particular case we are interested in how music has played an important role in shaping public perceptions of intelligence work and spying. Scholars in film and media studies have pointed to the difference between movie representations of intelligence work and the way that they operate in reality (Black 2004; Zegart 2010). The fictional world is largely a glamorous one where all agents

are experts in hand to hand combat and in use of weapons and high technology which are essential to every mission. Actual intelligence work is slow and bureaucratic, while in fictional representations the reality of complex geopolitical issues boils down to matters of masculine prowess played out in adventures (Cohan, Hark 1993; Bingham 1994; Lehman 2001). The settings where the adventures play out tend to be exotic locations and tourist destinations at the periphery of the industrial world – locations which represent both the changing actual fears about real or imagined global threats (Dodds 2010), and also, as in the case of British spy films, a kind of fantasy retaining Britain's central role in world geopolitics. For Zegart (2010), formerly an intelligence worker, such representations create a blurring of the spy myth and reality, which leads to policy problems. She argues that what is more problematic is that intelligence policy itself can be driven by images of fake spies and unrealistic scenarios. In this paper we are also interested in the way that music, too, plays an important part in such ideological representation of spying. In this paper we look at the role of sound in two very different kinds of spy film. *Bond* represents spying as a gung-ho macho adventure in exotic locations. In contrast, *The Ipcress Files* points to another genre of spying, found also to some extent in the Bourne films, which involve Cold War suspense associated with the dark shadows of Eastern Europe and wintry cities (Chapman 2007). Tagg (2012: 502) speaks of the role of music in 'gestural interconversion' to account for the way that music can load meanings onto things persons and places. In this sense, the movements and other meanings and sensations communicated by music can become infused with our sense of the meaning of each of these. An analysis of these meanings is one way to access the ideological work that can be done through this process.

The origins of music and sound meaning

One objection to an inventory approach to creating inventories of musical meanings through looking for building blocks is that kinds of music, such as spy music, work for listeners as they have been trained to associate this kind of music with crime, sleaze, city, detective-work, etc. So it is not so much that the associations come from the individual choices of sounds, such as pitch, timbre, or rhythm, but from experience of similar kinds of uses over time. As Tagg (1982) points out, we have become trained to hear certain musical notes and note combinations as communicating specific types of landscape, persons and ideas due to repetition over time. As regards spy music, we have long learned to associate crime, sleaze, shady places and the city with certain types of minor key jazz music. Some of the same musical tones had been used for horror and worry in early cinema and were then used in radio and TV series such as *The Untouchables* (1959–63), *Dragnet* (1951–59) and *Perry Mason*

(1957–66) (Tagg, Clarida 2003: 570). Tagg (1982) identified the repertoire of music meanings for different kinds of films, to connote open landscapes, cities, mountains, etc. We can say here that one source of sound meaning, therefore is *provenance* or convention. Numerous meanings have become established over time.

Sounds in music also have relationships with our biology, as well as metaphorical associations. In the first case, Tagg (2003) explains that the rate at which notes or groups of notes are presented has a relationship between rates of heartbeat, breathing, footsteps or other kind of bodily movement such as shaking, shivering, pulling etc. So no one, he suggests, can musically relax in a hurry or stand still while running. In other words, some sounds are bound to our physical experiences of being in the world. In the same way the volume and timbre (attack, envelope etc) of sounds connect with certain kinds of physical activities. So it is not possible to make gentle musical statements by hitting hard objects firmly. We cannot yell lullabies in a jerky fashion, nor can we use smooth phrasing for war.

In the second case, Van Leeuwen (1999) suggests that it is useful to think about sounds as having *experiential meaning potential*. Sounds can also have meaning from associations of things in the real world. Arnheim (1969: 117) argued that communication is steeped in 'experiential associations'. So we might clap our hands together to suggest a conflict of interest between two people. There is no actual clapping or physical collision going on in the interaction, but communication works by drawing on our experiential association of these to understand something of the way in which people may not agree. In the same way, the sound associated with crashing objects could be thought to suggest discord as opposed to a gentle drifting sound that might mean something more temperate or agreeable.

In the case of spying while we can certainly think about the way listeners have been trained in the associations of spy music we can also examine what kinds of physical and experiential associations can be found in the music. Tagg (2012) gives an example of breaking down the sound choices in a scene for a particular kind of Western movie. He says that patterns of sonic movement must suggest a person riding a horse rather than driving a car or caressing something; they must suggest an individual rather than a group; open country rather than a city; speed rather leisurely pace. If this is a signature tune, sounds will also tell us that there are no evil villains, no shoot-outs and no cavalry. Some of these sound features create meaning due to style and provenance, so they have meanings because of our cultural memories, others are kinetic, associated with the body, and others yet are associational. In terms of Halliday's communicative functions of a semiotic system (Halliday 1985), all of them have been used as resources by the communicator to create specific ideas, attitude and identities.

Clearly one important addition to this research would be to test the meanings of the sounds on listeners. Umberto Eco (1990) has pointed out the need to connect semantics with the pragmatics of semiotic meaning making, in other words with the cultural and social aspects of the production and reception of semiotic resources. Such a limitation is more broadly true of social semiotic studies. This will be a next step in this research, but at this point we take the step of investigating the use of the approach to create inventories: we are interested in semantics.

Composing for spy films

The evolution and development of the musical themes and soundtracks of the British spy film began in the late 1950s. The primary contributors were John Barry (1933–2011) and John Dankworth (1927–2010) whose scores for many 1960s films of this genre were to set the stage for many films to follow up to the present day. These jazz-influenced composers marked a change in music, shifting away from the classical score to the movie theme writer, as there was a realization of the added marketing and merchandizing role that movie scores could play (Burlingame 2012).

In the music of *Dr. No* and *The Ipcress Files* we can clearly hear that jazz influence, both in terms of the sleaze of jazz but also the big band feel pointing to the experience of Barry who had trained with the Stan Kenton Big Band. Listening to recordings by the band, the use of saxophones and strained high-pitched trumpets, this can be heard in both the Bond and *The Ipcress Files* themes. Barry also spent many years successfully recording with a rock-and-roll band The John Barry Seven, and the style clearly influenced the way he shaped the original Bond riff composed by Monte Norman. Barry's first assignment in writing film music was for *Beat Girl* (1960). Again, listening to this theme, the origins of the Bond theme can be heard with the style of its twanging guitar riff, but this music clearly, as the Stan Kenton Big Band sound, does not sound like spy music. It is the sounds, pitches, notes, phrasing and rhythms that suggesting spying that we seek to identify in this paper, though. While a number of authors such as Burlingame (2012) have provided commentaries on the music of Bond films and even at a more detailed musical level (Kenton 2011), none have looked more closely at how sounds and music communicate spying. We want to show what is there in sound and music that communicates some of the values of spying, its associations with masculinities, adventure, mystery, secrecy, suspense and danger. What it is not associated with is global oppression and global corporate interests.

