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When Music Meets Language

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Abstract

Music and language are both assigned the power of communication and expression. Left at this point we may intuitively sense a truth in this statement, but just how does this occur and is our 'intuition' valid and supportable. In language, extensive study and research in all spoken languages has led to the establishment of linguistics with its own ontology and understandings which are well understood and accepted. But what of music? No such accepted field of research truly exists. Over the last half century or so there have been a few writers who have attempted to ascribe a syntactical and generative grammar to tonal music using frameworks that are familiar to our linguistic friends. By and large, this has been unsuccessful using these linguistic definitions. In spite of these unsuccessful attempts to create sets of musical rules that can be said to musically equate with linguistic syntax and generative grammar, there are distinct parallels that can be drawn.

Keywords: Intuition, syntactical, generative grammar

Introduction

Language is a human communication tool. It is an important element of semiotics system. It's conventionally used of sign has served humanity to convey meaning and to express feeling in daily activities. Similarly, music has its own semiotic set, which can be compared in its effects and operation to the semiotics of language. In this paper, we will begin by defining the semiotics of both language and music.

We shall argue that both language and music are socially cohesive codes and define identifiable groups within a society and culture (for example members of a village / city/ state/ national groups or clubs , such as supporters of a football club through their anthem). Also music can be narrative and expressive. Through semiotic codes understood by those to whom the music 'belongs', it is able to evoke clear and specific emotions, sensations or stories without the use of text. Further, we will argue that, in the same way that language is a social cohesive, a way of understanding and defining social groups can be seen through different musical systems ,for example, Malaysian and Western music.

Finally, in the same way that language is dynamic and adjusts to contemporary conditions and technologies, through SMS, music appears to be undergoing similar changes currently identified with the actual sounds being compressed for headphone reproduction like MP3 player and a reduction in the sonic range that in used for much media. This reduction of fidelity is now being considered as ideal. We shall suggest that there is a similar reductive quality in the content of music that may be compared to the shorthand language of the SMS. Our research in this area is on-going, but we shall present our present findings, and some directions for the future.

Introduction

Music and language are both assigned the power of communication and expression. Left at this point we may intuitively sense a truth in this statement, but just how does this occur and is our 'intuition' valid and supportable. In language, extensive study and research in all spoken languages has led to the establishment of linguistics with its own ontology and understandings which are well understood and accepted. But what of music? No such accepted field of research truly exists. Over the last half century or so there have been a few writers who have attempted to ascribe a syntactical and generative grammar to tonal music using frameworks that are familiar to our linguistic friends. By and large, this has been unsuccessful using these linguistic definitions. In spite of these unsuccessful attempts to create sets of musical rules that can be said to musically equate with linguistic syntax and generative grammar, there are distinct parallels that can be drawn.

In music, as well as language, technology and the impact of a number of modernist movements in music from the 1920's on, have radically changed all societies' perceptions about what music is, and what it is not; when and where music happens. Equally, with language, the advent of various pop movements, the impact of the American Beat poets, and most recently the ubiquitous SMS and tweet forms of communication have made significant changes in the way and structure of our language. In music as well, many of the perceptions and changes are also being driven by developments in technology - from how the music we listen to is being created, composed and conceived, to the media through which we access the music itself - a shift from halls, parlours, rituals and village celebrations to cd's, dvd's and mp3 files on more and more miniaturized devices. As we will consider later in the paper, these changes are also changing the nature of the language of music itself.

Definitions and Terminology

Before proceeding, some definitions and terminology: Semiotics is the study of signs. A sign is something that stands for something else. There are three kinds of signs:

- Symbols – signs that bear an arbitrary relationship to that which they stand for (e.g., the word "orange" by convention stands for the fruits we identify with the word).
- Icons – signs resembling that which they stand for (e.g., a painting of an apple looks like the fruit it represents).
- Indexes – signs that are indicators of a fact or condition (e.g., a chest pain can indicate heartburn; smoke usually indicates fire). (Chandler, 2002)

Additionally, signs can be organized into systems of objects and behaviors. The arts and the academic disciplines are highly complex, interrelated sign systems – formulations and configurations of symbols and/or icons. The way you set your table is part of a system of cultural signs, as is your choice of clothes, wallet photos, and bumper stickers. Ideas are signs too, since they stand for entities as defined in one's culture. Our idea of mountain, for instance, is determined by the repertoire by words, categories, pictures, and other interpretants provided by our culture (Suhor, 1997).

