

Part I

Music and Language

Introduction

This section begins with an overview from Harold Powers, who summarizes three fields of study that embrace what he calls the metaphor of music as language: musical semantics, phonology and musical shapes, and musicology and linguistics. The reader is also encouraged to peruse three more recent articles by Powers (1995, 1996, and 1998) that deal with meaning more particularly.

The excerpt that follows is from a book cited by Powers, *The Language of Music* (1959), in which Deryck Cooke attempted to show that Western composers had long associated the same melodic phrases or degrees of major and minor scales with the same emotions. He was at pains, later, to stress that he had used the term 'language' not to suggest that music functioned like a verbal language, but to describe 'a means of communication' (1974: 215). He also claimed that he had not been trying to explain exactly *what* music communicated, but to show that music 'did express something which could be loosely characterised as "emotion" or "feeling"' (216). Cooke wanted to prove 'that music was expressive of emotion' (219); thus, his project is one of humanist idealism, an attempt to show how a transcendent human nature expresses itself in music.

His later position was not significantly different; it was summed up by a Schopenhauerian quotation from Wagner to the effect that music does not express this or that particular passion (for example, love or longing) but passion in itself, and in a way inexpressible in any other language. Cooke does not consider what effect the cultural and historical experience of listeners may have on the way they interpret music: his schema for communication is straightforward: Composer → Composition → Listener. His work, nevertheless, can be used to fuel an argument that music is a symbolic order within which meanings are social and conventional. This could then lead to a poststructuralist argument that meaning in music is not the expression of an inner essence but discursively constructed (cf. the differing meanings of the tritone in two differing musical styles mentioned in the Introduction to this reader—Cooke never considers that musical meanings might be arbitrary, resting upon knowledge of a particular style). Some aspects of Cooke's work are not too remote from Frits Noske's discussion of semiotic devices in *The Signifier and the Signified* (1977)—see, for example, chapter 8, 'The Musical Figure of Death'. Noske, however, stresses the importance of convention in sign formation, rather than implying that it originates from a universal human essence.

Leonard Bernstein was invited to give the Charles Eliot Norton Lectures at Harvard in 1973. His third lecture, from which the next excerpt is taken, was on

musical semantics. Until then, making links between Chomsky's ideas of transformational grammar and musical processes was the concern of a few scholars only, and credit is due to Bernstein for awakening a much wider interest in the subject. In this lecture, he considers analogies between nouns modified by adjectives and melody modified by harmony, and discusses the musical use of rhetorical devices such as antithesis, alliteration, anaphora, and chiasmus. His main concern, however, is to demonstrate that the linguistic concept of transformation can be applied to music, and that musical transformations can be understood as metaphors: 'A piece of music is a constant metamorphosis of given material, involving such transformational operations as inversion, augmentation, retrograde, diminution, modulation, the opposition of consonance and dissonance, the various forms of imitation (such as canon and fugue), the varieties of rhythm and meter, harmonic progressions, coloristic and dynamic changes, plus the infinite interrelations of all these with one another. These *are* the meanings of music. And that is as close as I can come to a definition of musical semantics' (1976: 153).

Yet, it may be argued that in music a distinction ought to be made between transformation and variation, reserving the former as a term for indicating radical changes in musical character, and the latter to suggest embellishment or changes in configuration that relate more closely to the original material. Bernstein's snappy definition of metaphor—'This-is-that'—is made to apply whether the 'transformation' is similar to or different from the character of the original. It may be wondered, also, whether there is not room for a theory of musical metonymy (identification with similarity) as well as musical metaphor (identification with difference). Do the fragments of introductory material that appear in the main body of the first movement of Beethoven's 'Pathétique' Sonata constitute, perhaps, a musical equivalent of a synecdoche, a part standing for a whole (as in 'a familiar face appeared at the meeting')? One of Bernstein's difficulties is that he conceives music as a metalanguage, whereas what he is actually doing is using linguistic discourse as a metalanguage for and about music. A more sweeping objection to Bernstein's method would be made by Deleuze and Guattari, however, who contend that we should think of music as a 'superlinear system, a rhizome instead of a tree' (1988: 95).

It should be noted that Bernstein marks his distance from structural linguistics by introducing a distinction between meaning and expression, speaking of the latter in terms that suggest a human essence lying behind the meaning ('expressing something'). Moreover, faced with his claim that if it were possible to collect, compare, and find consistency in sample 'feelings' from a concert audience '*then* we'd know something', Pierre Bourdieu would argue that all we would know is that the audience possessed similar cultural capital (see 1984: 11–18).

In the earlier part of the article from which the next excerpt is taken, Patricia Tunstall describes structuralism as a modern reformulation of Cartesian and Kantian theories of universal cognitive properties, the ultimate goal of the structuralist project being to uncover the formal properties common to all human minds. She distinguishes two models of structural analysis in musicology, the one semiotic and the other anthropological. The former is characterized by 'the assumption that artistic works are not so much acts of free and

spontaneous individual creation as they are assemblages of socially meaningful signs' (1979: 57). The latter is influenced by Claude Lévi-Strauss's 'premise that music and myth are analogous because both are intelligible but untranslatable, and while each takes specific forms in specific cultures, both have fundamental structural characteristics that particularly illuminate cognitive principles of order' (57).

In the given excerpt, she advances the idea that musical structure may be 'an unmediated reflection of the formal operations of cognition'; but this raises questions for a poststructuralist about the possibility of musical choices being made for ideological reasons. For example, a desire to signify distinctions of gender or ethnicity in music may have a structurally disruptive impact or result in particular structural ramifications. It is also to be wondered whether music is quite as free of semantic associations as is suggested here.

According to Lévi-Strauss, music involves two levels of articulation. An example of the first level would be the major scale: Lévi-Strauss remarks that a scale has a hierarchical structure (1986: 22). An example of the second level would be the use of this scale for melody and harmony, subjecting it to rhythm, etc., and creating a musical form. This implies that there can be no *natural* expression in music, since 'culture is already present' (22) before the secondary code, containing the significant elements, is reached. Yet Lévi-Strauss believed that music, like myths, brought you face to face with 'conscious approximations . . . of inevitably unconscious truths' (18). Though Lévi-Strauss usefully identifies primary and secondary levels of articulation in tonal music, he has been accused by Umberto Eco of proposing the tonal system as a 'natural meta-language' particularly in the context of Lévi-Strauss's criticism of atonal music. Eco points out that there are systems without double articulation and systems with interchangeable levels of articulation, and comments: 'To confuse the laws of tonal music with the laws of music *tout court* is rather like believing that if one has a pack of French playing cards (52 plus one or two jokers), the only possible combinations among them are those established by bridge' (1977: 230).

The impact of Lévi-Strauss's structuralism is evident in the writings of Gilbert Chase, John Blacking, and Steven Feld, among others. For example, Steven Feld declares his book *Sound and Sentiment* to be 'an ethnographic study of sound as a cultural system, that is, a system of symbols, among the Kaluli people of Papua New Guinea' (1982: 3). In his book *Myth and Music*, Eero Tarasti makes use of Lévi-Strauss's theory about mythical thought and A. J. Greimas's method of semeianalysis to analyse what he regards as musical reconstructions of myth. He labels the principal types of these reconstructions the 'hero-mythical', the 'nature-mythical', and the 'magic-mythical'. The given excerpt follows his initial movement from Lévi-Strauss's aesthetics of myth to the aesthetics of music. In his later work, especially *A Theory of Musical Semiotics*, Eero Tarasti has contributed perhaps the most sophisticated theoretical defence to date of the idea that music has an inner logic accessible to musical semiotics, and that this logic exists as a universal in all human practices. Some of those who follow this path are more concerned with structural analysis than the interpretation of socio-cultural meaning: Raymond Monelle, for example, clings to a notion that 'pure instrumental music' exists 'without any associative meaning', the analysis of

which he intends 'as a demonstration of theory, not as providing critical insight' (1991: 73–4).

The Gino Stefani piece that follows comes from a special issue of *Semiotica*, entitled 'Semiotics of Music', with Eero Tarasti as guest editor. The same issue contains an insightful article by Philip Tagg: 'Musicology and the Semiotics of Popular Music'. Tagg has pioneered a hermeneutic-semiological analytic method for popular music, outlined in 'Analysing Popular Music: Theory, Method and Practice' (1982). Stefani's work has been selected to illustrate developments in the semiology of music, since access to Jean-Jacques Nattiez's work is now readily available with the publication of *Music and Discourse* (1990).

An enormous debt is owed to Carolyn Abbate for her translating of these writings of Jean-Jacques Nattiez, which are essential reading for anyone interested in musical semiotics. Abbate's own work, like Tarasti's, proves very resistant to being served up in small portions, but her arguments (1991) concerning musical narrativity and the idea of 'voices' in music have had considerable impact. Yet, her desire to protect the 'physical and sensual force' of music's 'voices' is not, despite her own doubts, incompatible with poststructuralist theory. A poststructuralist would readily acknowledge that such 'voices' are indeed perceptible, but go on to argue that they are produced as an effect of the music and/or performance, and not that they exist as a presence within the music.

