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EMOTION RESONANCE AND DIVERGENCE: A SEMIOTIC ANALYSIS OF MUSIC AND SOUND

IN "THE LOST THING" AN ANIMATED SHORT FILM AND "ELIZABETH" A FILM TRAILER

Betty Noad¹ and Georgina Barton

Doctor Betty Noad

Faculty of Humanities, Arts, Social Sciences and Education

University of New England, Australia

Associate Professor Georgina Barton
School of Teacher Education and Early Childhood
University of Southern Queensland, Australia

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¹ *Corresponding author. Email bnoad3@une.edu.au

Abstract

Music and sound contributions of interpersonal meaning to film narratives may be different from or similar to meanings made by language and image, and dynamic interactions between several modalities may generate new story messages. Such interpretive potentials of music and voice sound in motion pictures are rarely considered in social semiotic investigations of intermodality. This paper therefore shares two semiotic studies of distinct and combined music, English speech and image systems in an animated short film and a promotional filmtrailer. The paper considers the impact of music and voice sound on interpretations of film narrative meanings. A music system relevant to the analysis of filmic emotion is proposed. Examples show how music and intonation contribute meaning to lexical, visual and gestural elements of the cinematic spaces. Also described are relations of divergence and resonance between emotion types in various couplings of music, intonation, words and images across story phases. The research is relevant to educational knowledge about sound, and semiotic studies of multimodality.

Keywords: music, sound, semiotics, meaning, multimodality, emotion, filmtrailer, animated movie

Introduction

The significance of music and sound in the communication of social meanings continues to be examined in substantial multidisciplinary literature including the fields of psychomusicology and film studies. In this large body of work, music and sound is usually discussed as a sole semiotic resource rather than one contributing to broader meaning represented through multimodal ensembles (Barton 2018). A key aim of this paper is to describe the meanings of music alongside other modalities, in an animated movie and a film trailer. A social semiotic approach is adopted to analyse musical meaning contributions to intermodality in film, because of our interest to progress description of communicative resources examined in the textual territory of education (education semiotics). We conceive music, intonation, words, image and gesture modalities as distinct semiotic systems, analyse potentials selected for the representation and communication of similar and different narrative meanings, and offer ways to understand music contributions to the multi-modality phenomena of emotion expression.

Explanations of the communication of musical meaning vary within the range of theoretical viewpoints in the literature. Within this range, it is rare to find social semiotic theory applied to explain musical meaning, or music included in multimodality studies of interpersonal semantics. For example, the paucity of attention to music's role in multimodal semiosis is evident in an edited volume of multimodal studies (Jewitt 2009) and a *Social Semiotics* special issue on music (Veronesi and Pasquandrea 2014). This is in contrast to emergent semiotic studies of lexical, image and kinetic systems variously combined to analyse the dynamics of intermodal meaning relations (eg. Painter et al. 2013), and orchestrations of genre features. Such investigations of distinct and combined modalities explore interrelated systems and complementary metafunctional potentials, in contexts of culture and situation (Martin 2016).

The importance of music and sound in contemporary digital communication is articulated across some international educational policy and curriculum. The

Australian Curriculum is a case in point (Australian Curriculum, Assessment and Reporting Authority [ACARA], 2016). Broadly, teachers are required to teach students how to interpret, create and critique different kinds of meanings made by sound, language and image in imaginative, persuasive and information texts used for learning the disciplinary content of subjects. Yet routine teaching and learning about musical meaning is far from a reality, because much more research is required to exemplify music's significance in multimodal semiosis, before this aspect of teacher education can be sufficiently supported (Noad 2016).

Accordingly, there are strong calls to include music in semiotic analyses of multimodality, relevant to education. Scholars recognise the need to explore music system potentials (Noad and Unsworth 2007; van Leeuwen 1999), and to describe how music and voice sound contributes to multimodal semiosis (Kress 2009), including intermodal construals of overall meanings in various genre (Martin 2008).

This paper examines two semiotic studies of the interpretive possibilities of music, speech and image in film narratives. With a particular focus on interpersonal affect, we analyse musical meaning alongside intonational, lexical and imaged meanings in the animated movie *The Lost Thing* (Ruhemann and Tan 2010), and the promotional filmtrailer *Elizabeth: The Golden Age* (Kapur 2007).

Music and sound in multimodal semiosis

Limited research includes music or speech sound in social semiotic studies of multimodality, even though van Leeuwen's (1999) framework supports analysts' understanding of how meanings may be created or interpreted. Studies of verbal and visual modalities currently predominate (Jewitt 2009), with inquiry shifting from experiential meanings to the interpersonal semantics of lexis, image and colour, facial expression and gesture. This paper exemplifies the meaning potential of musical semiotics used in film, including choices for representing types of emotion.

Print and film narratives are recent sites for the semiotic analysis of speech, image, gesture and music. In these, a number of analysts engage with cognitive psychology accounts of emotion expression, to enhance semiotic description of image, body and music resources.

