

Meaning in Music

Patel Chapter 6.1-6.2

Introduction

- Translation is possible for language, but is it possible for music?
 - Could one translate a piece by Beethoven into Indonesian Gamelan music?
- Music crosses cultural boundaries more readily than language does.
 - We can “understand” foreign musics better than we can understand foreign languages that we don’t know.
 - [Indonesian gamelan music](#)
 - [Japanese koto music](#)

What does one mean by “meaning”?

- Controversial in linguistics
 - Formal semantics
 - To understand the meaning of a sentence is to understand the conditions under which it would be true.
 - Meaning has to do with reference: the object or set of objects that an expression corresponds to in the real world.
 - Cognitive semantics
 - The meaning of an expression is the mental concept that it evokes.
 - Meaning has to do with how we construe expressions, e.g. what metaphor is evoked.
 - E.g. Life is a journey: “I got back on track”.
- Semantics:
 - How words and sentences reflect reality or our mental representation of reality.
- Pragmatics:
 - How listeners add contextual information to sentences and draw inferences about what has been said

What does one mean by “meaning”?

- Musical meaning
 - Kivy 2002
 - Music has no meaning.
 - “Meaning” should be reserved for reference and predication.
 - Nattiez 1990
 - Meaning exists when perception of an object/event brings to mind something other than the object/event itself.
 - The same object can be meaningful or meaningless depending on the circumstances.
 - Music can thus be meaningful.

A Brief Taxonomy of Musical Meaning

- The structural interconnection of musical elements.
- The expression of emotion.
- The experience of emotion
- Motion.
- Tone painting.
- Musical topics.
- Social associations.
- Imagery and narrative.
- Association with life experience.
- Creating or transforming the self.
- Musical structure and cultural concepts.

The structural interconnection of musical elements

- Intramusical vs. extramusical meaning.
 - Absolutists concentrate on purely formal relations between elements of the music.
 - Hide and seek game –a remembered musical theme is rediscovered in the present moment.
 - Focus on musical structure.
 - Cook 1987:
 - Undergraduate participants were only sensitive to “tonal closure” in pieces of 1 minute or less.
 - Even highly trained musicians are insensitive to large-scale musical structure.
 - Studies of scrambled sections in a piece.
 - Marvin & Brinkman 1999, etc.
 - Very different from language, where scrambling the order of paragraphs in an article would be very apparent.

The structural interconnection of musical elements

– The importance of emotion in music.

- Meyer 1956
 - Emotion arises when an expectation is not fulfilled.
 - A transient arousal due to a dynamic process and is not the same as an ordinary emotion such as happiness or sadness because it lacks a positive or negative valence.
- Jackendoff 1981
 - Music gives rise to feelings of tension and relaxation engendered by the form of music.
 - Intramusical meaning.
 - [MusicFace](#)
- Kivy 1980, 2002; Davies 1980, 2004
 - Music is capable of expressing everyday human emotion, by virtue of its form.
 - Extramusical meaning.

The expression of emotion

- Distinction between the expression of emotion by music and the experience of emotion by the listener.
 - A piece can “sound sad” without evoking sadness in a listener.
- Typically participants listen to music and choose an emotion from a list along with rating how strong that emotion is.
 - Broad agreement has been found.
 - But the number of emotions on the list is typically limited.
 - However, Hevner 1937 had nearly 70 adjectives arranged in a “circle”.
 - Gregory & Varney 1996 ‘s participants chose different adjectives for different types of music.

