

THE FUZZINESS OF 'EXPRESSION' IN RELATION TO ALGORITHMIC MUSIC.

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ABSTRACT

All sorts of music expresses all sorts of ideas. Yet algorithmic music is often critiqued for its lack of expression. This raises questions about what makes any music 'expressive'. This in turn leads to addressing notions of expression itself. A logical approach reveals that the concept of expression in music discourse is very vague. This fuzziness arises from three sources. Firstly, the idiomatics of English is inherently confusing and builds specific expectations about music and expression in general. Secondly, the accepted ways of listening to Western art music identified by Becker [3], cause difficulties in identifying the substantial meaning of the word 'expression'. Thirdly, the conflation of composition and performance into the umbrella term 'music' such as the article 'Expression' in *Groves Music Online* [24] generates its own confusion. Revealing these sources of confusion, places the alleged deficiency in the expressiveness of algorithmic music into the logical deficiencies of music discourse, rather than locating it in algorithmic music.

1. INTRODUCTION

"Music is a powerful, pervasive and crucial form of human communication and expression" is a proud assertion made on the website for a recent musicological conference [22]. Algorithmic music has been critiqued for being 'un-expressive'. This may be because this music is not capable of being expressive, or because algorithmic music is so badly composed that the ideas are not articulated coherently, or because the fuzziness of 'expression' is highlighted by the intrinsic nature of algorithmic music. The last possibility returns the original problem to the logic of music discourse, rather than a deficiency in algorithmic music. This paper is primarily concerned with addressing this question.

There are difficulties in articulating the concept of expression in an intangible, abstract art form such as music. Nancy Baker, an American musicologist, highlights the paradoxical use of the word in relation to performance and in music criticism [1]. While addressing this paradox, Scruton's philosophical linguistic approach leads him to conclude that it is logically impossible for music to be 'expressive', while acknowledging the reality that music does indeed have a strong emotional resonance [24].

Unpicking Scruton's reasoning shows that his apparent paradoxical outcome about music and

expression arises from several causes. Firstly, various linguistic conventions lead to differing meanings and logical implications despite the use of identical words. Secondly, his automatic elision of 'expression' and 'emotion', is a result of what Becker [3] describes as the 'habitus of listening' adopted in analysis and criticism of Western art music. This elision immediately excludes the possibility that music may be composed to express ideas other than emotional transcendence. Algorithmic music, as a genre, may be designed to address other ideas through the medium of music. Thirdly, Scruton's implicit assumptions result in faulty logic. This compounds the difficulties presented by the subtleties of English grammar, in clearly articulating the concept of 'expression' in the intangible abstract art form which is music.

This paper shows that an explicit understanding of expression through music clearly points to algorithmic music as a means of human expression of a broad range of ideas.

2. IDIOSYNCRASIES IN USE OF ENGLISH LANGUAGE

The concept of 'expression' in music discourse is very messy. The words 'expression' or 'expressive' are regularly used in a wide range of diverse contexts. For example Jacobson writing in the CD liner notes of Beethoven's string quartets manages to make 'expression' quite meaningless in his comment that a particular movement is "the smoother and more sustained in expression" [18], or the CD liner notes to music by German algorithmic composer Barbara Heller says that her work is "...in search of new forms of expression, of possibilities of articulation...for her musical language" [27].

Similarly, some musicologists are quite free in their use of the terminology of expression. "The public quartet made possible an increase in expressive depth in the Slow movement because an ensemble can say things which would be embarrassing or ridiculous if vouchsafed by individuals..." Griffith goes on to say in an analysis of a Haydn quartet "...that the prominence of Major and minor in a single movement, can be used to achieve expressive extremes..." [13]. Yet there are no clearly articulated ideas about what this word means, or consistent evidence which could provide insight into an implied meaning. The end result is that, rather than helpfully clarifying the attributes of 'expressive music',

the use of the term seems to reflect some type of indefinable, subjective experience.

Sources of this implication and interpretation, lies within the pragmatics of English in every day usage, as well as the grammatical construction of English, specifically in relation to the usage of 'expression' in music discourse. These are compounded by differences in readers and writers abilities to grapple with the complexity of the English language. Variations in the ideas associated with 'expression' build erroneous expectations regarding its meaning in relation to music in general.