Analysis of the spy music

In the analysis that follows we look at pitch, pitch direction, pitch range, note meaning, sound qualities, articulation and rhythm. Each is discussed in turn, gradually building up a complete picture of how these meanings combine together. In each case we first describe the *meaning potentials* and then apply these to each of the pieces of film music. We analyse the two main motifs that comprise the Bond music in *Dr No*, and the three motifs that comprise the *Ipcress* music. For this analysis we draw on the observations on the meaning of sound qualities from a range of scholars whose ideas will be introduced in each section. The analysis draws extensively on the work of Tagg (2012), Tagg and Clarida (2003) and the social semiotic approach to sound of Van Leeuwen (1999).

The meaning of pitch

Pitch relates to how high or low a sound is: a scream would be a high note, thunder a low note. Its meaning potential relates to levels of energy, optimism and weight. The meaning of pitch is rich in metaphorical associations (Tagg, 2012). Wide pitch expansion has been linked to expressions of joy or fear and narrow ranges with sadness or calm (Balkwill, Thompson 1999). Cooke (1959: 102) shows that in the history of classical music and opera high pitch has been associated with high levels of energy and brightness and low pitch with its opposite; in other words, low levels of energy, containment, immobility and stasis. We could think of this metaphorically as being like someone speaking in a low deep voice as compared to raising their voice in excitement. Higher pitch can also extend to mean agitation and lower pitch can mean low drooping despair. Vocalists with deeper voices such as Tom Waits suggest immobility and lack of energy, while those like Michael Jackson are bright with high energy. We can summarize the meaning potentials for pitch in Table 1.

Table 1. Meaning potentials of pitch.

Pitch	Positive meaning	Negative meaning
High	Bright/energetic/happy	Lightweight/trivial/flighty
Low	Important/solid	Clumsy/depressed/danger

What we find in *Bond* are more medium pitches, while in *The Ipcress Files* files there are both much higher, and much lower, pitches. As we will see this is about the different kinds of emotions and levels of energy each music represents, and *The Ipcress Files* certainly points more to danger and darker depressed moods, as well as higher

levels of emotional stress. This demonstrates the nature of the thriller versus that of the adventure film.

The meaning of pitch movement

In music, the pitch rarely stays at one level. A melody line will usually rise and fall in pitch. The direction of this movement can also have meaning potential. Cooke (1959) and Van Leeuwen (1999) suggest that a movement from a high pitch to a low pitch can communicate a sense of falling of energy or of bleakness; the opposite, a gradual slide from low to high pitch, can give a sense of picking up spirits or of an outburst of energy. National anthems often use stepped increases in pitch to suggest the steady feel of brightness and energy associated with the national spirit. This will be interspersed with some use of lower pitch to also suggest the solemnity and importance of the national project. The melancholy songs of singers-songwriters often descend in melody to give a sense of regret and moodiness. We can summarize these potentials in Table 2.

Table 2. Meaning potentials of direction of pitch movement.

Pitch direction	Meaning potential
Ascending melody	Building of mood/outward expression/increase in energy
No pitch movement	Emotional stasis/containment/reserved
Descending melody	Drooping of emotions/inward contemplation/decrease in energy

What we find is that *Dr. No* uses more limited pitch movement than *The Ipcress Files* which employs numerous descending statements suggesting contemplation and moodiness. However, first we will comment on some other aspects of pitch in order to be able to talk about the extent of pitch movement as well as direction of movement.

The meaning of pitch range

Whether the pitch increases or decreases, there is an important meaning potential in the range of these changes – a large pitch range communicates a sense of letting more energy out, whereas a small pitch range means holding more energy in. Linguists have shown that larger pitch ranges in speech are heard as more emotionally expressive, whereas more restricted pitch ranges are heard as more contained, reserved or closed. Brazil et al. (1980) note that pitch range in speech is akin to excitement, surprise or

anger. A newsreader will speak using a restricted pitch range to suggest a neutral stance and little emotional involvement: we could imagine the difference, were they to use a large pitch range. In music, soul singers will use a large pitch range to communicate the expression of emotions. In contrast, smaller pitch ranges can be associated with restraint or even modesty, which often characterises the melodies of singer-songwriters. The meaning potential of pitch range can be summarized in Table 3.

Table 3. Meaning potential of pitch range.

Pitch range	Meaning potential	Effect
High	Emotionally expansive	Emotionally open/subjective
Low	Emotionally contained	Repressed/contained/objective

To help us visualize the range and direction of pitch change we provide graphs which will be used throughout the rest of the analysis. These, rather than musical transcriptions, have been chosen to help to translate their meanings to none-musicians. On the graphs the numbers along the bottom, on the horizontal axis, represent the notes that are played in an order going from left to right. So above '1' is the first note played, above '2' the second note played, and so on. The numbers on the vertical axis represent the values of the note. '1' marks the root note of the key in which it is played. The higher up the axis they are located, the higher in pitch they are, and the reverse, as they get lower.

On the graph, the bottom line represents the brass section which plays below the iconic guitar riff which is represented by the top line. Neither of the two are emotionally high nor low suggesting a medium level of emotional intensity. What is important in these two melodies, however, is that each in itself covers a very restricted pitch range. They are therefore highly emotionally restricted or contained. The lower line in fact only moves over three half notes, which is close to being as restricted as possible for a melody line. Were one of the peaks much higher in pitch, such an alternation would in contrast inspire a sense of anxiety or certainly an unevenness of mood.

We can also see that the two lines both repeat, they are ordered, and cyclical. This in itself can have the meaning potential of either consistency or of entrapment. We can imagine the contrast with a melody that doodled around more which would communicate either a sense of open expression or chaos.

As regards the Bond character, such control and measure and lack of emotional expression suggests measure and control also in his character.

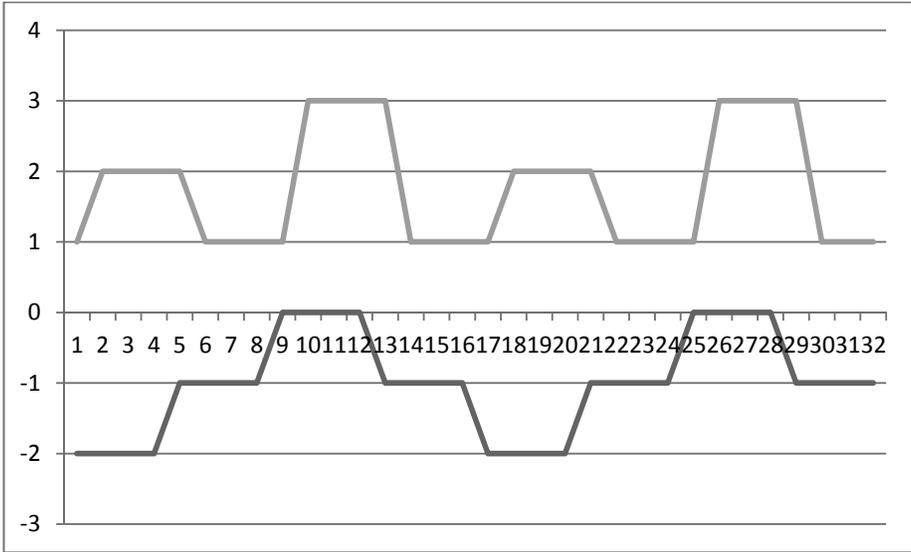


Figure 1. Bond guitar riff.

