

Introductory notes to the Semiotics of Music

by Philip Tagg — Versio n 3: Liverpool/Brisbane, July 1999

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'MUSIC'S MEANINGS' (2012)**

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Introduction to version 3

This text was part of an ongoing project to produce a textbook in the semiotics of music. Although this text was used by music students, it was also written with students from other humanities and social science disciplines in mind. For this reason, the text contains no musical notation and uses a minimum of unexplained musicological terminology.

Since this text **never constituted a final version**, it should be understood that many aspects of the topic are left undiscussed here. There are also no joins between certain sections and the last few pages are no more than notes and diagrams that require further explanation not contained within these pages. Please also note that references and the bibliography are incomplete. Readers are advised that relevant chapters in [Music's Meanings](#) are more up to date, more reliable, more thorough, more substantial than this document.

Why bother about music semiotics?

The average citizen of the Western world hears three-and-a-half hours of music a day and spends an average of \$75 a year on music. These figures include babies, pensioners and the deaf, so those belonging to other population groups are liable to spend even more time and money with music. However, whereas music is clearly important out there in the reality of the great public subconscious, it still gets put at the bottom of the academic heap, together with other options like domestic science. Popular music is especially unfortunate in this regard because, unlike classical music, unlike many kinds of jazz, and unlike archaic or exotic forms of folk music,¹ its constant use in the everyday lives of ordinary people in industrialised society seems to disqualify it from being dubbed 'art' and hence it is deemed to be of dubious legitimacy in the realms of re-

1. Of course, classical music did not become seriously 'classical' until the middle of the nineteenth century (see Stockfelt 1988, Ling 1989, Klingfors 1991, Tagg & Clarida, forthcoming). Many forms of jazz (e.g. bebop, cool jazz, fusion) have lost their popular status (if they ever had one) while traditional jazz remains both popular and virtually excluded from higher education.

search and higher education. The reasons behind academe's problematic relationship with popular music are too complicated to explain here, but its symptoms are clear: while claiming to be the torchbearer of *rationalism*, academe treats public expression and systematisation of the emotional and corporeal in an *irrational* fashion. It allows music and dance to enter its realms only if siphoned off to the metaphysical antechamber of 'art' and banishes other music and dance off to the ghetto of 'entertainment' outside its walls.

Recently, however, higher education has made at least token gestures in the direction of popular culture but music and dance have been poor relatives in this family of new immigrants to academe. Inadequately resourced and severely understaffed, popular music studies tend to be housed in a variety of departments: English, communication studies, music, cultural studies, for example. The presence of our subject in higher education may be expanding, but it is still certainly very much more the exception than the rule.

Still, rather than deplore the undemocratic character of academe and its elitist attitude to the vast majority of the population and their music, it is more productive to consider what can be done to improve the quality of music studies. Certainly, the study of popular music has, in the few places it exists and is known, revolutionised the analysis of music in much the same way as ethnomusicology has challenged traditional theories of music since the start of this century. However, musically immanent studies of popular music studies are still few and far between, the main boost for popular music studies coming originally from sociologists who, as early as the nineteen-thirties, identified the importance of music in the construction and maintenance of social patterns in industrialised cultures. With the postwar baby boom and a radical restructuring of industry and education, there were deep demographic changes in the USA and Europe. These changes concurred with the spread of rock music. Sociologists and journalists of the rock generation (born 1940 – 1955) have written extensively about the role of rock since the late sixties. As sociologists Frith and Goodwin (1990:1) point out:

the sociology of pop and rock is rooted in two non-musical concerns: the meaning of 'mass culture' and the empirical study of youth (and delinquency).²

This statement largely sums up the nature of most sociological writing on pop and rock. However, fully realising that observations about relationships between music and society demand that the *music* be described as well as society, scholars like Frith and Laing have on several occasions asked explicitly for help from musicians and musicologists. Their calls have not had much response because most cultural theorists and sociologists do not feel comfortable in the world of pentatonic majors, E minor sevenths, anticipated downbeats, digital delay and quantising, while musicians are socially encouraged to stay in the ghettos of anti-verbal 'art' or 'kick-ass' for the sake of their own muso credibility. On top of that, musicologists are hampered not only by the discipline's demands to stick to the classical or ethnic canon for legitimate objects of study, but also by an arsenal of terms developed to describe the workings of music whose means of expression and basic dynamics of composition and performance are often a long shot from the world of Fats Domino, The Animals, James Brown, Abba, AC/DC, Living Color, Cheb Khaled or Oasis.

There are two paths out of this dilemma. Musicians / musicologists have to change musicology and sociologists / cultural theorists have to change sociology and cultural studies. From the muso side our task is threefold: we have to [1] adapt and renew the analytical arsenal of concepts musicology uses to describe sounds referred to as 'musical'; [2] make our descriptions of music accessible to intelligent people who don't know

2. Quoted by Tamlyn (1997: 6-7).

what a diminished seventh is; [3] become less coy about music as communication and abandon the muso guild mentality that imagines there to be an antagonistic contradiction between musical creativity and intellectual inquiry into music.

At the same time, non-musicians and non-musicologists will have to throw their fashionable but obsolescent metatheories of culture overboard for a while and devote themselves a little more to thinking about *music* in the society they say they want to understand. In Frith's and Goodwin's terms, they could go less for the macro 'meaning of "mass culture"' and a little more for 'the empirical study of youth' or whatever other population they see as using popular music. After all, without the sounds that move people, young or old, to boogie on down, feel sad and wistful, or part of a group, there is no social context of music to study, no real music to theorise about.

What is missing from both sides is the will and ability to connect music as sounds with the society in which it exists, which influences it and which it influences. This means discovering which sounds mean what to whom in which context. And this, obviously, is a semiotic matter.³ That is why the rest of this text is devoted to (a) basic semiotic terminology, (b) a definition of 'music' and 'musical structures', (c) a sign typology of music, (d) how music can be studied semiotically without knowing what a diminished seventh is.

General semiotic concepts

THIS IS ALL MUCH BETTER AND MORE SUBSTANTIAL IN CHAPTER 5 OF 'MUSIC'S MEANINGS'

Semantics, semiology, semiotics

Words like 'semantics', 'semaphore', 'semiology' and 'semiotics' derive the first of their morphemes from the Greek word *séma* (σῆμα), meaning 'sign'.

1. *Semantics* is a term used in three ways. [1] Coined in 1897 by French linguist Michel Bréal, 'semantics' originally meant studying change of meaning in language, i.e. a sort of expanded etymology.⁴ [2] However, 'semantics' is generally used in a wider sense to refer to studying the interpretation, message and meaning of any communication system, a useful dictionary definition of 'semantics' being 'the study of the relationships between signs and symbols and what they represent'.⁵ [3] The word 'semantics' is also used in linguistics in contradistinction to 'syntax' (formal relationships of one sign to another without considering their meaning) and 'pragmatics' (use of language in concrete situations).
2. *Semiology* is a term coined by Swiss linguist Ferdinand de Saussure and meaning basically the same thing as the more general meanings of 'semantics' and 'semiotics'. Saussure defined *sémiologie* as the 'science which studies the life of signs within the framework of social life'.⁶
3. *Semiotics* is a term coined by US-American philosopher Charles Sanders Peirce. This word also refers to the scientific study of sign systems (symbolic systems). The dictionary definition states that 'semiotics' is 'the study of signs and symbols, especially the relation between written or spoken signs and their referents in the physi-

3. [**End of Laing 1969].

4. Etymology means studying of the origin of words and how they acquired their meaning(s).

5. All English dictionary definitions from *The New Collins English Dictionary*, London 1982.

6. ... 'science qui étudie la vie des signes au sein de la vie sociale (Saussure); Science étudiant les systèmes des signes (langues, codes, signalisations, etc.)'. All French dictionary definitions from *Le petit Robert*, Paris 1970.

cal world or the world of ideas.'

Which word(s) to use?

Native speakers of French tend to use *sémiologie* while Anglophones and Italians seem to prefer 'semiotics' when referring to the systematic study of sign systems. As can be seen from the preceding paragraphs, all three words can mean basically the same thing. This confusion is likely to be resolved in a similar fashion to the VHS versus Betamax battle in which the latter and more adequate system was ousted by the former, which was more widely used and marketed. Strictly speaking, 'semantics' should be used to refer to studying interpretations, messages and meanings in a sign system, this being – at least theoretically – distinguishable as a subset of activity inside semiotics (or semiology). In this text, however, we shall be using the word semiotics to denote the systematic study of signification.

Peirce's basic sign typology

Icon

Icons are signs bearing physical resemblance to what they represent. Such resemblance can be striking, e.g. photograph, (traditional) painting, but maps and certain types of diagram are also iconic because there is structural resemblance (though not striking) between them and what they purport to represent. The representation of rising and falling pitch, of legato slurs and staccato dots in musical notation can also be qualified as iconic.

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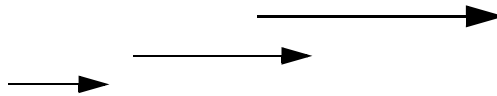
Indices are signs connected by spatio-temporal proximity or by causality to what they represent. Examples of causal indices are smoke meaning fire or dark clouds meaning rain. This sign type is particularly important in music semiotics. Indeed, all musical sign types can be viewed as indexical in this Peircean sense.⁷ Verbal language's metonymies and synecdoches are indexical and therefore useful concepts in music semiotics. Metonymy uses phenomena connected in time or space to refer to each other, e.g. 'Champagne' signifying a certain type of wine because it happens to be produced in a region of the same name. A synecdoche is a part-for-whole expression, for instance 'the crown' meaning the monarch and royal power in toto, not just a bejewelled piece of metal headgear, or '50 head of cattle' meaning not only the animals' heads but 50 complete bovine beings.

Conventional or arbitrary sign ('symbol')

In Peirce's terminology, a symbol is only connected by convention with what it represents. To avoid confusion, I shall call Peirce's symbol *arbitrary sign* or *conventional sign*. Examples of conventional signs are 'table', 'because', 'grass verge', 'think', 'but', 'grateful', 'pullover', 'semiotics' and most other words and verbal phrases in any language. These signs are called conventional or arbitrary because it is supposed that there is nothing apart from convention preventing a word like 'theology' from denoting a can-opener, whereas it is unlikely that an indexical sign like 'Champagne' will ever mean Polish vodka or denote a lawn-mower, and impossible that smoke from a fire will mean the fire has gone out or that you have run out of sugar. In this sense, conventional signs (Peirce's 'symbols') can also be called 'arbitrary signs' because the relationship between

7. For convincing arguments on the intrinsic indexicality of all musical signs, see Karbušický 1986. See also 'Anaphone' (p. 25) and 'Genre synecdoche' (p. 28).

signifier and signified is not primarily based on structural similarity (icons), proximity or causality (indices).⁸



8. Arbitrary: not absolute; founded on (personal/collective) whim, convention, habit etc. Arbitrary signs cannot originate as such since without other initial types of semiotic relationship (e.g. icons or indices) it would be impossible to develop the conventions on which arbitrary signs rely for their subsequent denotative qualities. See our description of the origins of the word 'broadcast' (under 'Semiosis', p. 7, ff.) and recent critiques of the primacy of denotation (footnote 12, p. 7).

'Symbol' and 'sign': Saussure and Peirce

Whereas the Peircean term 'symbol' means signs whose connection to what they represent is neither homologous⁹ (icons) nor causal (indices) but rather conventional or arbitrary, 'symbol' in Saussurean discourse has more or less the same meaning as 'sign' for Peirce. This means that whereas a French semiologist might qualify music as a 'symbolic system', your average Anglo-Saxon academic ought really to refer to it as a 'sign system' or 'semiotic system'. However, there is no guarantee for such linguistic coherence amongst linguists. For instance, US-American scholars Berger and Luckmann (1967) use 'symbolic universe', not 'sign universe' or 'semiotic universe', to denote a set of signifying practices used by any population for defining/constructing its own cultural identity by simultaneous inclusion (of 'us') and exclusion (of 'them').

In the light, or darkness, of such terminological disorder, the main thing is to make first sure you know what you're talking about when it comes to signifying various types of signification and then to explain clearly, to whoever hears or reads your words what *you* mean by 'sign', 'symbol', 'semantics', 'semiology', 'semiotics', etc. As long you know what *you* mean and as long as your readers can relate to what you write, your work should be terminologically acceptable.

Even if Saussure's terms get a raw deal in the world of Anglo-Saxon semiotic terminology, there is one pair of Saussurean concepts that has prevailed: *signifiant* - *signifié*, i.e. the relationship between *signifiers* (signs) and *signifieds* (what the signs stand for).¹⁰

Denotation and connotation

Table 1: Smoke alarm: connotation as superelevation of previous signification

Signifier		Signified	Signified
Signifier	Signified		
alarm noise	smoke	fire	Danger! Get out!

The word 'fire' denotes the object / phenomenon fire. Fires can be quite different but whether it's an oil refinery conflagration or a tiny Primus stove, it's still a fire. In other languages, matches or cigarettes burning would also be denoted as *feu*, *fuoco*, *fuego*, *fogo*, *eld*, *vuur*, *Feur*, etc. (i.e. 'fire'), whereas English is probably alone in calling encased, electrically heated elements 'fires' (unless such 'fires' are in fact toasters). Still, as long as we aren't referring to electric fires running smoothly, English speakers do say 'where there's smoke there's fire'. That saying is based on observations of a simple indexical type between smoke and fire: smoke 'means' fire indexically due to the causal relationship observable between the two. Now fit your smoke alarm as instructed. It is triggered off by smoke from fire. You hear it and, if it is not a false alarm, you know it 'means' fire and a lot more, like get out of bed, rush out of the house and don't die. In that case, the alarm sound does not denote fire arbitrarily like the *word* 'fire', nor does it mean fire indexically like the smoke you see that is caused by a fire you can't necessarily see. The relationship between the smoke alarm sound and fire is one of *connotation*: the alarm *connotes* a particular sort of fire and everything that you know goes with it because the relationship between the alarm sound as signifier and the object fire as signified *presupposes previous levels of signification*. These previous levels are in this case all indexical and causal, namely the relationships [1] between the alarm sound and smoke, [2] between smoke and fire, [3] between fire and danger. With these previous

9. Homologous: having a related or similar position, structure.

10. The corresponding concepts for Hjelmslev (French linguist of Danish extraction), would be 'expression' instead of 'signifier' and 'content' instead of 'signified'.

levels of signification you are able to connote the specific threats of multiple burns, asphyxiation and possible death with the noise of a smoke alarm.

Using Eco's model of communication (1976: 54, ff.), you can say that connotation arises when a signification is conveyed by a previous signification, which gives rise to a superelevation of codes of the following type. Such a superelevation of codes is what Hjelmslev called connotative semiotics. Its form is, in the case of a smoke alarm, shown as table 1.¹¹

According to Eco, 'there is a connotative semiotics when there is a semiotics whose expression plane is another semiotics'. So, in the smoke alarm example, the signified (content) of the former significations – 'the alarm is triggered off by smoke', 'where there's smoke there's fire', 'fire can be destructive' – becomes the signifier (expression) of a further signified (content). Thus the smoke signifies fire indexically, but the sound of the smoke alarm *connotes* both danger and evacuation associated with fire thanks to the previous semiotic relationships between [1] the alarm noise and smoke, [2] smoke and fire and [3] fire and destruction. Eco (1976:55) goes on:

The difference between denotation and connotation is not... the difference between 'univocal' and 'vague' signification, or between 'referential' and 'emotional' communication, and so on. What constitutes a connotation as such is the connotative code which establishes it; the characteristic of a connotative code is the fact that the further signification conventionally relies on a primary one.

Signification, sign typology

'Signification' basically means 'meaning'. 'Signification' is used in semiotics to refer to the whole complex of how something can be a sign of or a sign for something else. Of course, signifiers can be related to their signifieds in many different ways. Systematising such relationships of signification into categories (such as Peirce's icons, indices and symbols) constitutes a sign typology. A sign typology of music is presented later (p. 25–30).

Semiosis

In *A System of Logic* Peirce distinguished between, on the one hand, dynamic or mechanical action and, on the other, sign action. The latter he called *semiosis*. It basically means the actions and processes by which signs are constructed and transformed, i.e. how signs acquire and change their meaning. Semiosis is a neglected and misunderstood area in the study of musical signification, partly because many concepts used in music semiotics have been imported direct from linguistic semiotics. One problem here is that, until quite recently, denotation was considered by most linguistic semioticians to be the 'basic' or 'primary' type of signification upon which connotative signification depended for its very existence.¹²

The difficulty is that such a position relies heavily on an ahistorical type of *synchronic semantics* (looking at a symbolic system at one given point in time in one given culture) rather than on *diachronic semantics* (studying meaning as part of a dynamic symbolic system constantly changing in space and time). Take the word 'broadcast' as an example. Very few people reflect these days over the word's original meaning because it has acquired the status of a conventional sign. However, when a word had to be found to denote the new phenomenon of mass transmission via radio waves, a metaphor (connotative meaning) was chosen to cover the new concept, more specifically that of

11. The Eco model uses the Hjelmslev terms 'expression – content' instead of the pair 'signifier – signified' which is used in this text for reasons of consistency.