Finally, mention should be made of the stimulating contribution to debates about music and language provided in Lawrence Kramer's productive fusing of J. L. Austin's speech act theory and the critique it drew from Jacques Derrida (see Kramer 1990: 6–9 and 1995: 10–12). Kramer demonstrates convincingly that language does not have sole claim to communicative acts. For example, a musical 'expressive act' can comfortably fit into the description of a communicative act that seeks to affect a flow of events (has *illocutionary force*) and yet is capable of functioning in new contexts (is *iterable*).

An Overview

HAROLD S. POWERS

The metaphor of music as language has three principal aspects, depending upon whether the focus is on semantics, on phonology, or on syntax and grammar.

Musical Semantics

First of all, music is often said to express or evoke something that might have been conveyed verbally. In certain restricted cases, like drum or whistle languages, something like music is even used as a referential coded substitute for language; the Tepehua 'thought' songs described by Boilès (1967) seem to be the extreme case. But many musical cultures recognize conventionally coded induced associations of specific musical entities with persons, events, or things, in real life as well as in ritual or drama. In the most familiar cases the something that might have been conveyed verbally is emotive/expressive rather than cognitive/ostensive, and sometimes a more or less systematic doctrine of musical affect or musical ethos is found. In high cultures musical entities are often systematically correlated with non-musical phenomena, many of which may have strong expressive associations of their own. In some of the medieval North Indian systems of melodic types six superordinate types are correlated with the six seasons, which have strong affective connotations. In some sources of medieval European theory a similar correspondence is found between the four Galenic humours, the four Aristotelian elements, and the four pairs of plainsong modes (Gerbert 1784: 218–19). Of course the linguistic metaphor need not be invoked in connection with musical ethos, but it often is. Individual affects, or whole classes of affect, are ascribed to musical entities like motives or tunes, or to musical features like rhythms or intervals, and these features or entities are then said to be units of discourse in a musical language of pure expression. The late Deryck Cooke's many times reprinted *The Language of Music* (1959) is an extended application of this aspect of the metaphor to Western music of the fifteenth to twentieth centuries.

Most musicologists, however, are a little embarrassed by the notion that music is a language whose message is something other than itself. For instance, I confess to some discomfort over attempts by Keil and Keil (1966) and by Deva and Virmani (1968, 1974) to use the Osgood/Suci/Tannenbaum 'semantic differential' method, with all its inductive paraphernalia of questionnaire

and factor analysis, in order directly to find or confirm affective meaning to one or another individual North Indian *rāga*. There are simply too many uncontrollable variables. Not evaluative scales of good–bad, hard–soft, and active–passive, but rather paradigmatic scales of compatible–incompatible, same–different, and superordinate–subordinate seem to me the fundamental elements of a semantics of North Indian classical music, as I tried to show in ‘The Structure of Musical Meaning: A View from Banaras’ (1977). Musical semantics may establish systematic relationships of meaning in musical discourse, but musical-verbal dictionaries of specific affects must be compiled ad hoc from exterior non-musical contexts. Those contexts may be verbal text or dramatic situation (as in Cooke 1959), or any other cultural (or even natural) event. The experience and expectations of fully enculturated listeners might well serve as a source too, though only one of many.

In ‘Language and Music: Areas for Cooperation’ (1963: 28), William Bright recognized that

it is widely felt that music, like language, conveys something—that a musical performance, like a linguistic message, contains something more than the physical properties of the individual sounds which make it up.

But Bright too seems to have regarded the ‘content’ of music as merely a function of what he called its ‘endosemantic’ structure (pp. 28–9). For Bright (p. 26),

[the] two main types of link between language and music [are] their mutual influence in singing, and their structural similarity.

These are what I referred to at the outset as the phonological and the grammatical aspects of the music as language metaphor.

Phonological and Musical Shapes

Bright’s own instance for the direct influence of linguistic phonology on musical sound was taken from South Indian classical music. He pointed out that there is a consistent pattern of correspondence between long and short syllables in a text and longer and shorter durations in its musical setting, and quoted a couple of lines from a Telugu *padam* to illustrate. I can confirm that the correspondences are exactly so in principle, though very much more complex in some circumstances. In Telugu compositions in South Indian classical *rāga*-s (melodic types) the relationships between text rhythms and musical rhythms are multiplex and heterogeneous, yet all musical rhythms can be derived in one way or another from Telugu prosody (itself multiplex and heterogeneous, incorporating both Dravidian and Sanskrit prosodic features at all levels, from syllable and foot on to stanza and beyond).

Of course, direct connection between phonological features in a language and basic features in the music associated with that language hardly constitutes a metaphor. But to the extent that the vocal music of a culture is the model for instrumental music as well, the indirect influence of language–music connection may be easily discernible in musical practices having no connection

with text. It is patently the case that rhythmic patterns in modern South Indian instrumental music are largely an outgrowth of the vocal repertory, which until recently has dominated South Indian practice. But this is in large part true for North Indian instrumental music as well, and not just in those very recent ‘*gāyakī aṅg*’ fashions modelling their art on the vocal *khayāl* style. The oldest traditions of Hindustani solo instrumental music are for plucked strings, and the performance styles of the *sitār* seem originally to have been essentially independent of vocal influence, as in most Middle Eastern plucked string styles today. But the plucking patterns—the *mizrāb*—of all traditional genres, improvised and memorized alike, now reflect the quantitative relation of long and short syllables of language in varying degrees. Except in the case of the *jhālā*, in fact, the contrast of long and short is very much more evident than the motor accents of hand and finger movement so characteristic of Middle Eastern plucked string playing, such as Persian *chār-meẓrāb*. *Sitār* playing has become ‘Indianized’. Onto an original quasi-Middle Eastern accentual style in rhythm have been grafted quantitative features. These appear most obviously in the several varieties of *joḍ*, which seems to have come in from vocal *nom-tom* via the *bīn*.

On a larger and more abstract scale too one can discern the connection of language forms and musical design in South Asia. Modern Indian performance practice in general is in considerable part connected with the mostly devotional post-classical literature of later Sanskrit poetry (beginning with the *Gītā Govinda*) and of the ‘medieval’ and modern vernaculars. This poetry is characterized by refrain and stanza design, quite unlike the older classical Sanskrit poetry in which every quatrain is an independent entity. Furthermore, the poems are normally designed *en rondeau* semantically, and often even grammatically, in that the beginning of the independent refrain comes as a logical or even syntactic continuation and completion of the last words of the stanza. Finally, there is usually a matching rhyme of stanzas with refrain, sometimes even the matching of a word or two; this ensures that not only the end of the stanza but also the end of the refrain itself will flow easily back into the beginning, for the repetitions as well as for the returns of the refrain.

These three characteristic textual features have exact musical correspondences, not only in performance but in the abstract background structures as well. As to performance, first, there is a fundamental part in contrast with a second responding part, musically as well as verbally. There is also continuous leadback, melodically as well as (often) syntactically, from the endings of both principal part and responding part to the beginning of the principal part. Finally, at the end of each of the two parts in the majority of cases there are sonically parallel passages, based on syllabic rhyming or identity in the verbal domain and on equivalence or identity of melodic contour in the melodic domain.

Here again, formal parallels between tune and text in themselves hardly constitute a metaphor. But the three features that correspond—contrast of two parts, use of leadback connections, and musical rhyme—mark not only the characteristic shape of performance but are also built into the still more abstract shape of the underlying musical substance. Almost every classical

rāga—that is, melodic type—is itself structured in terms of these features: first, a clear contrast of two main registers, each defined thematically as well; second, linear connections at the boundaries from each register into the next, and especially in descent; third, parallelism between the nuclear motivic contours and/or intervallic contents of each register.

[. . .]

Musicology and Linguistics

Parallels between the formal patterns of sound and structure in text and music, whether concrete or abstract, are of course not unique to Indian music. I have myself used such structural parallels in dealing with the influences of word rhythm and textural form in seventeenth–eighteenth-century music composed to Italian texts (see especially 1962: 82–90, and 1968: 280–6, 308–9). Others will readily find instances from other areas, from Paris to Peking. It is an interesting area for study, with more subtleties than one might think. But nowadays the main focus of interest in the language–music connection is in the putative abstract structural similarities of language and music. Many have been encouraged to think that analytical models of linguistic structure may be heuristically relevant for the analysis of musical structure.