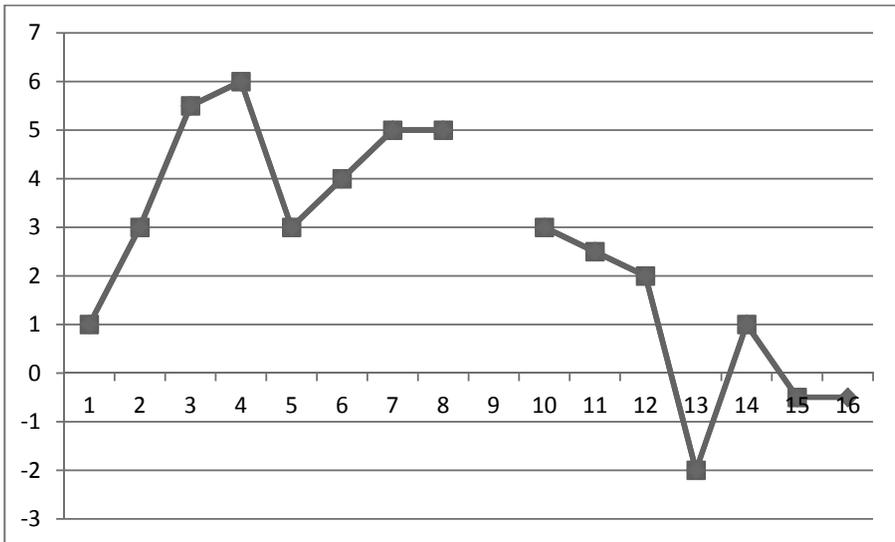


Figure 2. Bond jazzy riff.

Figure 2 shows the more jazzy melody that is often used in the Bond movies when Bond has completed an action, for instance, in scenes where he has just escaped. It is this theme that we hear first when the movie starts before the iconic guitar riff begins. This theme is in the style of a big band show tune.

Here we find much higher pitches, emotional energy and intensity and also much greater pitch ranges and therefore high levels of emotional expression, especially through powerfully played, tense sounding trumpets. The start of the opening statement jumps up six notes in an outward burst of energy, but then it changes, dropping six notes to something less emotionally tense, more introspective and grave.

As this riff is repeated, we hear a wailing muted jazz trumpet, where pitch doodles around, yet remains high and intense. We also start to hear dramatic cymbal crashes, representing bursts of emotion and releases of energy. On the one hand, this motif represents the chaos that Bond often wreaks as he leaves behind burning, exploding buildings. On the other hand, here we can notice the more flamboyant, stylish, sexualized side of Bond.

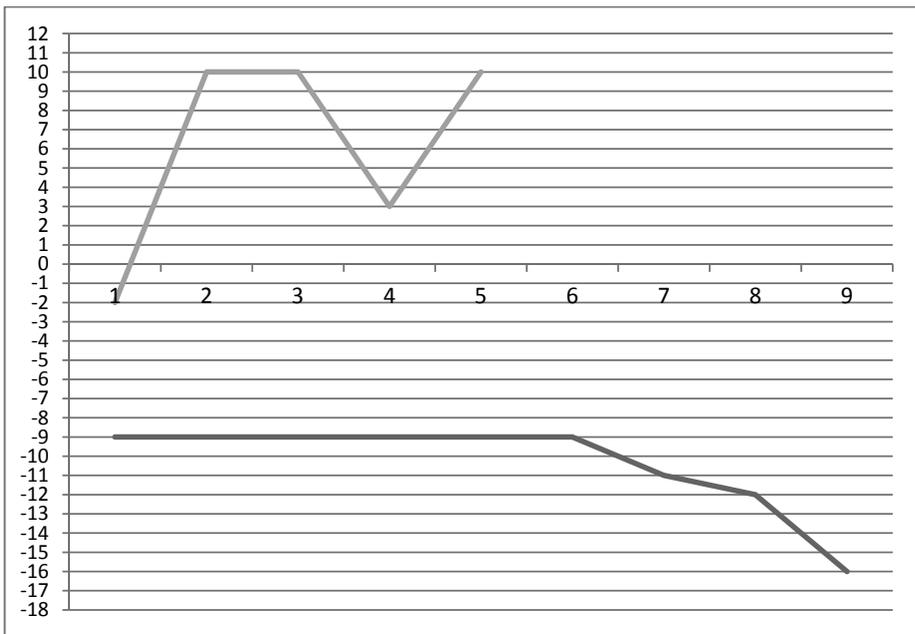


Figure 3. *The Ipcress Files* 1.

In this first motif we find two contrasting musical statements, which initiates two voices that run through the piece. The first one, shown by the topmost line on the chart, played by a bass flute, is performed at a high pitch and also covers a broad pitch range as two notes, played together, jump about in pitch. There is a feel of a burst of energy in this statement; the tone of the flute also creates a sense of lightness and hollowness rather than something forceful, sharp or heavy that would have been the effect had this been performed on a trumpet or sax.

The second statement, shown by the bottom line, played on a clanging, ringing cimbalom is played at a lower pitch. The cimbalom is a concert hammered dulcimer, played by striking two beaters against metal strings stretched across a large trapezoidal box and has its origins in Eastern Europe. As we first hear this sound it remains constant and unchanging in pitch for a long time as the first statement is played but then falls away a whole eight notes to a lower pitch. This suggests stasis or monotony followed by a fall in energy into a darker, graver mood. The mood here is compounded by the very slow and unhastened pace at which this takes place.

