Some Extensions of the Concepts of Metrical Consonance and Dissonance

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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 interpretative 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 degree of alignment of levels

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

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

Types of Consonance

- **Direct metrical consonance**

- **Indirect**
  - Occurs when interpretative level drops out
  - Listener continues to perceive that level

Examples of dissonance

Type "A"

Type "B"
Indirect/Direct Dissonance

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

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 interpretive levels that result in conflict
  - The interpretive levels in consonant collection are replaced by new conflicting levels
- Dissonant to dissonant succession

Example

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

Example 13. Ravel, Rêve nobles et somnambuliques, 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, “Prelude”

3 element successions

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

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

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

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*