The new literature of linguistics-based analysis of music is growing fast. Analyses and programmatic theories have come out of both the Western theoretical and the ethnomusicological traditions, and even more significantly, some musically competent linguists have interested themselves professionally in the subject. It is in this structurally oriented literature that the most interesting insights on the language–music connection are to be found, and at the same time the most faddish foolishness. The harsh criticisms of the foolishness that make up the bulk of Steven Feld's 1974 article 'Linguistic Models in Ethnomusicology' seem to me thoroughly justified. But Feld seems not to have noticed the real insights available to musicology from a knowledge of the study of languages, or at any rate not to have valued them very much, because of his own strong theoretical bias against any consideration of 'music sound' outside of its cultural context. This bias comes from Merriam and Blacking (as expressed for instance in Merriam 1964: 26–32, or Blacking 1973: 25–7) and given the kind of parochial notions they were reacting against, the bias is a healthy one. But they overreact. It is of course true that (like language) no music can exist without people who make it. It is also true that (like some uses of language) some music may sometimes be more efficiently interpreted by discussing it as though it did have a life of its own. When and to what extent any particular music ought to be interpreted out of context depends in part, as it does in the study of linguistic phenomena, on the purpose of the investigation, and in part it depends on the role of that music in the culture in question—and of course this last question cannot be resolved by music-analytical methods of whatever origin. Some musics can be managed apart from cultural context more readily than others, Western and Indian art musics being two notorious examples, while other musics are so intimately tied in with a cultural or even material context as to be incomprehensible except in that context.

Ethnomusicologists need not therefore denigrate abstract musical analysis merely on principle, even abstract musical analysis inspired by linguistic models. Sociolinguists are not throwing out abstract linguistic analysis and abstract models, they are merely incorporating them in their broader field (Labov 1972: 186–7, 201–2).

To whatever extent methodological and theoretical imbalances in the new literature on music as language arise from insufficient attention to cultural factors in the societies being investigated, equal or greater imbalances arise from inattention to cultural factors in the society of the investigators. In the sequel I propose to illustrate three broad areas in which the reach of the new literature seems to be exceeding its grasp.

First, some of the more enthusiastic proponents of linguistics-based musical analysis have not seemed very familiar with the analytical musicology they find inadequate. It may be, as some have suggested, that musical analysis unaccountably or perversely lags behind other disciplines. It may also be that scholars working out of the by no means negligible existing traditions have long been dealing with many of the same kinds of problems as structural linguists, only in a more abstruse and intractable domain, where the linguist's handy tool of 'meaning', often used for rough work in the field if seldom acknowledged in fine print, has not been available.

Second, there is paradoxically little comparative basis for the new linguistics-based music-analytical literature, even though much of that literature comes from ethnomusicologists. Comparisons in ethnomusicology are seldom really cross-culturally multilateral but rather tend to be bilateral, and in a curious way. 'Ethnic' musics are matched one at a time against theoretical models derived from various sources: field experience with one of them, anthropological theory, linguistics, or the investigator's notions of 'Western' music or 'standard' music theory, in varying proportions. But modern synchronic linguistics did not grow out of bilateral comparisons of a language with a model, or of an alien language with some aspect of the investigator's language. The now enormously influential *Cours de linguistique générale* (1916) of Ferdinand de Saussure, posthumously compiled by two of his students from their lecture notes and those of other students, is a seminal work of European structural linguistics and semiology. Saussure began his career, however, with the at the time equally influential *Mémoires sur le système primitif des voyelles dans les langues indoeuropéennes* (1879), a landmark work of comparative linguistics in the *Junggrammatiker* vein, and what little else Saussure actually published in his own lifetime was also in this field. Modern linguistics began with multilateral comparisons of languages in families, from Indo-European to Athabaskan, and their individually described grammars were matched not against borrowed models but against each other. A theoretical musicology inspired by linguistics could do worse than look to the history of linguistics in this regard, as well as to its latest fashions.

Third, the new literature seems uninterested in older traditions of language models for musical analysis. Yet those traditions are of value not only in their own right but even more because they have left significant residues in our modern notions of what constitutes musical analysis and even music itself. As

is well known, there is not always agreement about what 'music' is and about what is 'music', not just across cultures but even within them. The very notion that music is something that can be segmented and analysed, and the traditional terminology for doing so, have deep and particular roots in historical language models for musical analysis that are peculiar to Western European culture.

On Musical Inspiration

DERYCK COOKE

How does a musical work originate in the composer's mind? Normally as a *conception*. This can arise in four main ways. (1) From a *literary text* which the composer feels an urge to set to music (masses, anthems, songs, some operas and oratorios). (2) From a '*literary*' *idea* which the composer feels an urge to use either as a basis for a vocal and instrumental composition (some operas and oratorios) or as a programme for a purely instrumental work (symphonic poems, and programme-symphonies like Berlioz's *Symphonie Fantastique*). (3) From an *ideal or concept* which the composer feels drawn to use as the basis of a purely instrumental work without a specific programme (Beethoven's 'Eroica' Symphony, or Carl Nielsen's 'Inextinguishable'). (4) From a '*purely musical*' *impulse*—the desire, say, to write 'a great symphony' (Schubert's Ninth).

What motivates a conception? Why does a composer suddenly feel an impulse to write a work founded on a certain text, programme, idea, or musical genre? Something more than a passing whim, surely: it must be that he has something to say, whether he knows it or not. In other words, a certain complex of emotions must have been seeking an outlet, a means of expression, of communication to others; a state of affairs of which the composer may have been quite aware, or only half aware, or completely unaware. The moment of conception is the moment in which the nature of the complex of emotions becomes entirely clear to his conscious mind—except in the case of a 'purely musical' impulse: here the emotional stimulus of the conception often remains almost entirely unconscious right through the whole process of composition, and beyond it, since it is finding expression in the inexplicit language of music, which is emotionally unintelligible to the conscious minds of its most powerful exponents.

And what is meant by a conception? Usually a vague sense of the nature, mood, and shape of the work to be composed, with the separate parts and the actual material as yet unrealized, or only partly realized. Examples are Beethoven's conception of a great symphony in honour of Napoleon which resulted in the 'Eroica', and Wagner's decision to make Siegfried and the Nibelung myth the subject of a new type of opera—music-drama—which materialized in *The Ring*.

What is the next stage in the act of musical creation? The event known as *inspiration*—the sudden materialization of a musical idea in the composer's

mind. It has been called the 'next' stage, though it may in fact precede or accompany the conception. An example of the former is the *Hebrides Overture* of Mendelssohn. Writing home (7 August 1829) during his Scottish tour, he said: 'In order to make you understand how extraordinarily the Hebrides affected me, the following came into my head there'; and he noted down the opening theme of the work in his letter. The inspiration came first, then; but the conception (that of a 'seascape' overture) must have followed close. Conception and inspiration can be simultaneous: when Schubert read Goethe's poem 'The Erl King' and sat straight down and set it to music then and there, he must have experienced the conception (a tone-painting of a gallop through a stormy night) and the inspiration (the drumming accompaniment and expressive vocal line) more or less as a single mental event. But frequently, inspiration takes its time in following the initial conception. William Byrd and Hugo Wolf pondered over words, the latter sometimes waiting for years for inspiration to arrive; Wagner brooded deep and long over mythology; Haydn, in his later years, prayed; Beethoven wrestled; César Franck played other men's music; Stravinsky sits at the piano and probes. Ultimately, however, what eventually turns up, whether quickly or slowly, whether 'pure' or in connection with words and ideas, is musical inspiration.

And what is this 'inspiration'? Something which, in Mendelssohn's words, 'comes into our heads'—and apparently quite inexplicably. In Aaron Copland's words: 'The composer starts with his theme; and the theme is a gift from heaven. He doesn't know where it comes from—has no control over it. It comes almost like automatic writing' (*What to Listen for in Music*, ch. 3). William Byrd has described exactly how it happens, in the preface to the 1610 edition of his *Gradualia*, in connection with the setting of religious words: 'As I have learned by experience, there is a secret hidden power in the texts themselves; so that to one who ponders on things divine and turns them over carefully and seriously in his mind, in some way, I cannot tell how, the aptest numbers occur, as if of their own accord . . . '.

But inspiration does not come from nowhere: nothing can come out of nothing. Music as we know it could not be created at all but for the existence of a long tradition of past music; and every composer draws continually on his experience of this tradition—which cannot be anywhere else, for him, but in his own *unconscious mind*. In the composer's unconscious is stored all the music he has ever heard, studied, or written himself; some of it, to use the Freudian term, is 'pre-conscious', i.e. more or less accessible to the conscious faculty of memory, but most of it is forgotten, or half-forgotten. And it is from this storehouse that inspiration must come: any new musical idea which suddenly 'comes into the composer's head' must be created in some way or other out of his experience of the music of his predecessors and contemporaries (and of his own music), which belongs to the vast mass of life-experience retained in his unconscious. In other words, what we call 'inspiration' must be *an unconscious creative re-shaping of already existing materials in the tradition*.