12. This 'traditional' sort of linguistic semiotics was also embraced to a certain extent by Eco (1976). This has recently been challenged within linguistics (see Cruise 1988).

throwing or scattering things ('casting') far and wide, around and about ('broad'). This etymology of 'broadcasting' and the word's subsequent transformation from connotative metaphor into an arbitrary denotative signifier could be qualified as studying the word's semiosis, in this case a semiosis contradicting the notion that denotation is 'primary' and connotation 'secondary'. Understanding semiosis involves, *inter alia*, studying how interpretations of signs vary or alter from one historical and social context to another and how such interpretations affect signification.

One example of musical semiosis can be found in the wining pedal steel guitar of mainstream Country & Western music. This sound may have owed a little to the dobro and slide guitar techniques of the US south but its most obvious forerunner is the Hawaiian guitar, highly popular in the USA in the late twenties and early thirties, before the days of electrification.¹³ From having connoted things like 'Hawaii' and 'exoticism', those glissando sounds were slowly but surely incorporated into the C&W mainstream, ending up as style indicators of Country music (see p. 29). Another example is presented by Tamlyn (1991) in his analysis of the Sex Pistols' *Anarchy in the UK*. The song's snare patterns do not feature backbeat hits on 2 and 4 of the bar, standard fare for mid and late seventies rock, but the offbeat figures of early sixties songs like *Twist and Shout* and *Let's Twist Again* which in their original context were consistent with fun and energetic dancing but which fifteen years later, in a punk setting, had acquired an ironic distance.

Of course, similar types of semiosis occur frequently in European art music. Just think of how bass soloists in Italian opera (e.g. Pergolesi's *La serva padrona*) were initially regarded as vulgar and humorous – they only occurred in *opera buffa* –, and then consider the serious dramatic roles they are given in the nineteenth century (e.g. Verdi's *Otello*). Or what about the breakdown of romantic chromaticism into avant-garde serialism, or the transition of the violin from vulgar fiddle to Louis XIV's courtly *vingt-quatre violons*, or the path of the accordion in the opposite direction, from upper class novelty to sonic property of the European proletariat?

One major problem has of course been that most semiotic studies of music have been carried out on European art music with all that such study entails by way of adhering to a canon of acceptable composers whose works have been given the institutional seal of everlasting value. The only trouble is that as soon as aesthetic eternity is involved, semiosis, which by definition implies change and historical relativity, becomes an uncomfortable matter. However, as can be gathered from the few examples just offered, historical contextualisation of musical signification is just as important as its cultural contextualisation with concurrent forms of expression. In short, the same set of musical sounds does not 'mean' the same thing in different cultures or at different times in the history of the same culture.

Polysemy

'Polysemic' – from Greek *poly* (πολύ = many) and *séma* (σῆμα = sign) – means signifying many things at the same time, i.e. that the same signifier has several different signifieds. Music is polysemic from the traditional verbal-linguistic viewpoint.¹⁴ For example, a certain set of musical sounds might make you associate to waving corn, rolling hills, a woman with long hair strolling through a meadow, the swell of the sea in a summer's breeze, billowing sails, a long dress, love, romance, sighs, olden times and a whole host of other things. There is ostensibly no 'rational', verbally denotative, connection between, say, sails and corn, a long dress and hills, etc. Therefore, from a logo-

13. Bob Dunn and Ernest Tubbs went electric several years before Charlie Christian (jazz). See Malone (1974).

14. By 'traditional linguistics' is meant the old approach within the discipline that is fixated on denotative, mostly conventional (arbitrary) signs. See footnote 12.

genic (or logocentric) viewpoint, the music giving rise to all those associations would have to be qualified as polysemic.¹⁵ The same observations could be made about a set of sounds making you think of streets, concrete, rain, crime, delinquency, flickering lights, loneliness, etc.¹⁶ However, it should be clear that each of the two sets of sounds and each of the two sets of associations elicited by those sets of sounds are mutually exclusive, each covering totally different areas of affective experience. Just because each one of the two sets of associations contains *verbally-denotatively* disparate concepts, it does *not* mean that they are *musically* contradictory within themselves. On the contrary, play the music corresponding to each of those moods to anyone belonging to the culture in and for which the music was produced and the listeners will be in no doubt. This misunderstanding about musical meaning being polysemic arises because academe demands that we present ideas about music not in music but in words: you have to read these unwieldy words and sentences instead of being able to compare recordings.

If different people within the same culture feel or react to the same music in a similar way, it cannot be considered polysemic. Or, to turn the tables, what does the word 'table' itself mean when spoken in a normal voice with normal intonation? As verbal denotation, 'table' is quite monosemic as 'a flat horizontal slab or board supported by one or more legs', but musically it has about the same value as 'able', 'Babel', 'cable', 'cradle', 'fable', 'gable', 'Grable', 'label', 'ladle', 'Mabel', 'navel' or 'stable', each spoken with the same voice, intonation and inflexion. Still, whereas no musician or musicologist would dream of calling verbal discourse 'polysemic' just because all but the most onomatopoeic of words are musically ambiguous, semioticians and linguists of the traditional school still claim music to be 'polysemic', just because musical categories of signification do not coincide with verbal ones. This fallacy is due to the logocentricity of academic discourse. To make this quite clear, consider the next two points:

1. The semantic field of the word 'chair' is vast, ranging from folding tubular plastic things, via what you sit on in kitchens or dining rooms, via whatever it is that chairpersons or professors occupy, right through to thrones and voluminously padded leather or upholstered pieces of furniture in sumptuous drawing rooms or exclusive clubs: 'chair' will do for the lot of them and only the context or qualifiers will clarify monosemically to what environment and to which activities the 'chair' in question belongs. Words, in other words, can be just as context sensitive for their meanings as music is.
2. The spoken word 'chair' is as musically polysemic as someone humming or 'doo-doo-ing' the first line of *God Save The Queen* or the guitar riff of *Satisfaction* is verbally polysemic. Neither utterance carries clear meaning if judged according to the irrelevant norms of signification applicable to the other symbolic system. Conversely, the emotive dimension of a verbal statement can be clarified and made less polysemic by prosody, i.e. by the 'musical' elements of speech – intonation, timbre, accentuation, rhythm –, just as musical discourse can gain symbolic precision if associated with words, actions, pictures, etc. locating the sounds in specific social, historical or natural situations.

In short, precision of musical meaning does not equal precision of verbal meaning. The two symbolic systems are not interchangeable and would not need to exist as such if they were. Music and words can never stand in a one-to-one signifier/signified relation to each other.¹⁷ Some types of conceptualisation are logogenic, others are not. It is in

15. 'Logogenic', from Greek *λόγος* (=word) and *γῆνος* (=type), means conducive to being expressed in words. 'Logocentric' (*κῆντρον*= needle/point/centre) means centred around or fixated on words.

16. Romantic music and the type of associations it elicits are dealt with in chapter 2 in Tagg and Clarida (forthcoming). In the same work, Chapter 10 deals with the second set of associations.






this way that the sets of associations to the 'love' and 'urban alienation' pieces mentioned above must be discussed as musicogenic, not logogenic, categories. They are after all verbally accurate in relation to *music*, not to the discourse of traditional linguistics. To this extent music must be regarded as an *alogogenic* symbolic system: it can only be regarded as polysemic from a logocentric viewpoint.¹⁸

Basic communication model

Finally, before approaching matters more musical, we need to establish some kind of communication model visualising how messages (musical or otherwise) are transmitted (fig. 1, p. 10).

At the centre of the model you see the central process going from idea (intended message) through 'transmitter' and 'channel' to 'receiver' and 'response'. The transmitter is any individual or group of individuals producing the music – composer, arranger, musician, vocalist, recording engineer, DJ, etc. The channel or 'coded message' is the music as it sounds and the receiver is anyone hearing the music – the 'transmitters' themselves or other people. The 'intended message' is what the 'transmitters' want to get across – the right sounds at the right time in the right order creating the right 'feel'. Transmitters rarely conceptualise the 'feel' in much verbal detail but to give an idea of the range of 'feels' a European or North American musician might consider communicating, I supply a short list of verbalised examples as table 2 (p. 11). Even though creative musicians within the European and North American cultural sphere might never use any of the words in the list to describe their music, they would know how to construct sounds corresponding to most of these 'feels' while codally competent listeners from the same cultural background would be able to distinguish that music into categories similar to those listed in table 2 (p. 11).

Fig. 1: Basic communication model

C	Am	Dm ⁷	G ⁷	D	Bm	Em ⁷	A ⁷
							
I	vi	ii ⁷	V ⁷	I	vi	ii ⁷	V ⁷

17. See Francès 1972; Imberty 1976: 36.

18. 'Alogogenic' = not conducive to be expressed in words.

Table 2: Ethnocentric selection of possible connotative spheres ('feels')

Saturday night kick-ass	ethereal sublimity	erotic tango
beautiful rural loneliness	alienated urban loneliness	muso jazz cleverness
pomp and circumstance	gospel ecstatic	acid house body immersion
Dracula's drooling organ	cute little kiddies	sex aerobics style
headbanging thrash	romantic sensuality	bitter-sweet innocence
noble suffering	slavery, drudgery	wide-screen Western
spaghetti Western	medieval meditation	hippy meditation
psychedelia	evil East Asians	nice East Asians
savage Native Americans	noble Native Americans	slapstick comedy
street-philosophising PI	depravity and decadence	brave new machine world
cybernetic dystopia	death by frostbite	twinkling happy Christmas
football match singalong	music hall pub song	Methodist hymn
pastoral idyll	the throbbing tropics	violence
horror	mystery	grace and sophistication
yuppie yoghurt lifestyle	sixties sound	scorching sun, blistering heat
wide and open	smoky dive	Arabic sound
West African drums	distant bagpipe	Barry Manilow ballad
Abba Aphex sound	laid-back rock ballad	seventies disco
thirties German cabaret	Aboriginals	inconsolably unjust tragedy

Of course, the list shown as table 2 could go on for ever or include a totally different selection of 'feels'.¹⁹ Even this pretty random selection could itself look quite different if someone else were to stick verbal labels on the same sorts of sound I know I am trying to connote here with my words. The point here is just to give an idea of what an 'intended message' might be, whether the intentions are conscious and verbalised or intuitive and conceptualised only as music. So, what happens to 'the message' when it sounds and when it is received? Does the message get out? Does it get across? Does the receiver show 'adequate experience or response?' Taking as examples the first two 'feels' in table 2, it would be safe to say that 'adequate experience or response' would come into play if, in the case of intended 'kick-ass', the receivers reacted by dancing or gesticulating enthusiastically, perhaps also joining in by yelling out the hook line of each chorus. Such activity would, on the other hand, hardly constitute adequate response to the audience at a Mahler concert: listening in silence and without visible expression but with deep emotions of ethereal sublimity, not clapping between movements but giving both conductor and orchestra a good round of applause after the performance would certainly be more appropriate behaviour. If people sit quietly during the intended kick-ass or bop around loudly during the intended ethereal sublimity, or if they hear something intended as delicate and tender in terms of sentimental tack, or something intended as interesting in terms of horror, then there has been a breakdown in musical communication. The question to ask in such situations is 'why?' What made it go wrong? As a musician, it's not enough to say 'they just didn't like it' or 'they don't understand my work'. There are always solid reasons why musical messages don't get across.

19. This sample of 'feels' is ethnocentric because 'West African drums', 'East Asians', 'Aboriginals', 'Native Americans', 'Arabic sound', etc. are all explicitly specified by ethnic qualifiers, while 'feels' applicable to any music culture (e.g. 'grace and sophistication', 'violence', 'innocence', 'horror') are presumed to be formulated in a European or North American musical idiom, as though West African, East Asian, Native American, Aboriginal and Arabic musics were unable to create such connotations. Unfortunately, this ethnocentricity is necessary in the text at this stage because musical signification, including music's connotative spheres, is to a large extent culturally specific.

Of course, sometimes it's the venue. But *what* is wrong with the venue? Is it the acoustics? Was there a harsh predelay that was impossible to counteract through mixing, equalising and speaker placement? Did the violins have to work too hard to make their notes last in such a dead space? In such cases the intended message does not even get out into the 'channel' (what you as a 'transmitter' want to be heard), let alone reach the 'receivers'. Maybe your performance or recording sounds fine to you but the message still doesn't seem to get across. Is it the wrong audience for your music or did you make the wrong music for them? Perhaps they laugh when they should cry or gape apathetically instead of shouting and jumping about the place? Most problems of musical communication are attributable to codal incompetence and / or interference.

Codal incompetence

Codal incompetence in music arises when transmitter and receiver do not share the same vocabulary of musical symbols.

For instance, having lived in Sweden for many years, I connote a certain cheery accordion style with a certain type of old-time proletarian fun and games (*gammaldans*). If I were to mix a bit of that style into a signature tune for local TV in Liverpool to promote a bit of positive populist nostalgia for the 'good old days' when 'ordinary people' were supposed to have enjoyed themselves in 'simple honest ways', Merseyside listeners would not know what to make of it. It would amount to codal incompetence on my part as musical transmitter in a Merseyside cultural context, even though the idea might once have worked quite well in Sweden. Perhaps my local theme tune would be more communicative if I had tried to emulate the sound of the older popular artists from the region, maybe a Searchers pastiche for the sixties or Hank Walters' on accordion for earlier days. However, even that might fall on deaf ears because younger Liverpoolians might not even recognise a Searchers sound, let alone Hank Walters. In this latter case there would also be codal incompetence from the receiving end, since the young audience would be unable to relate to musical symbols that would be quite meaningful to me, as well as to older Liverpoolians.

Another, more common and obvious example of codal incompetence is the fact that I am sure I could not distinguish music for marriage and burial in the majority of the world's cultures. Mixing up funeral and wedding music because you can't hear the difference between them shows radical incompetence of musical code in the culture concerned.²⁰

Codal interference

Codal interference²¹ arises when transmitter and receiver share the same basic store of musical symbols but totally different sociocultural norms and expectations. Codal interference means that the intended sounds get across and are basically 'understood' but that 'adequate response' is obstructed by other factors, such as receivers' general like or dislike of the music and what they think it represents, or by the music being recontextualised verbally or socially.

Returning to rock-and-roll kick-ass for example, those that primarily hate the *sounds* of heavy metal and associated genres (and then attack the music's lyrics and lifestyle) do *not* necessarily misunderstand the music. They are codally competent enough to know that it is supposed to be loud and powerful, that its singers and soloists are supposed to yell and scream, that it is supposed to make its listeners shout, extend arms in huge

20. For further examples, see Tagg (1993).

21. Thanks to Martin Cloonan (Liverpool, 1992) for useful critique, improvements and additions to the next few paragraphs.

V-signs, move the body about quite heavily, and that this sort of activity is best experienced at venues where lots of people are doing it all together at the same time. Heavy metal protagonists (soloists) have to be loudmouthed and loud-gestured because the instrumental backing they have set themselves to be heard above, just like the society they and their audience live in, would otherwise drown their voice and they would disappear inaudibly and invisibly into an amorphous mass of sound and society. Heavy metal haters know that nice guys and good girls, with a well-mannered, reserved and demure behavioural strategy for social success are out of the question in heavy metal aesthetics: you need vulgarity, lavish amounts of ego projection and plenty of loud noise to make the music work. Now, if you have invested lots of energy into cultivating a nice-guy or good-girl identity as strategy for social survival and none into nourishing the loudmouthed self-celebratory parts of your body and soul, you will find the latter anathema, not only because good (loudmouthed) heavy metal spits upon the nice guys and good girls in its lyrics, lifestyle and music, but also because you are scared of the vulgar loudmouth and garish slob inside yourself that you have worked so hard at repressing in order to please those in authority as a means to gaining social power and approval. You understand the music only too well but your sociocultural norms, intentions and motivations interfere severely with any feelings of cathartic desperation, liberation or self-celebration that the music might give to others.

Of course, codal interference can work in the opposite direction if you imagine heavy metal fans incapable of deriving any enjoyment from Baroque recorder music. The delicacy and small but effective means of expression associated with this type of music can easily become a taboo area of affective and gestural activity for those who experienced alienation and failure at school, perhaps those whose peer group enthusiasm and social restlessness got them thrown out of class, those who hated having to learn the recorder, or who resented the successful upper middle class pupils and teachers who seemed to love classical music so much.

If social and psychological fear or resentment of certain music and what it is heard as representing interfere with the communication of intended musical messages, deep identification with a certain music can do the same in reverse. In 1972, for example, the Strawbs, a politically conservative English band, recorded a tune called *Union Man* in which they parodied a trade union member in the lyrics and a proletarian pub or music-hall singalong 'feel' in the music, i.e. politics, people and music they did not like. Unfortunately for the Strawbs but fortunately for the workers' movement, the British left loved it and adopted it as their own anthem on picket lines. Codal interference arose because of diametrically opposed political views and divergence of cultural identity between transmitter and receiver. In this example it is also clear that codal interference is related to codal incompetence because The Strawbs had radically misunderstood the British record-buying public's store of symbols.

