

# How to create meter and why (for beginning students)



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**A PRESENTATION TO THE PEDAGOGY  
INTEREST GROUP**

**SOCIETY FOR MUSIC THEORY MEETING  
ARLINGTON, VA,  
NOV. 3, 2017**

# Pedagogical context



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- Teach concepts of immediate practical benefit

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  - Many skilled in pitch structures
  - Not used to quantitative or abstract reasoning
  - Some know only rudiments
- ... they need an approach that will
- Teach concepts of immediate practical benefit
  - Be fresh for experienced students but accessible to all

# Pedagogical context



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  - Analogous to 1<sup>st</sup> semester history survey as prep for era study

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  - Develops students’ ability to recognize, describe, and create musical form:
    - ✦ Key concept: segments – beginning, ending, continuity
  - All standard first-year topics introduced in this context

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  - Develops students’ ability to recognize, describe, and create musical form:
    - ✦ Key concept: segments – beginning, ending, continuity
  - All standard first-year topics introduced in this context
  - Survey of how segments are created in variety of styles (progressively more complex textures: melodic, contrapuntal, harmonic); medieval, Renaissance (etc...)....post-tonal, pop

# Learning goals



Analog to a language course:

- Creative: be able to fashion clear sentences and paragraphs
- Analytical: be able to recognize and appreciate larger design (argument, narrative arc, etc.)

In music:

- Creative: be able to fashion a melody with a clear meter
- Analytical: recognize and appreciate how meter contributes to form (beginnings, endings and continuity of segments)

# Learning goals



- How to determine the meter(s) of a rhythm aurally, or using only a score (without signature/bar lines)
- How to write an unaccompanied melodic phrase with a clear meter
- How to analyze the grouping structure of a monophonic passage and recognize its form
- How to justify an analysis of grouping structure and meter
- Explain how continuity, substance and closure are created in phrases

# Conceptual obstacles



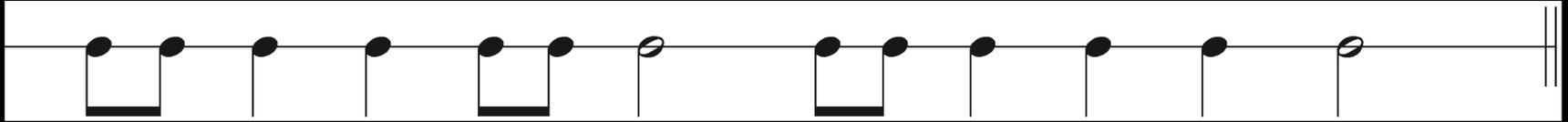
- **Conflation of time signature and meter**
  - Meter as static, unvarying in depth and strength
  - Unaware of “hypermetric” organization
  - Insensitive to contrametric pulse and its possible continuity  
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e.g. hemiola
- **Conflation of meter and grouping**
  - Confusing segment beginnings with downbeats
  - Confusing measures with segments