There are three basic areas of semiotics – semantics, pragmatics, and syntactics. Semantics deals with the meaning of signs and sign systems; that is, meanings of words, sentences,

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gestures, paintings etc. Stated another way, semantics attempts to specify the cultural definitions of all kinds of all kinds of signs and sign combinations. Pragmatics, deals with inferential meaning – not merely logical inference, but the subtler aspects of communication expressed through indirection (“It’s hot here=”switch on the fan”) and through social contexts(as when a threat is understood as horseplay among boasting friends). Syntactics deals with the structure of signs and sign systems (such as the structure of a sentences, novel, film, figure, or ceremony). Linguistics syntactics (phonology, morphology, and syntax) is best known by teachers, but semiotics also deals with the “syntax” of nonlinguistics sign systems (Foley, 1997).

In this paper, we are limiting our discussion to tonal music - that is as defined by the Encyclopedia Britannica as

“... in music, principle of organizing musical compositions around a central note, the tonic. Generally, any Western or non-Western music periodically returning to a central, or focal, tone exhibits tonality. More specifically, tonality refers to the particular system of relationships between notes, chords, and keys (sets of notes and chords) that dominated most Western music from c. 1650 to c. 1900 and that continues to regulate much music.” tonality(Encyclopædia Britannica, 2012).

As our definition notes, even today, tonal music “... continues to regulate music” (ibid). We have therefore, like the musicologists and philosophers whose thinking forms the core of our review of past thinking about this topic, made a decision to limit our consideration to tonal music. It is a style of music that we suspect is by far the most familiar to our audience here today and the vast majority of academicians in both Western and Asian universities. That point made, let us equally acknowledge that musical ‘language’ has moved on since tonality was the only musical system- through its’ freeing to atonality and the myriad of other developments that have occurred throughout the twentieth century. And we must not forget truth in the comment by Robert Fink that ...

“After atonality, a tonal surface, however well behaved, can never again have the inevitability of ‘natural law’ ” (Fink, R. 1999. (ed Cooke & Everist) p. 131).

Methodology

Let us now consider just what it is that we compare with music – language – to provide a reference that will allow us to decide if are we justified in ascribing similar qualities and power in music. In the linguistic sense, language may refer either to a specifically human capacity for acquiring and using complex systems of communication, or to a specific instance of such a system of complex communication. The approximately 3000 - 6000 languages that are spoken by humans today are the most salient examples, but natural languages can also be based on visual rather than auditory stimuli, for example as in sign language or written language. Codes and other kinds of artificially constructed communication systems (such as those used for computer programming or notated music) may also be called ‘languages’. A language in this sense is a system of signs for encoding and decoding information. The English word derives ultimately from Latin *lingua*, “language tongue”, via Old French. When used as a general concept, “language” refers to the cognitive faculty that enables humans to learn and use systems of complex communication.

Findings

As we have described it, language as a communications system is thought to be fundamentally different from and of a far higher level of complexity to those of other species. It is based on a complex system of rules relating to symbols and their meanings, which results in an indefinite number of possible innovative utterances from a finite number of elements. Historically, language is thought to have originated when early hominids first started cooperating, adapting earlier systems of communications based on expressive signs to include a theory of other minds and shared intentionality. Ferdinand De Saussure first explicitly formulated the distinction, using the French word *langue* for language as a concept, and *langage* as the specific instance of language. When speaking of language as a general concept, some different definitions can be used that stress different aspects of the phenomenon. These definitions also entail different approaches and understandings of language, and they inform different and often incompatible schools of linguistic theory. In the 1960s, Noam Chomsky formulated the generative theory of language. According to this theory the most basic form of language is a set of syntactic rules that are universal for all humans and which underlies the grammars of all human languages. This set of rules is called Universal Grammar, and for Chomsky describing it is the primary objective of the discipline of linguistics. For this reason the grammars of individual languages are only of importance to linguistics, in so far as they allow us to discern the universal underlying rules from which the observable linguistic variability is generated. (see Chomsky, 1957)

Languages express meaning by relating a sign form to a meaning, its content. Sign forms must be something that can be perceived, for example in sounds, images or gestures, and they come to be related to a specific meaning through the establishment of a social convention. Because the basic relation of meaning for most linguistic signs is based on social convention, linguistic signs can be considered arbitrary, in the sense that the convention is established socially and historically, rather than by means of a natural relation between a specific sign form and its meaning.