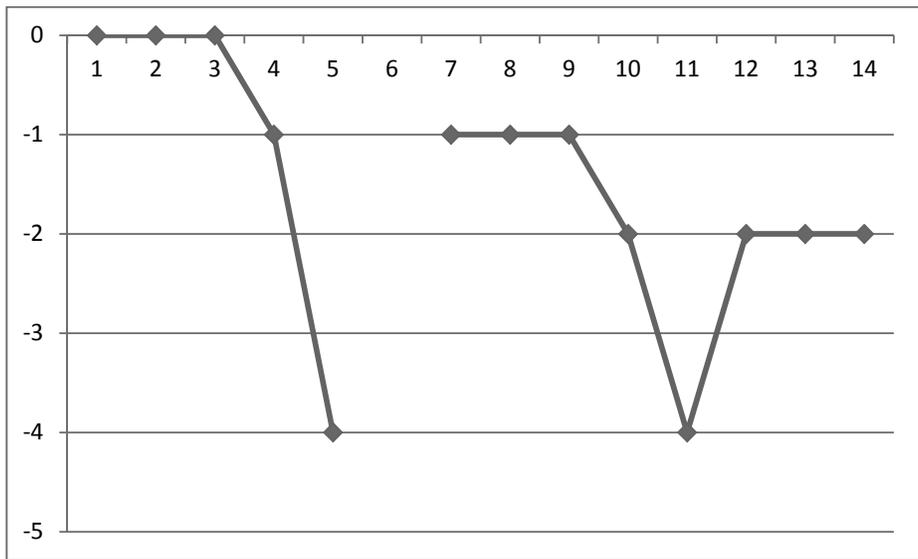


Figure 4. *The Ipccress Files* Flute motif.

The flute statements represented in Figure 4 are also very slow and plodding. Both are comprised of sustained stasis and rapid descending notes. There is no sense of urgency here; rather, a sense of almost waiting, lingering or control. The notes gradually get louder in articulation suggesting something emerging, while the second statement

represents a step down in pitch from the first. So this is a gradual sinking in energy or move towards something darker or more internalized state. The rapid notes suggest quick, or unpredictable, changes of pace in the monotony, quick surprises (Tagg 2012; Tagg and Clarida 2003). Again, this suggests something different to Bond with its focused charge into action.

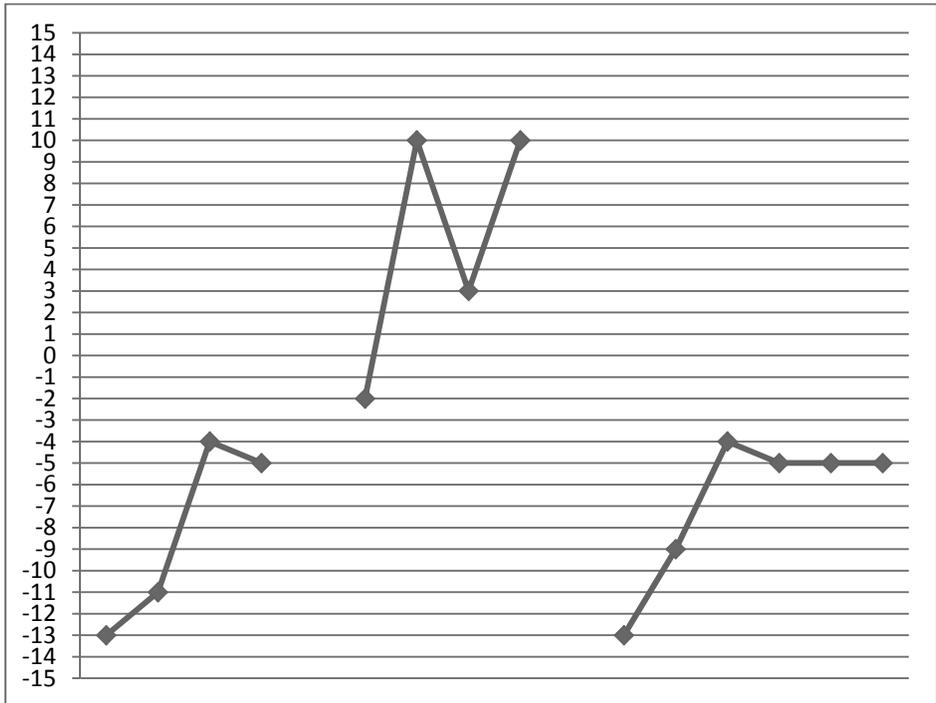


Figure 5. *The Ipcress Files* cymbalom motif.

Much of the remaining piece of music is comprised of a dialogue between the flute and the clanging cymbalom. Whereas the Bond main theme appears to depict his journey in an adventure, the *The Ipcress Files* music represents two entities weaving around each other. Figure 5 shows one example of this.

We find two rising statements played on the cymbalom either side of a repeat of the high pitched flute riff which started the first motif above. In the cymbalom statements we find increases in pitch and energy which each time resolve to a slightly lower pitch. These leave an impression of agency, of initial outgoing energy, but then control, and so seem rather cautious as if asking questions. In each case these

cautious statements are answered by the high pitch flute riff with its burst of hollow energy.

As we can see on the chart, there is a huge pitch range in what we are hearing. This is very different from the main Bond guitar riff with all its focus and containment, but unlike the jazzier Bond riff this is slow and solemn.

So far we find the Bond music controlled, consistent and emotionally restrained as he goes into battle and combines emotional highs and exuberance as he accomplishes his work. *The Ipcress Files* music is about emotional extremes, about falling into darker moods and asking hesitant questions with high-pitched emotional bursts intervening. Moments of stillness are interrupted by brief moments, of activity. What both have in common, however, is that spying involves moments of control and emerging issues.

Phrasing and articulation in melodies

Another important aspect of the melodies is the phrasing. Bell and Van Leeuwen (1994) have noted that shorter phrases are associated linguistically with sincerity, certainty, weight and therefore authority. In contrast, longer, lingering articulation suggests the opposite: for this reason, news readers use such short phrases, and folk singers use short bursts in their lyrics to communicate sincerity. The opposite case, where singers produce longer lingering statements, suggests rather slow-burning internal emotion as in the case of many jazz or soul singers. Tagg (2012) notes that longer gentle notes will suggest something soothing, relaxing or unhurried, whereas notes with sharper attack will tend to mean the opposite. Scherer and Oshinsky (1977 and Wedin (1972) have suggested that staccato notes are associated with energy, activity, fear, surprise and anger, whereas legato is perceived as tender, soft and sad.

There are different kinds of shorter abrupt articulation to be found in music generally. Traditionally, masculine characters in opera have been represented through harsher staccato notes that might be associated with military music which conveys liveliness and certainty, whereas women are represented through longer legato articulation which is more emotionally lingering (McClary 1991). The masculine staccato notes would be played on brass instruments and with percussion, with the feminine, more lingering legato notes played on strings. However, it is important to note that the meaning potential of staccato notes will be highly dependent on the sound quality of the instrument. We can imagine the difference between sharp fast notes played on a deep-sounding euphonium, or low on the range of a bassoon, as opposed to a trumpet. Notes on these deeper instruments played in this way can sound 'bouncier' as opposed to 'cutting'. They will be more readily associated with

comedy or awkwardness of the characters, while low, bouncy notes suggest lack of mobility, lack of agility or precision.

Table 4. Meaning potentials of note articulation.