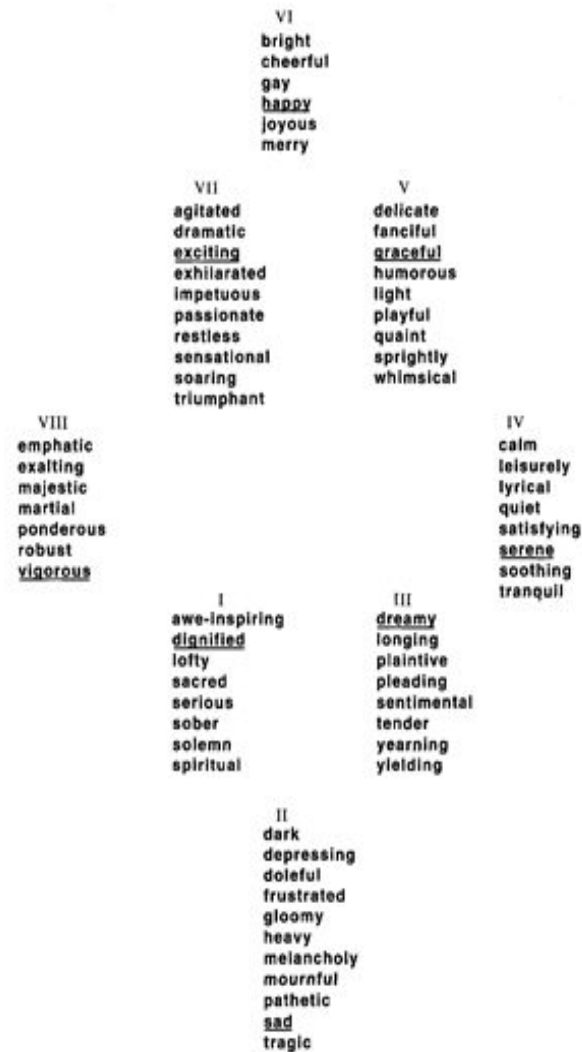


Figure 6.1 The Hevner adjective circle. The underlined term in each cluster was chosen by Hevner as a key term, broadly representing the adjectives in each cluster. From Gabriellson & Lindström, 2001, and Farasworth, 1954.

The expression of emotion

- Links between musical cues and musical mood are reliable.
 - Balkwill & Thompson 1998, Gabrielson & Lindström 2001
 - Music with a fast tempo, high average pitch, and bright timbre is associated with “happiness” rather than “sadness” and vice versa.
 - Gerardi & Gerken 1996
 - Major keys are associated with positive emotions and minor keys with negative emotions even by very young children in Western cultures.
- What is the mental basis for the observed link between musical cues and judgments of musical mood?
- How universal are these links across musical cultures?

The expression of emotion

- Emotion in speech may be one factor.
 - Sad voices and musical passages are likely to be lower pitched and slower than happy ones.
- Movement of people in different emotional states.
 - Depressed people move slowly and in a sagging fashion.
- Metaphor
 - Simple vs. complex melodic structure is associated with happy vs. sad judgments, and happiness is perceived as simpler than sadness.

Box 6.1 Some Cues Associated With Judgments of Musical Expressiveness in Western European Tonal Music

Tempo	Melodic contour	Harmonic complexity
Melodic complexity	Rhythmic complexity	Articulation
Dynamics	Consonance/dissonance	Pitch register
Pitch range	Timbre	Key (major/minor)

Source: Adapted from Balkwill & Thompson, 1999.

The expression of emotion

- Different Indian ragas are associated with different emotions or moods or “rasas”.
- Balkwill & Thompson 1999
 - Western listeners heard 12 ragas meant to express four “rasas”: hasya (joy), karuna (sadness), raudra (anger), shanta (peace).
 - They rated each raga for the primary emotion and how strongly the four emotions were expressed in that raga.
 - They could identify the intended emotion when it was joy, sadness or anger.
 - Joy (fast tempo and low melodic complexity), sadness (slow tempo and high melodic complexity), anger (timbre: sitar vs flute).

The experience of emotion

- Krumhansl 1997
 - Rate your own emotional reactions: happiness, sadness, or fear:
 - Albinoni's [Adagio in G minor](#)
 - Mussorgsky's [Night on Bare Mountain](#).
 - Vivaldi's [La Primavera](#).
- NH: Are these “real” emotions?
 - Don't they all give pleasure?
 - Perhaps we often rehearse or pretend real emotions in listening to music.

Ekman's 1987 basic emotions: anger, disgust, fear, joy, sadness, surprise.



The experience of emotion

- Krumhansl 1997 measured physiological reactions of another group of listeners to the same musical pieces.
 - Cardiac interbeat interval, respiration rate, skin conductance.
 - She found physiological changes appropriate to the emotion.
- Can music evoke emotions that are distinct from everyday emotions?
 - “Chills”

The experience of emotion

- Sloboda 1991
 - 83 listeners, half musicians
 - Listeners were consistent in identifying where they feel chills, and in their physiological response.
 - E.g. sudden changes in harmony.
- Blood & Zatorre 2001
 - PET-scan during chills.
 - Response in deep brain regions associated with reward and motivation.
 - Dorsal striatum and ventral midbrain
 - Active with biologically rewarding stimuli such as food and sex.
- Chills are perhaps not experienced in response to speech.
 - Except when listening to moving speeches, e.g. Martin Luther King “I have a dream”.