Recent semiotic analyses of verbal feelings represented in film narratives (e.g. Barton and Unsworth 2014; Feng and O'Halloran 2013; Noad 2016) are based on an Appraisal: Attitude framework described by Martin and White (2005). This lexical Attitude system maps three different "ways of feeling" (2005, 42-59), encompassing affect (realisations such as love you, sad about leaving, angry with myself, no reason to fear), ethical judgements (e.g. admirable/despicable behaviour) and aesthetic appreciations (e.g. elegant/bogus science) we express about specific aspects of our experience. Broad affect categories of *un/happiness*, *dis/satisfaction and in/security* are subcategorised to provide for more delicate realisations. For example, a *happiness* subcategory is *affection* (e.g. love, adore), a *dissatisfaction* subcategory is *displeasure* (e.g. angry, irritated), an *insecurity* subcategory is *disquiet* (e.g. fear, anxious).

Film imagetrack representations of *happiness, sadness, anger* and *fear* expressed in the face and by body posture are increasingly explored in semiotic studies of narrative. Systems developed by Feng and O'Halloran for analysing facial and postural affect are used to describe representations in comic books (2012), feature film (2013), a picture book and animated movie (Barton and Unsworth 2014). To develop the facial affect system, Feng and O'Halloran draw from cognitive descriptions of face area (brow, nose, mouth) and muscle movement (up/down, open/closed) resources that encode emotion types (i.e. the Facial Action Coding System modelled by Ekman & Friesen 1978), and from a semiotic rework of this cognitive model (Martinec 2001). While recognising disparities between semiotic and cognitive positions, we agree with Feng and O'Halloran (2013) that a social semiotic approach which integrates cognitive insights provides a more comprehensive theoretical account of resources used for the multimodal representation of emotion in film contexts.

Interpersonal meaning relations of resonance or divergence between verbal-visual emotions coupled across double-page spreads of picture books are analysed by Painter et al. (2013), who observe that intermodality generates new overall meanings (e.g. theme of belonging). Their analysis describes complementary metafunctional potentials of verbal-visual systems; their notion of 'coupling' explores the repeated co-patterning of verbal-visual realisations across spreads. Their couplings analysis reveals patterns of resonances (e.g. visual-

verbal duplication of *happiness*) or divergences (e.g. contrasting visual *insecurity* and verbal *security*) that respectively foreground or constrain story meanings. Further, Noad (2016) applies a coupling analysis to explore the complementary emotion potentials of musical, intonational and verbal systems, in the narrative of filmtrailers. She exemplifies patterns of resonance and divergence relations that shape types of disturbance. in the interpersonal worlds of characters.

Few semiotic studies of multimodality include music, possibly because musical meaning is difficult to explain and complex to analyse. From a semiotic position, we recognise that people use music as aural resource to make and share meaning, in ways that relate to other means of making meaning (eg. verbal, visual, gestural) in social contexts and cultural artefacts (Kress 2009). We conceive the meaning potential of music parameters as culturally assigned and developed in processes of social use over time (van Leeuwen 2005). This includes the design process where music potentials are selected for the multimodal signification of emotion in film narrative contexts (Gorbman 1987).

Still, semioticians continue to question how people assign emotions to music, as do cognitive musicologists investigating music heard alone (eg. in concerts) or as part of film sound. It seems that there is no one answer to this. van Leeuwen (1999) draws on historical musicology discourses to explain the semiotic value of melody, volume and timing parameters. McDonald (2010) reviews semiotic and cognitive accounts of musical meaning, where composers and performers offer explanations of the genesis of music-emotion associations. Both accounts echo cognitive proposals that listeners' perception of musical emotions generates from either within the music itself, or reference to something out of the music (see Sloboda and Juslin 2001; Davies 2010; Nattiez 1990). The latter spans various explanations, such as reference to an event celebrated by iconic music, embodied arousals indicative of "natural" emotional responses to musical sound, the appearance of emotional bodies mirrored in music, program notes explaining musical emotions, the experience of activating energies to express an emotion.

Across such explanations of musical meaning, though, it is generally accepted that the analysis of musical emotion "plugs into" musical structure (Cook and Dibben 2001, 57), and that the interpretation of musical emotions involves

interaction between music, the context, and the listener (Sloboda and Juslin 2010). We specify music parametrics and analyse their combined semiotic potentials in relation to verbal, tonal and image choices, to describe music's contribution to the representation of emotion in film narrative contexts.

Musical semiotics

A semiotic framework useful for conceptualising and analysing the meaning potentials of musical sound parameters is provided by van Leeuwen. His framework attends to the "material" aspects of sound (1999, 190), specifically, the pitch, volume and timbre parameters common to music and speech, that are used to structure and communicate units of meaning. van Leewen (1999) highlights the emotional significance of pitch movement (ascending, descending), pitch level (high, low) and pitch range (wide, narrow) contributions to musical melody, and recognises the affective potential of tempo (fast, slow) and articulation (staccato, legato) selections in melody timing. Beyond these, we argue that a comprehensive account of musical semiotics relevant to filmic emotion will include pitch-related key scale (major, minor) and volume (loud, soft) options, following film music studies (eg. Smith 1999; Smith 2003).

Additionally, we consider timbre parameters (van Leeuwen, 2009) in our description of musical semiotics. Timbre describes distinct sound qualities of musical instruments (tone quality) and the voice (voice quality) used to represent feelings or identity in film narratives. Pitch range, for example, is a quality distinguishing one musical instrument from another (e.g. piccolo, clarinet) and often used to "colour" the emotional tone of onscreen action in classical film narration (Kalinak 1992, 101), such as violins used to signify romance, drums for the unease of war. The quality of vibrato is an important indicator of emotion (Crystal 1972; van Leeuwen 2009), such as when the voice wavers in *sadness*.