This unconscious process has always been regarded as an ultimate mystery, but our identification of the basic terms of musical language . . . offers us a

chance of coming to grips with the problem at last. For in the music examples [in an earlier chapter], we have a mass of detailed evidence to support the hypothesis that inspiration is an unconscious re-shaping of already existing material: all the 'inspirations' assembled there have quite obviously arisen out of the various composers' experience of the music of their predecessors. Our hypothesis is, in fact, already confirmed in one particular field—that of *melody*—and we may use this fact as a starting-point for our investigation of the problem of inspiration. No doubt the unconscious process of re-shaping must also occur in the fields of harmony and rhythm; but let us ignore these for the moment, and concentrate entirely on the melodic element, since we have the evidence at our disposal, and since melody, as we have tried to show, is the fundamental basis of musical language. We can begin from this undeniable fact: that the 'basic term' type of inspiration . . . is clearly a matter of reproducing certain well-worn melodic *formulae* in new guises.

At first sight, this would seem to be a bewildering state of affairs. Many of the inspirations . . . are of the highest order; yet how can there be anything 'inspired' about a process which merely reproduces, in slightly different form, something which has already been used many times before? How are we to reconcile this constant reliance on the same melodic material with the indisputable fact of the creative vitality of 'inspiration'? Before we can solve this problem, we must first answer the preliminary question . . . how is it that composers do return again and again to the same few scraps of melody?

There can be only three possible explanations of the fact that a handful of melodic phrases have been used over and over again: plagiarism, unconscious 'cribbing', and coincidence. The first of these may be ruled out straightaway since, apart from isolated examples like Handel and Bononcini, composers have not been guilty of intentionally stealing other men's themes as a basis for their own works; and in any case, we are concerned only with unintentional, unconscious resemblances.

Unconscious cribbing seems a fairly obvious explanation in certain cases, where the 'inspiration' is clearly a reproduction of another composer's idea in easily recognizable form: here 'inspiration' functions simply as the sudden return to consciousness of an actual theme by another composer, once heard, since forgotten or half-forgotten, and now no longer recognized when it reappears. How easily this can happen was experienced by Manuel de Falla. The opening theme of *Nights in the Gardens of Spain*, according to the biography by Pahissa, 'came to Falla spontaneously, without his having any idea that it might have originated in his subconscious, yet one day, he met Amadeo Vives, who told him that, oddly enough, he had written a *zarzuela* which began in exactly the same way. This coincidence troubled Falla until the explanation suddenly came to him—he and Vives lived on two different floors of the same house in the Calle Serrano in Madrid. On the pavement below, an aged blind violinist had every day come and played these notes on a badly tuned violin. Constant repetition had fixed the notes in their minds so that, without realizing it, they had both written them as their own'.

Similarly Wagner, rehearsing Act 3 of *The Mastersingers* one day, and arriving

at Hans Sachs's words 'Mein Freund, in holder Jugendzeit', suddenly realized, and pointed out with a smile, that the melody was straight out of Nicolai's *The Merry Wives of Windsor*. And others have noticed that in *The Ring*, the Rhinemaidens' motive appears to be from Mendelssohn's *Melusine* Overture, the theme accompanying Sieglinde's dream from Liszt's 'Faust' Symphony, and the Nibelung motive from Schubert's 'Death and the Maiden' Quartet—but here we run up against an obstacle. Is the last of these three examples in fact a case of 'unconscious cribbing'? We are all too apt to jump to conclusions in these matters. It is not certain that Wagner ever heard any of Schubert's chamber music; this may be just as much a coincidence as is the resemblance between the tragic themes of *Parsifal* and Verdi's *Otello*.

When it comes to it, we shall find that any attempt to make a wholesale attribution of musical resemblances to unconscious cribbing will take us on to shaky ground, even when the composer points it out himself. Returning to the melody in *The Mastersingers* which Wagner recognized as belonging to *The Merry Wives of Windsor*, what is it in reality but one further variation of the sequence of falling fourths (major 6–3–5–2–4) which pervades the whole opera in different forms, and which originally appears in the Overture, the first part of the work to be composed, in a form quite unlike Nicolai's tune? Again, the Rhinemaidens' motive, when it first enters in *The Rhinegold*, acts as a derivative of the opening motive of the whole work, which is quite different from the *Melusine* melody. There can be no simple explanation of examples like these. In any case, unconscious cribbing can hardly be the explanation of the many resemblances.

The answer to our problem, then, can only be *coincidence*—which would seem to be no answer at all, unless we are prepared to believe that the world is ruled by blind chance. Yet it is in fact the correct and perfectly satisfying answer, if we despoil the word of its acquired connotation of chance, and understand it in its simple generic sense of a 'happening together' or a 'happening in the same way'. For it is clear . . . that, in tonal music, things just do happen over and over again in the same way, melodically—but for a very good reason. There are only twelve notes in the scale; and a tonal composer intent on expressing a certain emotion is limited to fewer; and there is not an infinite number of shapes into which he can weave the few notes at his disposal—in fact they will often fall quite naturally into those familiar patterns which we have called the basic terms of musical vocabulary. Given the structure of the scale, with its tonic and dominant, and that of the triad, with its third, these patterns were inevitable from the beginning: they might be described as *propensities* to group certain tonal tensions together in certain ways, which crystallized into *habitual propensities*, and were handed down unconsciously as elements of the musical heritage of Western Europe. Some of them, such as the 'wailing' minor 6–5, and the 'innocent' pentatonic (major) 1–3–5–6–5, must date back into prehistory; others, such as those involving the augmented fourth or the chromatic scale, are obviously of later date, and the process of their growth into habitual propensities could no doubt be accurately plotted by painstaking research into the history of expressive idioms in music.

It does not seem fanciful to suppose that, in the tonal composer's uncon-

scious, a state of affairs exists which can be described metaphorically in the following way. (1) Memories of the innumerable expressive uses of each of the *tonal tensions* must attach themselves together in groups, by the association of ideas (or, rather, by the association of feelings); and each group of this kind must be attached to a kindred group of memories of sense-experiences, life-experiences, and literary and artistic experiences, also by the association of feelings. (2) These composite groups must contain within them certain sub-groups, each attached to a specific melodic use of the tonal tension concerned, i.e. to one of the *basic terms* of musical vocabulary: for example, of the vast number of associations connected with the major sixth, many will be attached to the major 6–5, or 8–7–6–5, or 1–3–5–6–5, or to other patterns involving the major sixth, no doubt, not identified in this book. (3) Memories of the expressive uses of certain *keys* must also attach themselves together, by the association of feelings, and these groups must also attract memories of life- and art-experiences, thereby forming the well-known associations in composers' minds between certain keys and certain moods. Owing to individual idiosyncrasies difficult to analyse, these associations tend to vary from composer to composer, but there is a large measure of agreement (owing to the historical development of key-signatures, instruments, etc.): the 'tragic' C minor, for example, the 'common light of day' C major, the 'brilliant' D major, and the 'luxurious' D flat major. Naturally, in view of this, the various basic terms will be attracted with greater or less intensity to the different key-areas.

Returning now to the question of inspiration, . . . we can see that 'inspiration' can often mean 'the breaking through into consciousness of a particular basic term, in a certain form, from a certain key-area'. This is obviously what happened to William Byrd when the inspiration came to him for some of the motets in his *Gradualia*. If we turn to the openings of *Gaudeamus Omnes* (Let us all rejoice—No. 29), or *Plorans Plorabit* (Weeping, mine eyes shall weep—No. 28), or *Beati Mundo Core* (Blest are the pure in heart—No. 32), we shall find it amusing to imagine the austere composer 'pondering' on the texts, 'turning them over carefully and seriously in his mind', until 'the aptest numbers occurred as if of their own accord'—as re-shapings of the basic terms 1–2–3–4–5 (in the traditionally 'simple' key of F major), 1–3–4–5 (in the 'melancholy' key of G minor), and 1–5–6–5 (again in the 'simple' F major). We should not be too amused, though, since without undergoing the experience of 'inspiration' we can do nothing with these dead patterns, whereas by doing so Byrd has turned them into living themes.

On Musical Semantics

LEONARD BERNSTEIN

A metaphor—or any comparative statement, even a simile—must function in terms of the two compared items being related to a third item, which is common to both. That is, we are comparing *A* and *B*, whether they are my dog and your dog, or Juliet and the sun—*A* and *B*, both of which must relate to a third factor, *X*, which is abstractable from both. If *A* is Juliet and *B* is the sun, then *X* is *radiance* (or any number of other things, but let's say *radiance*); *A* has *X*, and *B* has *X*, therefore *A* is like *B*. Juliet is like the sun. We then delete the *like* and Juliet *is* the sun. And what a deletion is there! Of such transformations are metaphors made, and of such metaphors is beauty born.