Articulation of notes	Meaning potential
Shorter dotted notes	Abrupt, lively, hurried, certain, objective/clumsy if played in deep pitched brass or woodwind
Longer lingering notes	Emotionally lingering, subjective

On the Bond guitar motif we find mixtures of note articulation: for the brass section there are smooth, slick, sliding brass notes that are highly controlled, with low volume creeping upwards as if something were emerging. These start with a delicate, light, but abrupt, glock note and end with a more powerful, staccato brass stab – nothing here is lingering or subjective, but rather certain and precise. The guitar riff uses short, fast, choppy notes. Traditionally in opera such fast shorter notes have been used to represent moments of masculine strutting (McClarey, 1991).

For the jazzy Bond motif we remain with the brass instruments, but here articulation mixes more staccato notes with longer sustained notes, the overall phrasing is shorter, consisting of dramatic emotional bursts, rather than the musings we might find in a more introspective jazz song. Here we can also find cymbal crashes representing bursts of emotion and releases of energy, and the doodling of a muted jazz trumpet although this retains an emphasis on the dotted note.

The first motif from *The Ipcress Files* begins with a flute. These are abrupt, rather than lingering notes. The cimbalom notes are struck heavy, as if without energy, and are then allowed to linger and dwell. This is the same for the third motif in which the cimbalom plays ascending melodies. Here is a sense of emotional lingering, a lack of urgency and of the subjective state of the slower and darker world of the spy.

In the second motif we find long lingering notes of the flute which gradually increase in volume as if gaining presence or becoming more cautious, ending with several short fast dotted notes.

As with the Bond piece, we later hear a muted, doodling, jazz trumpet. This evokes associations with sleaze and the underworld, but also with emotional expression, emotion ranges and lack of order.

So both pieces of music use some ‘spy’ techniques as in the slow attack as notes gradually increase in volume, as if cautious. This produced a sense of growing intrigue or tension. In both pieces we find some staccato notes to suggest suddenness of action, but *The Ipcress Files* combines these faster sections with a dominance of much slower

lingering, dwelling notes which gradually increase in volume and the isolated clanging cimbalom. The result is less a spy adventure than a world of shadows and concealment of the Cold War.

The meaning of musical notes

Melodies that have the same pitch levels and the same pitch ranges can have very different meanings if these potentials are realized through different choices in actual notes. What we will look at next is the meaning potential of each note on the scale. People often know these different notes as ‘do re me fa so la ti do’. Each of these has its own meaning potential which we will look at here. Notes have their effect precisely due to how they are combined with others, and in the case of spy music Tagg and Clarida (2003) have observed that much of the meaning comes from established associations of a kind of minor jazz music with the sleazy, darker world of crime. Here, however, we want to draw on an inventory provided by Cooke (1959) in an attempt to document how classical composers use different notes which can be a stage where we can begin to conduct a more systematic analysis and one that is designed also to speak to none-musicians.

On a piano there are sequences of eight notes that repeat up the keyboard starting from the ‘root note’ Note 1. Note 8 is in fact the start of the next eight notes and is the same as Note 1. These are called a ‘scale’ that we know as ‘do re me fa so la ti do’. As can be seen, ‘do’ is at the start and the end of the sequence. Each note will have a different kind of effect on the listener. Cooke (1959) set out to describe exactly what these meanings were by documenting how they have been used in classical and opera music. We start with Notes 1, 3 and 5 which are the ‘basic’ notes of Western music.

Note 1 is the main defining note of the scale. When it is heard it anchors the melody to the scale firmly and roundly, bringing a sense of groundedness whenever heard.

Note 5 is also a common note to be found in music. It is similar in sound to Note 1 and therefore is also good for grounding the melody.

Note 3 is important for other reasons, although it will also sound very stable and grounded. Note 3 is also a happy, joyful note, or it can be lowered by half a note to create a sadder feel to the melody. This is what is meant by a ‘minor’ scale. Many people are roughly aware that there are ‘major’, or happy melodies, and ‘minor’, or sad melodies, and while this is broadly the case, many happy melodies can be found that use minor notes, such as “God Rest You Merry Gentlemen”. This is simply

because all of the semiotic resources have meaning potential: a minor note placed in a certain context can bring about a sense of emotional depth.

Notes like 1, 3 and 5 allow music to feel ‘easy’ or ‘rounded’ as is characteristic of much pop music. In contrast, jazz will use many notes that do not create such a solid connection in order to create tension.

Note 2 is associated with transition, the sense that movement is about to occur, or the promise of something to follow, while a lengthened Note 2 can suggest limbo or entrapment.

Note 4 is used to give a sense of building or moving forwards; it can also be used to create a sense of space or possibility.

Note 6 has a similar value as Note 3 and can be used to add a sense of brightness to the melody. But it also provides a sense of flux, so it is typically used to indicate pleasurable longing or nostalgia.

Note 7 is associated with longing and is often used in love songs; it can sound wistful and a little lamentful. This can also have a minor version which sounds more chilling and sad.

The meaning potentials of these notes can be summarized in Table 5.

Table 5. Meaning potentials of notes.

Note	Meaning potential
1	Anchoring note
2	Something unfinished or about to happen
3	A state of happy or sad/chilling note
4	Building, moving forwards or creating space
5	Anchoring note
6	Pleasurable longing, nostalgia
7	Wistful or painful

To begin with, the whole of the Bond theme is in a minor scale, which means that we will find m3 (minor3) and m7 (minor7) notes and it will fundamentally have a chilling sound: this is the danger and thrill of spying.

The brass theme that appears before and is played at the same time as the main guitar riff starts uses both grounding notes and Note 6 to create a sense of pleasurable longing, but there is also a Note 6 that is raised one note, which creates a sense of difficulty, pointing to the combination of pleasure and danger. So this riff is emotionally very contained in terms of pitch, and also suggests the pleasures of a mildly

dangerous adventure. The repeating, controlled guitar riff uses the stable Notes 1 and 3 combined with the promise of something about to happen, unfinished business, through Note 2.

We remain in a minor key for the jazzy Bond riff, which retains the sense of drama. It remains a grounded piece using the easy-sounding Notes 1, 3 and 5, and uses Note 4 to create a sense of building or moving forwards. It sounds more like pop music than the more difficult jazz of *The Ipccress Files*.

For the first *The Ipccress Files* motif we find the fast, abrupt flute riff sounding slightly chilling, as the minor 3 and 5 Notes are played together at different pitches. The slow descending cimbalom uses the grounding Note 5 and minor Note 3, along with Note 2 which suggests something is about to happen. The combination of the descending melody, minor notes and Note 2 suggests something bleak will happen, but in a process of monotony.

For the second *The Ipccress Files* motif, the slow flute statements, we find difficult notes in the m7, the raised Note 6, and Note 2. This creates a feel of wistful melancholy with the threat of something looming.