Music meaning potentials

Our semiotic analysis of musical emotion in film considers the variable meaning potentials of separate and combined music parameters in relation to other modality meanings and narrative context. Music parameters of pitch, volume and timing operate as "cross-functional systems" (O'Halloran 2008, 449). People

musically represent experiential action or the interpersonal emotions of others via imitation (van Leeuwen 1999); they use music potentials to express interpersonal feelings and relate to others; to create textual coherence. In film, for example, the high-pitch quality of marimba may be used to imitate mechanical movement; high pitch in music may infer a character's *happiness*.

Because of its cultural use over time, western tonal music is understood to contribute meanings via connotation (van Leeuwen 1999); people can only infer and interpret a sound's meaning, in a given text, a given context. The interpretation of a musical emotion depends on specific melody, volume, timing and timbre choices, and their combination (1999). Our analysis of musical emotion in film contexts follows a complex path of determining the emotion potentials of separate and combined music features via reference to a range of music-emotion studies, and recognising that final emotion decisions are mediated by film narrative contexts.

Context matters because music's interpersonal meaning potential varies widely. For example, a high ascending pitch movement may mean *joy* in one context, *anger* in a different context. In a piece of music, a meaning contributed by one resource can be influenced by the meaning contributed by another resource, such as when low pitch combines with slow tempo (may mean *sadness*) or fast tempo (may mean *anxiety*). Instrumental music is an "abstract" art with sensory and emotive impact (van Leeuwen 1999, 93-94), so an actual musical emotion may be made more concrete through accompanying words, image, dramatic action or situational context. Nonetheless, it is noted that musical meanings may depart from verbal meanings (1999) or imaged meanings (Cohen, 2001), in cinematic contexts for example.

Film contexts of musical emotion

Film is a highly constructed cultural artefact, where the narrative contexts of musical, imaged and verbal meanings are systematically designed to guide audience interpretation, and invite them to "feel" (Smith 2003, 3). In contemporary Hollywood-style production of the classical film narrative (Bordwell and Thompson 2013), music is composed in support of the diegesis, the telling of story, and to operate as a "signifier of emotion" (1987, 89) in coordination with critical narrative

moments. An assumption is that in providing a "consistent affective pattern" of meaning with other modalities (Smith 1999, 161), film music is part of a network designed to specify an emotion.

The influence of music in guiding interpretations of filmic meaning is well documented (Duncam 2004). Analysts point out the influence of film music on interpretations of image meanings (Marshall and Cohen 1988) and predicted outcomes (Boltz 1994; Thompson, Russo and Sinclair 1994). Furthermore, film music meanings contribute to constructions of emotional situations (Magliano, Kijkstra and Zwaan 1996; Tan 1996, 212), and to interpretation of a character's emotion (Cook, 1998) even if an imaged facial expression is affectively neutral (Tan, Spackman and Bezdek 2007, 135). In classical film, the cultural familiarity of music-emotion associations generates from its provenance in Romantic music styles (Kalinak 1992, 87). Sterotypical constructions of musical emotion are exploited, because if film music is to work effectively, the music-emotion associations must be "instantly recognised" by global audiences (Gorbman 1987, 4).

Categories of *musical happiness, sadness, anger* and *fear* are generally described in the musicology literature related to music heard in real-world contexts such as opera, re-contextualised for radio or websites, or composed for film. This categorical description derives from cognitive psychology models of basic emotion expressions and their typical sociocultural contexts (eg. Davidson, Scherer and Goldsmith 2003; Frijda 1986, 2007; Oatley, Keltner and Jenkins 2006), such as *fear* expressions in contexts of threat. In current emotion inquiry, scholars routinely use these cognitive models to guide their studies of emotions expressed by intonation (e.g. Scherer, Johnstone and Klasmeyer 2003), classical and popular music (e.g. Juslin and Sloboda 2010; Meyer 2001) and film music (e.g. Cohen 2001; Smith 2003), and to guide the production of emotion in classical film (e.g. Bordwell and Thompson 2013; Brannigan 2013; Carroll 1999; Tan 1996).

Social semioticians also argue that cognitive emotion constructs are useful because they enhance analysts' understanding of types of emotion expressions and contexts (Lemke 2015) and describe resources for developing systems (Feng and O'Halloran 2012), allowing researchers to "move beyond cognitive psychological studies" to examine how emotions are "designed" in film (2013, 81). Further, Martin

and White (2005) acknowledge that he reader/viewer of texts are the final arbitars of recognising meaning and that this "meaning [has] potential to be read in different ways, depending on the social subjectivity of readers" (p. 25). As social analysts of film music, we draw from a range of musicology and film music studies, including cognitive descriptions of culturally familiar music-emotion associations, for more comprehensive semiotic accounts of the musical construction of emotion in film narratives.