Sometimes the words of a song can interfere with your reception of the musical message. For example, if you had sung the well-known Welsh hymn tune *Cwm Rhondda* with its original words 'Guide me, O thou great Jehovah!' for twenty years in chapel and then, for the first time, heard the rugby club sing it with lewd lyrics as you walked past the pub one night, it is doubtful whether you would ever sing it or feel it the same way ever again. Similarly, visual, narrative and social contexts of music can also interfere with its message: the pub and the church just cited may be one example of mutually antagonistic contexts. Another would be TV commercial uses of music you already know from previous situations with different areas of connotation, for example Strauss's *Also sprach Zarathustra* for copying machines, Dvorák's *New World Symphony* for sliced bread in an Northern English industrial town, or Muddy Waters' *Hoochy Coochy Man* for young white males in jeans in a US desert.²² In the cases just mentioned,

interference takes place in several ways. If you knew the music and grasped its connotations before seeing the commercial, your previous connotations are certainly interfered with, just as in the *Cwm Rhondda* case. If you didn't know the music before seeing the advert and then heard the music in something resembling its original setting — live, on the radio or from a record — you would associate to the advert because you heard the music first in that context. In both instances there is codal interference, partly because the sociocultural norms and expectations of the advertisers reusing the music are not consistent with those of the original transmitters. But there is also a whole complex of inconsistency between the two receiving ends, as well as [a] between the receiving end of the original and the transmitting end of the advert and [b] between the transmitting end of the original and the receiving end of the advert. The nature of these inconsistencies will, moreover, vary depending on who you are, whether you knew the original or not and, if so, what it meant to you.

In any case, interesting semiosis can arise from such confusion because unintended responses and connotations, including lack of response (both to the right of the receiver in fig. 1, p. 10), will affect the common store of symbols and the store of sociocultural norms and expectations shared by transmitter and receiver in the same music culture. For example, *Nessun' dorma*, thanks to its association with the World Cup in Italy (1990), ended up in the UK charts, thereby challenging the identification of classical music, sung in Italian, with 'class' (in the sense of upper class). Another possible 'example' could be the appropriation of African-American rap music by white middle class males in the USA, leading to different re-identifications of the genre by black and white US-Americans. There are, after all, precedents: in swing, when white bands got all the gigs and radical black jazz musicians developed bebop; in 'free' jazz, when white musicians got the hang of bebop; in sixties electric blues, when Clapton, Mayall and The Stones all started and black US-Americans went for a Gospel sound (see Haralambos 1974). The sociocultural norms and expectations change in the two cultures, this bringing about a redefinition of signifieds in the genre's store of symbols.²³

Codal incompetence and interference are in other words vital to change the music of any culture. The store of common symbols and of sociocultural norms interact to produce new signifiers for old signifieds, while old signifiers fall out of use or are redefined as connoting the archaic. The norms and symbol boxes at the top and bottom of figure 1 (p. 10) should not in fact really be separate since both social norms and musical symbols are in a constant state of change, as is the relation of both transmitter and receiver to those incompletely shared stores (boxes) of artifacts, norms and ideas.

Recap

So far we have discussed some of the more important 'semio' words and their application to music. We have also proposed a rudimentary model for musical communication, suggesting a few ways in which musical meanings change according to paramusical and social context. However, we have so far given the impression that 'music' is an unproblematic term, or, at least, that everyone reading this text has the same idea of what music actually is. It is therefore time to posit a working definition of 'music' and to put forward some general ideas about the specificity of musical communication, i.e. to try and explain how and why 'languages' of music are different from words or pictures as symbolic systems.

22. The adverts are: (1) *Copiatrici Gevafax* on RAI (Italy), 1985; (2) unknown, recounted by Dutch colleague, mid 1980s; (3) *Hovis* bread on ITV (UK), late 1980s; (4) *Levi 501* jeans, MTV Europe, c. 1990.
23. See Floyd (1995: 5-8, 96-98, 212-213), explaining Gates' (1988) notion of 'The Signifying Monkey' in relation to music.

*The specificity of musical communication***THIS IS ALL MUCH BETTER IN
CHAPTER 2 OF 'MUSIC'S MEANINGS'***What is 'music'?*

Many peoples have no word equivalent to whatever we seem to mean by 'music'. For example, the Tiv people of West Africa (Keil 1977) and the Ewe of Togo and Eastern Ghana do not seem to have had much need to single out music as a phenomenon needing verbal denotation. Actually, this is not entirely true, because the Ewe do use the English word 'music', but only as a loan word from British colonialism to denote such phenomena as hymn singing and what comes out of a cassette recorder or the radio. The music (in our sense of the word) they make themselves in traditional village life has no equivalent in the Ewe language.

Vù really means 'drum' and *há* is the word for 'club', association or organisation. A *vù há* is the club you belong to in the village. You could belong to a club with fast or slow drums, depending on your character and family. 'Voice' is called *bá*, so 'singing' is *vù bá*. *Vù* is used to signify the whole performance or occasion: the music, singing, drums, drama and so on.²⁴

Some eurocentrics might feel tempted at this juncture to argue that agrarian communities sporting very little by way of 'high' culture don't need a word for music because their societies are so 'simple', the subtext being that 'they' don't need to distinguish so accurately between concepts as 'we' do in the 'developed' world. Aside from the racist overtones of this objection, we are also faced with the problem that the Japanese, with their long-standing traditions of music and theatre in official religion and at feudal courts, did not feel obliged to invent a word equivalent to the European concept of 'music' until the nineteenth century. The Japanese translated 'music' as *ongaku*, *on* meaning sound and *gaku* enjoyment, i.e. sounds performed for listening enjoyment.²⁵ Why didn't the Japanese and the Ewe need a word for what we mean by 'music' until the nineteenth century? Because what we mean by music did not exist independently: it was an integral part of a larger whole (drama, singing, dancing etc.). With the word *ongaku*, the Japanese went straight to the heart of the matter and identified the European notion of 'music' as referring to the nonverbal sounding bits of what they had previously considered as part of a far larger set of phenomena and practices. The Ewe reacted similarly, all European music being labelled 'music' because it was not an integral part of any Ewe practices and because the Europeans themselves seemed to treat it as a separate set of phenomena and practices.

It is also worth knowing that our own current notion of music is probably between 700 and 1600 years old, i.e. that it seems to have been first used in the modern sense in the fifth century and that it was probably current in most European languages by 1400. This means that 'music' is a relatively recent addition to the European arsenal of concepts. How did its present meaning come about?

The classical Greek word *musiké* (μουσικῶ) is short for *musiké techné* (μουσικῶ τέχνη) which refers to the skill and art of the muses. This term resembles the Ewe *vù* and Japanese *gaku* concepts, mentioned above, in that it included virtually everything from po-

24. Conversation with Klevor Abo, Göteborg, 2 November 1983.

25. Lecture by Prof. Toru Mitsui (Kanazawa University) at IPM, Liverpool, February 1993, cf. *nogaku* (music and movement in *No* theatre), *hogaku* (stylised indigenous music), *gagaku* (courtly music and dance). The Welsh word for 'music', *cerddoraeth*, contains three morphemes: (i) *cerdd*, meaning song or poem; (ii) *-or*, being similar to the 'or' at the end of 'inventor' or 'councillor'; (iii) *-aeth*, roughly equivalent to the *-ship*, ending of 'musicianship'. *Cerddoraeth*, translated as 'music', therefore literally means the art of those who make songs or music. *Cerddor*, it should be noted, is Welsh for 'musician'.

etry and drama through painting to our 'music'. The ancient Romans seem to have had a similar set of signifieds for their *musica* as the Greeks had for μουσικῶ. Sometime during the Hellenic merchant period, however, there is a shift in the meaning of Greek *musiké* and Latin *musica* in learned circles, so that Saint Augustine (d. 430), worrying about the seductive dangers of music, seems to use 'music' (*musica*) in our contemporary sense of the word:

Through an indiscreet weariness of being inveigled do I err out of too precise a severity: yea, very fierce am I sometimes in the desire of having the melody of all pleasant music, to which David's Psalter is so often sung, banished from mine own ears and out of the whole church too.²⁶

It seems likely that this more restricted use of the word *musica* prevailed amongst scholars and clerics in Europe (those that spoke Latin) from the fifth century onwards.²⁷ Moreover, Arab scholars between the eighth and thirteenth centuries used the Greek word *musiké* (*al musiqi*) to refer to what we mean by 'music' today, not to the gamut of artistic expressions denoted by the *musiké* of Plato or Aristotle.²⁸ It is important to bear in mind here that Arabic music theory sorted under the mathematical sciences (including *al-gebra* and *al-chemi*) and that these theories (both the musical and the mathematical) were spread all over Europe from the Arab cities of Cordoba and Seville.²⁹

What happens to 'music' in the vernacular languages of Western and Central Europe before the twelfth century is anybody's guess. Perhaps, like old Norse or (modern) Icelandic, there was a blanket term covering what bards, narrators of epic poetry and minstrels all did.³⁰ Certainly, the Northern French *trouvères* and the Provençal *troubadours* of the eleventh to thirteenth centuries were not only known as singers, players and tunesmiths (*trouver / trobar* = find, invent, compose) but also as jugglers and poets.

'Music' comes into the English language in the thirteenth century via old French whose *musique* first appeared about a century earlier. The arrival of the word in the vernacular of both nations as denoting more or less what we mean by 'music' today coincides in other words with the granting of charters to merchant cities and towns (boroughs) and with the establishment of the first universities. There is hardly enough evidence, even circumstantial, here to support the claim that the crystallisation of the term music coincides with the ascendancy of a merchant class, even though the Hellenistic period, Arab mercantile hegemony in the Mediterranean and the establishment of European boroughs with their up-and-coming bourgeoisie,³¹ all seem to feature the new word. In any case, the matter ought to be researched further. Here I just want to extend the hypothesis a little further, more particularly into the realms of religion.

Mohammed himself is said to have shown interest in music and the Koran contains no directly negative pronouncements against music. However, orthodox clerics of Islam were soon to qualify music as the work of the devil, the main controversy being whether or not the Prophet's judgement of 'poets', including musicians, in the Koran's 26th *sura* referred to music connected to infidel rites or to music in general.³²

26. Strunk 1952: 73-74, quoting *Saint Augustine's Confessions II* (London, W Heinemann, 1912): 165-169. Translated by William Watts (1631).

27. e.g. Boethius (d. 524), Cassiodorus (d. 562), Isidoro de Sevilla (d. 636), Odo de Cluny (d. 942), Guido d'Arezzo (d. 1050), all quoted in Strunk 1952: 79-125.

28. e.g. Al-Kindi (9th century), Al-Farabi (870-950), Safi Al-Din (13th). Abu Nasr Al-Farabi's most important theoretical work, the two-volume *Kitab al-musiqi al-akbir* (= 'A Greater Book On Music'), refers to Aristotle and treats the physical properties of tones, intervals and scales.

29. Ling 1983: 64, referring to Sigrid Hunke (1971) and Henry George Farmer (1965).

30. [***Tónskald* or some such word - check with *nordiska språk***].

31. The word borough is of course related to the German *Burgen* and the French *bourgs*, words which in their turn give rise to the denotation of their population as the *bourgeoisie*.

Hierarchies of 'music'

I have already quoted Saint Augustine's fear of music's seductive forces. An asceticism similar to that of orthodox Islam emerged also within Christianity. By the eleventh century a hierarchy of musics had evolved consisting of *musica mundana* (the music of the heavens, i.e. the spheres of the universe), *musica humana* (music providing equilibrium of soul and body and instilled by liturgical song) and *musica instrumentalis* (singing and playing of instruments that were at the service of the devil as well as of God). Manuscript illuminations, stained-glass windows and many verbal sources of the time make it quite clear that this trichotomy really meant the following:

In the world of heavenly light sounds the harmonious and well-tuned music of eternity whose opposite is the unbearable noise and dissonant, untuned music of hell. Both heaven and hell exist on earth: the music of heaven is reflected in liturgical chant — it is organised, well-measured and based on science and reason. All other music is of the devil, being chaotic, ill-measured and uneducated.

Ling 1983:**

Since *musica mundana* was a more-or-less Platonic ideal of music — the music of the spheres, of heaven, of God's perfect creation, so to speak —, the real world contained only two sorts of music according to the aesthetic and religious hierarchy of the church fathers: (1) *musica humana* as the uplifting liturgical song of mother church and God's representatives on earth and (2) *musica instrumentalis* as all other music, whether it be of the devil or of God. Similar hierarchies of music, often stated as dichotomies or trichotomies, persist throughout the remainder of European thought to this very day, for example the art-folk-popular music triangle or the German *E-* and *U-Musik* polarity ('*E*' for *ernst* or 'serious', '*U*' for *Unterhaltung* or 'entertainment').³³

Six general tenets about musical communication

1. 'Music' defined

Music is that form of interhuman communication which distinguishes itself from others in that individually and collectively experienced affective / gestural (bodily) states and processes are conceived and transmitted as humanly organised nonverbal sound structures to those creating these sounds themselves and / or to others who have acquired the mainly intuitive cultural skill of 'decoding the meaning' of these sounds in the form of adequate affective and / or gestural response.

This rather academic sentence, possibly worth re-reading, implies a lot, most of which is discussed under points 2-6 below. Still, it also means the following:

- ♦ there is no music without people, in the sense that sounds which no-one hears nor makes, even a recording of music running without anyone in earshot of it, is only potentially, not really music.
- ♦ although prosodic aspects of speech — tonal, durational and metric elements such as inflexion, accentuation, intonation, rhythm, periodicity — are central to the communication of linguistic meaning, speech cannot function on the basis of prosody alone and therefore cannot be considered as music in its own right.

32. They cited traditional sources outside the Koran according to which Mohammed was to have considered musical instruments the 'muezzins of the devil' (Skog 1975)

33. The '*U*' of *U-Musik* resembles the '*U*' of *U-Boot*, *U-Bahn*, *U-Mensch*, i.e. the *unter* (under/sub/low) of *Unterseeboot* (submarine). *Untergrundbahn* (underground railway) and *Untermensch* (subhuman). Other dichotomies used by speakers of German (where the European tradition of instrumental bourgeois art music was strongest) are those between *Kunstmusik* or *E-Musik* on the one hand and *Trivialmusik* on the other or between *Darstellungsmusik* and *Darbietungsmusik*.

- ♦ to become music, sounds that may or may not be considered musical in themselves must be combined simultaneously or in sequence with other sounds (in themselves either musical or non-musical) to create sets of sounds that have a primarily affective or gestural character. For example, the sound of a smoke alarm is unlikely to be regarded in itself as music, but sampled and repeated over a drum track or combined with sounds of screams and conflagration edited in at certain points, it will become part of a musical statement, the purpose of such composition (human organisation of sounds) being to sonically encapsulate and communicate a set of affective and gestural states and processes.

2. *'Music refers to itself'*

Direct imitations of or reference to sound outside the framework of musical discourse (programmatic or onomatopoeic ingredients, see 'Sonic anaphones', p. 25) are relatively uncommon elements in most European and North American music. In fact, musical structures often seem to be objectively related to (a) nothing outside themselves, (b) their occurrence in similar guise in other music, or (c) their own contextual position in the piece of music in which they (already) occur. At the same time, it is absurd to treat music as a self-contained system of sound combinations because changes in musical style are historically found in conjunction with (accompanying, preceding, following) change in the society and culture of which the music is part.

3. *'Music is related to society'*

The contradiction between 'music only refers to music' and 'music is related to society' is not antagonistic. A recurrent symptom observed when studying how musics vary inside society and from one society to another in time or place is the way in which new means of musical expression are incorporated into the main body of any given musical tradition from outside the framework of its own discourse. These 'intonation crises'³⁴ work in a number of different ways. They can:

- ♦ 'refer' to other musical codes, by acting as social connotors of what sort of people use those 'other' sounds in which situations (see 'Genre synecdoches', p. 30).
- ♦ reflect changes in sound technology, acoustic conditions, or the soundscape and changes in collective self-perception accompanying these developments, for example, from clavichord to grand piano, from bagpipe to accordion, from rural to urban blues, from rock music to technopop.
- ♦ reflect changes in class structure or other notable demographic change, such as reggae influences on British rock, or the shift in dominance of US popular music (1930s - 1960s) from Broadway shows to the more rock, blues and country based styles from the US South and West.
- ♦ act as a combination of any of the three processes just mentioned.

4. *Musical 'universals'*

Cross-cultural 'universals' of musical code are bioacoustic. While such relationships between musical sound and the human body are at the basis of all music, the majority of musical communication is nevertheless culturally specific. The basic 'bioacoustic universals' of musical code can be summarised as the following relationships:

- ♦ between [a] musical tempo (pulse) and [b] heartbeat (pulse) or the speed of breathing, walking, running and other bodily movement.³⁵ This means that no-one can musically sleep in a hurry, stand still while running, etc.³⁶

34. Assaf'yev 1976: 100-101.

35. For relation between smaller bodily movements (fingers, eyes, etc.) and musical surface rate, see Tagg 1997.

- ♦ between [a] musical loudness and timbre (attack, envelope, decay, transients) and [b] certain types of physical activity. This means no-one can make gentle or 'caressing' kinds of musical statement by striking hard objects sharply, that it is counterproductive to yell jerky lullabies at breakneck speed and that no-one uses legato phrasing or soft, rounded timbres for hunting or war situations.³⁷
- ♦ between [a] speed and loudness of tone beats and [b] the acoustic setting. This means that quick, quiet tone beats are indiscernible if there is a lot of reverberation and that slow, long, loud ones are difficult to produce and sustain acoustically if there is little or no reverberation. This is why a dance or pub rock band is well advised to take its acoustic space around with it in the form of echo effects to overcome all the carpets and clothes that would otherwise damp the sounds the band produces.
- ♦ between [a] musical phrase lengths and [b] the capacity of the human lung.³⁸ This means that few people can sing or blow and breathe in at the same time. It also implies that musical phrases tend to last between two and ten seconds.