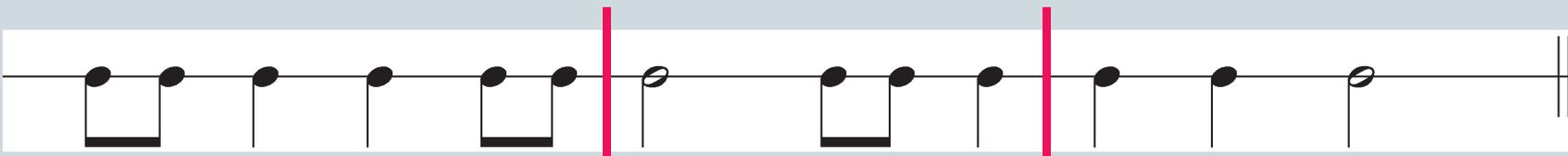
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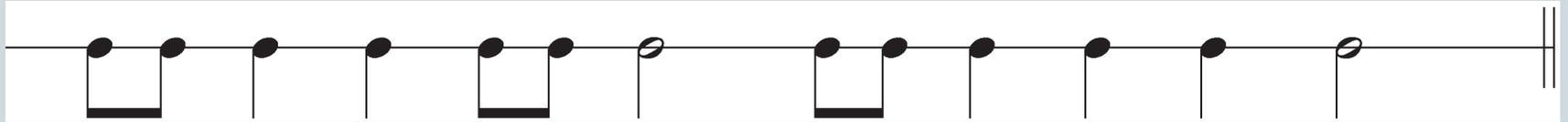
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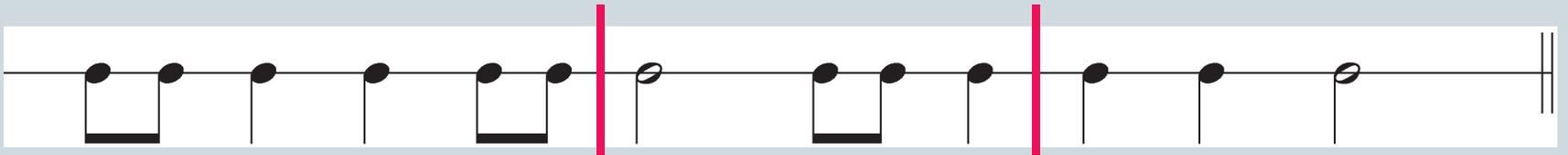
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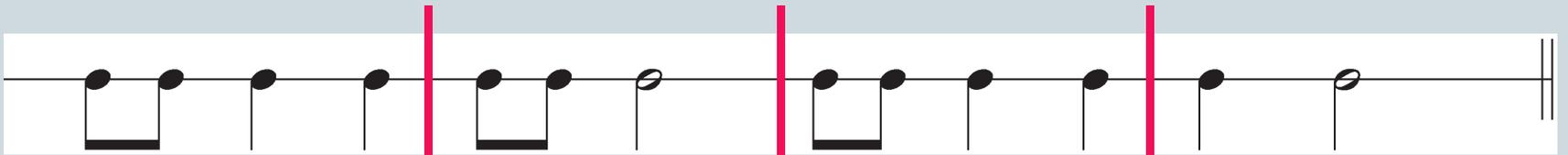
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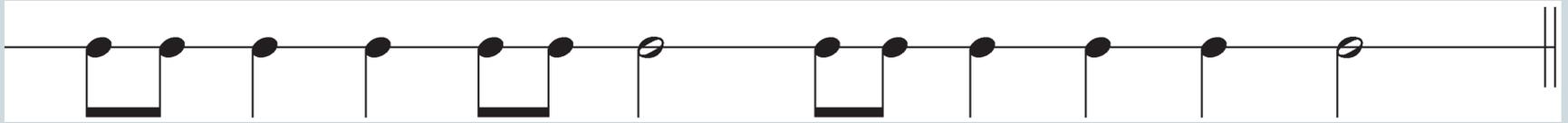
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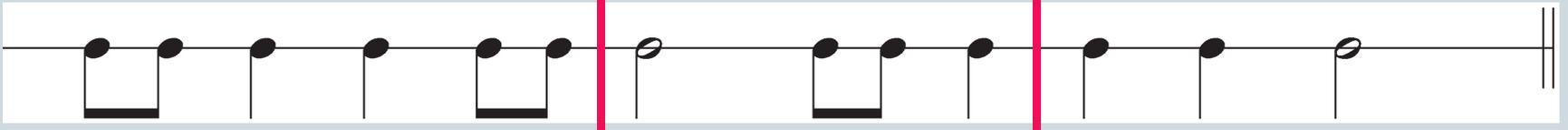
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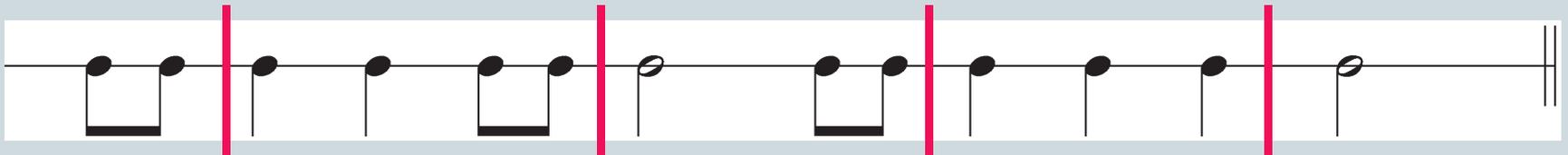
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3  
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6  
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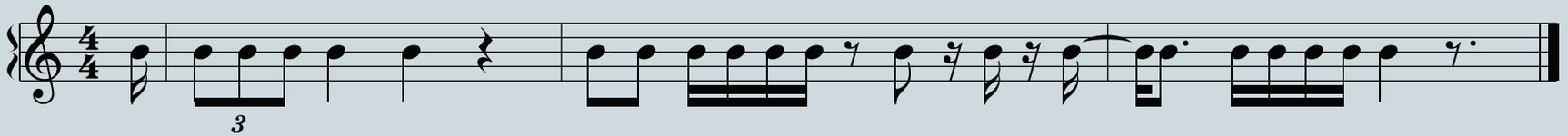