Research design and analysis

For the purpose of this paper we engage social semiotic frameworks introduced above, to analyse the meaning potentials of music, intonation, words and image modalities in film narrative contexts. We highlight the interpretive possibilities afforded by choices from distinct and combined systems, in the Oscar award-winning *The Lost Thing* (Ruhemann and Tan 2010) and *Elizabeth* (Kapur 2007).

As far as speech is concerned, our analysis of verbal semiotics is based on Martin and White's (2005) description of a lexical Affect system, included in their Appraisal: Attitude framework. We also use a modification of their Affect system (Bednarek 2008), to analyse negative and positive *surprise*.

Our analysis of intonation (hereafter, tonal semiotics) follows the framework developed by Halliday and Greaves (2008) to analyse how intonation contributes to expressions of *happiness, sadness, anger* and *fear* in the grammar of English. Their framework involves the analysis of pitch movement, level and range across several intonation systems. This includes Tonality and Tonicity system choices (pitch parameters, volume, timing) that structure of units of speech sound, or 'tone units'. Each tone unit analysis of interpersonal Primary Tone (PT) system choices and grammatical Mood system choices describes combinations that are typical (eg. declarative/PT1 falling) or non-typical (eg. declarative/PT5 rise-fall). The analysis of Secondary Tone (ST) variations beyond 'normal' primary tone positions describe high and low choices (eg. high ST2 rising, low ST4 fall-rise). Linguists consider these Secondary Tone variations to be indicators of emotionality (eg. Crystal 1976; Tench 1996). We describe the voice sound of *anger* (tonal anger),

for example, from a high ST2 rise potential to express indignation in declaratives (Halliday 1967, 25).

Our analysis of music scores draws on semiotic and cognitive studies to describe a range of melody, tempo and volume potentials used to represent filmic emotion. A music system developed by Noad (2016) is used to describe types of musical emotion represented in film (Figure 1). This system modifies and extends the melody system of pitch parameters described by van Leeuwen (1999). It further specifies contrasting options of pitch, volume and tempo that accord with semiotic studies of the classical film music score (Gorbman 1987; Kalinak 1992), dictionaries of music and musicians (Sadie 2001), and cognitive music-emotion studies (Juslin and Sloboda 2010).

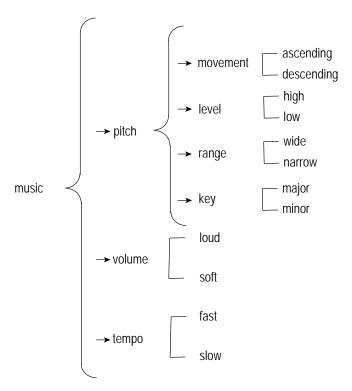


Figure 1. Music system for analysing filmic emotion (Noad, 2016).

The music analysis draws from pscyhomusicology descriptions of positive or negative emotions associated with choices of pitch-related key (major, minor) and tempo (fast, slow) linked to physiological arousals (Bolivar, Cohen and Fentress 1994; Ellis and Simon 2005). It includes volume (loud, soft) and

articulation (legato, staccato), as well as features such as intervallic leaps (e.g. high ascending wide-range jumps) and repeated melodic-rhythmic units formulating musical motifs.

Our semiotic analysis of musical emotion types in film is enhanced by two cognitive studies that usefully describe emotion meaning potentials of separate and combined parametrics. One is Gabrielsson and Lindstrom's (2010) meta-analysis of cognitive music-emotion studies conducted between 1930- 2010, which reports the types of emotions listeners associate with separate music parameters. Their meta-analysis is recognised a 'rich source of music-emotion relationships' for research (Juslin and Sloboda 2010, 13) on the basis that they are culturally familiar to many. The other is Gabrielsson and Juslin's (2003) use of this meta-data to model parametric combinations that are important in communicating *musical happiness/joy, musical sadness, musical fear* and *musical anger*. Their model of musical *happiness/joy* (2003), for example, combines loud volume, fast tempo, major key with high, ascending and wide-range pitch choices.

Analysis of The Lost Thing (Ruhemann and Tan 2010).

The Lost Thing (TLT) is about a boy who collects bottle-tops who happens upon a mechanical creature on the beach who appears to be lost. After asking around and meeting mostly indifference, the boy searches for where TLT belongs.

The short film narrative of TLT is based upon the book with the same title by Shaun Tan, an Australian children's book author and illustrator. In the book we are introduced to the characters and the quest in finding TLT's place of belonging quite matter-of-factly. After exploring for this place TLT and the boy say goodbye, and the boy goes back to collecting bottle-tops. In the film however, we are enticed into the developing relationship between the boy and TLT through the moving image, speech and music. Researchers have explored how ensembles of modes create meaning including short animations or films where the use of modes such as image, gesture and sound contribute to meaning (Barton & Ewing, 2017; Bateman, 2017; Walsh, Durrant, & Simpson, 2015).

The following discourse shows how the music, composed by Michael Yezerski, in this version and in combination with image and gesture creates more empathy for the characters and therefore different interpretive possibilities for the viewer.

For the purpose of this paper three scenes in TLT will be presented. These are when the boy finds TLT; when the boy feeds TLT; and when they find the place of belonging and say goodbye.

Finding The Lost Thing. At the beginning of the narrative, where the boy finds TLT, the two main characters begin playing on the beach with a ball. Here the musical motif of friendship is introduced (Figure 2).