Firstly, the term 'expression in music' often seems to refer to a discrete feature which can be dispassionately observed similar to 'rhythm in music' or 'melody in music' both of which are intrinsically music-specific features. Hence we are led to expect that expression is embedded in music in a similar way. Even without knowing specifically how, or what, the music, the composer, or the performer, is expressing, this phrase 'expression in music' is difficult to interpret. The phrase somehow overlooks the reality that music is the medium of expression, rather than expression being a component of music. Music can express 'things', whether it be an idea, an emotion, the state of the natural world or the glory of god, but the idea being expressed is realised 'through' music, as an alternative to other media such as dance, photography, or words.

Confused expectations can also be brought about through the abbreviation of the concept of 'expression' in/through the medium of music, into 'musical expression' such as in the title of Scruton's entry in *Groves Music Online* [24]. This can lead to subtly different interpretations because of the multiple meanings attached to the term 'musical' in different contexts.

For instance, the term 'facial expression' indicates in a straight forward way that the expression is occurring through the medium of the face. Similarly 'musical expression' can indicate that the expression is occurs through the medium of music. However, in other contexts, the application of the adjective 'musical', when applied to another object, implies qualities like beauty, or melodiousness, for example 'musical bird-song' or 'musical instruments', or when people say 'it was a musical performance' they apply 'musical' to the key word 'performance'. Hence, it is quite easy to interpret the phrase 'musical expression' so that 'expression' is the key feature, or object, of the phrase, which, when qualified with the adjective 'musical', means that the expression was particularly beautiful or harmonious. Yet even loud, ugly, inharmonic, dissonant noises in music can be expressive of something, such as anger, agitation, or nuclear war, even if the idea is not usually associated with 'beauty'. Even then, depending on perspective, difficult things can have an abstract inherent beauty of shape, pattern, colour or texture which can become apparent to the listener.

The notion of 'expressive' music is so ubiquitous in Western thinking, that it appears in the popular press as well as more academic music criticism and analysis.

Looking at the common language definitions of 'expression'[9] provides an interesting insight into what concepts people are communicating when using this phraseology. Of particular importance is that these common language definitions provide only two specific references to music, of which one of the references is to 'expression-mark' not to music itself. While 'expression-marks' looks as if it might be getting down to specifics, these marks are only considered indicative, rather than manifesting or representational. This permits ambiguity regarding which and how those specific markings are particularly related to expression. The other reference to music simply refers to nuanced performance designed to bring out the 'feeling' of the music [9]. While this may explain the vagueness of the phraseology it does not help in unravelling the technical aspects of 'expression' in relation to music theory and composition.

Roger Scruton, a British philosopher and composer, addresses the issue of 'expression' at length in *Groves Music Online* [24]. His attempt to unpick some of knots in meaning, actually provide examples in themselves of an insufficiently broad view of both expression and of music. Scruton's work is useful in that it points to the confusion in the meaning of 'expression' arising from the grammatical construction of English. However, it also reveals confused thinking. The issue he points to is a real and significant part of the reason for problems with the meaning of 'expression'. However, this article is an example of how difficult it can be to unpick precise meanings and implications from what seem to be simple and logical statements. Scruton's argument is wrong as it is based on his erroneous presumptions along with a misrepresentation of music as an activity rather than an fixed object.

Scruton says: "When it is said of a piece of music (say, of Schubert's *Erkönig*) that it has 'expression', it seems natural to ask: what does it express? There is thus a presumption that expression in music is transitive: i.e. that to have expression is to express something (in this case a feeling of terror) [24]."

Scruton also points out that "It may be said of a performance that a certain passage is played 'with expression'. The piano teacher (or the critic), however, seems to be talking of expression in some intransitive sense, in a sense which forbids the performer's question: 'what am I expected to express?' [24]."

Differentiating between transitive and intransitive verbs turns out to be a false distinction, and an inaccurate representation of the real grammatical problem. It shows his view to be inadequately thought through. Verbs are the 'action' words in a sentence. Verbs describe the nature of an activity being undertaken by a given object, which might actually be a person, even perhaps a musician! Using a word transitively requires that the action must refer directly to a specifically named object [15]. For instance, "I press the piano keys" makes sense while "I press." alone makes no sense. However, intransitive verbs are never accompanied by a direct or specifically named object. For example "I sing" makes complete sense just as it is. Of particular relevance here, is the observation by Brian Harvey, an American

grammarians, says that motion verbs, such as 'drive' or 'run', are generally intransitive [15]. Thus I suggest that Scruton has inadvertently highlighted the core problem, because the act of performing or composing is motion oriented like 'dance, go, travel, play', so it seems that considering the use of verbs may be helpful. However, the activity of making music is not the same as music itself. Music (even as a transient performance) is an object with descriptive attributes including 'expression'.