The general areas of connotation just mentioned (acoustic situation, movement, speed, energy and non-musical sound) are all in a bioacoustic relationship to the musical parameters cited (pulse, volume, phrase duration and timbre). These relationships may well be cross-cultural but this does not mean that emotional attitudes towards such phenomena as large spaces (cold and lonely versus free and open), hunting (exhilarating versus cruel), hurrying (pleasant versus unpleasant) will also be the same even inside one and the same culture, let alone between cultures. One reason for such discrepancy is that the musical parameters mentioned in the list of 'universals' (pulse, volume, general phrase duration and certain aspects of timbre and pitch) *do not include* the way in which rhythmic, metric, timbral, tonal, melodic, instrumental or harmonic parameters are organised in relation to each other inside the musical discourse. Such *musical organisation* presupposes some sort of *social organisation* and cultural context before it can be created, understood or otherwise invested with meaning. In other words: only extremely general bioacoustic types of connotation can be considered as cross-cultural universals of music. By consequence, even if musical-cultural boundaries do not necessarily coincide with linguistic ones, it is quite fallacious to regard music as a universal language.

5. Music's collective character

Musical communication can take place between

36. *Bra Böckers Läklexikon, vol 5* (Höganäs 1982: 145-146) states that a well-trained athlete's pulse rate can, if measured during sleep, be as low as 40 b.p.m. And that the pulse of a baby in a state of stress exceeds 200 b.p.m. This coincides with the limits of a metronome, from 40 (*lento*) to 212 (*prestissimo*).
37. Musical volume (loudness) must be considered as a culturally relative phenomenon, in that variations between societies in the loudness of the soundscape (Schafer 1977: 71 ff, 151 ff, 181 ff) will require 'loud' and 'soft' to adapt to what is audible above the noise of the soundscape (Tagg 1977: 145 ff).
38. This practice is known as circular breathing. Of course, some musicians (e.g. jazz saxophonist Roland Kirk and every didgeridoo player) can inhale through the nose and blow out through a wind instrument. At the same time, there are all sorts of bellowed (e.g. bagpipes, organs), mechanical, electromechanical and electronic instruments that can make melodies without being hampered by the restrictions of the human lung. Some people even sing while breathing in. More importantly, neither percussion instruments (including mbiras, pianos, xylophones as well as drums) nor plucked / bowed instruments depend on inhalation / exhalation to measure phrases. Nevertheless, studies of rhythmic or melodic recurrence (reiterative, sequential, varied, etc.) in any music will almost certainly show that most rhythmic / melodic statements can be perceived as units (motifs or phrases) seldom occupying less than two or more than ten seconds. Even the didgeridoo player, who inhales while chanting into a hollow eucalyptus trunk, measures his constant flow of sound with rhythmic and timbral motifs that also fit in with phrase durations.

- ♦ an individual and himself/herself
- ♦ two individuals
- ♦ an individual and a group
- ♦ a group and an individual
- ♦ individuals within the same group
- ♦ members of one group and those of another.

Specifically musical (and choreographic) states of communication are those involving a *concerted simultaneity* of nonverbal sound events or movements, that is, between a group and its members, between a group and an individual or between two groups. This means that whereas you can sing, play, dance, talk, paint, sculpt and write to or for yourself and for others, it is very rare for several people to simultaneously talk, write, paint or sculpt in time with each other. In fact, as soon as *speech is subordinated to temporal organisation of its prosodic elements* (rhythm, accentuation, relative pitch, etc.), it becomes intrinsically musical, as is evident from the choral character of rhythmically chanted slogans in street demonstrations or, even more obviously, from the 'choir' of ancient Greek drama. In this way, music and dance are particularly suited to expressing *collective messages of affective and corporeal identity* of individuals in relation to themselves, each other, and their social, as well as physical, surroundings.³⁹

Musical signification

Musical structures and parameters

If, as we have suggested, music is related to something other than itself, how do such relationships work? To answer this question, it is first necessary to identify music's signifiers and then to try and determine what those signifiers signify. This task begs in its turn any number of basic methodological questions, the first being 'what is a musical structure'? Can a musical structure be defined as an objective quantity in numerical terms, for example as the range of digital values in a WAV file, or as the values contained in one of the thousand-odd samples of synchronic sound registered by a CD player every second it spins round? Is it a sonogram of a one or two-second cut out of a recorded performance of music?

If, as we have already stated, music is a matter of communication, and if the many binary values constituting one sample of sound on a CD are phenomenologically meaningless, because you can't hear anything lasting a thousandth of a second and because most people can make no musical sense out of sonogram or oscillograph curves, then those objective representations of sound are just that and cannot be regarded as structural units of musical meaning. In other words, all such quantitative representations of sound may be 99.99% accurate and reliable but their coding is determined in terms of acoustic physics, not in terms of musical communication. They are designed to represent what happens sonically without considering with what intentions or effects the sounds are or are not invested.

To clarify this issue, imagine suggesting to visual semioticians that they base their theories of meaning in pictures on numerical print-outs of pixel values at a resolution of x thousand of dots per inch. Now, this suggestion takes no heed of the cultural construction of Gestalt in visual communication because the art or film scholar, not to mention the average viewer, is far more likely to go for far larger, culturally relevant aspects of visual representation, like colour, shape, form, darkness, light, shadow, grain, movement, visual archetypes, etc. Obviously, this does not mean that pixel counts are irrelevant to the physical structure of a particular (part of a) picture any more than

39. Even multitracking, overdubs, etc., although frequently performed by the same individual on different occasions, constitute an intrinsic collectivity of parts or voices.

quantifiable frequency and amplitude are irrelevant in determining the physical structure of a particular (part of a) piece of music. It does mean, however, that meaningful structures of visual or musical communication, although physically identifiable in terms of minute digital detail, must be based on the relevant cultural practices of both transmitter and receiver. So, what type of musical structure are we referring to? It is easiest to answer this question by means of an example in three parts.

The letter example

You are watching a standard Hollywood B-film on TV. You see a close-up of a middle-aged man without any really distinctive features. He is indoors reading a letter. You can only really see his face and the blank sides of the papers he is reading. The background interior is indistinct and the lighting quite normal. There are no sound effects. Gradually you hear menacing music, first with a quiet, synthesized megadrone in low bass register. It grows louder until temple-piercing electronic screeching sounds on top of it all. You are about half an hour into the film and the character you see has been solidly identified as one of the good guys. Under these circumstances the music is hardly likely to be telling you that he is about to become as nasty as the music sounds: instead, you understand the music to be telling you that the letter he is reading brings really bad news.

Now picture exactly the same scene with exactly the same man, the same letter and the same music, but this time you have had a good half hour's action to tell you that this man is an absolute psychopath, not the good guy. In this case the letter does not bring bad news to the same face on screen because this is someone who delights in blackmailing, raping, killing and eating people. The music does not tell you what the on-screen character is feeling because the perpetration of unspeakable atrocities seems to bring relief to his tortured soul. Instead, it tells you, the audience, what you ought to be feeling in relation to this man. You are supposed to identify with his victims and be as scared and horrified as they are.

Finally, imagine exactly the same visuals and situation as in the first example (the good guy reading the same letter). This time the music is a soft, wavy flute melody accompanied by a discretely rich string pad and slow acoustic guitar arpeggiations. His face might not show much expression but the music tells you that she must be very beautiful, that he loves her and that she probably loves him too.

In all three examples, the visuals are identical. Examples one and two are also musically identical. If this is so, how do you explain three different interpretations of the same scene?

The differences between examples one and two are not one of mood: menace and horror are the order of the day in both cases. The synthesized 'megadrone' is a low, continuous rumbling (like distant thunder and the threat of dangerous weather, like an earthquake, like a constantly uneasy stomach). These bass sounds reverberate in your abdominal regions. Similar long and reverberant bass sounds are used by Bach for the earthquake in the *Saint Matthew Passion*, by Berlioz for storm at sea in *The Trojans*, by circus drummers to dramatise the most spectacularly dangerous high wire acts, by Conlan and De Vorzon to underscore the menacing mega-saucers of the earth invaders hanging over Los Angeles in the TV series *V*, by Angelo Badalamenti for the constant presence of dark evil in *Twin Peaks*. Audiovisually primed as we are, we have grown so used to this sort of sound (timpani rolls, double bass tremolandi, synthesized megadrones) occurring in conjunction with ominous constant or immanent threat that we associate directly to all the previous occasions on which we have witnessed such horror at the movies, in front of the TV, at the theatre, circus, opera, etc. So these musical sounds seem to refer to earlier occurrences of the same or similar sounds. However,

it is not merely a well-established convention that synth megadrones, drum rolls and bass tremolandi connote ominous danger, etc. because, as we already noted, there are links between these musical sounds and homologous sounds 'outside' music, sounds that in themselves have connotations of ominous danger, etc.

A similar double link exists between the high register electronic cluster and its 'signifieds'. We are used to hearing mental instability, severe stress and the 'weird and eerie' underscored as discords in very high register, such as in the saw tune from *One Flew over the Cuckoo's Nest*, or in the well-known *Twilight Zone* motif. At the same time, just as loud, low notes will reverberate in abdominal regions of the body, loud, high-pitched, discordant sounds will resound in your head. To put matters simply, splitting headaches do not tend to occupy the bass register.

In examples one and two we have, simplifying matters, a mood of ominous threat and harsh, uncanny evil. The only way we can substantiate this reasonable interpretation of the music correctly is through the narrative context. This means that it is not enough just to establish semiotic relationships between musical signifier and signified: we also need to put musical signification into a broader – narrative, social, ideological, etc. – context to make any real sense out of it.

The difference between examples one and three is musical and therefore one of mood, affect, gesture and feeling. There is also a difference of narrative context but this time that difference is provided by the music. The love music works semiotically in a similar way to the horror. The legato flute tune is wavy, smooth and soft, not jerky, sharp, angular or harsh. It moves in pitch and time and doesn't just rumble along constantly like the megadrone or screech insistently like the electronic cluster. The luscious, consonant, mid-register string pad leaves no room for holes or attacks and the little acoustic guitar arpeggios rise and fall regularly in consonance with the tune. In our music culture we are so used to pretty flute tunes being used in conjunction with pretty faces and places, so used to viscose, consonant string pads as obligatory accompaniment to anything sensual, so used to arpeggiated rises and falls as something classical and beautiful, that it would be silly to start giving examples: we recognise it all, once again, from previous audiovisual experience. However, the smooth, wavy, gentle character of the musical sounds is not just part of a cultural convention: they relate also to smooth, wavy and gentle types of gestural quality. Try caressing a pebble dash wall or the contours of an overhead projector; then do the same to the person you love most.

From these examples it should be clear that music can relate to moods and gestures directly, through a sort of synaesthetic homology, and indirectly, through the intermediary of similar music used for similar purposes in similar situations. These links are discussed in greater detail under 'A sign typology of music' (p. 25–30). It should also be clear that these aspects of musical signification need to be put in the broader context of concurrent forms of expression (verbal, visual, social, etc.). Still, before going on to the sign typology where we try to be more systematic about links between musical signifier and signifieds, it is necessary to establish two more essential terms because the musical signifiers mentioned so far have been quite disparate: 'megadrones', 'loud', 'low pitch', 'arpeggios', 'string pad', 'flute', etc. Some of these are *musical structures* and others (points on) *parameters of musical expression*. What do these terms mean?

What is a musical structure?

MUCH BETTER IN CHAPTER 7 OF 'MUSIC'S MEANINGS'

There are two main angles from which it is possible to establish what a musical structure is and is not: from the transmitting and receiving ends of the basic communication

model (see p. 10). At the transmitting end, musicians (composers, arrangers, instrumentalists, singers, etc.) usually take great care in getting the right sounds in the right order at the right time. By observing how they change what they do and how they refer to the sounds they are making, it is possible to discern elements or building blocks (rhythmic and/or pitched, timbral, durational, etc.) of musical production. These elements can then be posited as structures *within the music culture to which those musicians belong*. This means that no musical structure observed in one style, let alone inside one culture, need function as such in another.

For example, although the difference between E flat ($e\flat$) and E natural ($e\natural$), as McClary and Walsler (1974: 279) point out, is quite important to both musician and listener in the context of a Western pop song (whether or not the terms 'E flat' ($e\flat$) and 'E natural' ($e\natural$) mean anything as such to the listeners, they are still affected by the structural difference), they are irrelevant to Javanese music in the *slendro* mode which doesn't use Western semitones (the pitch difference between $e\flat$ and $e\natural$) at all. Of course, an $e\flat$ or $e\natural$ on its own (e.g. played at medium volume on a piano, middle register) has virtually no connotative value. The communicative value of those tones will depend on their synchronic and diachronic context, i.e. [a] what instruments or voices playing/singing what pitches with what timbre how loud in what acoustic space the tone coincides with and [b] after what and before what, with all the variations mentioned for [a], it occurs. It will also depend on how you play the note itself, on what instrument, with what tone quality, in what register, how loud, with what reverb, with or without crescendo, diminuendo, vibrato, tremolo, phasing, chorus, distortion, pizzicato, flutter-tongue, with what attack, envelope, decay, etc., etc. Still, as long as changing something in the sound *can* change the effect of the sound, even if the difference is as small as two pitches a semitone apart or between a single backbeat and a single slightly delayed backbeat, these elements (the $e\flat$ and $e\natural$, the backbeat and the delayed backbeat) will have to be regarded as musical structures from the transmitting end. They are, just like all the other musical terms mentioned above, the sort of verbal signifiers musicians use to designate the sounds they are trying to get right in the right order at the right time. Therefore, if many musicians in the same culture use the same sort of term to denote the same sort of sonic event, there is intersubjective consistency in the nomenclature of musical sounds that those musicians regard as operative in getting things to sound right in the right order at the right time. The sounds that those terms refer to can thereby be posited as musical structures within that culture.

As mentioned above, the $e\flat$ or $e\natural$ are only really meaningful in a synchronic and diachronic context: they have little or no interest sounded on their own. More obviously, the backbeats are by definition contextualised: one occurs exactly on the pulse, the other slightly after. As more sonic elements are combined, musical structures become more comprehensive: synchronically as 'sound' in the composite rock sense of the word, as 'texture' and 'sonority' for traditional musicology, and diachronically as motifs, riffs, themes, phrases, periods, verses, choruses, passages, sections, etc. Processual events (musical structures in sequence) ultimately constitute a 'work', be it a symphony, dance record or commercial jingle that has a musical 'form', meaning that constituent elements are presented in a particular, usually recognisable order, e.g. verse - chorus - verse - chorus - instrumental - verse - chorus - chorus - fade-out (1960s pop record), or, introduction - first theme - bridge passage - second theme - development section - recap theme 1 - recap theme 2 - coda (sonata form). From the microlevel of individual, discrete sounds to the macro-level of musical 'form', we are dealing with terms referring to sonic events that, if changed according to any of the parameters of musical expression (p. 31, ff.), have potential to change the 'meaning' of the music inside any given style. These sonic events, large or small, are all examples of musical structure.

The other way to approach the problem of musical structures is from the receiving end. Here, intersubjectivity must be established between users of the music and observations be made as to how different people in the same culture respond to the same music (see p. 34, ff). If the music is identical and if response is similar in the form of behaviour, associations, moods created, etc., then there is intersubjectivity of response. If, after that, different pieces of music are played to the same range of individuals in the same listening situation and if different but intersubjectively consistent response for each piece is observed, then it is possible to start analysing connections between consistently different responses and different pieces of music, i.e. to ask what in the music causes which response. Asking 'what in the music?' entails using the 'transmitting' version of 'musical structure' as a starting point: was it this rhythm, that instrumentation, that timbre, the contour of that tune, this chord sequence that elicited that response?

Musical structures understood from the transmitting end can often be quite adequate when it comes to making connections between responses to music and the music eliciting those responses. However, it is sometimes necessary to jettison traditional 'muso' understanding of musical structure because what the builder or architect may need to know about your house is not necessarily what is most important to you when you live in it. By the same token, although transposing a piece of music by one semitone can pose serious restructuring problems from the transmitting side, especially if you're playing a keyboard or wind instrument, it is quite probable that changing the key of a piece as little as a semitone from one performance to another would pass unnoticed and without effect by the majority of listeners who attended both.⁴⁰

The main conclusions of this discussion are that definitions of musical structure must, in a semiotic context, be based on information from both the transmitting and receiving ends of the musical communication process, but that structural elements identified on the transmitting side are not necessarily musical signifiers.

Having established hypotheses about musical structures, we now need to discuss how these structures can act as signifiers, i.e. to discern how they relate to their signifieds. This task presupposes the existence of a musical sign typology.

40. Transposition problems are less severe on those types of string instruments which can be retuned to fit the new key. Guitarists can also use a capo. Many synthesizers can be retuned by pressing a few buttons. Neither piano, nor organ can be retuned without many hours labour. One common reason for transposition is to enable singers to reach high notes or low notes with greater ease, another to facilitate performance on certain instruments. Of course, if, by transposition the performance is markedly improved or impaired, then such transposition will have significance for the listener.