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Both language and music are processed in the same area of the brain - the Broca - an area identified by Stefan Koelsch as the area in which, musically, we recognize or process and 'identify' musical mistakes or sounds which are musically incorrect. This has implications that are the continuing subject of research but for our purposes, it creates a neurological connection between language and music which is important in our research (in Scruton, R. 2011).

It is generally agreed that the use of language is now deeply entrenched in human culture and, apart from being used to communicate and share information, it also has social and cultural uses, that may be used to signify membership of a group identity, social stratification and for social grooming and entertainment. So, linguistically the word 'Language' can be used to describe the set of rules that makes this possible, or the set of utterances that can be produced from those rules. 'Language' exists when sounds morph into words in an agreed syntax that create meaning which can be understood (perhaps only) by the members of the group (tribe) to which it is directed. Here we might begin to find semiotic

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parallels between language and music which can be sustained. We suggest that this ‘tribal’ quality of language, allows the creation of a unique cultural identity for a distinct group. This group will jointly identify and segregate themselves from others by the use of a collection of semiotic objects. These may be physical, but more significantly these are usually metaphysical in ontology. So, a group will appropriate ‘my language [or]... my music’ to signify their uniqueness from you (us) who have ‘your language [or] ... your music’. As Bohlman suggests, this is also a condition that can create problems.

Claiming music as one’s own recognizes music as an object.... bounded and named by selfness, if indeed by nothing else...Although ‘my music’ may be embedded in other activities – dance for teenagers, gospel hymns in the Protestant American South– it is ontologically separable from those activities – inscribed on records anthologized in hymnals. To become ‘my music’, it must assume a form one can own..... [But] what may be ‘my music’ for one generational group, or one socio-economic class or ethnic group may not be comparable to ‘my music’ in other groups... Ultimately the ontology of ‘my music’ is personal, deriving from conditions that have individual meanings and are unlike the conditions for ‘your music’. Accordingly, ‘my music’ cannot be ‘your music’. To make it so would devalue it, negating the reasons for possessing it as ‘my music’ (Bohlman, P. 1999. in Cook and Everist p 20).

As a specific language (English, Arabic, Malay etc) creates cultural distinctiveness, so certain musical objects (Ibid.p 18) assume a metaphysical and cultural property. National Anthems and national songs bind a nation together through the shared meaning of those songs which to ‘outsiders’ or ‘foreigners’ may otherwise appear perplexing. Similarly football club songs bind a group of supporters together in ways that seem extraordinary to non-supporter of a club or sporting code. An Australian writer who moved from Sydney to live in Melbourne (where they play a different code of football) wrote of finding a way to join his new community “In the meantime, it seems to me the quickest way to fast track a deeper sense of belonging (for me, or any new arrival to Melbourne) would be to open my heart to the local culture and speak the local language. That is, to start supporting an AFL team, to become part of a tribe.” Connolly (2012).

As a former ‘Melbournian,’ although never a supporter, I can personally attest to the power of the football club song as a culturally unifying object. [I must point out that I neither follow nor am I interested in this, or any other code of football] At the funeral of a ‘club official’ for which I was playing the organ, I was asked to play this song. It had an amazing affect on the club members present, unifying them in both grief and solidarity with the larger ‘club group.’ So many people who were present on this occasion told me after the event, how the playing had deeply moved them. Interestingly, not all were supporters of that club, but were moved and linked to the club ‘family’ by the music. This impact on me was powerful, because although an involved observer playing the song, I was completely outside of it. It is not ‘my music’! So we hear in this example a situation in which the music has powerful semiotics associated with it.