Consequently describing music with the quality of 'expressive' is similar to describing the music with the qualities of 'nuanced' or 'bright' or 'loud'. This is clearly the case when someone says that music is played with expression, or 'has expression'. These are descriptors, adjectives, not verbs whether transitive or intransitive. Hence there is no implicit question in either case of what "What is a performer expressing when they perform?" To my mind, this grammatical de-construction of a typical remark about 'expression' immediately raises the alternate question "How is the music expressive?" Interestingly, this is the more significant question in terms of compositional (and performer) decision making.

It is notable that Scruton's line of argument arrives at a different subsequent question namely "what is the music expressing?". This illustrates how easily differences in literal interpretation or logic can arise. Both the questions are valid, but their difference also leads to different associated meanings for the term 'expression'. "What does it express?" refers to an idea outside of the music, while "how does it express?" refers to qualities which reside inside the music itself. These questions are both implied in discussions of expression in music. Yet, not only do different lines of thinking about expression arrive at the different subsequent questions, but also the different questions have different implications concerning the locus of 'expression' in music, which are not always explicitly stated.

3. 'EXPRESSION' IS A STAND IN FOR OTHER PERSONAL REACTIONS

The second reason that expression may be a slippery concept to pin down is that perhaps critics perceive that using 'expressive' is more acceptable than writing about the degree of their personal engagement with the music.

A digital thesaurus [5] illustrates how 'expressive' could be replaced by three main words: mobile (with associated words of animated, communicative, open, easy-to-read); meaningful (with associated words of significant, dramatic, emotional, sensitive, vivid, telling); and representative (with associated words of representing, demonstrating, signifying, indicative of, indicating) [6]. While 'engaging' could be replaced by attractive (with associated words of appealing, charming, winning); connecting (with associated ideas of fitting into place, attaching, joining, uniting, bonding); holding (with associated words of keeping, absorbing).

So expression and engagement are not one and the same thing but they are closely related activities in that something that is expressive is likely to be engaging, as the features described as expressive are likely to ensure

that engagement happens. This is clarified by looking at how the opposite of expressive is categorised as blank, cool, aloof, deadpan, giving nothing away, unemotional, secretive, or enigmatic [6]. Yet these characteristics could be expressed through music, in which case that music would be 'expressive'! However, the point is that critics may feel uncomfortable revealing their degree of engagement with the music, preferring to externalise their remarks to 'expressiveness' which is less personal.

Another significant source of confusion is the conceptual elision of expression in music with emotion, not only in popular writing but throughout academic discourse. There are several aspects to this point. The first is the varying degree of comfort with, and self awareness of emotion among individuals. Harris points out that "We are always experiencing emotion of some sort, just as there is weather of some sort, although sometimes it isn't strong enough, or distinct enough for us to describe it or perhaps even to notice it...Everyone has emotions and feelings regardless of being in touch with them, or being able to express them in words [14]. As well, there are individual differences in desire for and tolerances of emotional connection. For some, intellectual connection is sufficient. Together these aspects will impact on both a listener's reaction to music, and the way they denote that experience in terms of music and its 'expressiveness'.

Another defining aspect of 'expression' in may stem from the accepted ways of listening that have become part of the Western art music tradition. Judith Becker is an ethnomusicologist studying African music. Becker develops and explores the notion of the 'habitus' of listening [2,3]. This describes listening habits, and the expectations of listeners in a particular culture. Studying these habits can reveal implicit assumptions about what music is for, what music 'means', and how it is to be perceived, as well as the appropriate responses to the music.

Juslin and Sloboda [19], succinctly explain that the difficulties Western musicology has in articulating emotion in its discourse stem from its strong grounding in "classical concert culture", that is, the behaviour expected of audiences attending classical music concerts. Typically this requires silent and respectful listening, with minimal bodily movement or other emotional expression, until the conclusion of each musical work. This way of responding to music is accompanied by particular intellectual and aesthetic understandings. Thus, in the West, "appreciation of music" has come to mean having an intellectual understanding of the history and form of a musical work, rather than an articulated emotional response to the music. While some emotional response is permitted and valued, it is restricted to the transcendent and spiritual aspects which are related to the 'higher' abstract and aesthetic properties of works rather than full-blooded emotion. These characteristic attitudes towards music extend throughout the academic paradigm of music scholarship. Consequently, there is no academically accepted means of framing and understanding emotion, and consequently 'expression' in

music theory, since Western musicological discourse is so strongly grounded in “classical concert culture”.