Figure 2. The friendship motif (The Lost Thing).

We can see the use of a major key (D major), large intervallic leaps (up to one octave in distance) with the pitch both ascending and descending resolving onto the tonic note D, and staccato/short notes that indicate a sense of lightness and joy. The friendship motif implies a feeling of *happiness* (Martin and White 2005) and a developing *affection* between the boy and TLT. While the implied meaning of *happiness* can be detected in the book, the music soundtrack and moving image in the film contributes greater meaning as the scene is extended in length (not just one page), and shows a comprehensive interaction between the boy and TLT that is not present in the book.

Feeding The Lost Thing. The boy decides to take TLT home as he is not having much luck finding where it belongs. His parents are not too happy about the boy bringing TLT into their lounge room. Words trace the boy's view of what happens:

[sound of painting on the wall shaking from a train going nearby]

The boy: "There was nothing left to do but take the thing home with me"
[sound of the TV show and clapping, dad munching chips]

The boy: "As for my parents. Well I already knew that mum would be concerned about how filthy its feet were...that dad would be worried about all sorts of strange diseases. They both just wanted me to take it back to where I found it".

""But it's lost!!" I said. Not that it made any difference".

"I decide to hide the thing in our back shed, at least until I could figure out what to do next". [soft music begins]

"I mean I couldn't just leave it wondering the streets".

[TLT drags a box of Christmas decorations off the shelf into the boy's arms; it then rings bells on the end of its arms – indicating its hunger]

The boy is the narrator throughout this entire sequence, his parents say nothing at all. The absence of the parental voice could also indicate their nonchalance about TLT's situation. The protesting tone of the boy's voice contributes to the idea that he is very much interested in helping TLT, as do his words. In the statement "But it's **LOST**!!!" a distinct high Secondary Tone rise and increase in volume at the sentence end infers his frustration and keen desire to help TLT find where it belongs.

Once in the back shed of his parents' home there is no verbal narration but rather the poignant interaction between the boy and TLT throughout the feeding scene. Here the boy looks up the ladder from a bird's eye view, his facial expression indicating compassion towards TLT. He is then shown at the top of the ladder from a side-on or offer view, ready to feed TLT. This scene opens with long sustained notes and crescendos and decrescendos are also heard (Figure 3), contributing to the overall sense that something special is about to occur or what Bednarek (2008) calls *positive surprise*—the moment when the boy gently places the first food item, a Christmas bauble, in TLT's mouth.



Figure 3. Musical prediction of action (The Lost Thing).

Once the boy has started to feed TLT we hear a caring motif (Figure 4). This motif has elements similar to the friendship theme as it is based in a similar pitch range within an octave.

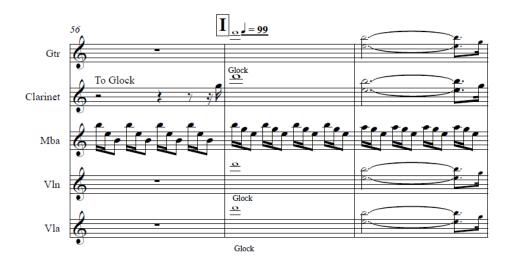


Figure 4. The caring motif (The Lost Thing).

Finding Utopia and saying goodbye. Finally, the boy and TLT find where it might belong. The scene begins with the boy turning a key in a door within a very dark tunnel. There is a feeling of *insecurity* due to the low sustained notes and a wavering sound quality – the boy and TLT do not know what to expect. The door slowly rises and as it does the boy tilts his head to try to look through the lighted gap. The audience is placed here in an over-the-shoulder shot. Once the door is completely open we see the other side of the door is a world full of pastel colours (very different to the rest of film browns and greys). Labelled *Utopia* by the composer's score, the boy and TLT look upon many other mechanical creatures just like TLT.

The belonging motif is heard (Figure 5) as the boy and TLT find where the Thing belongs and they say goodbye to each other. In this section of the score the composer has included aspects of both the caring and friendship motifs heard before. A complex weaving of the two themes into this new excerpt often indicates a development in the music, inferring that perhaps the relationship between the boy and TLT has also has developed during their time together. The music is in major tonality and features a guitar with a warm stringed accompaniment inflecting happiness, in finding a Utopia for TLT.



Figure 5. The belonging motif (The Lost Thing).

The boy and TLT then turn to each other to say goodbye—a side of view where the boy is looking up into the 'face' of TLT. Both the friendship and caring motifs return. The music, image and facial expression of the boy create a tender moment as the two characters have to say goodbye. The themes are repeated until the door slowly closes with a sustained chord featuring at the end of the scene.

There are of course some differences between the book and animated short film versions of this story. Even though people still seem uninterested in assisting the boy to find where TLT belongs, it is the relationship between the two main characters that slightly differ, largely due to the music score and moving image. In the book, the boy's commitment seems to involve rather minimal emotional attachment (Barton and Unsworth 2014). While they spend time together in search for a place for TLT to belong, there is little indication of emotional bonding and there is limited affective response on the part of the boy. In the animation this is very different. It could therefore be deduced that the music contributes to a sense of friendship, caring and belonging through the themes described. The building of sincere companionship is conveyed through affective responses highlighted above. This is particularly evident when the boy and TLT need to say goodbye.