# Conceptual obstacles



Q: Write a rhythm that clearly creates a 4/4 meter, and that includes an anacrusis, a syncopation, and a cadence

A:

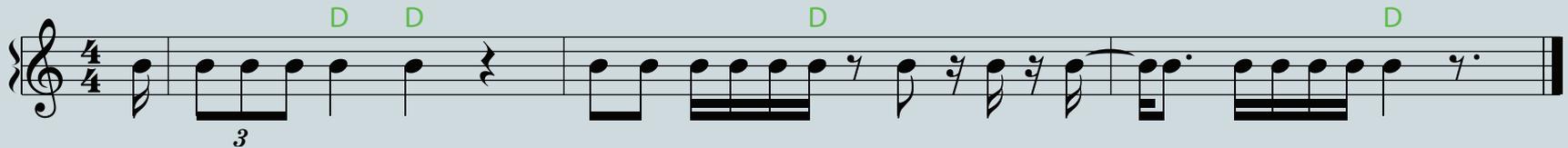


# Conceptual obstacles



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A:



(no tactus, no regular accent, no repeated motives ->  
no meter -> no syncopation or cadence formula possible)

# Approach (1): Theory



- **Concept of pulse stream**
  - A series of (perceived) equal durations
  - May be experienced at different tempos
  - Tactus (not always as written)
  - Provides special kind of continuity

# Approach (1): Theory

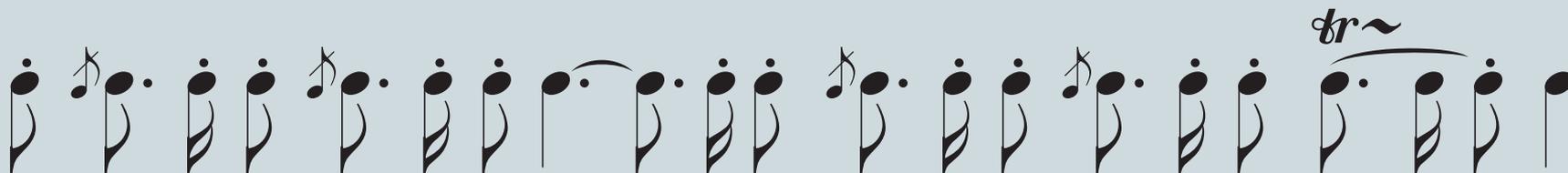


- **Concept of pulse (stream)**
  - A series of (perceived) equal durations
  - May be experienced at different tempos
  - Tactus (not always as written)
  - Provides special kind of continuity
- **How it is created**
  - Regular change or phenomenal accent
  - May vary in strength/salience
  - Not present right away -- gradually develops

# Approach (2): analyze/verbalize



(Beethoven, Bagatelle)