4. THE DIFFICULTY OF ACKNOWLEDGING MUSIC AS AN AURAL ART FORM

Writers of textbooks use ‘music’ as “...shorthand of the scores of American and European modernist composers...” [26]. Performance is required to bring all music into existence, whether by human performers or by machines. Performance transduces the composer’s ideas, whether sketched, precisely notated, or programmed into computer code, into the aural experience we know as music. Music is what we encounter with our ears and minds. Listeners perceive the surface of the music as it emerges over time. No matter what, the listener is only presented with the surface of the music as an aural experience.

Conventional score-based analysis does not explicitly include the vital aspects of music as an art form. Music exists as a temporally emergent aural experience, organised around ideas. Intrinsic fundamental dimensions of music are often unstated. “The multiple levels of musical organisation are rich spatio-temporal organisations, i.e. complex dynamic systems [16]”. However, as an intangible art form, music does not actually contain any spatial dimension, apart from the aural space induced by particular compositions, such as mediaeval antiphons, or immersive sound environments. Audiences may hear music, they may actively listen. They will never see it, it does not exist in visual form. Yet music analysis is generally static and score-based, such as Allan Forte’s set theory of atonal music [12], in which the analytical structures cannot be heard in the music. Some, such as Kerman [20] acknowledge that listening is important but rely on the score as the basis for their analysis.

The difficulties this introduces into the study of expression in music, are summarised very well by Baker, in her introduction to ‘Expression’ in *Groves Music Online* [1]. “In the simplest sense expression is applied to elements of a performance that depend on personal response and vary between interpretations.” Yet “It is not clear how this use of the term “expression” relates to the concept that occurs in music criticism (such as when a work is said to express some emotion, outlook, or idea).”

The relationship between musicology and criticism is another matter, however, it might be asserted that the branch of musicology concerned with analysis, often becomes a more elaborate form of criticism, such as evidenced by Kerman [20] and Griffiths [13]. I suggest that the major reason for the word ‘expression’ being used with apparently two different meanings in the different contexts of performance and musicology arise from the problematic relationship that musicology has with music being an intangible aural experience.

Scruton suggests that expression in performance is about “playing music with understanding’ [24]. Yet Scruton says the performer’s goal is not to “possess knowledge of some emotion, intention or idea that the music is purporting to communicate. The player’s

knowledge is essentially a practical knowledge, not a species of theoretical insight.” Rather, the player aims to understand how to play the music for enjoyment [24]. This reduction of ideas in music to sheer sensation, significantly contributes to the difficulties in establishing how music ‘expresses’ ideas. It does not resolve the paradox of meaning outlined by Baker [1].

Knowing other information, such as program notes, composer biographical details, or context of composition, may help the listener contextualise what they are hearing when listening to that music. Walser says that if the context of a piece of music is understood, then the music “...can be understood as a human utterance, in dialogue with other human utterances.” [26]. This strongly implies a communicative aspect to music. However, I suggest that context is not necessary for the initial description of music as an utterance, nor for its generic description as an act of communication. If it has been made by humans that in itself is enough.

However, the listener still only hears the surface of the music, and what the surface suggests, ‘expresses’, about the composer’s ideas in this work. The specific concepts being expressed will vary in individual works, but emotion and mood, as well as conceptual and experimental ideas are valid concepts to include in analytical evaluations of the surface of the music. Although the listener can never truly know what a composer was intending to do in a work, the listener can hear the music as it is performed and know for themselves what ideas it projects, i.e. ‘expresses’ to them as the listener.

Baker [1] implicitly recognises the importance of the performer in realising the experience of music. Yet she is not able to acknowledge that music begins its existence because of the composer’s ideas which are to be expressed through the music as aural experience. The performer must, by their very nature as intermediaries, impact on the presentation of the ideas, through all sorts of parameters of the music. Depending on the degree of change implemented by the performer they may be effectively recomposing aspects of the music, or more likely they may be offering their interpretation of the basic ideas being expressed by the composer through this music.

Algorithmic music, especially when the music involves the use of electronic technology for sound production, combines composition and performance into the same activity. It is possible that automated sound production does not hold the same nuances between sound events as does acoustic music performance, but criticising algorithmic music on this basis is an elision of algorithmic music with the automation of sound production. It is not a question of the expressiveness of the compositional technique.