So music can be understood a semiotically. But, does this make music a language? All languages rely on the process of semiosis to relate a sign. Oral and sign languages contain a phonological system which governs how the sounds or visual symbols are used to form sequences known as words or morphemes. Languages also have a syntactic system that governs how the words and morphemes are positioned to form phrases and utterances. Written language uses visual symbols to represent the sounds of the spoken language, but

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this still requires syntactic rules that allow (informed or literate) receivers to make sense of that which they are seeing. Similarly, music in its 'object' form as described by Bohlman a little earlier, has visual symbols (notation - either stave, tablature or graphic) which can be said to have a form of syntax (though not generative grammar) that the (informed or literate) receiver is able to use to make sense of the composer's intent, and perhaps meaning.

Discussion

Roger Scruton (1997) considers the question of being able to ascribe the characteristics of verbal or written language to music. In attempting to discover a syntax in music, according to Scruton, we can observe a number of 'rules,' certain characteristics which he lists: reminding us of the status of musical rules, and warns against taking too simple a view of how these rules shape our musical practice. ...

1. The order that we hear in music may be likened to syntax, but it is not truly syntactical. Although it resembles the order we know as style, it is something less individual than that implies—the tradition of tonal music contains something that is shared, trustworthy, established, and it is this strange thing that reminds us so vividly of a natural language.
2. There are rules in music, but they are not usually prescriptive. Most of them are derived post facto, like the laws of classical harmony. They are generalizations from a musical tradition, rather than rules of grammar.
3. There are no 'parts of speech' in music: no syntactic elements which play a single specifiable role in forming the musical Gestalt. The contribution made by any one element will be affected by the presence of the others. In music, as in language, it is not only in the whole context of the utterance that any element has meaning. (Frege's 'context principle- as it is called by Dummett in Frege: Philosophy of Language and Wright, C. Frege's Conception of Numbers as Objects (Aberdeen, 1983)). But in music, unlike language, the contribution is not and cannot be constant.
4. In language, speaker and hearer have the same competence, and the rules used by the speaker to form his utterance are also deployed by the hearer in comprehending it. While the composer must have the hearer's competence, he must also have much more than this if his music is to be meaningful. Even if there were a 'generative grammar' of tonal music, it would not tell us how music is composed.
5. Rule-governed music is, in general, uninteresting. Even in the most grammatical utterance of a Haydn or Mozart, it is the unexpected nuance that counts—the detail which seems inevitable only in retrospect (Scruton, R. p.202).

Using a syntactical reference, Scruton argues that music is not a language in this grammatical sense. If we play a segment of melody we intuitively know if it is grammatically correct or not. However whether or not we can say that a piece of music sounds right or not, we can never say (in words or verbose language) what that piece of music is about – except itself. There are utterances and emotions which can be expressed in music but which other verbal, syntactic and generative grammatical languages cannot make? To begin to make this connection we turn to the theories of

Chomsky who was applying ...thoughts and theories which arise within philosophical logic. He argued that there are linguistic universals, that is to say there are ways of

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combining words and understanding words which are revealed to be the common property of mankind ... Those operations are common to all human languages, and this has various obvious consequences. It suggests that language is an adaptation, because it's something which is in common to the whole species. (Scruton, 2011).

Can we consider music is a language in as much as it is able to communicate ideas, understandings and feelings that are not able to be experienced in any other way? How do we express this understanding to people who only understand 'words and spoken or written language' as their only form of conscious communication.

Because we use language so much, and have done so for so much of our lives, and have done so as a species for so long, we often take words for granted as having objective, agreed-upon meanings (Dobrian 1992, para. 6).

Of course, this trust is belied by everyday misunderstandings, and is actually as much of an illusion as the illusion of objective experience commented upon above (see also my summary of Benjamin Hrushovski's analysis of "The Structure of Semiotic Objects"), but it is true that our spoken language is our most fully shared basis for communication (Dobrian 1992, para. 6).