# Approach (2): analyze/verbalize



A musical exercise for a D major scale. The notation is arranged in two rows. The top row contains black notes on a staff with stems pointing down. Above the notes are green 'D' labels. The notes are: D4 (quarter), E4 (quarter), F#4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (half), D5 (quarter), E5 (quarter), F#5 (quarter), G5 (quarter), A5 (quarter), B5 (quarter), C6 (quarter), D6 (quarter), E6 (quarter), F#6 (quarter), G6 (quarter), A6 (quarter), B6 (quarter), C7 (quarter), D7 (quarter). A slur with 'tr~' is placed over the last four notes (C6, D6, E6, F#6). The bottom row contains blue notes on a staff with stems pointing up. The notes are: D4 (quarter), E4 (quarter), F#4 (quarter), G4 (quarter), A4 (quarter), B4 (quarter), C5 (half), D5 (quarter), E5 (quarter), F#5 (quarter), G5 (quarter), A5 (quarter), B5 (quarter), C6 (quarter), D6 (quarter), E6 (quarter), F#6 (quarter), G6 (quarter), A6 (quarter), B6 (quarter), C7 (quarter), D7 (quarter). A blue note with a dot and a parenthesis, (D4), is placed above the first note of the bottom row.

# Approach (2): analyze/verbalize



Diagram illustrating a musical sequence with chord labels and rhythmic notation.

The sequence consists of 8 measures, each labeled with a green 'D' above it. The notes are represented by stems and dots, with some stems having a leaf-like shape. The notes are arranged in a sequence that suggests a specific rhythmic pattern.

The notes are color-coded: blue for the first seven measures and pink for the eighth measure. The eighth measure is marked with a trill symbol (*tr~*) above the notes.

Below the notes, the rhythmic notation is shown. The first seven measures are marked with a '2' and a 'q' (quarter note), indicating a 2/4 time signature. The eighth measure is marked with a 'q' and a dot, indicating a quarter note with a fermata.

# Approach (3): definition



We hear “meter” when we can hear/beat two or more different synchronized pulse streams...

- Not what meter is but when we hear it
- Sidesteps issues of competing conceptions (strong/weak, pulse hierarchy, single pulse as meter, projection, waves of attention)
- Keeps focus on pulse-stream continuity





# Approach (4): spiral up analytically



222



Andante

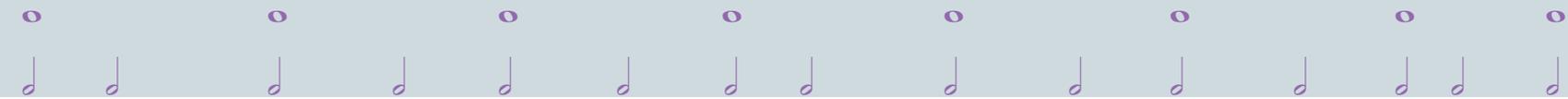


L D L D C L D D D D

# Approach (4): spiral up analytically



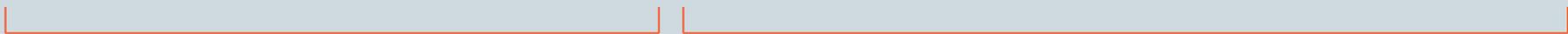
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Andante



L D L D C L D D D D



# Approach (4): spiral up analytically



B&H edition ca. 1854

**Corni in C.**



B&H 1885, ed. Brahms

**Corni in C.**



# Approach (5): apply creatively



**Q:** Write a rhythm that clearly creates a 4/4 meter,  
by establishing a tactus and a slower synchronized pulse stream by regular  
accent and by repetition of motives  
and that includes an anacrusis, a syncopation, and a cadence formula  
remembering that syncopation and cadence formulas are only possible after the  
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**A:**

The musical notation shows a 4/4 meter with a treble clef. The rhythm is represented by 14 quarter notes on a single staff. The first note is an anacrusis. The second and fourth notes are accented (marked with a green 'D'). The eighth and tenth notes are syncopated. The final two notes (thirteenth and fourteenth) form a cadence formula. Red brackets above the notes group them into three measures: the first measure contains the first five notes, the second measure contains the next five notes, and the third measure contains the final four notes.