Andrew Ford, an Australian composer, has gone so far as to say that when the audience is listening to music [in a concert situation], they are engaging in a relationship with the composer, whereby they undertake to concentrate, memorise and engage thoughtfully with the music [7]. However, I contend that composers, also need to give consideration to the implications of that

situation. The composer, by publicly presenting their music, enters into a relationship with the audience, in which they are communicating ideas through the medium of music, as performed by computers or by human musicians.

5. ALGORITHMIC MUSIC EXPLICITLY MOVES BEYOND EMOTION

A composer may wish to communicate a variety of ideas: whether it is the compositional process itself, or hearing the nuance of the sound/timbre being used in the composition, or some other thought, feeling, or situation. For instance, the composer may produce unintelligible music specifically to suggest 'nonsense'. In German speaking regions, psychoanalytic thought brought a notion of genius defined such as to be indistinguishable from madness. As psychoanalysis emerged as a discipline, artists of all types, including Schoenberg, used insanity as a model. Serialism is the epitome of the convergence in music between genius and madness, because a very, autonomous, but rigorously integrated idea [genius] controls the music, however idiosyncratic and incoherent [insane] it may actually sound [21].

Secondly, algorithmic music is composed to investigate ideas other than emotion. For instance, Brian Eno sets a number of audio processes in place which unfold at different rates in time, which "...resulted in some truly unexpected clusters of sound, ranging from moments of true calm to gigantic hiatus" [11]. "I use a lot of cold processes. They seem rather passionless...and suddenly these flowers come out, and they are surprisingly beautiful and complex..." [25]. Warren Burt espouses a similar philosophy of delight in the appearance of the unexpected [4].

Alternatively, composers, such as Bruce Jacob [17], work with generative models, using minimal input data sets with preconditions and reproductive rules, in an endeavour to produce meaningful and coherent results through automated procedures. While others, such as David Cope, use databases of predetermined materials which are then iteratively combined using extensive sets of rules, to produce music in the styles of existing composers [6]. What differs between composers and methods, is the amount of, and which details in one or other of the dimensions of music they concern themselves with, the remainder being left to compositional algorithms.

The decisions the composer makes will impact on how the underlying ideas transfer to the surface of the music, and hence to the listener's (conscious or subconscious) awareness. "...any piece of music is capable of having a story or series of pictures read into it by the imaginative listener..." [23].

If the composer is sufficiently skilful, there will be commonalities in the listening experience with regard to the ideas perceived in the music, just as occurs in any other shared human experience of life.

6. CONCLUSION

As musicians, critics, musicologists and psychologists are all steeped in common language as well as the technical language of their individual professions, it would not be surprising to find that this range of meanings seeps across the use of 'expression' in music discourse. This may explain why the use of 'expression' in the debate about how music functions in relation to 'expression' ranges across the concepts of manifestation, indication, or representation. These are significantly different degrees of expressing an idea.

The ambiguity of the English language, the implications and conflation of possible meanings, the habits of music researchers with their own shorthand terminology in relation to music and expression, along with the impact of the classical concert 'habitus of listening' on academia, becomes particularly pertinent when discussing algorithmic music.

However, as I have argued throughout this paper, the whole notion of 'expression' as a critical response in music discourse is fraught. The problems lie in several domains both of which affect analytical and critical responses to music. The idiomatic use of the term 'musical' builds erroneous expectations, while the pragmatic use of English through the various grammatical constructions of 'expression' tend to lead to different logical conclusions about the causal location of expression. Secondly, the elision of emotion and engagement into 'expression' has led to the usage of 'expression' as an umbrella term which detaches the personal reactions to the music from the author of the discourse. Finally, the split between performance and composition has both contributed to, and been a result of, an unwillingness to confront the reality that music is an aural subjective experience, which requires performance for its existence, but which begins with the composer's ideas. Hence, music seems to present logical difficulties in understanding expression. However, if music is solely regarded as an aural experience then it is clear that the performer/composer split is a false dichotomy.

Together, all these factors, logically lead to the conclusion that the most accurate terminology is to use 'expression through music', while acknowledging that music is an aural experience which depends on human input. Both composer and performer are required in the germination and fruition of music for its existence as a means of expressing ideas. Algorithmic and computer music has brought this constellation of issues into the limelight, not necessarily because the music lacks 'expression', but because this music challenges the conventions in which discourse on Western art music has been grounded.

7. REFERENCES

- [1] Baker, N. K. "Expression: Introduction." *Grove's Music Online*. accessed 25/11/2009.
- [2] Becker, J. 'Anthropological Perspectives on Music and Emotions.' *Music and Emotion: Theory and Research*, P. N. Juslin & J. A.

