

Some Extensions of the Concepts of Metrical Consonance and Dissonance

Paper by Harald Krebs
Presented by Dan Han

Metrical Consonance/Dissonance

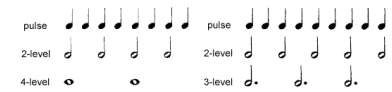
- Investigates how states of metrical dissonance arise and shows how they are manipulated and resolved in the course of compositions
- Based on Yeston's definitions in *The Stratification of Musical Rhythm*
- Rhythmic Stratum
 - "consists of like events recurring at regular time intervals"
 - i.e. Attack points, changes in dynamics, pattern recurrence, succession of pitches of equal significance.

Layers of Motion

- Musical meter as a set of interacting layers of motion
- Each layer consists of a series of approximately equally spaced "pulses".

Basic terms

- Pulse level: fastest level
- Interpretive level
 - Series of regularly recurring pulses that move slower than the pulse layer
 - Impose a metrical interpretation on the pulse level
- Cardinality
 - Number of pulses from one attack of an interpretive level to the next



Example 1

Example 2

Differing views of consonance/dissonance

- Yeston
 - Based on arithmetic relationship between levels involved
- Krebs
 - Based on a the degree of alignment of levels

Yeston: "Yes it's consonant!"
 Krebs: "No sir."

Example 3

Types of Consonance

- Direct metrical consonance
- Indirect
 - Occurs when interpretative level drops out
 - Listener continues to perceive that level

Example 4

Metrical Dissonance

- Requires at least 3 levels
 - 1 pulse level + 2 interpretative levels
- Type A = "grouping dissonance"
 - The association of interpretative layers whose cardinalities are different and are not multiples/factors of each other.
- Type B = "displacement dissonance"
 - Does not depend on the association of non-congruent layers but merely on the different positioning of congruent layers

Examples of dissonance

Type "A"

Example 5. Schumann, "Aufschwung"

Type "B"

Example 6. Brahms, Intermezzo op. 116, no. 1

Indirect/Direct Dissonance

- Similar to indirect/direct consonance
- Direct: superimposed conflicting interpretative levels
- Indirect: juxtaposed conflicting interpretative levels that occurs in listener's mind.



Example 7. Beethoven, Symphony no. 3, third movement

Subliminal Dissonance

- Primary Metrical Consonance: The consonance numerically represented by the time signature
- Pulse level + interpretative level or a particular cardinality
- One of the levels often conform to primary consonance -> perceived as most significant
- Subliminal dissonance: locally consonant collections that deviate from the PMC.

Successions

- Consonant collection followed by a different consonant collection
- Consonant to dissonant succession
 - A given consonant collection can be overlaid with 1 or more new interpretative levels that result in conflict
 - The interpretive levels in consonant collection are replaced by new conflicting levels
- Dissonant to dissonant succession

Example



Copyright Durand S.A., 1911. Used by permission of the publisher. Sole Representative U.S.A., Theodore Presser Company

Example 13. Ravel, *Valse nobles et sentimentales*, no. 1

Resolution of dissonance

- Dissonance to consonance succession
- Involves the occasional coincidence of attacks within a dissonant collection
- A dissonance collection may be succeeded by an entirely new consonant collection



Example 16. Schumann, *Carnival*, "Preamble"

Resolution of Dissonance

- Or the resolving collection may retain one or more of the levels that were involved in the dissonant collection



Example 17. Brahms, *Intermezzo* op. 119, no. 3

3 element successions

- Consonance-dissonance-consonance
- Analogy to pitch theory with neighboring notes and passing notes.



Example 17. Brahms, *Intermezzo* op. 119, no. 3

Final words

- This paper is merely a preliminary investigation of metrical consonance.
- Proposed areas of research: relationship of metrical consonance to pitch structure
- Fantasy Pieces: *Metrical Dissonance in the Music of Robert Schumann*