The third motif of *The Ipccress Files*, played by the clanging cimbalom, is also grounded, using Note 1 and minor 3 which then jumps to a minor 3 much higher in pitch, creating a very chilling effect as this note is played with such high energy. It then remains resting on Note 2, which suggests something is about to happen. So here we have a sense of outgoing energy, a question being asked, but one that is filled with chill.

What we find overall is that both pieces of music draw on chilling minor notes and also Note 2 which suggests that something is about to happen. Both also use raised Note 6 which can suggest joyful longing. All these note uses point to the sense of danger, promise and adventure of spying, the main difference being that the *The Ipccress Files* music uses Note 7 on more occasions to indicate something more wistful and lonely.

So far our analysis has shown that the differences lie not so much in notation but in terms of the pitch ranges, pitch direction and also the articulation and phrasing. Both use 'spy notes', but while the Bond music is more contained, masculine and thrusting, *The Ipccress Files* is more hesitant, more interwoven with darker and more introspective moods in which there are long periods of stillness and bursts of surprise.

Sound qualities

We now move onto the sound qualities used by the instrumentation and voices. Here we draw on and adapt van Leeuwen's (1999) observations on voice quality and Machin's (2010) observations on sound quality in popular music. These observations

draw also on the work in speech qualities and meaning in linguistics (Hodge, Kress 1988) and on the work in psychology linking voice quality to emotional meaning (Juslin, Laukka, 2003). Here we list five sound qualities:

Tension. This describes the extent to which the voices speak or sing with an open or closed throat. When we become tense in everyday situations our throats tend to close up; when we are relaxed our throat is open and sounds can resonate. Punk singers often use tight, tense vocalization, whereas a female jazz singer like Julie London will use open throat and lingering notes. We can also apply this idea of tension versus openness to the instrument sounds. In case of a keyboard we can ask whether the keys are struck in a tense way that controls the way the notes resonate, not allowing them to ring out, or the opposite, allowed to ring out.

The Bond guitar theme is filled with notes that are held tightly under control and do not ring out. There is a sense of tension, although this is kept dynamic by the pace of the riff and the brass stabs. The brass that plays under this is also tightly controlled – this, again, points to the controlled nature of Bond.

The Ipccress Files motifs are for the most part comprised of relaxed open longer notes in which the cimbalom notes ring out, and dwelling extended flute notes. These combine with the short, tighter flute bursts, although there never appears a sense of tension here either. The protagonist's style is languid and laid back compared to the ready-for-action Bond. However, the rhythm found on *The Ipccress Files* piece provided by the slightly distant brushed snare roll, does provide a sense of tight control and tension. The drum is muted and not allowed to ring out. In this case the snare roll provides a background tension for the looser, open notes in the foreground.

Breathiness. This communicates the degree of intimacy suggested by a voice or an instrument. To bring out the meaning potential here, we can think of the contexts in which we hear people's breath, which can occur when they are out of breath and panting because of some physical or emotional exertion or strain. It can also be in moments of intimacy and sensuality. When we hear a person's breath when they speak, this may be a moment of confidentiality as they whisper in our ear, or share their thoughts with us when they are experiencing emotional strain or euphoria. For instruments, we may hear the full, delicate texture of the note, the breath on a wind instrument or vibration of strings or these may be much less vivid.

In *The Ipccress Files* music we can find breathiness and intimacy. The flute, cimbalom and snare drum are heard intimately, almost sensuously, compared to the more show tune feel of the Bond music. There is therefore a sense that this film is much more personal, emphasizing textures of experiences, in the same way that Bond is impersonal as we are not given access to his inner thoughts and doubts.

Loud/soft. Louder sounds can mean weight and importance. Such sounds literally take up physical and social space – they can be used to suggest power, status, threat or danger, although they can also be overbearing and unsubtle. Softness, in contrast, can suggest intimacy and confidentiality, although softness can also mean weakness.

The Bond music combines both louder bursts of volume through brass stabs and percussion with softer sounds that point to the confidentiality of spying. We hear this in the soft brass tones before the main guitar riff, while the jazzy section later is loud and certainly points to the power of Bond. *The Ipccress Files* music uses softness suggesting something more hidden and confidential, although the twanging of the cimbalom has a jarring effect.

Distortion/degrees of raspiness. Sounds can be rough and gravelly or very smooth. Raspiness can mean contamination of the actual tone so that it seems worn or dirty. It can also bring along a sense of aggression as in growling, or suggest something machine-like as in a roaring engine. We hear some of these meanings in rock music with distorted guitars, which can suggest excitement as opposed to the well-oiled warm soft sounds of an acoustic guitar in a folk song. Distortion can also mean pure emotion and authenticity where there is no pretended purity but rather a wish to reveal the world in all its gritty lack of order, wear and tear.

The Ipccress Files music uses smooth, cleaner sounds of the flute and the clang of the cimbalom. These are different from the dirtier, gravelly guitar riff of Bond and the raspiness of the brass stabs. The difference between the two may be related to the aggression and violence of Bond, although the magnitude clearly is not what could be communicated through highly distorted grunge guitar sounds which might point to a gore fest. *The Ipccress Files* is more about shadows, hidden dangers and emotional threat.

Reverb. Doyle (2006) suggests a number of meanings for echo. Since they are normally experienced in large empty spaces such as churches or valleys between rocky mountains, echoes can suggest something on a large epic scale or something sacred. National anthems are often recorded with reverb to bring about this sense of scale and sacredness, but given the way that reverb can mean epic spaces, it can also be used to communicate isolation.

Both our pieces of music use reverb to different effects. In the Bond case we find reverb on the main guitar riff. This creates a sense of the lone hero, but also is suggestive of the epic nature of Bond and his heroics. *The Ipccress Files* music uses lots of reverb throughout, creating a sense of loneliness and isolation.

Vibrato. Van Leeuwen (1999) relates vibrato to our physical experience of trembling. Its meaning in music will depend on its speed, depth and regularity: high regularity can suggest something mechanical, while an increasing and decreasing vibrato can suggest changing levels of emotion, excitement or stress.

We find lots of vibrato in *The Ipccress Files* music, but not in Bond. We find, especially, growing vibrato on some of the flute. Bond is more about swagger and power than more subtle emotional quivering.

Table 6. Summary of meaning potentials for sound qualities.

Sound quality	Meaning potential
Breathiness	Intimacy
Loud/soft	Taking up social space
Raspy/smooth	Grittiness/energy v naturalistic and sensual
Reverb	Sacred or isolated

In sum, Bond is louder, more aggressive, and epic, whereas *The Ipccress Files* is more sensuous, intimate, quiet, isolated and nervous, and it is in terms of sound qualities that we find the greatest differences in the two pieces.