You remember I spoke of the mind having to go through a series of decision-making steps when confronted by a semantic incongruity—first seeking justification, and then either rejecting it or accepting it on a poetic level? Well, add to that a whole other series of steps, these very ones we've been describing—namely, the finding of an *X*-factor to which *A* and *B* can both relate. (My dog is your dog because they're both brown. But that can't be, says the mind; oh, I see, it *can* be, *in a poetic sense*.) Now all of that complex mental process takes place in a millisecond, a flash of time: such is the wonder of our cerebral computer. But the moment we come to deal with *musical* metaphor, even that millisecond is eliminated—because we don't have to deal with the problems of *A* and *B* being incompatible. Why not? Because the *As* and *Bs* of music are not burdened by literal semantic weights like my dog or your dog or even Juliet. If we call the first two bars of Brahms's Fourth Symphony *A* [Ex. 1], and the second two *B* [Ex. 2], we *instantly* perceive the musical transformation, with no time or effort needed to explain that relationship in terms of semantic meanings; the only time required is the time it takes to play the music.

In fact, when you think of the number of transformations taking place in the short space of those few bars of Brahms, it becomes almost incredible that all of them can be instantaneously perceived. What we've called *A* in itself involves a transformation [Ex. 3]: the descending major third transformed to its exact inversion, an ascending minor sixth. So *A* already contains a metaphor; and so does *B* [Ex. 4]. But in addition to that, *B* is itself a metaphor of *A*, being a comparative transformation of *A* [1], one degree of the scale lower [2]. And add to that the *harmonic* metaphor accompanying the melodic one [Ex. 5]: the *A* pro-

Ex. 1

Allegro non troppo

p

Ex. 2

Ex. 3

maj. 3rd

min. 6th

Ex. 4

min. 3rd

min. 6th

Ex. 5

A

B

Tonic → Subdominant

Dominant → Tonic

gression is tonic/subdominant, and the *B* progression is dominant/tonic; a beautiful parallelism, and a luminous example of this-is-that.

So in music as well as in poetry, the *A* and *B* of a metaphor must both relate to some *X*-factor—not radiance or brownness, but a common factor such as

the rhythm [see Exx. 1 and 2] or those harmonic progressions [see Ex. 5]. You see there is still that triangular formation of *A*, *B*, and *X* to be reckoned with. And yet, with all this to be perceived, all these metaphors-within-metaphors, we still don't require even that one millisecond before perceiving it. There is no need to go through 'that-can't-be—oh, I-see-it-can-be-in-a-poetic-sense'; because the music *already exists in the poetic sense*. It's all art from the first note on.

[. . .]

In the first lecture on phonology, we dealt with the ordering of phonemic elements out of the harmonic series so as to produce meaningful tonal relationships; *meaningful*, ergo *semantic*. In the second lecture, on syntax, we were dealing with the ordering of those tonal relationships so as to produce meaningful structures. So now that we come to consider musical semantics in general, what meanings are there left to deal with? Obviously, the musical meanings that result from the combination of both, of what we might call phono-semantics plus morpho-semantics—meanings derived by the various transformational procedures with which we've been playing.

'Playing': that's the word that leapt out, and precisely the world I want to use. It sounds frivolous, I know, but it is on the contrary essentially related to our semantic thinking. 'Play' is the very stuff and activity of music; we *play* music on our instruments just as the composer *plays* with notes in the act of inventing it. He *juggles* sound-formations, he *toys* with dynamics, he *glides* and *skips* and *somersaults* through rhythms and colours—in short, he indulges in what Stravinsky called 'Le Jeu de Notes'. The Game of Notes: a striking concept of what music is.

And why not? All music, even the most serious, thrives on its puns and anagrams. Where would Richard Strauss be without his musical puns, or Bach and Beethoven without their musical anagrams? One can almost think of a given piece of music as a continuing game of anagrams, in which there are, as it were, twelve 'letters' [Ex. 6] that can be juggled and rejuggled. The constant rearrangement and transformation of these 'letters' is made particularly rich by the combined possibilities of horizontal and vertical structures—melodic, harmonic, and contrapuntal anagrams—which of course language cannot do, even with twenty-six letters. Music is further enriched by the extension of these possibilities to near-infinity, through the extraordinary variety of high and low registers, durations, dynamics, meters, rhythms, tempi, colorations. It's as if all music were one supergame of sonic anagrams.

But does this Stravinskian game concept of music really cover the subject? A game may serve a number of purposes: to release energy, to exercise the mind or body, to while away the time. A game may also have more affective func-

Ex. 6



tions: to compete, to show off, to establish a shared intimacy with the opponent. All these may well be functions of music too, and frequently are; but nobody is going to assert that music stops there. There's got to be more to it than those merely pleasurable functions, even if they do go so far as to constitute a refreshment of the spirit. Music does more than that, says more, *means* more.

'Means': there's the problem. Means what? Sad? Glad? 'Moonlight' Sonata? 'Revolutionary' Etude? Bi-units of information? Significational sensory effects? Cybernetic feedback? What do we mean by 'mean'?

Well, the very first Young People's programme I ever gave on television, about fifteen years ago, was entitled 'What Does Music Mean?' Here I am still asking that question, and my answers haven't changed very much. But I think I can now present a more mature formulation of them, particularly since I have a more mature audience to tell it to.

As concisely as possible, this is it: music has intrinsic meanings of its own, which are not to be confused with specific feelings or moods, and certainly not with pictorial impressions or stories. These intrinsic musical meanings are generated by a constant stream of metaphors, all of which are forms of poetic transformations. This is our thesis.

I believe this thesis can be demonstrated, and in fact has already been partly demonstrated, even if not scientifically proved. The problem of proof stems, no doubt, from that very unscientific word 'metaphor', which I have already been using in a highly metaphorical way, and will no doubt continue so to do. But I should clarify this broad use of the term at least to the extent that we can distinguish one use from another.

There are three specific ways in which I want to use the term 'metaphor'. First, those intrinsic musical metaphors I have already mentioned, which are of a purely musical order, and operate rather like those puns-and-anagram games we were speaking of. All these metaphors derive from transformations of musical material—those very *Chomskian* transformations we investigated last week. By transforming any given musical material from one state to another, as I showed earlier with that bit of Brahms, we automatically arrive at the test equation of any metaphor: this-is-that; Juliet is the sun.

Secondly, we must define *extrinsic* metaphors, by which musical meanings relate to non-musical meanings. In other words, certain semantic meanings belonging to the so-called 'real world', the 'world out there'—the *non*-musical world—are assigned to musical art in terms of literal semantic values, namely extramusical ones. This form of this-equals-that is typified in Beethoven's 'Pastorale' Symphony (which we will be hearing after the intermission), in which certain notes are *meant* to be associated in the listener's mind with certain images, such as merry peasants, brooks, and birds. In other words, these notes equal those birds; *these are those*. It is a variation of the old formula.

And finally, we must think of metaphor in an *analogical* way, as we compare those intrinsic musical metaphors with their counterparts in speech, strictly verbal ones; and this comparison is in itself a metaphorical operation. It says: this musical transformation is like that verbal one; this is like that. Delete 'like', and you have the metaphor.

Now, having defined my usages of ‘metaphor’, I suppose I am committed to plunging into the perennial aesthetic debate. It’s a debate I don’t particularly wish to prolong. So many excellent and sensitive minds have wrestled with this problem of the Meaning of Music, to say nothing of the Meaning of Meaning: Santayana and Croce, Prall and Pratt, I. A. Richards, Suzanne Langer, Bergson, Beardsley, Birkoff, and Babbitt—and Stravinsky himself. One thing they have always agreed on, in one way or another, is that musical meaning *does* exist, whether rational or affective or both. As hard as they have all tried to be logical, to avoid romantic generalizing or philosophical maundering, they have all had to bow eventually to some nagging truth which insists that those innocent F sharps and B flats, however sportively juggled or played with, do emerge from a composer’s mind meaning something, nay, expressing something—and expressing what may otherwise be inexpressible.

But wait: isn’t there a difference between ‘meaning’ and ‘expressing’? There is, if we are to be at all accurate. When a piece of music ‘means’ something to me, it is a meaning conveyed by the sounding notes themselves—what Eduard Hanslick called ‘sonorous forms in motion’ (a wonderful phrase), and I can report those meanings back to you precisely in terms of those forms. But when music ‘expresses’ something to me, it is something I am feeling, and the same is true of you and of every listener. We feel passion, we feel glory, we feel mystery, we *feel something*. And here we are in trouble; because we cannot report our precise feelings in scientific terms; we can report them only subjectively. If we could collect sample ‘feelings’ from a concert audience, lay them slide by slide on a lab table, compare them and find them consistent, *then* we’d know something, then science would smile on our endeavours. But alas, ‘feelings’, whatever they are, slither past the scientific laboratory, and we are left asking such pseudo-scientific questions as, ‘Where does *affect* come into all this? Is it those intrinsic musical meanings that move us so deeply, or is there a transference of affect, via the notes, from the composer to the performer to the listener?’