Analysis of Elizabeth (Kapur 2007).

The film trailer narrative of *Elizabeth* previews the role of Queen Elizabeth 1 of England (1580-1590s) in resisting a Spanish invasion. It begins with Elizabeth and courtier Walsingham revealing the close proximity of a powerful Armada, and Spanish intentions of war, the control of English governance, and Elizabeth's assassination. Although Walter Raleigh offers to protect Elizabeth, and Elizabeth asserts her power when meeting a Spanish envoy, doubt is cast on English power to defeat the Spanish. As the English-Spanish battle begins, Elizabeth emerges as leader of supposedly victorious English armies, vowing to protect the future autonomy of England.

This examination of *Elizabeth* music, intonation and words engages unpublished data from Noad's (2016) analysis of the 2.5 minute trailer, but also

includes new analysis of imaged meanings (eg. facial affect) completed for this paper. The seven filmtrailer melody sections do not derive from the 2007 feature film, but appear to come from stock music libraries accessed by the filmtrailer producers. While has not been possible to identify the producers or genesis of music pieces despite repeated efforts, the music shares many features of Hollywood scores, insofar as the music coordinates with onscreen narrative action and critical emotive events.

Musical interpretations of *fear, anger* and *triumph* in three critical moments of *Elizabeth* mostly diverge from verbal emotions but tend to resonate with tonal emotions, with sound a significant contributor to orchestrations of English fear, resistance and heroism. The critical moments concern Spanish intentions, an English-Spanish meeting, then war.

Spanish intentions. Musical fear circulates in the soundspace as Elizabeth (Eliz), Walsingham (W) and Raleigh (R) speak of approaching Spanish armies and threats to Elizabeth, and intonations sound their negative surprise. A tension between verbal confidence and disquiet is a feature of this trailer (Table 1), often accompanied by evaluations of Spanish harm, their capacity and impropriety.

Table 1 Verbal *confidence* and *disquiet* accompanied by valuations and judgements (Elizabeth)

E:Eliz:2:4	This Spanish Armada is at sea with an <i>army of ten thousand</i> men? [INV J + capacity, INV V harm]
E:W:2:5	The Spanish are barely a day away Majesty [INV V harm]
E:R:2:8	Spain is <i>no friend</i> of England [INV J – propriety INV V harm]. The <i>more gold I take</i> Majesty, <i>the safer you will be</i> [INV J + prop, INV A confidence]
E:W:2:10	I care for your safety [INV A disquiet]. The threats to your person are real [INS V harm, INV J – prop].
E:Eliz:2:11	Spain intends to place <i>Mary Stuart on our country's throne</i> [INV J – propriety, INV V harm] and <i>I'm to be assassinated!</i> [INS J – propriety INV V harm]

Divergent couplings of musical *fear* and tonal *negative surprise* repeated across phases 5, 8 and 10 do not permit any amplification of English *confidence*. Melody 1a.i *fear* (bars 1-23) is constituted by fast tempo, loud volume and minor key, low and narrow-range pitch movements (Figure 6), consistent with observations by Kalinak (1992) and Gabrielsson and Juslin (2003). Intonations of *surprise* are

heard in the rise of an extra-high Secondary Tone 2 and rise-falls of Tone 5 (Halliday & Greaves 2008) located on bold capitalised Tonic syllables (aWAY, ENGland, REAL); the context suggests *negative surprise*. Elizabeth's imaged facial affect is wary and in tune with negative views of the Spanish.

English-Spanish meeting. The second key moment spans middle phases 12, 13 and 14 of the trailer as Elizabeth and the Spanish envoy exchange insults to the power of the other. Music and intonation continue to constrain any amplification of English confidence, but do highlight Elizabeth's anger with the Spanish and build the idea of English resistance. The Melody 1a score (Figure 6) features a shift from Melody 1a.i fear to Melody a.ii anger (bars 24-35). Musical anger is marked by shifts in low>high pitch, fast>slow tempo and loud>very loud volume, illustrating how compositional change can indicate emotional change.

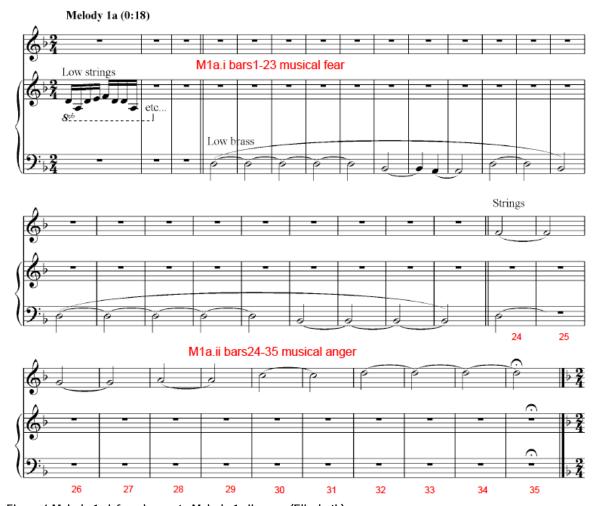


Figure 6 Melody 1a.i fear change to Melody 1a.ii anger (Elizabeth).

