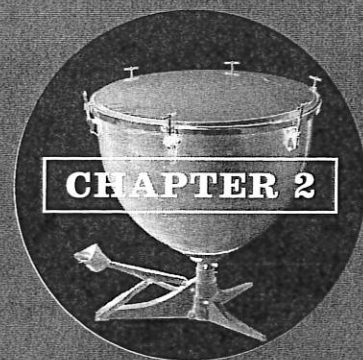


Simple Meters

CHAPTER 2



Outline of topics

Dividing musical time

- Beat, beat divisions, and meter
- Conducting patterns
- Tempo
- Rhythm and meter

Rhythmic notation for simple meters

- Rhythmic values
- Meter signatures

Counting rhythms in simple meters

- Beat subdivisions
- Stems, flags, and beaming
- Counting rests and dots
- Slurs and ties
- Syncopation
- Hemiola
- Anacrusis notation

Beat units other than the quarter note

Implications for performance: Metric hierarchy

Overview

We turn now to the organization of music in time. This chapter explains how beats are grouped and divided to create meter, then focuses on simple meters, whose beats divide into two parts.

Repertoire

Anonymous, Minuet in D Minor

Johann Sebastian Bach

Chaconne, from Violin Partita No. 2 in D Minor

Invention in D Minor

Frédéric Chopin, Mazurka in F Minor, Op. 68, No. 4

"Greensleeves"

George Frideric Handel

Chaconne in G Major

"Rejoice greatly," from *Messiah*

Fanny Mendelssohn Hensel, "Neue Liebe, neues Leben" ("New Love, New Life")

Scott Joplin

"Pine Apple Rag"

"Solace"


John Newton, "Amazing Grace"

Robert Schumann, "Trällerliedchen" ("Humming Song"), from *Album for the Young*, Op. 68, No. 3

John Philip Sousa, "The Stars and Stripes Forever"

Dividing Musical Time


Beat, Beat Divisions, and Meter

-  Listen to the opening of Joplin's "Pine Apple Rag" and Handel's "Rejoice greatly"—two lively works in contrasting styles. As you listen, tap your foot in time: this tap represents the work's primary pulse, or **beat**. You should also hear a secondary pulse, moving twice as fast. Tap the secondary pulse in one hand while your foot continues with the primary beat. This secondary pulse represents the **beat division**.



KEY CONCEPT Musical **meters** are defined by:

- (1) the way beats are divided, and
- (2) the way beats are grouped into larger recurring units.

-  Beats typically divide into two or three parts. In the Joplin and Handel examples, the beat divides into twos. Now listen to the English folk tune "Greensleeves." Tap your foot along with the slow beat, as before. When you add the beat division in your hand, you'll notice that the beat divides not into twos, but into threes.







KEY CONCEPT There are two principle meter types: simple and compound. Musical works in **simple meters** have beats that divide into twos. Those in **compound meters** have beats that divide into threes.

The character of these two types can be quite different: simple meters feel more even, while compound meters may sound lilting.

Try it #1

Listen to each piece below to determine the beat and its division. If the beat divides in twos, circle "simple"; if it divides in threes, circle "compound."

- | | | |
|---|--------|----------|
| (a) Joplin, "Solace"  | simple | compound |
| (b) Gilmore, "When Johnny Comes Marching Home"  | simple | compound |
| (c) Mozart, <i>Variations on "Ah, vous dirai-je Maman"</i>  | simple | compound |
| (d) Schumann, "Wilder Reiter"  | simple | compound |

Listen now to the opening of Sousa's "The Stars and Stripes Forever" and Chopin's Mazurka in F Minor. Tap the primary beat for each. In both works, the beat divides into twos: both are in simple meter. But besides dividing, primary beats also *group*—into twos, threes, or fours. As you listen to each piece, try counting "1-2, 1-2" (one number per beat); if the piece doesn't fit that pattern, try "1-2-3, 1-2-3" or "1-2-3-4, 1-2-3-4."



KEY CONCEPT When beats group into units of two, the meter type (either simple or compound) is **duple**. When they group into units of three, the meter type is **triple**; and when they group into units of four, it is **quadruple**.

The meter type for the Sousa march is simple duple, and for the Chopin mazurka simple triple. In music notation, the beat groupings are indicated by **bar lines**, which separate the notes into **measures**, or **bars**. On a grand staff like that in Example 2.1 (unlike a single-line staff), an initial bar line and curly brace connect the two staves, as does each subsequent bar line. Measures are often numbered at the top, as in the examples in this book, to help you find your place in a score. Listen again to the mazurka while following the notation in the example and the counts written beneath.