On Musical Structuralism

PATRICIA TUNSTALL

For several theorists, the tools and concepts of semiology have been considered useful as a model for a musical structuralism. However, the reliance upon semiology as it has been developed in other fields of analysis raises central difficulties. As a rule, semiologists take from Saussure the definition of semiology as the science of signs, and the definition of a sign as the existence of a one-to-one relation between a signifier and a signified. The application of the latter definition to music reawakens a long-standing issue in music aesthetics: what kinds of things are 'signified' by the elements of music? Many hypotheses have been suggested by those interested in semiological research (see Subotnik 1978). David Osmond-Smith writes that the term 'semiotics' should perhaps be used in reference to the specific semantic meanings sometimes found in music, such as an instrumental imitation of a non-musical sound (1971). Sociological analyses offer a definition for the meaning of music closely allied with its social functions. (see Etzkorn 1974). The semiologist Roland Barthes claims that the elements of aesthetic objects carry connotations as well as denotations: the signifieds of such objects therefore include both semantic and ideological meanings (1967).

However, no agreement seems to exist among musical semiologists about the definition of music's signifieds. Nattiez, for example, rejects all the kinds of meanings cited above. He declares that semiology is not the study of 'the expressive, semantic aspect of music' (1974: 61); neither is it the determination of 'the connections between certain sonorous combinations and certain social structures' (71). In Nattiez's view, these purposes rule out the level of scientific rigour that, for him, is the distinguishing feature of semiological inquiry. The work of Roland Barthes he finds particularly unscientific: 'he gives the illusion of science to a procedure that is nothing other than the course of traditional hermeneutics' (67). According to Nattiez, semiotics must entirely disregard the question of music's meanings, and investigate only the internal arrangements of its elements.

If this is the case, however, the usefulness of semiological procedures as they have been developed in other fields is called into question. Semiological investigations of other art forms are usually undertaken with attention to the semantic as well as the syntactical properties of artistic elements. It is, in fact, precisely the existence of *both* kinds of properties that makes these investigations illuminating. A semiological analysis of a work of art or literature entails

a structural reorganization of its formal elements, but that reorganization is accomplished with reference to semantic meanings; the reinterpretation of relations among elements depends partially upon the semantic associations of those elements. Works of literature or art are seen to involve meaning on several different levels—syntactical, semantic, connotative—and these levels must be considered in relation to each other. Semantic meanings may reveal implicit syntactical connections, for example; conversely, discovery of syntactical connections may reveal implicit semantic meanings. The analytic task is thus a charting of the structural relations among different levels of meaning. The organizational patterns of signifiers, in other words, are examined with reference to signifieds. The conclusions of semiological enquiries often rely upon such references.

Musical analysis, however, cannot rely upon a systematic reference to signifieds in its investigation of signifiers. Music seems to involve primarily syntactical, not semantic, relations; it does not exhibit a systematic one-to-one correspondence of each specific musical element with a specific non-musical meaning. According to Saussure's definition, then, music must be considered not a system of signs but a system of signifiers without signifieds. Therefore musical analyses can make only limited use of the particular virtues of the semiological approach.

This is not to say that musical structuralism is unviable, but that semiological models may not be its most useful tools. Although musical elements do not have semantic meanings, their organizational patterns may have extra-musical significance. The general goal of all structuralist endeavour is to examine the structural characteristics of objects in order to form hypotheses about the structural categories of cultures and the structural procedures of the human mind. Musical structuralism implies that such examinations do not necessarily have to involve semantic components; music's value for structuralism may lie precisely in the fact that it is *not* semantic. Its unique feature is that it lacks the kinds of meanings that semiological techniques are designed to investigate, but does not lack the kinds of significance with which structuralism is ultimately concerned. Its elements are not signs, but the relations between them are coherent and meaningful. It is these relations themselves, the formal operations performed upon sonorous elements, that are the essence of musical structure. Perhaps, then, that structure is a uniquely lucid and unmediated reflection of the formal operations of cognition.

Lévi-Strauss was one of the first to suggest that music's 'intelligible but untranslatable' nature makes it especially important for structuralism. As a sensuous manifestation not of concepts but of operations, music provides an unusually clear demonstration of the basic ordering processes of the mind. Unclouded by semantic associations, the procedures of music reflect not the mind's ideas but only its activities. It is thus an eminently appropriate object for an enquiry concerned with the nature of mental activity itself.

It is perhaps significant that Blacking does not invoke specifically semiological concepts and models; his work allows for the potential development of new concepts and models suited for the analysis of the uniquely abstract kinds of meaning found in music. Like Lévi-Strauss, Blacking finds that music involves

a synthesis of immanent, untranslatable structuring activity with culturally particularized forms. The analysis of musical structure may therefore be most fruitful for an understanding of mental structures and for the ways such structures emerge within specific cultures. Suggests Blacking, 'Music may express the quintessence of a society's socio-conceptual structure and hence serve as a kind of litmus paper for structuralist analysis' (1972: 6). Blacking enriches structuralist thought with a new formulation of the concept of 'transformation', suggesting that musical transformations reveal the precise connections between universal logical processes and culturally specific ones. Musical transformations occur, argues Blacking, in relation to social experience: the capacity for transformation may be universal, but is only activated under the stimulation of social phenomena. 'By observing the patterns of social interaction which mediate between the innate structure of the mind and its extensions in culture, ethnomusicology can demonstrate the affective, social basis of musical transformations' (1972: 9).

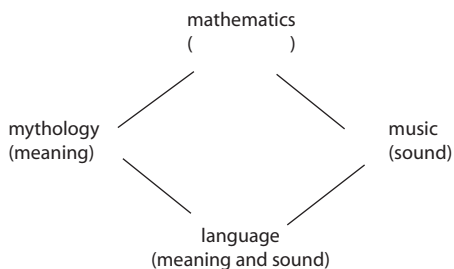
In conclusion, musical analysis may be most enlightened by those structuralist principles that are *not* specifically borrowed from semiological endeavours in other fields. The application to music of a science of signs may eventually yield disappointing results: this science is oriented towards a kind of extramusical significance that music may not have and, when divorced from that orientation, may not yield substantially enlightening analyses. The structuralist interest in basic logical processes, on the other hand, invites a search for other kinds of extramusical significance, and this search may prove more rewarding. By bringing to musical analysis a desire to illuminate the rational character of musical processes, and to speculate upon the extramusical implications of those processes, a structuralist musicology will link its premisses and goals to the traditions of its philosophical antecedents. This emphasis upon the cognitive dimensions of musical activity may provide new insights both about cognition and about music.

On Music and Myth

EERO TARASTI

In the last chapter, 'Finale', of *Mythologiques*, Lévi-Strauss discusses the place of music in the field of structural studies, which include four important spheres, those of mathematics, language, music, and mythology (1971: 578).

When comparing these spheres one will notice that mathematical structures are lacking all concreteness and in this respect are opposed to linguistic facts. Linguistic structures on the contrary are, as is shown by Saussure, doubly concrete because their fulfilment implies sounds as well as meanings. Musical structures are composed of sounds but on the other hand they are detached from meanings, according to Lévi-Strauss. Mythical structures, on the other hand, consist of meanings, but their phonetic manifestation is irrelevant; in other words, the same myth could be told in different ways with the mythical value remaining unchanged. The relations among these cultural phenomena can be outlined with the following schema:



Accordingly, music and mythology are like two offshoots of language, each branching off in its own direction. They both are languages lacking in something. As Lévi-Strauss says, (1971: 579), music is language without meaning (*La musique, c'est le langage moins le sens*) and therefore it is easy to explain why a listener to music feels an irresistible need to fill this gap with meanings provided by himself. In an analogous way myths, i.e. systems of meanings, can detach themselves from their verbal foundation to which they are not as strictly bound as ordinary messages. Consequently, it is valid to con-

sider myth and music as closely related when observing their specific sign structure.

However, Lévi-Strauss overlooks one possible relation between myth and music: he does not discuss a case in which music could acquire meaning or content from mythology, just as mythology could in part acquire sound from music, as it does in a ritual, for example, where myth may be performed with a song melody.

Although the tonal structures may be imbued with many different semantic contents in the minds of listeners, this does not prevent the firm interweaving of myth and music in a given cultural context. The listeners would then, with instinctive sureness (which, of course, would none the less be conditioned by cultural conventions) associate certain mythical figures with musical forms. This fact could hold true especially for cultures in which a strong and coherent tradition prevails. Consequently one might conclude that music in some cases could entirely replace a mythical text. Charles Boilès (1973) has been able to show in his study about music in the ritual life of the Tepehua Indians that this may occur at least in the so-called primitive musical cultures. He has observed that the Tepehuas associate certain meanings with their instrumental melodies so that there exist fully prescribed equivalences between melodic phrases and semantic meanings. These meanings are mythical, because it is the task of music to establish communication between man and the spirits. But what is remarkable is that the Indians even outside the ritual can explain precisely the mythical meanings of any tune. Do such associations take place in the field of Western art music, too?