A sign typology of music

Table 3: Sign typology overview

Anaphone	sonic anaphone	perceived similarity to paramusical sound
	kinetic anaphone	perceived similarity to paramusical movement
	tactile anaphone	perceived similarity to paramusical sense of touch
Genre synecdoche		<i>pars pro toto</i> reference to 'foreign' musical style, thence to complete cultural context of that style
Episodic marker		short, one-way process highlighting the order or relative importance of musical events
Style indicator		unvaried aspects of musical structuration for the style in question

THIS IS ALL SUBSTANTIALLY IMPROVED AND EXPANDED IN CHAPTER 13 OF 'MUSIC'S MEANINGS'

Basis of the sign typology

The sign typology presented as table 3 is largely based on extensive empirical and analytical work (Tagg & Clarida, forthcoming). Ten previously unheard title tunes from film and TV, each lasting between thirty and seventy seconds and with no more than thirty seconds pause between each example, were played on different occasions to a total of between 105 and 612 listeners who were asked to write down a short film scenario for each piece.⁴¹ There was great consistency of response and a reliable spread of varied response from piece to piece. The associations offered by respondents were cross-checked with the music eliciting each set of responses. By crosschecking the ten pieces, and their responses, and by comparing with other music unequivocally associated with particular movements, pictures, feelings, moods, etc., it was possible to isolate certain musical structures as consistent with certain responses. Since the way in which musical structures related to responses and associations varied, it became necessary to systematise these variations. Hence this sign typology.

Anaphones

Anaphone is a neologism analogous to 'analogy'. However, instead of meaning 'imitation of existing models... in the formation of words', anaphone means the use of existing models in the formation of (musical) sounds. Anaphones fall into three main categories.

Sonic anaphones

A sonic anaphone can be thought of as the quasi-programmatic, 'onomatopoeic' stylisation of 'non-musical' sound, e.g. Schubert's babbling brooks, Baroque opera thunder, William Byrd's bells, Jimi Hendrix's B52 bomber. As Rösing (1977, 1978) points out, sonograms of Schubert's brooks or of Beethoven's *Pastorale Symphony* thunder bear little objective acoustic relationship to sonograms of the 'real' things those musical stylisations are supposed to represent. But, continues Rösing, this is hardly the point, since the structural homologies between real and musical brooks or between real and musical thunder stem partly from cultural convention, partly from the state of development in sound technology. This dual mechanism explains why Vangelis's sampled rain sounds far more like rain than Beethoven's and why I probably wouldn't hear the jackal in Masai music supposed to include sonic-anaphonic allusion to the cry of that ani-

41. Free induction was used to elicit response since no evidence existed suggesting that preselection of options for multiple choice questionnaires would be reliable.

mal. Moreover, I'm not a Masai herder and I don't have much idea of what the sound of a jackal, stylised or not, actually connotes: maybe they attack cattle at night and destroy your supply of food, clothes and wealth.

Similarly, unless you were alive in 1968, opposed to the US war in Vietnam, had heard a bit about Hendrix and Woodstock, were reasonably versed in the pop and rock scene of the time and recognised the US national anthem, you probably wouldn't be able to grasp the full connotations of Hendrix's mega-glissandi on electric guitar at the of his version of *The Star Spangled Banner*.⁴² And goodness knows what Vietnamese youngsters in Hanoi, if they survived the bombardments, would have made of it in December 1972: perhaps it would be just another expression of imperialist aggression in the form of a lot of incomprehensible and hateful Yankee noise.

In order for a sonic anaphone to work properly, then, listeners must be conversant with the norms of musical stylisation whereby sounds that are not necessarily musical are incorporated anaphonically into the musical discourse ('it's a brook', 'it's a jackal', 'it's an aeroplane'). Secondly, the connotations of the 'non-musical' sound must be understood (e.g. 'brooks flow in the countryside and the countryside is nice', 'jackals deprive me and my family of our livelihood', 'the US bombing of Vietnam is horrendous').

But anaphones are not only sonic; they can also act as structural homologies of touch and movement. These sign types are simply called tactile and kinetic anaphones respectively.

Tactile anaphone

The most familiar example of tactile anaphones is that produced by slowly moving, romantic string underscoring – 'string pads', as the sound is called on synthesizers, because it pads holes and spaces in the sonic texture. Such string wallpaper, performed of course by several stringed instruments, rarely solo, can be characterised by its lack of audible attack and decay and by the relative consistency of its envelope – a parameter listing of synthesizer string presets reveals this in digital detail –, all frequently enhanced by extra reverb in recording. String pads can produce the effect of homogeneous, thick, rich, viscous sonic texture and, by haptic synaesthesia, sensations of luxury, comfort and smoothness. This observation can be substantiated by noting nomenclature and in-house descriptions of mood music featuring thick ('rich', 'lush') string scoring of phenomenologically non-dissonant sonorities (tactile-kinetic connotations underlined):

- ♦ *Lullaby Of The City* – home, soft and velvety, gently flowing, quiet, intimate and restful
- ♦ *Penthouse Affair* – fashions, sweetly melodic, slightly nostalgic but sophisticated, 'dressed in silk and satin'
- ♦ *Amethysts for Esmeralda* – rich and dreamy;
- ♦ *Girl In Blue* – lush, smooth melody;
- ♦ *Valse Anastasie* – romantic, lush;
- ♦ *Sequence for Sentimentalists* – rich, romantic theme.⁴³

Viscous string pads have indeed acted and still act as sonic emulsifiers in many a voluptuous Hollywood love scene and no further documentation should be necessary to prove the point.⁴⁴

42. LP *Rainbow Bridge*, Reprise K 54004, 1970.

43. These examples of string pad tactile anaphones are taken from the Boosey & Hawkes catalogue.

Kinetic anaphones

Kinetic anaphones have to do with the relationship of the human body to time and space. Such movement can be literally visualised as that of a human or humans riding, driving, flying, walking, running, strolling, etc. through, round, across, over, to and fro, up and down, in relation to a particular environment or from one environment to another. Gallops, marches, promenades, walking basses, struts, cakewalks, etc., not to mention the rocking, reeling and rolling of rock and roll music, all contain culturally stylised kinetic anaphones for certain types of human bodily movements. However, kinetic anaphones can also be visualised as the movement of animals (e.g. flights of bumble bees, swarms of locusts, stampedes of cattle) or objects (e.g. rocket launches, truck driving, trains moving, B52s bombing, spinning wheels) or as the subjectivised movement of objectively stationary objects or beings, e.g. the sort of movement the human hand makes when outlining rolling hills (pastoral undulation), gentle waves on the sea, quadratic skyscrapers, jagged rocks, etc. Even stillness can be expressed by kinetic anaphone through the very lack of explicit metronomic time in relation to the regular beats of the heart, the regular periodicity of breathing, etc. (e.g. open landscapes like the start of Borodin's *On the Steppes of Central Asia*, the end of Mussorgsky's *Night on a Bare Mountain*, 'On the Open Prairie' from Copland's ballet suite *Billy the Kid*).

Of course, since the perception of any sound requires the positioning or movement of a body or bodies in relation to another or others, many sonic anaphones are also kinetic (e.g. a 'motor bike' as fuzzed guitar panned from one side to another, 'horse hoof' clip-clops in 2/4 or 6/8 gallop metre). Similarly, some kinetic or sonic anaphones can also be tactile.

Composite anaphones

Of course, no anaphone is solely sonic, solely tactile or solely kinetic. All sonic anaphones are simultaneously kinetic because all sounds are heard at specific distances from the sound source or in spatial relation to one another and because space and distance both imply movement (even in the sense of no movement or, if there is more than one sound, as occupying the same rather than another acoustic space). Tactile anaphones are also kinetic because touch implies movement of one body in relation to another one, e.g. into, out of, on to, away from, along, past, over, under, etc. Tactile anaphones are, however, not necessarily sonic. For example, music connoting falling snow ought to consist of tactile rather than sonic anaphones (as well as being kinetic, of course) because falling snow is inaudible to the human ear whereas snowflakes upon the skin provide a definitely tactile sensation. It is on the other hand doubtful whether a sonic anaphone is ever solely sonic and not also tactile as well as kinetic. The sonic anaphones for babbling brooks, thudding doors, thunder, splashes, swooshes, swishes, bangs, crashes, waves breaking, motor bikes etc., etc. also imply not only movement but also the tactile sensation, potential or real, of those sounds. Similarly, kinetic anaphones (see previous paragraph) all imply potential sensations of sound and/or touch,

44. However, here are some examples for the sceptical reader (composer and date of film in brackets): (1) Driscoll and Anne kissing on the boat in *King Kong* (M Steiner 1932); (2) Olivia de Havilland's and Errol Flynn's romance in *Captain Blood* (Korngold 1935); (3) Robin and Maid Marion planning their future together in *The Adventures of Robin Hood* (Korngold 1938); (4) John Wayne proposing to Miss Dallas in *Stagecoach* (Hageman 1939); (5) Paul Henreid and Bette Davis in two love scenes from *Now Voyager* (Steiner 1942); (6) Barbara Stanwyck as the luscious but lethal Mrs Dietrichson in *Double Indemnity* (Rózsa 1944); (7) Lovely Laura in *For the Very Young* (Raksin 1944); (8) Lara's Theme from *Dr Zhivago* (Jarre, 1965); (9) *Romeo and Juliet* (Tchaikovsky 1869), (Rota 1968). (10) Ada's theme for that romantically hedonist embodiment of upper-class feminine chaos in *1900* (Morricone, 1976); (11) The luscious *pas de deux* from Khatchaturian's ballet *Spartacus* used for the swell of the sea and emotions in a British soap of the seventies entitled *The Onedin Line* (1974, 1976).

e.g. musical stylisations or representations of, say, galloping, marching, swarms of bees, trains moving, etc., all embody real or potential sounds (hooves, boots, buzzing, steel wheels on rails) and physical sensations connected with those sounds and movements. In other words, most anaphones are at the same time sonic, kinetic and tactile.

Bernard Herrmann's famous string music for two gruesome murder scenes in Hitchcock's *Psycho* (1960) provides an excellent example of composite anaphones: [1] sonic, in that the sound bears structural resemblance to that of either a knife being sharpened or a repeated scream; [2] kinetic, in that the sound has the same strong, deliberate, regular, attacking arm movement as Norman Bates's multiple stabbing of Marion in the shower; [3] tactile, in that the timbric aspects of Herrmann's music are sharp, rough, unpleasant, jagged and piercing, similar to the sensation of skin being cut or punctuated, the glissando acciacaturas preceding the last six chordal jabs reminiscent of the initial resistance offered by the outside skin as the knife cuts through to softer layers of flesh.

Genre synecdoche

Part for whole

The second main category of musical signs is the *genre synecdoche*. In verbal language, a synecdoche denotes a figure of speech in which a part substitutes the whole, as in the expression 'all hands on deck'. Although, at least from the captain's view, the sailors' brawn is worth more than their brain, the sailors' hands on deck would not be use without their heads, arms, legs and the rest of their anatomy. Similarly, 'fifty head of cattle' means fifty complete bovine creatures, not just their fifty heads. A musical synecdoche is by analogy any set of musical structures inside a given musical style that refer to another (different, 'foreign', 'alien') musical style by citing one or two elements supposed to be typical of that 'other' style when heard in the context of the style into which those 'foreign' elements are imported. By citing part of the other style, the citation then alludes not only to that other style in its entirety but also potentially refers to the complete genre of which that other musical style is a subset – and here I am using 'genre' and 'style' in the precise senses defined by Fabbri.⁴⁵

Herrmann's shower murder music from *Psycho*, played in a concert or radio context to popular music listeners who did not recognise the piece, might well be perceivable as a genre synecdoche: since it bears greater structural resemblance to music by Penderecki than by Abba, it might say 'contemporary art music' (style reference) and thereby 'difficult, serious, intellectual *Angst*' rather than (anaphonically) 'murder by multiple stabs' in a (now) popular horror movie.

A less ambiguous genre synecdoche is provided by all those bass pedal points with simple tunes in compound time that occasionally turn up in works of the European Baroque period. Such a museme stack, anomalous in the harmonic and rhythmic perpetuum mobile of the Baroque, was obviously deemed an adequate connotor of central European country music of the time (style reference) and thereby of the presumed idyllic pastorality as shepherds in the field keeping watch over their flocks (genre synecdoche). The Pastoral Symphonies sections in Händel's *Messiah* or J S Bach's *Christmas Oratorio* bear witness to this sort of musical sign type. The genre synecdoche has, in other words, like the anaphone, a paramusical field of connotation. However, unlike the anaphone, the genre synecdoche connotes that field, not by direct synaesthetic or struc-

45. Fabbri's distinction between genre and style can be simplified as follows. A musical style is a set of musical-structural rules while a musical genre is a larger set of cultural rules that may include musical style as a subset (Fabbri 1982). Fabbri 1986 contains a radically expanded version of distinctions between genre and style.

tural homology, but by the intermediary of another musical style. The example of Baroque 'pastoral' music shows how the 'home style' (perpetuum mobile, changing harmony, circle-of-fifths progressions, etc.) inserts elements from a 'foreign style' (drones and simple one-key tunes, etc.) as a reference to phenomena presumed by the 'home style's' audience to be associated with that 'foreign style'. Since the intermediate 'foreign' style is only one part of a larger set of cultural constructs (way of life, attitudes, perceived environment, clothing, behaviour, etc.) viewed by the 'home style's' audience, the 'foreign style' acts as synecdoche for that larger set. As stated earlier, genre synecdoches contain two stages of reference: from certain elements in a 'foreign' musical style to the totality of that style and from that style to the rest of the culture to which that 'foreign' style belongs.

Episodic marker

Short one-way processes

The third type of musical sign is the *episodic marker*. Episodic markers,⁴⁶ like all the sign types presented so far, had to be constructed as a typological concept because of intrinsic differences in musical semiosis observed in conjunction with empirical data from a reception test carried out on several hundred respondents in the early eighties. There is no time to account for that work here, save to say that some pieces of stereotypic but unknown music used as test battery for eliciting film or TV scenarios gave rise to far more episodic associations than others. In other words, some pieces elicited lots of associations like 'has just', 'after that', 'after a long time', 'about to happen', 'leading to', etc., while other pieces gave rise to no such episodic connotations. Common musical-structural denominators of these apparently more episodic pieces were short, unidirectional processes along at least one parameter of musical expression, such as short, quick upbeat, up-bow, initial, rising run-ins to new musical material (e.g. the violin run-up in Rota's theme for *Romeo and Juliet*). Such episodic markers, be they propulsive repetitions⁴⁷ like the six-quaver upbeat to the chorus of Abba's *Fernando* or the centrifugal melodic swirls at the start of Johann Strauss's *Fledermaus* waltz, or accelerandi or ritardandi or crescendo or diminuendi, all serve one purpose: as long as they do not continue forever and as long as they are not immediately annulled by a musical process in the opposite direction along the same parameter(s) of musical expression, all such episodic markers act as lead-ins,⁴⁸ pointing the musical narrative in the direction of something new, be it a new theme or a new section, or even the final chord or note, which is, at least in an intraopus⁴⁹ sense, always new, because it can logically only happen once.

Style indicator

Compositional norms

The fourth and final type of musical sign is the *style indicator*. A style indicator is any musical structure or set of musical structures that are either constant for or regarded as typical of the 'home' musical style by persons in a culture sporting at least two different

46. This term is derived from the boundary marker of linguistics (See Sinclair and Coulthard: *Towards an Analysis of Discourse*. Oxford, 1975). Thanks to Dr. Kay Richardson, University of Liverpool, for this observation.

47. The 'ready-steady-go' principle (see Tagg 1979: **)

48. Anacrusis (pl. anacruses) = upbeat or 'lead-in' figure or motif. Neither a crescendo immediately followed by a diminuendo or vice versa, nor a modulation that returns immediately to the original key constitute episodic markers: they are like opening the curtains to see what the weather is like and then closing them within a few seconds rather than like opening the curtains to let the light in for the rest of the day or closing them for a complete night.

49. Intraopus = inside the musical work.

musical styles. We are in other words talking about the *compositional norms* of any given style. Thus, music using only a very few chords (rarely inverted) but sporting plenty of vocal and instrumental inflection (of particular types) might be regarded as style indicators of blues rather than of Viennese classicism, whereas plenty of different chords, frequently inverted, and very little vocal or instrumental inflection might be regarded as indicating Viennese classicism rather than blues. Style indicators can, it should be added, be used by 'foreign' musical styles as genre synecdoches. For example, although the steel guitar sound of Country and Western music acts frequently as a indicator of the 'country' genre, it started its life inside that style as a style reference to the Hawaiian guitar, i.e. as genre synecdoche for something exotic. Such incorporation of 'foreign' elements into a 'home' style is of course part and parcel of musical acculturation, but it useful to note this distinction, since the same musical element might connote something quite different to different (groups of) people at different points in time and place (see 'Semiosis', p. 7, ff.).

Checklists

PARAMETERS OF EXPRESSION ARE PROPERLY WRITTEN UP AND COVERED IN CHAPTERS 8-12 OF 'MUSIC'S MEANINGS'

General

When discussing music from a semiotic viewpoint, it is essential to ensure that no aspect of musical structure is overlooked. This is why a checklist of 'Parameters of Musical Expression' is provided below (p. 31, ff). It is also vital that those parameters and the musical structures they create are related to the world outside the music, i.e. to the social and cultural position, intentions, motivations of those producing and using the music as well as to the functions and acoustic context of the music ('General aspects of communication', p. 30). Moreover, the music under analysis needs to be related to whatever other forms of expression occur in conjunction with the music as it is used, e.g. lyrics, pictures, gestures, clothes – the 'paramusical'⁵⁰ (see 'Simultaneous paramusical forms of communication', p. 31).