The verbal *confidence* of Elizabeth and Spanish envoy is constrained further because musical and tonal resonances foreground *anger* (Table 2). Melody 1.ii *anger* is slow, loud, and features a high ascending narrow-range pitch movement (Gabrielsson and Juslin 2003). Their tonal *anger* includes the impatience of wide descending tones leading up to Elizabeth's high Secondary Tone 2 rise variation that sounds her indignation. Extrapolating from Martin and Rose's conception (2007, 59), this brief musical-tonal resonance represents the filmtrailer construal of an angry emotional 'tone'.

Table 2 Resonance of tonal-musical *anger*, diverging from verbal *confidence* (Elizabeth)

verbal Affect: confidence	tonal Affect: anger	musical Affect: anger
Tell your King I fear neither HIM nor his armies. [INS A:confidence] (Elizabeth:3:12b)	Tell your KING I fear neither HIM nor his armies [impatience of wide descending Pretonic before indignation of high rise ST2+] (Elizabeth:3:12b)	anger of M1a.ii minor key, high ascending narrow-range pitch movement, very slow, moderately loud (mapped across phases 12-14)
There is a wind coming that will SWEEP away your pride. [INV A: confidence] (Spanish envoy:3:13)	There is a wind coming that will SWEEP away your pride [impatience of wide stepping descending Pretonic before fall PT1.] (Spanish envoy:3:13)	anger of M1a.ii minor key, high ascending narrow-range pitch movement, very slow, moderately loud (mapped across phases 12-14)

A coherent interpretation of Elizabeth's defiant *anger* follows in phase 14, strengthening the idea of English resistance (Table 3). Melody 1.ii *anger* features a shift to crescendo in final bars 33-35. Tonal *anger* features protesting impatient lead-ups to the anger of very high Second Tone variations (Crystal 1972), including Elizabeth's spectacular pitch range of four octaves (tone unit 14b) as she shouts of stripping Spain **BARE**. Her verbal *displeasure* is inscribed. Elizabeth's *anger* is also evident in her imaged angry frown, open mouth, raised fist.

Table 3 Complementarity of verbal-tonal-musical anger (Elizabeth)

verbal Affect: displeasure	tonal Affect: anger	musical Affect: anger
I too can <i>command the wind</i> sir! [INV J +capacity] I have <i>a hurricane in me that will strip Spain bare</i> [INV J +capacity] if you <i>dare</i> to try me. [INS A:confidence] (Elizabeth:3:14)	I TOO [indignation of ST5+] can comMAND the wind sir [high ascending Pretonic before protesting indignation of ST2+] I have a hurricane in me that will strip Spain BARE if you dare to try me! [impatience of wide descending Pretonic before anger of ST1+++]	anger of M1a.ii minor key, high ascending narrow-range pitch movement, very slow, moderately loud increasing to very loud final bars 33-35 (mapped across phases 12-14)

(Elizabeth:3:14a-c)	

English-Spanish war. In the climax, music is central to orchestrations of a triumphant and heroic Elizabeth, and hints of English victory. This critical moment features a resonance of positive emotions, accordant with the idea of overcoming threat (Frijda, 2007). We hear a resonance of musical triumph and verbal confidence in the midst of English-Spanish war, across final phases. But such positivity is prefaced by musical sounds of solemnity in a context of imminent war, consistent with the concept that goals of English victory may not be achievable, and description of lexical displeasure if goals are obstructed (Martin and White 2005). Verbal reiterations of English disquiet and incapacity are evident (Table 4).

Table 4. Verbal *confidence* and *disquiet* accompanied by valuations and judgements (Elizabeth)

E:W:4:19	Forgive me Majesty I have failed you. [INV J –capacity]
E:Eliz:4:20	This Armada that sails against us carries the Inquisition. [INV J-propriety, INV V harm] We cannot be defeated. [INV J +capacity]
E:W:4:21	The Spanish will overwhelm us. [INV A disquiet, INV J -capacity]
E:Muse:4:23 a-b	The storm breaks. Some are <i>dumb with terror</i> [INS A disquiet, INV J –tenacity]

The Melody 2a.i construction of musical *solemnity* maps across these words, with solemn slow and moderately loud sounds, and a low countermelody (bars 6-15). The M2a.ii change to musical *triumph* occurs in bars 15-24 (Figure 7).

Melody 2a (1:32)

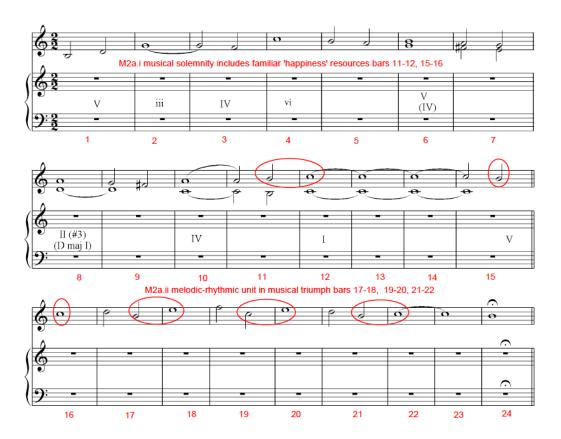


Figure 7. Musical *solemnity* change to musical *triumph* (Elizabeth)

A *triumphant* emotional 'tone' from musical-verbal resonances in the trailer allow audiences to interpret possible feature film endings of victory and heroics. In final phases of *Elizabeth* (Table 4), musical sounds of *triumph* include almost all culturally familiar resources used to communicate *happiness/joy* (Gabrielsson and Juslin 2003, 521). This M2a.ii sound of *triumphant joy* features the high, repeatedly ascending but narrow-range pitch movements and increasingly loud volume that Gundlach (1935) associated with *triumph*. These high slow movements are part of the repeated melodic-rhythmic unit (circled, Figure 7) introducing major key *joy* in M2a.i, progressing the long high notes that lift solemnity to *triumph*. The musical *triumph* engages a full orchestra, in unison with a celebratory chorale.