Writers such as Australian/American composer Warren Burt have grappled with this notion, from the perspective that within the academe we spend an inordinate amount of time talking about music. Burt observes "... we have, at the basis of our art, despite all the justification and metaphor ... very powerful and profound forms of intelligence - sound, kinesthesia, colour, pattern, emotion, etc - that our more rational colleagues have very little clue about. And it is our failure of being able to defend our non-verbal intelligences against the overwhelming wall of verbal justification and demands that often contributes to our marginalized and tenuous positions within the Academy. I mean try explaining to a cultural theorist, a sociologist, a politician or a computer engineer that what makes you valuable to the university community is precisely that kind of intelligence which stands as an alternative to the mode of consciousness they've built their lives, careers, and sense of identity and self-worth around. Tough job, eh?" (Burt 2009). Musicologists construe a meaning for music using words (Qureshi, R.B. 2001. p 312), and while this is fruitful to develop an understanding about music, it does not of itself provide either an understanding of music. Burt writes ...

there are a number of other forms of intelligence, non-verbal in nature, some of which we share with other species. There is a long history of people dealing with these forms of intelligence, and, in our current evaluation-obsessed climate, we ignore these historical examples, and the non-verbal forms of intelligence themselves, at our peril. ... 'About what one cannot speak, one must remain silent' and 'the limits of my language mean the limits of my world.' ... and [finally] Charles Seeger's quote, from his *Tractatus*, "That which may not be spoken of may already have been danced for centuries" (Burt 2009).

Scott Burnham (2001) amplifies this notion using some of the great writers on and about music. Using the third and fourth movements of Beethoven's Symphony 5 (Scherzo and Finale) he says "...Tovey's [Sir Donald Tovey 1875 - 1940] distinction

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between knowing and understanding, past tense and present tense, and memory and current experience, enriches the way we experience the business of formal return in this symphony” (Burnham, S. 2001. p 204). As we move from a state of knowledge to the deeper state of understanding, we move to a different level of communication. This is found in the Beethoven Symphony in question. EM Forster’s novel *Howard’s End* contains an extended passage imaginatively describing the progression from the Scherzo to the Finale (Forster, E.M. *Howards End* New York Vintage, 1921, 33 - 4).

The music [of the Scherzo] started with a goblin walking quietly over the universe, from end to end. Others followed him. They were not aggressive creatures: it was that that made them so terrible ... They merely observed that there was no such thing as splendour or heroism in the world. After the interlude of elephants dancing and made the observation for the second time. Helen could not contradict them, for, once at all events, she had felt the same, and had seen the reliable walls of youth collapse. Panic and emptiness! The goblins were right.

... as if things were going too far, Beethoven took hold of the goblins and made them do what he wanted. He appeared in person. He gave them a little push, and they began to walk in a major key instead of a minor, and then—he with his mouth and they were scattered! Gusts of splendour, gods and demi-gods contending with vast swords, colour and fragrance broadcast on the field of battle, magnificent victory, magnificent death! Oh, it all burst before the girl, and she even stretched out her gloved hands as if it was all tangible. Any fate was titanic; any contest desirable; conqueror and conquered alike will be applauded by the angels of the utmost stars.

And the goblins—they had not really been there at all? They were only the phantoms of cowardice and unbelief? One healthy human impulse would dispel them? ... Beethoven knew better. The goblins had really been there. They might return—and they did. It was as if the splendour of life might boil over and waste to steam and froth. In its dissolution one heard the terrible ominous note, and a goblin, with increased malignity, walked quietly over the universe from end to end Panic and emptiness! Even the flaming ramparts of the world might fall.

Beethoven chose to make all right in the end. He built the ramparts up. He blew with his mouth for a second time, and again the goblins were scattered. He brought back the gusts of splendour, the heroism, the youth, the magnificence of life and death, and, amid vast roarings of superhuman joy, he led his Fifth Symphony to its conclusion. But the goblins were still there. They could return. He had said so bravely, and that is why one can trust Beethoven when he says other things. (Cited in Burnham 2001, pp 204 - 205.)

Burnham identifies specific musical passages, melodic motifs and harmonic progressions with this writing which are beyond the scope of this paper, but this important point here is that this text allows us to argue that music can ‘qualify as a form of communication to which trust and belief are meaningful reactions’ (ibid p.205). The final adjectives (splendour, heroism, magnificence and ‘super-human’ joy) have independently been used by various writers on Beethoven’s music (Cook, (2003) Reich (1957) et al)

Languages evolve and diversify over time, and the history of their evolution can be reconstructed by comparing modern languages to determine which traits their ancestral languages might have had for the later stages to have occurred.

Conclusions

There are characteristics of language that are present in music syntactical and generative. In addition, there are semiotic elements of music which, like language, help bind social groups together with joint symbols - songs and anthems

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