General aspects of communication

1. Who is transmitter and who is receiver?
2. What is the physical nature of the channel and where does reception of the music take place?
3. What social relationship exists between transmitter(s) and receiver(s) of a particular piece of music (a) in general (b) at the particular occasion of musical communication?
4. What interest and motivation do(es) the receiver(s) have in listening to or otherwise using the music and what interest and motivation do(es) the transmitter(s) have in creating and transmitting the music?
5. Is it one- or two-way communication? (Munication or communication?)
6. What technical or sociocultural aspects of coding practice influence the transmitter(s) in constructing the musical message?

50. 'Paramusical', meaning alongside or concurrent with the music, is used instead of the less uncommon word 'extramusical' because the latter means outside the music and because it is both practically and conceptually problematic to view, say, a pop song's lyrics or an underscore's visual counterpart as 'outside' rather than 'alongside' the music in conjunction with which they occur.

7. What interference (technical, cultural) is the intended message subject to in its passage in the channel? Do transmitter(s) and receiver(s) have the same store of symbols and the same sociocultural norms/motivations? What bits of the music (and its 'message') do(es) the receiver(s) hear, use, respond to?
8. What is/are the intended and actual situation(s) of musical communication for the music both as a piece and as part of a genre (e.g. dance, home, work, ritual, concert, meeting, film).
9. What is the attitude of transmitter(s) and receiver(s) in the situation of musical communication (e.g. attitude of artist or composer to audience, audience's listening levels, attitudes, activities, behaviour).
10. How is the formation of musical structures affected by 1-9, above?

Simultaneous paramusical forms of cultural expression

1. Paramusical sound, e.g. church bells, background chatter, rattling crockery, applause, engine hum, birdsong, sound effects.
2. Oral language, e.g. monologue, dialogue, commentary, voice-over, lyrics, etc.
3. Written language, e.g. programme or liner notes, advertising material, title credits, subtitles, written devices on stage, expression marks and other performance instructions.
4. Graphics, e.g. typeface, design, layout (cf. 3), computer graphics (TV), etc.
5. Visuals, e.g. photos, moving picture, type of action, scenario, props, lighting, camera angle and distance, cutting speed and techniques, superimpositions, fades, zooms, pans, gestures, facial expressions, clothing.
6. Movement, e.g. dance, walk, run, drive, fall, lie, sit, stand, jump, rise, dive, swerve, sway, slide, glide, hit, stroke, kick, stumble.
7. Venue, e.g. (type of) home, (type of) concert, disco, football match, in front of TV, cinema, church.
8. Paralinguistics, e.g. vocal type, timbre and intonation of people talking, type and speed of conversation/dialogue, accent/dialect.
9. Acoustics, i.e. acoustic properties of the place of performance, type and quality of technical equipment, amount and type of reverb, extraneous noise.
10. The relationship between points 1-9 and the music.

Parameters of musical expression

1. Instrumentational parameters
 - 1.1. Number and type(s) of instruments and/or voices.
 - 1.2. Timbre of instrument and/or voices, e.g. range and ambitus (see 3, below), attack, envelope, decay, sound spectrum.
 - 1.3. Mechanical devices, e.g. mute, sostenuto pedal, stops, drawbars, plectrum, string types, reed types, mouthpieces, bows, mallets, sticks, brushes.
 - 1.4. Electroacoustic devices, e.g. microphone types & techniques, loudspeakers, echo, reverb, delay, panning, filtering, PA systems, mixers, amplifiers, equalizers, phasers, flangers, chorus, compression, distortion, vocoding, dubs.
 - 1.5. Performance techniques, e.g. vibrato, tremolo, tremolando, glissando, portamento, col legno, pizzicato, sul ponte, picking, laisser vibrer, strum,
 - 1.6. Phrasing idioms and idiosyncrasies, e.g. attack, legato, staccato.
2. Compositional technique
 - 2.1. Monophonic ↔ polyphonic.
 - 2.2. Monorhythmic ↔ polyrhythmic.
 - 2.3. Homophonic ← heterophonic → contrapuntal.
 - 2.4. Melody-accompaniment or other.

- 2.5. Overall texture, e.g. thick, thin, busy, sparse.
3. Temporal parameters
 - 3.1. Duration of piece and relationship of this duration to other connected aspects of communication (e.g. film, church service, sports event, dancing).
 - 3.2. Duration of sections within the piece and their interrelation.
 - 3.3. Order and treatment of thematic events, e.g. starts, ends, continuations, interruptions, recurrences (reiterations, repeats, recaps), sequences, inversions, retrogrades, augmentations, diminutions.
 - 3.4. Pulse, tempo, incl. base rate, surface rate.
 - 3.5. Rhythmic texture, e.g. polyrhythm, birhythm, monorhythm.
 - 3.6. Metre (rhythmic grouping of pulse, time signature, etc.), e.g. simple, compound, symmetric, asymmetric.
 - 3.7. Accentuation, e.g. onbeat, offbeat, downbeat, upbeat, syncopation, agogics, syllabics, melismatics.
 - 3.8. Periodicity and phrase length, e.g. long, short, regular, irregular.
4. Tonal parameters
 - 4.1. Tuning system and tonal vocabulary, incl. retuning, detuning, etc.
 - 4.2. Overall and mean pitch range (all parts).
 - 4.3. Pitch range (ambitus) and mean pitch for individual instruments/voices.
 - 4.4. Motivic parameters (incl. melody and bass).
 - 4.4.1. Ambitus, compass.
 - 4.4.2. Contour (e.g. ascending, descending, terraced).
 - 4.4.3. Tonal vocabulary (i.e. scale, mode, etc.).
 - 4.5. Harmonic parameters.
 - 4.5.1. Tonal centre (if any).
 - 4.5.2. Type of tonality (if any), e.g. modal, diatonic, quartal, drone, bebop, impressionist, late romantic, twelve-tone, etc. Also alterations, inversions, suspensions, resolutions, etc.
 - 4.5.3. Harmonic change as long and short term phenomenon, incl. harmonic rhythm (see 3.8) and thematic order (see 3.3).
5. Dynamics parameters
 - 5.1. Loud ↔ soft.
 - 5.2. Sudden ↔ gradual.
 - 5.3. Constant ↔ variable.

Musematic analysis

Concepts and method

MUCH BETTER IN CHAPTER 7 OF 'MUSIC'S MEANINGS'

What is a museme?

Basic elements of musical signification can be found in the way any item of musical discourse opts for a certain constellation of positions in the multidimensional complex of expressional parameters just enumerated. Change along any parameter (e.g. louder, faster, no melody then melody, first drone then modal harmony, the same thing twice but not a third time, etc., etc.) implies real or potential change in musical meaning. Seeger (1960: 76) coined the word *museme*:

A unit of three components – three tone beats – can constitute two progressions and meet

the requirements for a complete, independent unit of music-logical form or mood in both direction and extension. Both variance and invariance can be exhibited in each of the four simple functions. It can be regarded as binary and *holomorphic* – a musical morpheme or museme.

Seeger's point, although structural rather than semiotic, is well-taken, especially if you include (a) the process from no music to the first tone beat as a musematic process; (b) if you allow for the well-nigh constant contiguity and elision of most musical discourse (i.e. the last tone beat of one idea is often simultaneously n^o1 in the next one). Even so, Seeger's 'museme' is a problematic concept because, unlike the morphemes of speech, the semiotic content of musemes is not only influenced by their 'horizontal' position along the irreversible time axis but also by their vertical context, i.e. by everything other concurrent sound. This requires some clarification.

A morpheme (linguistics) can be defined as

a minimal unit of speech that is recurrent a meaningful... a linguistic form that is not further divisible without destruction of meaning and is the minimal meaningful unit.

while phonemes are

minimal units of speech distinguishing one utterance from another.⁵¹

Just as replacing the phoneme |b| with |s| changes the morpheme 'bad' into 'sad', changing one element in one parameter of musical expression (instrumentation, volume, first or second of two notes, underlying harmony) can change the 'meaning' of, say, the first two notes of *Rule Britannia*. But the new note or volume or instrument or harmony is no musical phoneme because each new element is totally dependent on its musical context to acquire meaning and cannot be discretised like the phonemes |b| or |s| or the letters 'b' and 's'. Music has neither phonemes nor letters. But it does have parameters of expression that act as constituent forces rather than as discretisable elements in the construction of units of 'minimal meaning' in music.

For example, the well-known guitar riff at the start of *Satisfaction* (Rolling Stones 1964) consists of three musemes, all played with distortion on the A string of an electric guitar: [1] the repeated *b* (short + long), [2] the quick rise *b* ↗ *c*# to a long *d*, [3] two quick *d*-s and back down to *b* via *c*# ([2] in reverse elided into [1]). However, that is hardly the total structure, let alone 'meaning', of the riff for the following three reasons: [a] the climax note *d* occurs as long suspension over the chord of A and would have had a different effect if played, for example, over a B7 chord or continuing E function; [b] Watts has already started marking onbeats; [c] Wyman has already started plodding quavers to and fro between E and A. In fact it only really seems meaningful to talk about 'meaning' when you consider the whole 'now' sound of those first few bars.⁵² At the same time, it is impossible to discuss the signification of the complete *museme stack* ('vertical', simultaneously sounding set of musemes constituting a 'now sound' or 'present-time sound') unless you have some idea about what all its meaningful constituent elements might have to say. The guitar riff phrase at the start of *Satisfaction*, without bass and drums and consisting of the three musemes we mentioned a couple of sentences ago, is on the other hand a *museme string* ('horizontal', contiguous set of elided musemes) which acts as a prominent but nevertheless constituent part of the same museme stack as Wyman's bass and Watts's drums. A *museme* is therefore a *minimal unit of musical discourse that is recurrent and meaningful in itself within the framework of any one musical genre*. This means that the structures constituting a museme in one style do not necessarily constitute a museme in another style and, even if they did, the museme in question would not necessarily connote the same thing.

51. Definitions from Pei (1966).

52. From 1 or 2 seconds up to about 10 seconds, depending on the tempo. Cf. Wellek (1963: 107, ff.)

*Intersubjective and interobjective***MUCH BETTER IN CHAPTERS 6 AND 7
OF 'MUSIC'S MEANINGS'**

An account of your own reactions to a piece of music can be called 'intuitive', 'introspective' or 'intrasubjective'. For reasons too complex to account for here, arts academe, from literary criticism to musical 'analysis', seems to revel in this approach, while it is quite unacceptable in social and natural science contexts. This contradiction of approach is related to the unique type of epistemological schizophrenia from which European traditions of knowledge seem to have suffered for several centuries, one of whose symptoms has been that anything to do with aesthetics or feelings are zoned off into ghettos of art and leisure. Of course, without a 'gut' or 'informed' personal reaction to music, without personal preferences, social taste, etc., studying music would not be much fun. However, socially conditioned personal taste and prejudice in arts academe has frequently been turned into aesthetic canon, prescribing criteria of artistic value as though they possessed the same authority as Archimedes' principle or a papal decree.

Therefore, while it is essential to acknowledge your own reactions to music, it is wise to treat them as no more than that and to refrain from the use of personal interpretation as the basis for general statements about musical meaning. Moreover, although music might be generally thought of as a matter of personal taste, leisure, art, etc., and thereby seemingly unquantifiable in economic or scientific terms, it should be remembered that quantification (charts, sales, box office figures, etc.) is the name of much of the game in the music business and that such quantification relies on many individuals finding the same sorts of meaning in the same sorts of musical structure.

Since music is a sociocultural as well as an artistic field of study, discussions of musical meaning must have a substantial degree of concretion outside the values you and the population(s) you belong to hold as immutable. This type of concretion requires empirical method, such as that found in intersubjective and interobjective approaches. These procedures, explained below, can be used to substantiate semiotic observations of the music you happen to be studying.

Intersubjectivity

It is easy to understand intersubjectivity in terms of a TV advert claiming that nine out of ten film stars use Brand X soap because they think it's much kinder to their skin. Obviously, the advertisers want to sell more of their soap and attempt to do so by trying to convince people who identify positively with film stars that Brand X is in fact dermatologically superior to other brands. This sales pitch relies partly on a statement of intersubjectivity — 'nine out of ten film stars think that...'

In other words, intersubjectivity depends on the degree to which different subjects (individuals) relate similarly to the same phenomenon, for example to the feel of a soap or, more relevantly in this context, to a piece of music, an artist, a musical style, etc. If different people respond to or say the same sort of thing about the same music, then that shared similarity of response constitutes an equivalent degree of intersubjective consistency in relation to that music.⁵³ Within the social sciences, intersubjectivity is an approved criterion for validating or falsifying observations, as long as such intersubjectivity is qualified in terms of (i) number of respondents (subjects), (ii) where, when and under what conditions the information was gathered, and (iii) appropriate elements of

53. In this text, the word 'response' is not used as in experimental psychology ('stimulus - response') but in its everyday meaning.

the respondents' sociocultural habitat, such as age, gender, nationality, education, profession, etc.

Of course, there are many pitfalls in gathering and collating information of the intersubjective type. Returning to the Brand X soap advert for a moment, the problems are obvious. How do we know that a truly representative sample of all film stars were asked for their opinion? What were the conditions of the survey? Were the film stars bribed to say something they did not believe or did some of them tell a lie just to gain media exposure? How guided (or leading) were the questions asked? Were any interviews conducted and, if so, under what circumstances? How were responses counted, interpreted and categorised? Since these and other problems of method are left unaddressed, the validity of the intersubjective statement 'nine out of ten film stars use Brand X because they think it's much kinder to their skin' must be called into question. On the other hand, if you are clear about your methods of gathering, interpreting, systematising and presenting information from respondents, if you accurately describe the restrictions and parameters of your work, and if you apply a modicum of ethnographical awareness and critical self reflexivity, the validity of your intersubjective observations will be unequivocal within those parameters.

Intersubjective strategies can be very useful when it comes to the semiotics of music. It is, for example, possible to observe and document different uses of the same music by different individuals or groups of people in different contexts. It is also possible to interview musicians, listeners, dancers, etc. to find out what they think of the music in question. You can also gather respondents in one place and play them one or more examples of music, asking them to provide you with their associations and opinions. Of course, considerable problems of method arise from these procedures in that the reception test or interview situation will almost inevitably, though to varying degrees, contradict the actual reception circumstances of people's everyday listening habits. Imagine, for example, interviewing workers in a factory about individual passages or sonorities disseminated via the company's background music system, or asking a class of male high school students to sit still in their desks while writing down associations to a batch of boisterous grunge metal tunes. The respondent situations just mentioned contradict normal listening habits and destroy the conditions under which the music in question is generally used, thereby giving rise to statements about or reactions to music that may be seriously misleading. It is important to be aware of such difficulties and to document accurately the means by which you obtain respondent information.

Information from reception studies can be gathered in two ways: (i) observation and description of behaviour in response to music; (ii) opinions, comments and verbal or visual associations to music. In either case, you may well end up with what seems to be, at least in verbal terms, quite a disparate set of responses. Such disparity is to be expected because, as already mentioned in our discussion of polysemy (p. 8, ff.), precision of musical meaning does not equal precision of verbal meaning: words and music are not interchangeable and would not need to exist separately if they were. Nevertheless, it may be easier to determine common denominators of paramusical response if results are grouped musicogenically. Therefore, after accounting for blank responses, which *may* be significant as intersubjective evidence of musical polysemy, other responses need ideally to be discretised into their component semantic parts. For example, one respondent associating to your analysis piece in terms of 'serious young men, probably on the dole, wearing grunge clothes, being chased around an abandoned warehouse by a man in a suit, brandishing a chain saw' has provided not one but thirteen paramusical associations to the music ('serious', 'young', 'men', 'unemployment', 'grunge' / 'grunge clothes', 'chase', 'abandoned', 'warehouse', 'man', 'suit', 'brandishing' and 'chain saw'), whereas another respondent offering 'boring eighties video in urban de-

cay' has only offered five ('boring', '1980s', 'video', 'urban', 'decay'). Since both respondents come from a similar background and since they are reacting to the same music, it is reasonable to regard 'abandoned warehouse' and 'urban decay' as part of the same paramusical semantic field. It would also be useful to know how many respondents associated to 'grunge' or the 'eighties', how many mentioned some kind of social decay (e.g. unemployment) or violence (e.g. 'chase', 'brandish', 'chain saw').

A useful second step in systematising responses is to divide them into three basic categories: [1] opinions, such as 'boring', 'great music', 'bad taste', etc; [2] intramusical associations, including musical works, styles and structural traits, as well as artists, composers, instruments, etc; [3] all other responses. Responses of type 2 are useful for interobjective comparison purposes (p. 36, ff.), while those of type 1, although of little direct relevance to the analysis of musical signification, may cast light on patterns of response at a later stage.⁵⁴ Responses of type 3 – all others – will of course need further categorisation. Whether observing behaviour in response to music or dealing with verbal and visual associations to music, a basic response taxonomy can be quite useful (see p. 44, ff.).