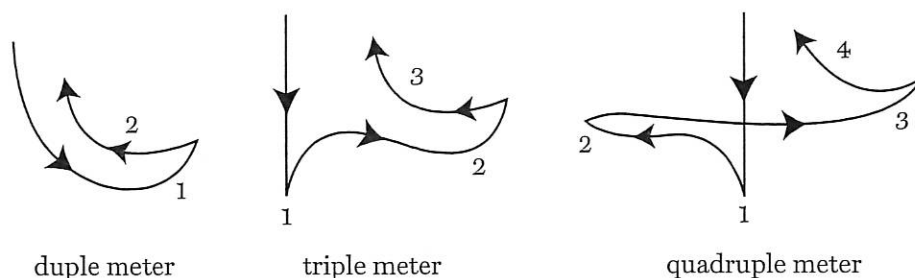
EXAMPLE 2.1: Chopin, Mazurka in F Minor, mm. 1–4

Conducting Patterns

Conductors' motions outline specific patterns for each meter to keep an ensemble playing together and to convey interpretive ideas. The basic conducting patterns for duple, triple, and quadruple meters given in Figure 2.1 are the same whether the piece is in a simple or compound meter (although the conductor may distinguish between them by subdividing the basic pattern).

As you practice each pattern, you will feel a certain physical weight associated with the **downbeat**—the motion of the hand down on beat 1 of the pattern. You will probably feel anticipation with the **upbeat**—the upward lift of the hand for the final beat. Practice these patterns until you feel comfortable with them, then use them to help you recognize meter types by ear.

FIGURE 2.1: Conducting patterns



Tempo

Conductors also use conducting patterns to establish a work's **tempo**, or speed (the plural is "tempi"). The proper tempo helps to convey the character or mood of a piece. It is often indicated on a musical score with words in Italian or other languages. Following are the most common tempo indications in Italian.

- Slower tempi: *grave*, *largo*, *larghetto*, *adagio*
- Medium tempi: *andantino*, *andante*, *moderato*, *allegretto*
- Faster tempi: *allegro*, *vivace*, *presto*, *prestissimo*
- Increasing in tempo (gradually faster): *accelerando*
- Decreasing in tempo (gradually slower): *ritardando*

Meter is considered hierarchical because you can perceive it simultaneously at different levels. In simple time, for example, the relationship between the beginning of a beat and its division is strong-weak. Then within a measure, beats may alternate strong-weak, and at a still higher level, full measures may also alternate strong-weak. For this reason, you may sometimes have trouble hearing the difference between duple and quadruple meters by ear; you may hear one measure in quadruple meter as two bars of duple. It is also possible to hear two measures of simple triple meter as one measure of compound duple. Don't worry that you are "wrong"—you are simply identifying the meter at a different level of the hierarchy. Tempo can provide an important clue. If you perceive a very fast beat in three, for example, perhaps you are hearing the beat divisions in compound meter.

Try it #2

Listen to the beginning of each of these simple-meter compositions. Listen for the grouping and metrical accent, then circle either “duple or quadruple” or “triple.”

- | | | |
|--|--------------------|--------|
| (a) Bach, “O Haupt voll Blut und Wunden” $\frac{a}{b}$ | duple or quadruple | triple |
| (b) Mozart, Minuet in F Major, K. 2 $\frac{a}{b}$ | duple or quadruple | triple |
| (c) Mozart, Piano Sonata in C Major, K. 545,
first movement $\frac{a}{b}$ | duple or quadruple | triple |
| (d) Bach, <i>Passacaglia in C Minor</i> for organ $\frac{a}{b}$ | duple or quadruple | triple |

Rhythm and Meter

Rhythm and meter are two different, but related, aspects of musical time. **Rhythm** refers to the durations of pitch and silence (notes and rests) used in a piece. **Meter** provides a framework of strong and weak beats against which the rhythms are heard.

SUMMARY

Music written in a meter has

- a recurring pattern of beats,
- perceivable divisions of beats (simple or compound),
- perceivable groupings of beats (duple, triple, or quadruple).

Rhythm consists of

- durations of pitch and silence, heard in the context of the underlying meter.