This might well be the case if it happens in a cultural context sufficiently strong and homogeneous. Since music 'in the first place is an expression of man's spiritual, psychical life', as Hugo Riemann has stated (1928: 7), one might presume that in such a culture music and its aesthetic contents would reflect also the world-view and mythology characteristic of that culture. This would simply once again emphasize the relationship between the mythical sphere and what in the Western civilization is called an 'aesthetic' imagination and fantasy.

Resting on this hypothesis, a model can be constructed in order to make the nature of such musical communication more precise. Furthermore, this diagram presupposes that a musical work is placed on two levels, technical and aesthetic, as Rudolph Reti (1961: 136) has proposed (or translated into a 'structuralist' language on the levels of 'signifier' and 'signified') (see Ducrot and Todorov 1972: 132; Nattiez 1975: 52).

(In this context it would be superfluous to discuss whether this kind of articulation of a musical sign system is legitimate or not, which certainly constitutes an essential problem for music aesthetics.)

	Form	Substance
Expression (composer) technical level	A musical work created by a composer while setting a form upon the substance of music expression	The first articulation of culture whereby a culture yields the musical substance among other acoustics codes i.e. scales, rhythms, dynamics, timbres, etc.
Content (listener) aesthetic level	The second articulation of culture whereby a culture determines the patterns and symbols which permit a listener to interpret his responses to a musical work	The associative responses aroused by the composition in a listener

This model presents a musical communication where a composer functions as the sender of the message and a listener as its receiver.

Besides the aspects of expression and content, the form and substance of the composition are involved. The intervention of culture is also displayed in the form of double articulation. The first articulation affects the substance of musical expression and the second one the form of content. Consequently two different structures determine a musical communication: the first is manifested in the form which a composer sets upon the musical substance afforded by culture, while the latter is in the form which a culture gives to the individual listener's musical experience.

In addition to this the existence of a third structure or code can be assumed. It is not shown in the model, but it would connect the two forms which are set apart on different levels of expression and content. As will be later affirmed, the whole present study will be focused on this code since it refers to the very problem of interaction between myth and music.

One might thus ask whether this sort of code can be determined universally and conclusively regarding the music of a given period or whether it varies according to composer and audience. Later some variants of just this connecting code will be discussed, particularly their regulation of the interaction between myth and music in the history of Western music since Romanticism, and their determination of its modality during each era. In the second part of the study one will also see how this code varies according to different musical styles, as exemplified by Wagner, Sibelius, and Stravinsky.

Earlier, in dealing with Barthes's theory, one possible variant of this code was touched upon, namely that in which myth subsumes other sign systems and forces them to relinquish partially their meaningfulness.

The foregoing model approaches this situation from the opposite viewpoint, namely that of music, where music in turn may profit from myth, deriving complementary content from it. The influence of myth is then manifested within the second articulation of culture.

As to the function of culture in the chart, one may observe that a given

musical culture provides a composer with substance for composition; in other words, scales (established by a tuning system), rhythms, dynamics, harmonic progressions, etc. which are given a form by a composer in his composition. Concerning the listener, culture operates in the opposite direction establishing a form for his experiences, and it is due to this form that the meaning discovered in a musical work by a listener is the 'logical expression' of his internal feelings and not merely an emotional stimulant, as Susanne Langer has remarked (1951: 185). These forms are in the nature of universal patterns, 'archetypes' which arise from the subconscious of the listener and thus constitute a part of the stock of symbols common to every music listener of the period. Sometimes these patterns even include entire myths, as does the Finnish Kullervo-myth in the symphony of Sibelius, or a collection of myths as in Wagner's *Ring* tetralogy. Occasionally a mythical pattern is reduced to a mere 'nature-mythical' or 'psychic-mythical' element (to use the terminology of Jaspers 1919: 139–41, 156–8) as it often is in the symphonic poems of Liszt and of other Romantic composers.

On the other hand, it could be obvious that, regarding the content of his own composition, a composer himself is not in any privileged position but is only one of numerous listeners, who experience a musical work in various ways. One might even claim that it is just this fact which renders some compositions 'immortal' master works: they are no longer dependent on their composer's historical position or era for they represent their content in such a general and universal manner that even the listeners of highly disparate eras or cultures can provide their own 'mythical' interpretation of the contents and consequently experience them always as subjective and timely. In such cases it would be difficult to assign any concrete mythical pattern to music since one is now confronted with pure structures of musical, as well as mythical thought.

On the Semiotics of Music

GINO STEFANI

Musical experience is obviously ruled by a great number of codes. What criteria does our choice meet? In brief, our model has been found, by trial and error, to be the most economical one to represent simultaneously both common and specialized competence—that is, to put artistic projects into the general framework of social projects in sounds and music. This is also a good approach for the evaluation of both popular music and contemporary art music.

Our Model of Musical Competence (MMC) consists of a set of code levels articulated as follows:

General Codes (GC): perceptual and mental schemes, anthropological attitudes and motivations, basic conventions through which we perceive or construct or interpret every experience (and therefore every sound experience).

Social Practices (SP): projects and modes of both material and symbolic production within a certain society; in other words, cultural institutions such as language, religion, industrial work, technology, sciences, etcetera, including musical practices (concert, ballet, opera, criticism).

Musical Techniques (MT): theories, methods, and devices which are more or less specific and exclusive to musical practices, such as instrumental techniques, scales, composition forms, etcetera.

Styles (St): historical periods, cultural movements, authors, or groups of works; that is, the particular ways in which MT, SP, and GC are concretely realized.

Opus (Op): single musical works or events in their concrete individuality.

Let us see now all these levels of musical sense in an interpretation of a popular item, the beginning of Beethoven's Fifth Symphony.

GC. In the famous theme:
we hear two sets of sound impulses, of medium strength and consistency, well marked, relatively short, in a medium-low register, neither dry nor soft. These sound events can easily be interpreted as two sets of 'strokes'.



SP. From the GC, as well as from the overall form of the sequence—three short strokes followed by a longer one; then a short silence followed by a repetition of the pattern—we easily get the idea of something or somebody striking in a somewhat ritualized and conventional way, as if knocking at the door. In this we identify a signal of beginning, which creates a sense of suspense and expectation—like an announcement, or an entry in a ceremony, or the introduction of a speech.

MT. The phrase begins with the sequence G–G–G–E flat—our set of ‘strokes’ is ‘musically’ structured. These sound impulses (at least the first three of them) have a precise duration and a metrical position, a definite height on the staff, and a certain tonal function. The technical code also presents us with ambiguity, suspense, and expectation. This strange motive is not a ‘melody’; its key is uncertain (C minor? E flat major?); it would be very difficult to foresee what follows these two short segments of notes.

St. However, every ‘native speaker’ of our main Western musical language is able to hear this beginning as a gesture of command and drama. Many of us perceive in it, more precisely, something like that ‘titanic heroism’ or ‘heroic titanism’ which traditional criticism ascribes to Beethoven’s music, and we all recognize the style and content of the Fifth Symphony as a whole as Beethoven’s.

Op. The beginning of this work—the motive dramatically bursting in, introducing and anticipating in a generative synthesis the whole ‘history’ of the first movement—was interpreted by its author as a good metaphor for ‘fate knocking at the door’, and it has been recognized as such everywhere, by both the public and the critics, since 1808.

Obviously we do not assert here that Beethoven’s work is nothing but ‘the symphony of fate’; many other interpretations would be pertinent. What we intend to do here is simply to indicate how our model can function when applied to the production of sense about a concrete piece of music.

The Levels

We have looked at our model as a whole. Now let us examine its individual levels more closely.

General Codes (GC)

At the root of any production of sense upon sound and music events we find the general codes through which we perceive and interpret every experience. They are first of all the sensorial-perceptual schemes (spatial, tactile, dynamic, thermic, kinetic, etcetera) which enable us to classify a sound as high/low, near/remote, hard/soft, clear/dark, warm/cold, strong/weak, etcetera. At the same level we find the logical schemes (that is, more or less elementary processes and mental operations) by means of which we apply to everything—and therefore to sound as well—such categories as identity, similarity, continuity/discontinuity, equivalence, opposition, symmetry, transformation, etcetera.

We also include in this basic stratum of general codes those more complex

categories which *homo faber, ludens, loquens* elaborates from everyday experience, both natural and cultural. We mean those common categories by which we describe an object or events as ‘made this way’—for example, granular, compact, flowing, in a rounded or pointed form, like a constellation, growing slowly or by a set of explosions, in a wave form; in short, any one of the processes of which everyday life gives us countless examples. How many processes of this kind have given an explicit model for musical composition since 1950?