There are two main advantages in using intersubjective observation in music semiotics: (i) it allows you to state that a certain proportion of a certain body of people at a certain time under certain conditions in a certain sociocultural context responded in a certain way to certain music; (ii) it calls for no musicological expertise whatsoever. Intersubjective observation provides vital information on many aspects of the basic communication process (fig. 1, p. 10) in relation to a particular body of music, especially in terms of reception and response. It also allows you to posit viable hypotheses about the 'intended message', as well as about which structural elements within the 'channel' may or may not be related to which responses to the music. This final aspect – relating observations about musical reception to structural elements – requires considerable familiarity on the analyst's part with the musical object giving rise to all those intersubjectively shared patterns of response. It is in this context that an interobjective approach comes in handy in helping us discover how particular patterns of musical structuration relate to particular patterns of response.

Interobjectivity

If an analytical approach establishing consistency of response to the same piece of music played to different listeners is called intersubjective, then an interobjective approach is one which establishes consistency of structure between different pieces of music. While intersubjective inquiry allows you to relate a piece of music in general to a set of responses to that music, the procedure of interobjective comparison relates a particular piece of music to other pieces of music.

Now, relating music to other music may seem like a futile exercise because, at least in academic circles, only verbal and numeric symbols appear to own any validity as metalanguage. We would, in other words, seem to be no closer to an explanation of what the music under analysis is communicating. However, as we have already observed (p. 18, points 2-3), musical discourse possesses a degree of relative autonomy. This means that although music is most definitely related to society, in that it is so obviously connects with phenomena outside its own discourse, it also actually refers to itself on its own terms. In fact, people in the process of making music are far more influenced by

54. For example, if there is significant intersubjective agreement that a piece is boring and if the music in question also elicits a large number of blank responses, then those respondents may well be unfamiliar with the store of symbols operating in that music (codal incompetence) or opposed to the sociocultural norms encoded in the music (codal interference). Of course, codal incompetence or interference may be equally in operation at the transmitting end.

music, either as intraopus context or as other music, than by anything else: their memory of music is reinforced by the relationship of particular sounds to particular patterns of bodily activity — voice, hands, fingers, arms, lips, lungs, legs, etc. — that they use to produce those sounds. Bearing in mind such training, experience and socialisation patterns, it would be surprising if musicians thought of anything much apart from music when making and/or hearing it. Ignoring these logistics of musical cognition would be tantamount to ignoring essential aspects of musical communication. Therefore, if this text is to present viable methods of semiotic music analysis, the importance of interobjective procedures needs to be emphasised.

Nevertheless, it would still be perfectly legitimate to object that relating music to music and nothing else will result in the same vicious circle of ‘absolute’ aesthetics that has dogged music theory and analysis teaching at most higher education institutions for a very long time. Fortunately, the interobjective procedure explained below is a means to an end, not an end in itself. Relating the structures of one musical work to those of others serves in fact two purposes in addition to acknowledging simple facts of life about musical cognition. Firstly, it allows for consistency of structural recurrence to be established, an essential step in the understanding of any type of signification. Secondly, the establishment of structural recurrence can lead to the collection of a body of structurally similar musical works, some of which share common traits other than structural similarity. These two essential aspects of interobjective comparison method require further explanation.

The importance of structural recurrence in semiotics can be easily grasped by linguistic analogy. For example, the morpheme $|wi:|$ has various meanings: [1] the word ‘we’ as (a) nominative pronoun in the first person plural, as in ‘we go to lunch at 12.30’, (b) the royal ‘we’, as in Queen Victoria’s statement ‘we are not amused’, (c) the matronising ‘we’, as in ‘been a naughty boy again, have we?’ [2] the Lowland Scottish word ‘wee’, meaning small; [3] the English children’s word ‘wee’, meaning urinate; [4] the interjection ‘wee’ either associated with flying, swinging, diving, etc. or as onomatopoeia for squealing piglets, as in ‘this little piggy cried “wee, wee, wee” all the way home’; [5] the French word ‘oui’, meaning yes, etc., etc. It is patent that none of these meanings of $|wi:|$ can be demonstrated to exist without first establishing that $|wi:|$ actually regularly recurs as a discretisable unit of spoken language in instances such as those just cited. Moreover, each different meaning, or nuance of meaning, associated with $|wi:|$ needs to be related to other aspects of linguistic structure (e.g. syntax, stress, dialect) that enable us to distinguish between the $|wi:|$ of ‘We three kings of Orient are’, ‘Mary’s just a wee bairn’ and ‘Oui, je t’aime’. Finally, these other aspects of linguistic structure in combination with $|wi:|$ need to be established as regularly recurrent in other utterances so that ‘we go to lunch at 12.30’ can be demonstrated as structurally similar to ‘we three kings of Orient are’ but not to ‘wee bairns’ or ‘wee beasties’ which, in their turn, can be structurally distinguished from the structural similarities between ‘oui, je t’aime’ and ‘elle m’a dit “oui”’.

Although we have already noted important qualitative differences between musical and verbal signification, the general point of structural recurrence just presented is just as applicable to the discussion of musical as verbal meaning. No serious discussion of musical signification can in other words take place if the structures posited as carrying connotations cannot be shown to exist elsewhere than in the one musical utterance under analysis. For example, if you observe the minor key as an important trait in the music you are trying to analyse, you will, as we shall see later (p. 39), need to establish structural recurrence not so much of the minor key in other pieces of music as of the minor key performed in a certain metre at a certain tempo by certain instruments in a certain way in a certain musical idiom.

The second reason for underlining the importance of interobjective procedures in the semiotic analysis of music is that the establishment of structural recurrence leads to the collection of a body of structurally similar musical works, some of which may share common traits other than structural similarity. Such a collection of structurally similar musical works is called *Interobjective Comparison Material* (IOCM for short) and the paramusical similarities between them may be demonstrably related to particular words, movements, moods, sensations, sounds, sociocultural functions, historical or ethnic locations, etc., in fact to any of the 'simultaneous paramusical forms of cultural expression' listed above (p. 31). It is in these ways that interobjective procedures do not so much avoid the vicious circle of musical 'absolutism' as use music's self-referentiality as a means of strengthening semiotic argumentation according to the conditions of musical cognition rather than those of (verbal) language.

The initial stages of *interobjective comparison* are best carried out without too much verbalisation, i.e. by racking your own musical memory for pieces containing sounds similar to those in the music you are trying to analyse. The checklist of musical parameters (p. 31) will help you focus on particular aspects of the sounds involved and may also jog your musical memory to think of pieces containing a particular combination of sounds: it could be a melodic turn of phrase, a particular type of instrumentation or timbre, a particular vocal quality, a particular drum pattern at a particular tempo, a chord progression, a particular type of spatial acoustics, etc., etc. After noting your own intramusical associations, it is a good idea to rack other people's tactile and gestural memory for snippets they recognise and have played, sung, heard or danced to. Interobjective comparison is in this sense an intersubjective process too, so that the larger the number of people you ask for musical associations, the larger and more reliable your IOCM will be.

As mentioned earlier, musicians' memory of music is reinforced by the particular patterns of gestural activity they use to produce particular sounds in a particular order and manner. This aspect of musician memory can be used to great advantage in the collection of IOCM. (If you are not a musician, perhaps the easiest way to understand this type of tactile or gestural memory is, without thinking, to dial a familiar phone number or to enter your personal ATM code in the palm of your hand.⁵⁵ If you have dialled the phone number or withdrawn money often enough, your hand and fingers will remember a shape and a gesture corresponding to the correct sequence of keys without your having to recite the numbers in the right order.)

If you encourage musicians to play or sing along to an extract of music whose symbolic value you are trying to establish and then ask them if they have played or sung anything resembling that extract in any other piece of music, the gestural activity involved in playing or singing along may then prompt them to recall a similar passage for which a similar musical-gestural pattern was required in a different musical context. If you are fortunate, the musicians may even identify other pieces of music in which that similar musical gesture occurs. This procedure of asking musicians for their musical associations should increase the size and structural viability of your IOCM.

The next stage of interobjective comparison entails checking whether the various pieces of IOCM you have collected bear more than structural resemblance to each other. This process involves looking for instances of paramusical expression (see p. 31, ff.) that different pieces within your IOCM may share in common. Do any of the pieces have similar titles? Are they associated with similar types of narrative or choreography? Do they have similar lyrics or voice-overs? Do they appeal to similar types of audience? Are

55. UK readers please note that by 'ATM' (automatic teller machine) is meant a cashpoint and by 'personal code' a PIN (personal identity number).

there any similarities in visual presentation? Are they related in terms of ethnic or acoustic location? Are they used in similar sociocultural contexts? Answering this sort of question might lead you to conclude that several pieces of IOCM are connected with, say, heroes and men of action, or with green rolling hills and nuclear family sentiment, or with space horror and doomsday laser cannons, or with yuppie UK lager louts of the late 1980s, or with wide open spaces and lost innocence, or with the seedier side of aerobic disco, glossy lipstick, towelling headbands and pastel-shaded leg-warmers.

The most obvious pitfall in interobjective comparison occurs when you discover two similarly structured snippets of music that 'mean' entirely different things in different contexts. For example, although the first phrase of the Hallelujah chorus from Händel's *Messiah* may sound the same as the start of *Yes We Have No Bananas*, the two tunes obviously do not communicate the same thing to the same audience. Similarly, a 13th chord does not 'mean' the same in romantic opera as in bebop, nor does the minor key 'mean' the same in *What Shall We Do With The Drunken Sailor* as in Chopin's *Marche funèbre*. These problems of interobjectivity can be avoided if interobjective comparison is restricted as much as possible to the same sort of music in the same sort of intramusical and sociomusical context. Just as no-one would presume the word 'bad' to mean the same thing to the head teacher of a British private school as to a Los Angeles gang member, or just as the sound | wi: | has at least three different meanings in English according to context, and a completely different meaning in French, no musical structure can be assumed to carry the same value in different musical idioms or social contexts (see p. 37).

Bearing in mind these caveats, it is feasible, once a bank of IOCM has been collected and discussed in terms of both structural and paramusical similarity, to posit that the paramusical fields of association shared in common by the IOCM elicited from your analysis object are also connotatively relevant to the same, or similar, structures found in that analysis object. In this way the process of interobjective comparison constitutes a method of discussing the connotative signification of a certain set of musical structures by the use of other music as a cognitively apposite intermediary.

Hypothetical substitution (commutation)

[This section to be substantially expanded]

SEE CHAPTER 7 IN 'MUSIC'S MEANINGS'

If you think that a particular museme (or set of musemes) is particularly operative in creating particular connotations in the music you are analysing, you can always test your theory by means of commutation or hypothetical substitution. You just replace whatever structural element you think is semiotically important in creating the connotations in question with something else. For example, you can put the passage under discussion into the minor key if it's in the major (or vice versa), you can replace massed brass band with solo violin, you can change the interval, the phrasing, the tempo, or whatever you think it takes to give the music under analysis a totally different character. If changing the interval or instrumentation or whatever seems to make no difference, then the parameters under change are unlikely to be connotatively operative; if, on the other hand, you change, say, the reverb time or transpose the backing vocals down an octave, perhaps you will find that the connotative difference is huge, in which case those parameters of expression are almost certain to be operative in creating the connotations you have established through interobjective comparison as related to your museme.

The melody-accompaniment dualism

[This section to be substantially expanded]

THIS IS ALL DEALT WITH PROPERLY IN CHAPTER 12 OF 'MUSIC'S MEANINGS'*Melody*

Since at least 1600 and until the advent of rave dance music (especially techno), the basic compositional paradigm of most European and North American music has been the melody-accompaniment dualism. It is what Haydn and AC/DC share in common, so to speak. It is by no means a universal phenomenon. Most West African traditional music, for instance, is based on the completely different principle of polyrhythm while much Arabic music is heterophonic.

Melody has been defined as:

a succession of musical tones, as contrasted with harmony, i.e. musical tones sounded simultaneously. Thus, melody and harmony represent the horizontal and the vertical elements of musical texture.

Harvard Dictionary of Music

A succession of tones characterised by their total or partial appearance as a musical Gestalt, an integral structure (possibly standing out as a figure against an accompanying background). It stands out with such clarity as to be recognisable and reproducible.

Ingmar Bengtsson in *Sohlmans Musiklexikon*

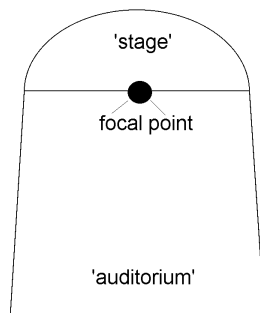
The operative words here are 'Gestalt' (figure), 'standing out against', 'recognisable' and 'reproducible'. Since many people play no instrument, the most common way of reproducing melodies is to sing them. This is perhaps why melodies are not just recognisable little motivic figures like riffs (ostinati) or fillers, but the most consistently identifiable and singable strings of tones: tones at a singable pitch containing singable intervals within a singable range. Melody tends also to be singable in terms of phrase length (breathing) and surface rate tempo (not too many fast notes, not just one or two very long notes).

Accompaniment

'Accompaniment' on the other hand is generally qualified as being 'subordinate' to some other part of the musical texture and is defined by the Harvard Dictionary as the musical background provided by a less important for a more important part.

while Bengtsson (*op. cit.*) makes quite clear that accompaniment exists in a subordinate background relationship to the main voice or melody. You could also say that the 'generality' of accompanying parts are musically understood as contrasting with the 'particularity' of the melody. Terms like 'backing' and 'backing vocals', 'lead singer', 'lead vocals', etc. emphasise this consensus about the dualism. In fact, as the focal centre point in figure 2 shows, the lead singer, main soloist, conductor of a symphony orchestra, etc., i.e. of the most important human figure with whom the audience is supposed to identify is located centre stage front, not backstage or in the wings. This is even true of pop record panning practices.

Fig. 2: *Monocentric musical positioning*



As Maróthy (1974: 22) suggests, the dualism of melody and accompaniment has played a major part in Western music. In fact this compositional paradigm can be compared to the figure/ground dualism of European painting since the Renaissance, a dualism that replaced the 'polycentric' works of artists like Bosch and Breughel with a monocentric relationship using techniques of central perspective (from *Massacre of the Innocents* or *Children's Games* to *Mona Lisa* or Vermeer's still life works). It seems probable that this change in the visual arts was paralleled in European art music's shift from ecclesiastical polyphony (e.g. Palestrina) to secular monody (e.g. Monteverdi) and that this shift is related to the rise of bourgeois notions of individual emancipation. Seen in this light as a structural homology for a (then) new concept of human personality, the melody-accompaniment dualism, though definitely not a museme, can be said to carry meaning in itself. This is important to bear in mind when discussing the meaning of musical structures, since connotations are not only constructed at the micro (musematic) level but also by the processes created by repetitions, recapitulation, variation, block shifts, etc., i.e. by the music's formal order of events.

Extras

**NOT AT ALL EXTRAS!
SEE CHAPTER 7 IN 'MUSIC'S MEANINGS'!**

Fig. 3: Hermeneutic correspondence by means of interobjective comparison

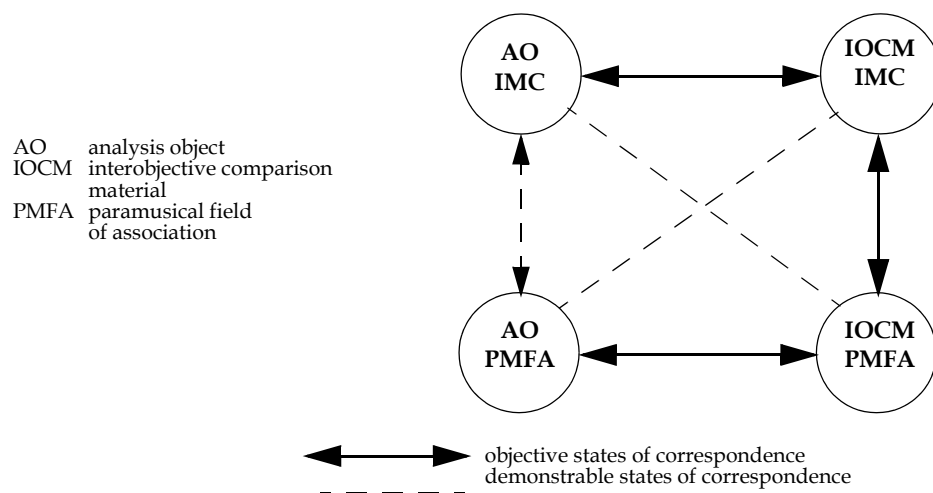
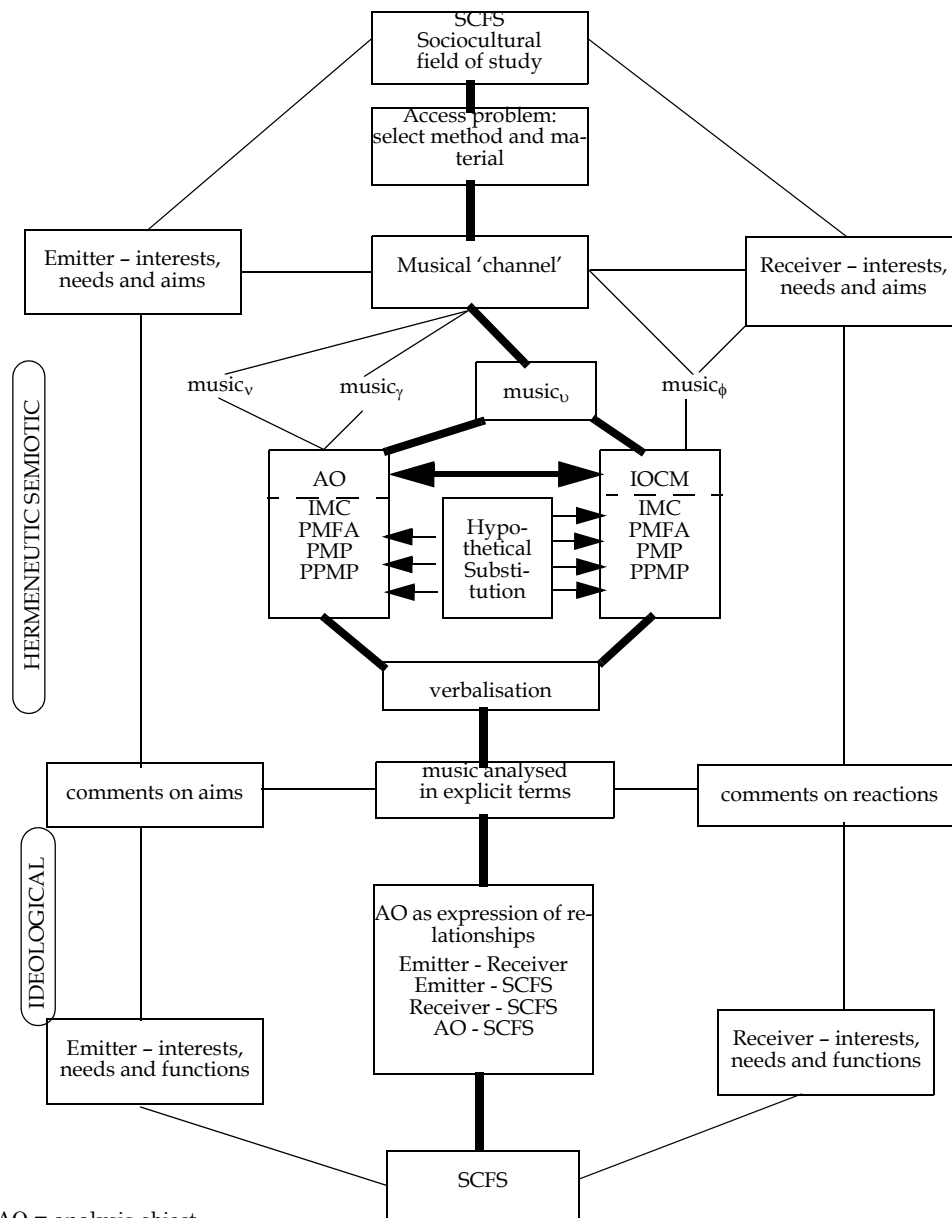