The meaning of rhythm

Cooper and Meyer (1960) note that rhythm is hard to identify and describe since it is often the product of the interaction of many sounds. Rhythm is not the same as 'beat' as is often assumed to be the case. A rising and falling melody can on its own create a sense of rhythm. A number of authors have provided accounts of the kinds of movement indicated by music that we can draw on here. Tagg (1984) argued that music associated with a hunt, for example, will include quick and sudden musical movements, perhaps punctuated with periods of waiting. A lullaby, in contrast, would utilize a gentle and regular rhythm. Later, Tagg (2012: 499) pointed to different kinds of kinetic representations in music. These were the gross-motoric ones which would include running, marching, skipping, and also the movement of machines or animals, where most music contains stylized versions of these, and the fine-motoric ones related to smaller delicate movements such as glittering, ticking and dripping. And it is useful, following Tagg, to think about the kinds of kinetic representations found in pieces of music. A number of authors have documented the meaning of different kinds of rhythmic qualities: smooth rhythms can bring a sense of happiness and

peacefulness, while rough rhythms can suggest uneasiness (Watson 1942; Gundlach 1935); regular rhythms can suggest happiness and serenity, whereas uneven rhythms can be humorous (Thompson, Robitaille 1992); firm rhythms can be sad, vigorous or dignified (Hevner 1936).

Again, we can think about rhythm in terms of associational meaning potentials. For Cooke (1959) the movement represented in music is associated with different kinds of bodily movement. Uneven rhythms can communicate a sense of difficulty or, if the unevenness is repeated, a sense of being prevented from moving forwards or remaining in one particular place. Unevenness can also suggest creativity as movement changes, reacting and refusing to conform. Movement can be fast or slow, which can suggest energy or relaxation or sluggishness. Rhythms can suggest lightness or weight due to light or heavy bass drum beats respectively. They can suggest stasis through constant beat tones (such as a single bass drum pulse) or forwards motion through alternating tones (such as between a snare and bass drum), hesitation (as in reggae) or progress. They can also suggest a side to side swaying motion (as in swing) as opposed to a forward action like that found in some pop ballads or the more relentless and forceful forward motion in military marches (Van Leeuwen 1999). In swing music, therefore, we can say that there is emotion that is to be dwelt upon rather than a suggestion of momentum. Lack of rhythm can be used to suggest timelessness or spirituality (Tagg 1984).

Table 7. Meaning potentials for rhythms.

Rhythmic quality	Meaning potential
Even/uneven	conformity v creativity; ease v difficulty
Fast/slow	hurried versus leisurely; energy versus its lack; rush v patience
Lightness/heaviness	mobility or clumsiness; important v unimportant; strength weakness
Stasis/motion	restrictedness v freedom; marking ground versus progress; hesitation v certainty
No metronomic time	Sacred, timeless, spiritual.

For the Bond guitar riff we hear a constant drum beat with constant open high hat, signifying high energy and unchecked motion with a sense of lightness. This is also pushed forwards by the powerful brass stabs and surging brass underneath. In Cooke's terms, the forward motion here is a confident relentless prowling.

In *The Ipcress Files* music there is slowness and it is plodding. There is a drum beat, a jazz style brushes snare drum, but this is dragging and slightly sleazy. Instruments

tend not to push the rhythm and there is no surge nor pace here. The lightness and drive of Bond's adventure can be contrasted with the slow mysteries of the Cold War drama.

Conclusion

There have been traditions in music studies concerned with identifying the building blocks of sound that create musical meaning, and this study has attempted to draw on these to investigate how we might use a social semiotic approach to sound. Here we proceed from the observation made by Gabrielsson and Lindström (1995) that it is not so simple to attribute direct sound connotations as performers draw on different elements or different resources in different ways. One way to present this is as a functional grammar which communicators, i.e., composers or performers use for practical purposes. What this kind of closer analysis also allows us to do is the way that music and sound, as well as visuals, can communicate ideas, attitudes and values, in this case about the nature of intelligence work. A social semiotic approach encourages us to seek to identify the available choices in semiotic resources in each case.

Tagg (1982) lists the fields of connotation for nature in collections of music specifically made for use in films. Here we can bring together the observations carried out in each section above to attempt the same for the two spy films. For *Dr No*, we find 'crime', 'murder', 'detective', 'thriller', 'villain', 'night life', 'tough'/'hard', 'action', 'aggression', 'excessive bravery', 'sex' (as opposed to 'romantic love'), 'swagger', 'emotional containment'. In contrast, for *The Ipcress Files* we find 'thriller', 'gloominess', 'isolation', 'bravery', 'secrecy', 'concealment', 'waiting', 'murder', 'crime', 'intimacy', 'emotional taugtness', 'lingering emotions', 'hidden dangers', 'surprises' and 'the unknown'.

Tagg (1984) was interested in the way that music could tutor and prepare us for participation in social events, tutoring us to understand the nature of the identities and roles that they require. He gave examples from music in early societies that would prepare people for a hunt or for a marriage, and showed this by arguing how sound qualities and rhythms could communicate appropriate ideas and attitudes in each case. So, too, in the contemporary world does music play a role in allowing us to understand the nature of our institutions, the people who work in them and the tasks they carry out. Early in the paper we noted that Zegart (2010) had pointed to how film fiction has played a role in distorting public and official perceptions of the ways in which intelligence organizations work and we might argue that music plays its part in it. Whether suggesting adventure, emerging mysteries, or the lonely shadows of a thriller, such music does not expose the huge bureaucratic mammoths that operate around strict ideological agendas.