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**A:**

A musical score in 4/4 time. The notation consists of a single staff with a treble clef and a 4/4 time signature. The melody is written in black ink. Above the staff, there are three red brackets, each spanning two measures. The first bracket covers measures 1 and 2, the second covers measures 3 and 4, and the third covers measures 5 and 6. Above each of these brackets, the letter 'D' is written in green. The melody starts with a quarter rest in measure 1, followed by a quarter note in measure 2, a quarter note in measure 3, and a quarter note in measure 4. In measure 5, there is a quarter note followed by a quarter rest, and in measure 6, there is a quarter note followed by a quarter rest. The piece ends with a double bar line in measure 6. In the bottom right corner of the slide, there is a small icon of a speaker with a blue cone.

# How do pulse and meter contribute to form?



- By creating continuity across musical segments

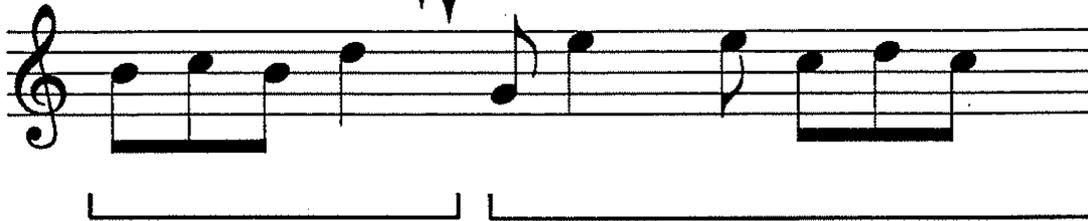
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- By creating continuity across musical segments
- Halting a established pulse creates articulation

Set up a clear  stream...

No attack on the beat that has been set up, and there is no other continuity, so here is an ending.



# How do pulse and meter contribute to form?



- By creating continuity across musical segments
- Halting a established pulse creates articulation
- By marking special moments at which occurs, e.g., formulaic closure (“rhythmic cadence formula”)

Andante

*p* *pp*

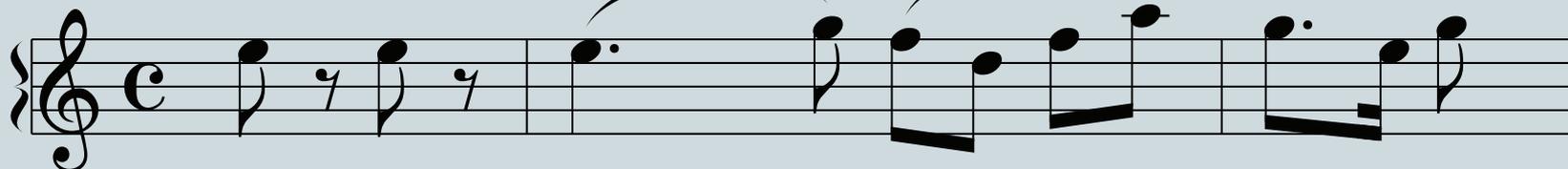
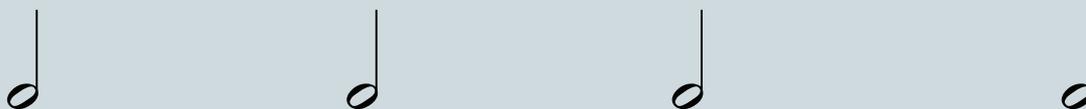
L D L D C L D D D D

(rhythmic cadence formula)

# How do pulse and meter contribute to form?



- By creating continuity across musical segments
- Halting a established pulse creates articulation
- By marking special moments at which occurs, e.g., formulaic closure (“rhythmic cadence formula”)
- By bringing out framework pitches (pitch hierarchy)



# How do pulse and meter contribute to form?



- (in polyphony) Cross pulses contribute to tension shapes of larger segments

qu'o - ci - es en de - si - rant vostre a - mi - tié.  
que vo gra - ce qu'il a - tant m'au - res don - né.

(Machaut, "Plus dure")



# Summary: “practical benefit”?



- Promotes clear composition/improvisation
- Cultivates awareness of how performance (articulation, timing, and phenomenal accent) affect phrasing and form
- Orientation towards very basic formal processes opens ears to less familiar styles
- Gives students the terminology and concepts to discuss some of their most powerful modes of engagement with music