Fig. 4: Methodological paradigm for analysis of affect in popular music.⁵⁶



AO = analysis object
 IOCM = interobjective comparison material
 HS = hypothetical substitution
 IMC = item of musical code
 PMFA = paramusical fields of association
 PMP = patterns of musical process
 PPMP = patterns of paramusical process
 SCFS = sociocultural field of study
 music_v = music as conception (νῶσος = thought, purpose, mind)
 music_γ = music as notation (γράφω = write)
 music_δ = music as sounding object (ὄλη = matter as opposed to mind)
 music_φ = music as perception (φαίνομαι = appear, seem)

56. Thanks to Sven Andersson, Institute for the Theory of Science, University of Göteborg, for help in constructing this model.

*Abbreviated taxonomy of PMFAs PMFCs***THIS IS COVERED MUCH BETTER IN
CHAPTER 6 OF 'MUSIC'S MEANINGS'***General attributive affects*

This section includes all general descriptions of feeling, mood, sensation, size, colour, tactility.

Culturally ambivalent, i.e. descriptive of an affect that a general consensus would probably determine as neither clearly positive nor clearly negative within the culture to which you belong. This category includes [1] relative dynamism: excitement, drama, emotion, feelings, involvement, challenge, action, adventure, intense, complicated, different, varying, irregular; [2] relative stasis: familiar, neutral, ordinary; unaggressive; simple; regular; [3] reflection, sentimentality, lyricism; [4] determination: confident, deliberate; definite, destiny; [5] abandon: uncontrolled; ecstasy, passion; [6] balance, control, serious; [7] humour: comedy; jokes; irony; [8] cultural dominance: important, prestigious; grandiose; sophisticated; [9] cultural emergence; bravado; 'cool'; flashy, hip; rebellious

Culturally positive, i.e. descriptive of affect that a general consensus would probably determine as positive within the culture to which you belong. This category includes [1] general: good, pleasant positive; delightful; confident, encouraging, hope; [2] love, kindness: friendly, loving; romance; sensual; gentle; kind; [3] tranquillity, security: peace; still, calm; protected; harmonious; easy, relaxed; [4] joy, festivity: elated, happy, carefree, fun, festive; [5] beauty, attraction: enchanting; impressive; elegant; shapely; [6] lightness, brightness, openness, freshness; [7] strength, pride, success: brave, heroic; independent; [8] wisdom, trust, justice; [9] order: correct; tidy; efficient

Culturally negative, i.e. descriptive of affect that a general consensus would probably determine as negative within the culture to which you belong. This category includes [1] general: bad, nasty, wrong, unpleasant; [2] enmity, aggression, implacability: hate, anger, revenge, inhuman, hostile, cruel, violent; [3] disturbance, danger: unrest; difficulties, problems; confused, frustrated, worried; strained; menacing, ominous; agitation, stress; [4] sadness, boredom: disappointment, despondency, misery; tragedy, sorrow; languishing; dejection, abandonment, loneliness; boring, listless; pessimistic; [5] ugliness, repulsion: disgust; creepy; crude; gaudy; [6] darkness, encumbrance, clandestinity, miasma: gloom, shady, stealth; heavy; confined, stuffy; worn out; ill; decadent, dirty; death; drugged; [7] weakness, fear, failure: doubtful; uncertain; miserly; [8] madness, futility, suspicion: ridiculous, stupid; futile; guilt, jealousy; [9] disorder: mess, chaos, shambles, state of flux; [10] asociality: criminal, robbery, prostitution, smuggling

Culturally neutral, i.e. descriptive of affect that a general consensus would probably determine as neutral within the culture to which you belong. This category includes [1] asperity: rough, hard, tough, tight, steep, jagged, bitter, dry; [2] mollity: smooth, mild, soft, curved, loose, sweet, humid; [3] heat: glowing, warm; [4] cold: cool, freezing; [5] largeness: great, immense, broad, high, long, full, more and more, total; [6] smallness: little, tiny, narrow, low, short, decreasing, private; [7] density: compact, crowded, deep; [8] sparsity: empty, shallow; [9] colour: multicoloured, black and white; blue; green; yellow; red, etc.

Beings, props, gatherings.

This section includes all foreground figures (humans, animals, objects), as well as gatherings and groups of both humans and animals.

General, incl. human, male, female

One human, incl. [1] either sex: a figure, a person, alone, he or she, I, man or woman, someone; child, middle-aged person; best friend; [2] single male: he, boy, man, cowboy, detective, hero, villain, mayor, father, named male; [3] single female: she, girl, woman, lady, named female.

Two humans, incl. [1] either sex: me and you, both of them; two old people; [2] two males: two men, two buddies, etc; [3] two females: two women, two girls, etc; [4] male and female: he and she, young couple, the newly-weds, Romeo & Juliet, etc.

Several humans, incl. [1] either sex: people, they, company (people); teenagers; adults; old people; delinquents; students; truck drivers; ghosts, trolls; [2] males: young boys, his sons, old men, marines, etc; [3] females: women, ballerinas, team (female basketball); [4] many humans: crowd, many people, many children, audience, etc.

Couture, props. This section includes [1] parts of the body and other bodily references; [2] clothes; [3] furniture and domestic fixtures; [4] food, drink, etc; [5] vehicles; [6] tools, weapons and appliances; [7] stones and metal; [8] money and paper; [9] mortal remains

Social activity, including [1] general: culture, society, ritual, etc; [2] festive, celebratory: party, carnival, Christmas, anniversary, commemoration; [3] presentational: performance, on stage; procession, parade; circus; fashion show; [4] sports; [5] military: regiment; battle, war; air force, army, etc; [6] recreational: leisure, entertainment, holidays, excursion; [7] economic: business, easy money, East India Company, etc; [8] educational: college, school, academy; [9] religious: Methodist, Catholic, fundamentalist, Salvation Army, Shiite, etc.

Domesticated animals, including [1] pets; [2] livestock; [3] horses etc; [4] birds

Other animals, including [1] predatory mammals; [2] flock animals; [3] birds; [4] aquatic animals; [5] fish

Location, scene, setting

This section contains references to physical, social, and historical scenarios or environments.

General setting, including [1] general: at home, local area; abroad, exotic location; heaven; hell; [2] outdoors: outside; [3] indoors, subterranean: room; bar, club; hall, ballroom; basement, tunnel; bedroom, etc; [4] buildings (inside): house; concert venue; palace; cabin; cathedral, church, mosque

Rural setting, incl. [1] general: country(side), nature; pastoral, bucolic; [2] campestral: grass, meadows, fields; [3] edificial (from outside): hut, cabin; farm, ranch; castle, manor; village; [4] undulant: valleys, hills; [5] sylvan: trees; woods; forest; [6] horticultural: greenery; garden; flowers; lawn; [7] fluvial, lacustrine: river; beck; creek; lake

'Big' nature (panoramic or 'un-man-made' nature), incl. [1] general: broad view, panorama, big country, open spaces; [2] flat: plain; heath, moor; prairie, steppe; savanna; [3] mountainous: highlands, Alps; [5] barren: wild country; desert; tundra; [6] tropical: jungle; palm trees

Aqueous, aerial, incl. [1] pelagic: ocean, sea; [2] littoral: coast, shore, by the sea, beach, islands; [3] aerial: air, clouds, sky

Miscellaneous outdoors, incl. [1] natural: leaves; cliffs; dust; clouds of sand; [2] artefactual: paths; roads; highways; railways; bridges

Urban location, incl. [1] general: city, town; concrete jungle; large town; small town; [2] thoroughfares: alley; street; market place; public square; [3] quarters: suburbs; chic areas; slums; red light district; [4] urban buildings and locations: factories; skyscrapers;

supermarkets; airports; [5] traffic; [6] miscellaneous: street lights, neon; outdoor adverts; asphalt, concrete

Sociocultural location, incl. [1] upper, rich, snob, royal, etc; [2] middle class; [3] lower, poor people, working class

Geographical and/or ethnic location, including [1] Northwestern Europe; [2] Mediterranean Europe; [3] Eastern Europe and the Balkans; [4] Near and Middle East; [5] Indian subcontinent; [6] East Asia; [7] North America; [8] Central and South America; [9] Oceania; [10] other regions

Historical location, incl. [1] generally in the past: old days, historical; [2] prehistoric; [3] ancient; [4] medieval; [5] renaissance, baroque; [6] 18th century; [7] 19th century; [8] decades in 20th century; [9] contemporary, modern; [10] future time, tomorrow's world

Weather, season, time of day, incl. [1] weather: fine, nice weather, sunshine; sunrise, sunset; moon(light); fog, haze; storms; wind, breeze; rain; ice, snow; [2] season: spring; summer; autumn; winter; [3] time of day: dawn, early morning; daytime; evening, twilight; night

Synoptic and episodic time

Synoptic time, i.e. relation to formal time position *outside* an imagined narrative. This category includes [1] beginning: overture, start, main titles, introduction; [2] middle: scene, episode, break in action, interlude; [3] end: finale, final scene, dénouement, end titles

Episodic time, i.e. relation to events *within* an imagined narrative, including [1] future: about to (happen), going to (do), not yet, being announced, soon, (something) is expected, consequences, leading to, etc; [2] present: at this moment, has just started; switches to; after which; changes mood; meanwhile, etc; [3] past: has just ..., finally, ...has happened; after a long time; used to (do), etc.

Explicit space-time relations, movements and acts

This section contains references to the relative positions of objects or beings, their type and speed of movement, and their type and nature of action or interaction.

General: movement; actions

Essive relations, incl. [1] inessive: among/in, between, in middle of; [2] superessive: above, overhead, on high; [3] subessive: below, underneath; [4] retroessive: behind; [5] preessive: in front; [6] circumessive: around

Velocity, simultaneity, incl. [1] low speed: slow, gradual; covering a long time [2] high speed: fast, quick; sudden; momentary, immediate; [3] simultaneity: at same time

Non-specified movement, specific direction, i.e. connotations specifying the direction of objects or beings in relation to a subjective camera or microphone within the imagined narrative, without specifying other aspects of the movement. This category includes [1] adventive: approach, arrive, coming; enter, appear; from elsewhere; meet, towards each other; return, come home; [2] exitive: en route to, going to ...; find, explore, search; away from (here), depart, escape, set off; goodbye, part, separate, leave; [3] transitional: pass, past (by); along, forwards, between, through; [4] ascending: rise, from below; open up, open out; [5] descending: fall, sink, from above; [6] circular: circling, enveloping, gather round

Oscillatory movement, i.e. relatively constant and recurrent movement round and round, to and fro, etc., without any specified single direction of the object moving in such a way. This category includes [1] curvilinear: rolling, undulating; wafting, waving, billowing, swaying; round and round, spinning, whirling; [2] tremulous: trembling; glit-

tering, quivering, sparkling; babbling; flickering, fluttering, trickling; bustling, rustling, busy; [3] pulsating; throbbing; flashing; again and again

Prolapsual or volitative movement in unspecified direction, i.e. relatively frictionless movement associated with slipping, sliding, gliding, floating, etc. in air, gas or liquid. This category includes: [1] flowing, running (of liquid); [2] floating, gliding, slipping (by), sliding; [3] flying, soaring, hovering; [4] sailing

Other specific movement in unspecified direction, e.g. [1] constant: gleaming, shining; [2] eruptive, tumescent, torrential: brimming over, bursting forth; gushing, surging, rearing; breaking out; [3] pedestrian: on foot, walking, wandering, strolling; running; marching; trotting, galloping; [4] vehicular: travel, transport; cruising, cycling, driving (vehicle); horse riding; canoeing, rowing; [5] ludic: playing music/games; dancing; hop, skip, jump; swimming, skiing, skating

Stationary acts, e.g. [1] motionless: waiting; [2] quiescent: resting, sleeping; [3] sedentary: sitting; [4] upright: standing, at attention

Interactive, i.e. acts and movements involving one or more beings or objects, or involving the reflexive activity of one being, for example [1] appreciative, affectionate, celebratory: 'I love you'; caress, embrace; kiss, make love; smile; laugh; celebrate, salute; [2] conflictive, coercive, contusive: conflict; against, beat hit; break, crash, pierce, smash; attack, fight, struggle; hassle, provoke, terrorise; hurt, wound; shoot; kill, murder; conquer; [3] cogitative, intentional: think, ponder, wonder; dream, marvel; long for, want to; decide, plan, plot, solve; look back, recognise, remember, recall; trying to; console, reconcile; misunderstand; [4] transferential: drag, drive, pull, push; bring, fetch, take; chase, follow; fill up; [5] symbolic communication: show, expose; gesticulate, wave (hand); look, glance, see, watch; ask, discuss, speak, listen, talk; whisper; groan, moan; cry, mourn, sigh; growl, shout; sing, hum; scream, yell; plead; touch; read; [6] culinary: eat, drink, cook, fry

Media immanence

This section contains references to the qualities of the music heard, or to other musical practices resembling the music heard, or to visual and/or verbal media phenomena connoted by the music, or the envisaged audience of the music and/or of its imagined audiovisual accompaniment.

Musical references, including [1] genres and styles: film music, classical music, ballet, opera, jazz, heavy metal, Muzak, etc; [2] musical instruments: brass band, rock band, symphony orchestra, clarinet, grand piano; [3] musicians: bass player, pianist, Guns and Roses, Beethoven; [4] concepts of musical structure: tune, rhythm, difficult chords, minor key; [5] sound treatment parameters: reverb, echo, delay, etc; [6] named musical works (IOCM)

Non-musical references, including [1] cinematic: film version; Hollywood; silent movie; Hitchcock; *The Godfather*; [2] TV: TV version; MTV; *The Simpsons*, etc; [3] adverts and video; [4] radio: commercial radio, pirate radio, BBC Radio One, etc; [5] verbal media: books, periodicals, novels, poetry, theatre

Target groups, e.g. [1] for children, for young people; [2] family entertainment; [3] for the over-sixties

Non-music genres, e.g. [1] cartoon, farce, comedy, pastiche; [2] detective, spy, film noir; [3] education programme, documentary; [4] melodrama, soap opera, family saga; [5] love story, romance; [6] thriller, mystery, horror; science fiction; [7] Western

Visual production techniques, e.g. close-up; zoom-in, zoom-out; aerial shot; cut-in; studio shot; fast cuts; (visual) pan, etc.

Production origin, incl. [1] nationality of production: USA, Sweden, Australia, Italy, etc; [2] production vintage: 1940s production, very old film, recent production, etc.

Evaluative comments

This section contains listener opinions of the music heard and of its probable functions

Good taste, incl. enjoyable, good tune, well made, well produced

Bad taste, incl. [1] bad, awful, terrible, boring; [2] unconvincing, shoddy, contrived, badly produced, cheap, trite; [3] impersonal, innocuous; [4] nonsensical, no content, ludicrous; [5] pompous, overproduced; [6] cloying, tacky, syrupy

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