References

- Arnheim, Rudolf 1969. *Visual Thinking*. Berkeley: University of California Press.
- Balkwill, Laura-Lee; Thompson, William Forde 1999. A cross-cultural investigation of the perception of emotion in music: Psychophysical and cultural cues. *Music Perception* 17: 43–64.
- Bell, Phillip; Van Leeuwen, Theo 1994. *The Media Interview: Confession, Contest, Conversation*. Sydney: UNSW Press.
- Bingham, Dennis 1994. *Acting Male*. New Brunswick: Rutgers University Press.
- Black, Jeremy 2004. The geopolitics of James Bond. *Intelligence and National Security* 19(2): 290–303.
- Brazil, David; Coulthard, Malcolm; Johns, Catherine 1980. *Discourse Intonation and Language Teaching*. London: Longman Higher Education.
- Burlingame, Jon 2012. *The Music of James Bond*. Oxford: Oxford University Press.
- Chapman, James 2007. *Licence to Thrill: A Cultural History of the James Bond Films*. (2nd ed.) London: I. B. Tauris.
- Cohan, Steven; Hark, Ina Rae (eds.) 1993. *Screening the Male: Exploring Masculinities in Hollywood Cinema*. London: Routledge.
- Cooke, Deryck 1959. *Language of Music*. Oxford: Clarendon.
- Cooper, Grosvenor W.; Meyer, Leonard B. 1960. *The Rhythmic Structure of Music*. Chicago, University of Chicago Press.
- Dodds, Klaus 2010. Jason Bourne: Gender, geopolitics, and contemporary representations of national security. *Journal of Popular Film and Television* 38(1): 21–33.
- Eco, Umberto 1990. *The Limits of Interpretation*. Bloomington: Indiana University Press.
- Gabrielsson, Alf; Juslin, Patrik N. 2003. Emotional expression in music. In: Davidson, Richard J.; Scherer, Klaus R.; Goldsmith, H. Hill (eds.), *Handbook of Affective Sciences*. Oxford: Oxford University Press, 503–534.
- Gabrielsson, Alf; Lindström, Siv 1995. Can strong experiences of music have therapeutic implications? In: Steinberg, Reinhard (ed.), *Music and the Mind Machine: The Psychophysiology and Psychopathology of the Sense of Music*. Berlin: Springer-Verlag, 195–202.
- Gundlach, Ralph H. 1935. Factors determining the characterization of musical phrases. *American Journal of Psychology* 47: 624–644.
- Halliday, Michael Alexander Kirkwood 1978. *Language as Social Semiotic: The Social Interpretation of Language and Meaning*. London: Arnold.
- Hevner, Kate 1936. Experimental studies of the elements of expression in music. *American Journal of Psychology* 48: 246–268.
- Hodge, Robert; Kress, Gunther 1988. *Social Semiotics*. Cambridge: Polity Press.
- Juslin, Patrik N.; Laukka, Petri 2003. Communication of emotions in vocal expression and music performance: Different channels, same code? *Psychological Bulletin* 129(5): 770–814.
- Juslin, Patrik N.; Liljeström, Simon; Västfjäll, Daniel; Lundqvist, Lars-Olov 2010. How does music evoke emotions? Exploring the underlying mechanisms. In: Juslin Patrik N.; Sloboda, John A. (eds.), *Handbook of Music and Emotion: Theory, Research, Applications*. Oxford: Oxford University Press, 605–642.
- Juslin, Patrik N.; Västfjäll, Daniel 2008. Emotional responses to music: The need to understand the underlying mechanisms. *Behavioural and Brain Sciences* 31: 559–621.
- Kress, Gunther 2010. *Multimodality*. London: Routledge.

- Kress, Gunther; Van Leeuwen, Theo 1996. *Reading Images*. London: Routledge.
- Lehman, Peter 2001. *Masculinity: Bodies, Movies, Culture*. London: Routledge.
- Machin, David 2010. *Analyzing Popular Music: Image, Sound, Text*. London: Sage.
- Machin, David; Richardson, John E. 2012. Discourses of unity and purpose in the sounds of Fascist music: A multimodal approach. *Critical Discourse Studies* 9: 1–17.
- McClary, Susan 1991. *Feminine Endings: Music, Gender and Sexuality*. Minnesota: University of Minnesota Press.
- Monelle, Raymond 1992. *Linguistics and Semiotics in Music*. New Jersey: Harwood Academic Publishers.
- Scherer, Klaus R.; Oshinsky, James S. 1977. Cue utilization in emotion attribution from auditory stimuli. *Motivation and Emotion* 1: 331–346.
- Scott, Derek B. 2003. *From the Erotic to the Demonic: On Critical Musicology*. Oxford: Oxford University Press.
- Tagg, Philip 1982. *Nature as a Musical Mood Category*. [IASPM-Norden working paper series.] Gothenburg: Institute of Musicology, University of Gothenburg.
- 1984. Understanding musical time sense. In: *Tvärspel: Trettioen artiklar om musik. Festskrift för Jan Ling (50 år)*. [Skriften från Musikvetenskapliga Institutionen 9.] Gothenburg: Institute of Musicology, University of Gothenburg, 1–25.
- 2012. *Music's Meanings: A Modern Musicology for Non-Musos*. New York: Mass Media's Scholar's Press.
- Tagg, Philip; Clarida, Robert 2003. *Ten Little Title Tunes: Towards a Musicology of the Mass Media*. New York: Mass Media Music Scholars' Press.
- Thompson, William F.; Robitaille, Brent 1992. Can composers express emotions through music? *Empirical Studies of the Arts* 10: 79–89.
- Van Leeuwen, Theo 1999. *Speech, Music, Sound*. London: Macmillan.
- Watson, Karl Brantley 1942. The nature and measurement of musical meanings. *Psychological Monographs* 54: 1–43.
- Wedin, Lage 1972. Multidimensional study of perceptual-emotional qualities in music. *The Scandinavian Journal of Psychology* 13(4): 241–257.
- Zegart, Amy B. 2010. “Spytainment”: The real influence of fake spies. *International Journal of Intelligence and CounterIntelligence* 23(4): 599–622.

Взаимодействие идей и отношений шпионажа в музыке к кинофильмам: социо семиотический подход

На примере двух популярных шпионских фильмов 1960-х гг. данная статья исследует, каким образом социо семиотика может внести свой вклад в анализ музыки к кинофильмам. Следуя за другими учеными, которые пытались создать некий каталог звуковых значений, чтобы помочь нам в различении музыкальных средств коммуникации, автор статьи рассматривает вопрос о том, как мы можем провести инвентаризацию смысловых потенциалов в звуке, используя основные принципы функциональной грамматики Халлидея. Это позволяет предложить полезный способ

для описания семиотических ресурсов, доступных для композиторов, чтобы они могли передавать вполне конкретные идеи, установки и личностные самоидентификации через сочетания различных звуков и звуковых качеств, представляя их скорее как системы означаемых, а не как списки коннотаций. Автор применяет это здесь к различным способам использования музыки и звука в фильмах «Доктор Ноу» (*Dr. No*) и «Досье Ипкресс» (*The Ipcress Files*), чтобы показать, как можно выявить разные идеологии шпионажа.

Spionaažiga seotud ideede ja hoiakute edastamine filmimuusikas: sotsiosemiotiline lähenemine

Võttes näiteks kaks 1960ndate aastate populaarset spioonifilmi vaadeldakse artiklis, kuidas sotsiosemiotika võib aidata kaasa filmimuusika analüüsile. Järgides teadlasi, kes on püüdnud luua helitähenduste katalooge, et aidata meil liigendada muusika kommunikatsioonivahendeid, uuritakse artiklis, kuidas kasutada Halliday funktsionaalse grammatika põhimõtteid esitamaks helitähenduspotentsiaalide kataloogi. See pakub välja kasuliku viisi kirjeldada heliloojatele kättesaadavaid semiootilisi ressursse, mis võimaldab neil edastada üsna spetsiifilisi ideesid, suhtumisi ja identiteete erinevate helide ja helikvaliteetide kombinatsioonide kaudu, esitades neid pigem tähendussüsteemide kui konnotatsioonide nimekirjadena. Rakendame seda muusika ning heli erinevale kasutamisele filmides “*Dr. No*” ja “*The Ipcress Files*”, et näidata, kuidas saab paljastada erinevaid spioneerimiseoloogiasid.