- Sloboda (eds), Oxford University Press, Oxford, 2001, pp.135-160.
- [3] Becker, J. "Exploring the Habitus of Listening: Anthropological Perspectives". *Handbook of Music and Emotion: Theory, Research, Applications*, P. N. Juslin & J. A. Sloboda (eds), Oxford University Press, Oxford, 2010, pp.127-162.
- [4] Burt, W. "Packages for ArtWonk: New Mathematical Tools for Composers." 2010 <<http://algoart.com>> accessed 04/06/2010.
- [5] Cope, D. *Experiments in Musical Intelligence*, A-R Editions, Inc, Madison, Wisconsin, 1996.
- [6] Cope, D. *Virtual Music: Computer Synthesis of Musical Style*. MIT Press, Cambridge, Mass. 2008
- [7] Deneslow, A. "Over and Over." *The Observer*, 23 February 1986. <http://music.hyperreal.org/artists/brian_eno/interviews/obser86.html>, accessed 29/1/2009.
- [8] "Engagement", *Thesaurus*, Microsoft Word 2000, accessed 21/11/2012.
- [9] 'Expression.' (2009) *Oxford English Dictionary* <<http://dictionary.oed.com.ezproxy.uow.edu.au>>, accessed 25/11/2009.
- [10] "Expressive", *Thesaurus*, Microsoft Word 2000, accessed 21/11/2012.
- [11] Ford, A. *In Defence of Classical Music*, ABC Books, Sydney, 2005.
- [12] Forte, A. *The Structure of Atonal Music*, Yale University Press, New Haven, 1973.
- [13] Griffiths, P. *The String Quartet*, Thames and Hudson, Bath, 1983.
- [14] Harris, R. *The Happiness Trap: Stop Struggling, Start Living*, Exisle Publishing Limited, Wollombi, NSW, 2007.
- [15] Harvey, B. K. "Transitive/Intransitive." <<http://www.personal.kent.edu/~bkharvey/latin/morph/verbintr.htm>>, accessed 3-24/3/2011.
- [16] Husbands, P., P. Copley, et al. "An Introduction to Evolutionary Computing for Musicians". *Evolutionary Computer Music*, E. R. Miranda & J. A. Biles (eds), Springer, London, 2007, pp.1-27.
- [17] Jacob, B. L. 'Composing with Genetic Algorithms'. in *Proceedings of the International Computer Music Conference*, Banff, Alberta, 1995, pp.452-455. <http://www.ece.umd.edu/~blj/algorithmic_composition/icmc.95.html>.
- [18] Jacobson, B. "Liner Notes." in *The "Early" Quartets, op. 18: Beethoven*, EMI, Hayes, Middlesex. 1981, CDS 7 47127 8.
- [19] Juslin, P. N. & J. A. Sloboda "Music and Emotion: An Introduction". *Music and Emotion: Theory and Research*, P. N. Juslin & J. A. Sloboda (eds), Oxford University Press, Oxford, 2001, pp.3-22.
- [20] Kerman, J. *The Beethoven Quartets*, Oxford University Press, London, 1975.
- [21] McClary, S. *Conventional Wisdom: The Content of Musical Form*, University of California Press, Berkeley, 2000.
- [22] Musicological Society of Australia. "The Politics of Music." Annual Conference, accessed 12/11/2012, <<http://www.music.anu.edu.au/conferences/msa>>.
- [23] Scholes, P. A. "Programme Music". *The Oxford Companion to Music*, J. O. Ward (ed), Oxford University Press, London, 1970, pp.834-836.
- [24] Scruton, R. "Expression II: The Nature of Musical Expression." *Grove's Music Online*. accessed 25/11/2009.
- [25] South, P., (alias Alan Jensen), "The Sound of Silence: A Thursday Afternoon with Brian Eno." *Electronics and the Music Maker*, December 1985, <http://music.hyperreal.org/artists/brian_eno/interviews/emm85.html>, accessed 29/1/2009.
- [26] Walser, R. "Popular music analysis: ten apothogms and four instances." *Analyzing Popular Music*, A. F. Moore (ed), Cambridge University Press, Cambridge, 2003, pp.16-38.
- [27] Wiedl-Achilles, S. "CD Liner notes to Scharlachrote Buchstaben." *Scharlachrote Buchstaben*, Wergo, Mainz, Germany. 1997, WER 6610-2, p.pp.8-15.