The competence level, which itself can be divided into many sub-levels, is the most basic and common. One might call it the ‘anthropological level’ of musical competence, were the term not so full of implications. We find here sound as matter or material, and the interaction between sound and sense, sound and mind. Most pedagogical projects, clinical practices, and the poetics of Cage (1961) are primarily founded upon this stratum of sense production. But the example from Beethoven has shown us that it can *never* be regarded as a parenthesis. Another important point is that everybody may exercise this stratum of codes with music.

Social Practices (SP)

Sense production in music then proceeds through codes pertaining to certain social practices. It is in this way, for instance, that the beginning of a piece of music is built and/or interpreted as a ceremonial entry or the introduction to a speech; that the articulation of a melody is described as a ‘phrasing’ as if it were a verbal discourse, that the curves and inflections in a melody reflect the intonations of speech, or that so many musical rhythms and meters immediately recall similar or identical features of poetry and dance, and so on. It is by this network of sense that one eventually manages to build up, more or less systematically, the relationships between music and society or, rather, between the various social practices of a culture.

As for the past, ‘musical genres’ give us evidence of social practices in music—think of marches, hymns, berceuses, serenades, entratas, preludes, dances, operas, and ritual forms. The practices of language, ritual, theatre, and spectacle are still important codes for both producing and interpreting musical events. Since the 1950s scientific practices have also provided musical ‘inspiration’, for instance mathematics with combinatorial and stochastic models.

This competence level, though vast, does not have the anthropological application of the former. In fact, many social practices are limited to a certain human group, sometimes very small. Within this group, however, it is something which is codified and recognizable by every member, according to the degree of their socialization or ‘general culture’.

At the bottom, this level is close to general codes; at the top, we find a set of social practices related to musical codes, and therefore called ‘musical practices’: singing, playing, and composing, as well as social institutions such as concerts, opera, theatre, music schools, music laboratories, criticism, and musicology. As one can see, both musical and non-musical practices contribute to sense production in music in different but equally important ways. Take for instance Ligeti’s *Lux aeterna*: the meaning it gained from Kubrick’s

2001: *A Space Odyssey* is probably as important as that given to it by a musico-logical approach. Besides, many contemporary experiences (Cage and computer music, for instance), having apparently little relevance in such a musical practice as the concert, may become more relevant in a non-musical practice such as theatre or lecture.

Musical Techniques (MT)

In our culture—throughout the history of the world—there is a place for codes which are more specifically ‘musical’, being connected with techniques, instruments, systems, and devices specially designed or employed for music-making. This is what usually is viewed as ‘musical competence’ with no further qualification, whereas in our model it is only one of the competence levels.

Let us recall our introductory comment about codes: they are not only supporting structures but also significant correlations. In this perspective, musical systems as codes mean musical ‘languages’. Musicians and musicologists have a tendency to neglect or even to deny the semantic thickness of techniques; thus they consider music essentially as the production of objects or events. But for our society as a whole, for its general competence in music, music is always the production of signs. It is therefore particularly important here to consider ordinary people, what they think and feel about musical ‘language’, and what they do with it.

According to a widespread opinion, ‘laymen’ are ignorant about musical techniques; they do not ‘understand’ musical language (Karolyi 1965: preface). As one can see, confusion reigns here between *linguistic* competence and *grammatical* competence. Speaking and understanding a language is different from studying its written grammar and theory. Now, the ‘language’ of our traditional music belongs to common culture; therefore the psychologist Robert Francès (1958) spoke of a ‘musical mother tongue of Western people’.

We do not intend to describe this language here. We only want to recall two main features pertinent to our model: (1) its heterogeneous character, and (2) its functioning as a code in the full semiotic sense—that is, as a rule for correlating *expression* and *content*. Its heterogeneity strikes us immediately when we think of the different ‘qualities’ or ‘parameters’ constituting music: pitch, duration, dynamics, timbre, articulation, types of attack, etcetera. In fact, each of them is organized by codes which are disparate, independent, and of different strength. Even the code appearing to be the strongest one, the tonal code, is in fact a ‘hypercode’ which is built with the contribution of different syntactic-semantic layers, among which we may indicate: the octave pattern (expression of emphasis); the scale and individual intervals (Cooke 1959); major/minor modes with their bipolar ‘ethos’ still persisting in every kind of hearer; tonal syntax with its ‘embodied meaning’ (Meyer 1956, 1973; and Francès 1958); chordal features (consonant/dissonant); etcetera. Even more heterogeneous are the ‘rhetoric’ codes regulating the organization and perception of polyphonic devices, melodic structures, and musical ‘forms’.

In view of this complexity it is easy to see the inadequacy of the current idea of a ‘musical language’ as something coherent, composed of many ‘elements’ hierarchically linked by a single principle—which in fact remains unstated.

What advantage does our model offer, then, by describing musical language as a stratification of levels which are more or less ‘coalescent’, as Boulez (1963) would say? Perhaps the most prominent is the fact that, by embedding ‘pre-musical’ levels, our model allows us to embody not only systems of morphology, syntax, and rhetoric, but also those ‘speech acts’ or ‘communication acts’ which explain—to a certain extent—the constitution and working of these ‘technical’ levels.

In fact, all the various techniques and rules for intervals, dynamics, timbre, and rhetoric embodied in a Sonata, or a Fugue, or a Concerto do not provide unity themselves; unity comes rather from projects and modes of behaviour which stand before or beyond techniques—that is, at GC and SP as well as St and Op levels.

Besides, depending on the technical competence of musicians, one can make music by means of any system or device: the result would automatically be a musical ‘language’ with as much right to be so termed as the tonal one. Actually, this idea was widespread for some decades concerning twelve-tone technique and enlarged seriality, which were considered a historically necessary evolution of the traditional musical ‘language’.

The relativity of this perspective, which neglects the social aspect of language with its semantic and pragmatic implications, appears clearly in the light of our model. In this light twelve-tone technique takes on two meanings: (1) an extension of MT from inside (as in musicians’ and theorists’ views), and (2) an integration into the MT level of processes which originate from SP or GC levels. This integration, of course, is not at all in the nature of things, but requires motivation again to be found in previous competence levels.

It is at the MT level that one usually begins to find applicable the definition of music as ‘the art of sounds’, which in a narrower sense can be reformulated as ‘the art of notes’. In the frame of our model this definition shows itself to be inadequate. In fact, on the one hand artistic projects with sounds can be realized outside the specific MT level (for instance, with elementary sound events); on the other, MT serve also for SP (signalling, rites, therapy, etcetera) where the artistic project is not primary or relevant.

Styles (St)

Both Corelli and Beethoven employ certain musical systems, but each in a different way and with different meanings; that is, in a different style. ‘Style’ is a blend of technical features, a way of forming objects or events; but it is at the same time a trace in music of agents and processes and contexts of production. Stylistic competence is, therefore, the ability to form and/or interpret both aspects.

In normal cases, the distinction between these two aspects passes unnoticed. So when speaking of baroque, romantic, Beethovenian, or expressionist style we may mean, simultaneously or separately, both the musical signifier and the historical and cultural signified. Style codes are thus rooted on the one hand in MT, and on the other in SP. To MT the new competence adds an inventive way of using systems; to SP it adds the experience of precise contexts and circumstances.

According to some scholars (for example, Nattiez 1975), when dealing with music one should not speak of 'systems' or languages, but only of styles (tonal, twelve-tone, etcetera). From our point of view, this approach privileges the construction of sound objects as well as the autonomy of artistic projects, at the expense of the social functions and practices which give sense to those projects and objects. Pursuing this idea to its logical conclusion, we should here speak only of idiolects—that is, styles peculiar to single works and not susceptible to generalization into common schemes. In that case, no language could exist.

Opus (Op)

In a minimal sense, competence at opus or work level is the trivial fact of recognizing a piece; for example, 'this is Beethoven's Fifth Symphony'. Recognizing in this way is normally the lowest degree in sense production, an exercise of repetition and reproduction of identity. Only in particular cases can it become a valuable exercise requiring a considerable amount of intelligence (such as when guessing some piece which is not so very well known).

As we have said before, in our traditional highbrow culture Op level is the most pertinent to artistic projects and to the social practices which make them concrete. So in a concert, for instance, what we are directly confronted with are neither techniques nor style, but individual works. In fact, criticism—which is the most typical act of highbrow musical competence—is usually a discourse about single works. However, this has not been the only perspective in our history, nor is it today. The absolute primacy of the work as a finished product has been denied in jazz, folksong, contemporary poetics, and musical life in general because of the manifold functions we recognize in music in so many contexts, especially through mass media.

Besides, creativity displays itself in several phases: projects, models, and programmes are often valuable in themselves and for their capacity to engender a great number of concrete realizations, independently of that particular realization which is called the 'opus'. After all, working with sounds does not always end in finished 'works'. Discovering and extending the processes of sense production with sounds can be as interesting musically as hearing a good piece of music.

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