Words casting Elizabeth as the triumphant hero resonate with the music in final phases (Table 5). The Muse speaks of those who 'soar' as the battle begins, words co-ordinated with the M2a.ii first two notes in bars 15-16. The one who

soars is Elizabeth. Repeated imagetrack shots show her in full armour, smiling, astride a white horse leading the English into battle. Elizabeth's verbal *confidence* is heard as she urges the English to victory, and vows to protect England's autonomy.

Table 5. Verbal-musical sounds of *triumph* (Elizabeth)

verbal Affect: confidence	musical Affect: triumphant joy
And some <i>spread their wings and soar!</i> [INV A: confidence] (Muse:4:23c)	triumphant joy of M2a.ii first two notes establishing melodic-rhythmic unit bars 15-16
Let them come with the armies of Hell! [INV A: confidence] They will not pass! (INVJ -capacity] (Elizabeth:4:24a)	triumphant joy of M2a.ii major key, high repeatedly ascending narrow-range pitch movement, slow tempo, legato articulation, XX loud volume (mapped across phases 24-26)
My God, England will not fall while I am Queen! [INV A: confidence] (Elizabeth:4:26)	triumphant joy of M2a.ii major key, high repeatedly ascending narrow-range pitch movement, slow tempo, legato articulation, XX loud volume (mapped across phases 24-26)

Discussion and Conclusion

The two studies exemplify the significant contribution of music and voice sound to the representation and interpretation of filmic meanings, and the complementary emotion potentials of musical, tonal, verbal and visual semiotics in film and print versions of narrative. Both demonstrate the potential of music and intonation to influence the interpretive possibilities of narrative meanings, beyond the verbal and visual (ACARA, 2016).

The scarcity of verbal and visual feeling instantiated in *The Lost Thing* book suggests that young audiences may interpret a boy who cares little where the lost creature ends up. A comparative analysis across book and film versions of the same story highlights the musical contribution of quite different meaning, developing ideas of happy companionship and a caring friendship that seeks out a place for the creature to belong. Analysis of musical motifs progressing across event sequences suggests a useful approach for teachers and young students in schools to explore musical meanings and recognise departures from verbal and visual meanings, and for apprenticing young students into the realms of cultural and moral messages crafted in literary digital texts.

Meaning differences and similarities evident in the promotional *Elizabeth* trailer are afforded by music, speech and image choices. The examples suggest the value of students closely analysing combined semiotics at critical narrative moments, to negotiate what meanings are possible, or shared. Patterns of similar and different meanings across key moments can be mapped to reveal the music, speech and image resources selected to construct cultural views of a specific character or action. For middle years students, music examples suggest interrogation from a critical perspective. Multi-semiotic resonances of emotional 'tone' may be one way to investigate how a typical genre feature is promoted to interest audiences. Given the current textual territory of literacies education, students could explore popular culture texts and digital websites using music to promote environmental, scientific and historical values.

The two studies of music, speech and image representations of filmic emotion exemplify social semiotic progress in conceiving a range of communication modalities in their own right, and analysing complementary emotion potentials across distinct systems. As Scollon (2003) would have it, future music inclusions in semiotic studies of multimodality would appear to benefit from interdisciplinary approaches that bridge theoretical disparities to explore semiotic phenomena, and provide more comprehensive accounts of sound resources.

The studies go some way in illustrating the dialectic of social semiotic theory and educational practice (Martin 2016) by describing an integration of modality potentials instantiated in a single cultural artefact such as film, and interpreting film genre meanings shaped by distinct and combined system choices and patterns of intermodal similarity and difference. They highlight, though, that more semiotic research is required to achieve a seamless description of emotion types. We see the need to further develop a semiotic model of emotion, that is sufficient for a consistent analysis and description of emotion in multimodality studies.

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NOTES ON CONTRIBUTORS

Betty Noad is an academic affiliated with the University of New England, Australia, in early childhood, primary and secondary teacher education. Dr Noad has held various English and literacy consultancy positions for F-12 teacher professional learning across NSW schools, and practiced as a classroom teacher. Her research interests are in the semantics of sound, multimodality, education semiotics, and multiliteracies pedagogy.

Georgina Barton is an Associate Professor at the University of Southern Queensland and lectures in English and literacy education for preservice teachers. She taught in schools for over 20 years prior to working in universities. Her research focuses on the arts and literacy including multimodality. She has over 60 publications in this area including a pending book titled: *Developing the arts and literacy in schools* with Routledge publishers.

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