Tone painting

- The musical imitation of natural phenomena.
- Beethoven's 6th symphony: Pastoral
 - [Movement 2](#): flute and clarinet imitate nightingale and cuckoo.
 - Movement 4: [Thunderstorm](#).
 - Beethoven (1770-1827)
- Skillful tone painting must make sense in the larger structural framework of a piece

Musical topics

- Chafe 1994
 - Topics in conversations are discourse entities that are inactive, then active, and then perhaps semi-active during the course of a conversation.
- Agawu 1991, inter alia.
 - Motifs of different forms in classical music also can be classified as topics, and were so classified when the music was current in the 18th century.
 - Minuet (the social life of the elegant world)
 - March (authority)
 - Pastoral (innocence, connection to nature)

Musical topics

- Krumhansl 1997
 - Musically naïve participants rated music as it proceeded for memorability, openness and emotion.
 - The classifications correlated with topic structures assigned by Agawu 1991.
 - E.g. Pastoral and Storm & Drang were associated with openness and memorability in a Mozart piece perhaps because of their role in opening sections or subsections.
 - Topics are repeated after delays and recognized, like semiactive topics in conversation.
 - Mozart: (1756-1791)

Mozart's String Quintet in C major, 1st movement

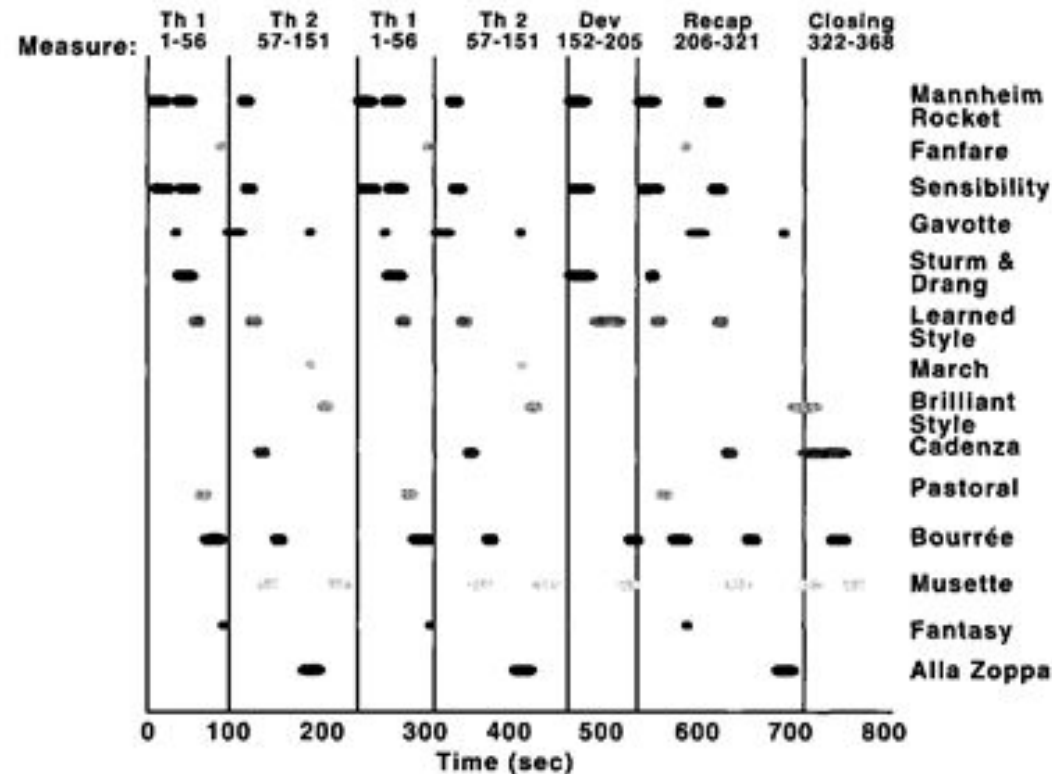


Figure 6.2. An analysis of topics in a Mozart string quintet. From Krumhansl, 1998.
Th1 = Theme 1, Th2 = Theme 2, Dev = Development, Recap = Recapitulation.

Some definitions from Wikipedia

- "The Mannheim Rocket is a series of rapidly ascending broken chords from the lowest range of the bass line to the very top of the soprano line."
- "A swiftly ascending melodic figure."
- "Rapid upward arpeggio over a large range, combined with a crescendo."
- Sturm und Drang n.1. Turmoil; ferment: "A book's historical roots represent another barrier; so does the personal Sturm und Drang of the author" (Robert Kanigel).2. A late-18th-century German romantic literary movement whose works typically depicted the struggles of a highly emotional individual against conventional society.
- [German, storm and stress, after Sturm und Drang, a drama by Friedrich Maximilian von Klinger (1752-1831).]
- Definitions of ALLA ZOPPA:
- (It. : 'halting', 'limping')
- Term applied to a rhythm in which the second quaver/eighth-note in a bar of 2/4 time is accentuated, typical of some Hungarian dances and of American ragtime.
- In syncopated style —used as a direction in music