This summary applies generally to tonal music from the common-practice era, roughly 1600 through the early twentieth century. But nonmetric pieces—pieces without meter—are found in non-Western music and in Western music of the twentieth century, as you will see in later chapters.

Rhythmic Notation for Simple Meters

Rhythmic Values

The parts of a note are labeled in Figure 2.2. The wavy line attached to the stem of a single note is a **flag**, and the horizontal line connecting two or more notes is a **beam**. The **dot** (if present) is always written on a space; when you write a note on a line, the dot goes next to it on the space above, so that it can be clearly seen.

FIGURE 2.2: Parts of a note

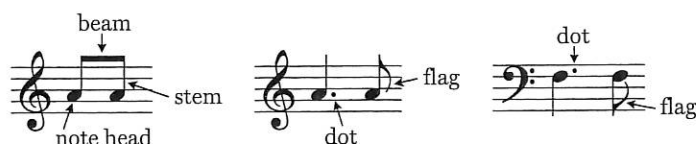



Figure 2.3 is a chart of common rhythmic values and their equivalent **rests** (durations of silence) in simple meters. The chart is organized to reflect the beat division in simple time: a **whole note** divides into two **half notes**, a half note divides into two **quarter notes**, and so on. You can create smaller note values by adding flags or beams to the stem: **eighth notes**, for example, have one beam, **sixteenth notes** two beams (a **thirty-second note** has three flags or beams, and a **sixty-fourth note** has four). In some meters, you will also see longer note values, such as the **breve** (\equiv), which lasts twice as long as a whole note; it is also sometimes written as a double whole note (∞).

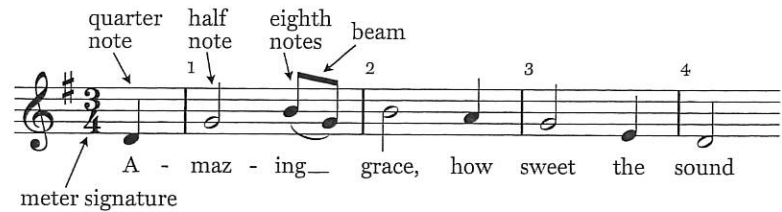
FIGURE 2.3: Rhythmic values in simple meters

NOTE VALUE	NAME	REST
	whole	
	half	
	quarter	
	eighth	
	sixteenth	

Meter Signatures

A **meter signature** (or **time signature**) at the beginning of a score establishes the meter type and **beat unit**. The meter signature in “Amazing Grace” (Example 2.2) indicates that there are three beats in each full measure, and the quarter note gets one beat.

EXAMPLE 2.2: Newton, “Amazing Grace,” mm. 1–4a 






KEY CONCEPT Meter signatures are written with two numbers, one above the other. In simple meters:

- The upper number is 2, 3, or 4, to show that the meter type is simple duple, triple, or quadruple; this number tells how many beats are in each measure.
- The lower number indicates which note gets one beat (the beat unit): 2 (half note), 4 (quarter note), 8 (eighth note), or 16 (sixteenth note).






Figure 2.4 provides examples of simple meter signatures and how to interpret them.

FIGURE 2.4: Meter signatures

(a) Common simple meters

METER SIGNATURE	BEATS PER MEASURE	BEAT UNIT	METER TYPE
$\frac{2}{4}$	2		simple duple
$\frac{3}{4}$	3		simple triple
$\frac{4}{4}$	4		simple quadruple

(b) Less common simple meters

METER SIGNATURE	BEATS PER MEASURE	BEAT UNIT	METER TYPE
$\frac{2}{2}$	2		simple duple
$\frac{3}{2}$	3		simple triple
$\frac{3}{8}$	3		simple triple
$\frac{4}{8}$	4		simple quadruple
$\frac{4}{16}$	4		simple quadruple

Try it #3

Name the meter type (e.g., simple quadruple) and beat unit for each meter signature given below.

	METER TYPE	BEAT UNIT
(a) $\frac{3}{2}$	_____	_____
(b) $\frac{3}{16}$	_____	_____
(c) $\frac{3}{8}$	_____	_____
(d) $\frac{4}{2}$	_____	_____

Besides numbers, you may see other symbols in scores to represent meter signatures. For example, **c**, called “common time” (a symbol dating back to the fourteenth century), is frequently used to represent $\frac{4}{4}$, and **¢**, or **alla breve** (sometimes called “cut time”), can take the place of $\frac{2}{2}$.

SUMMARY

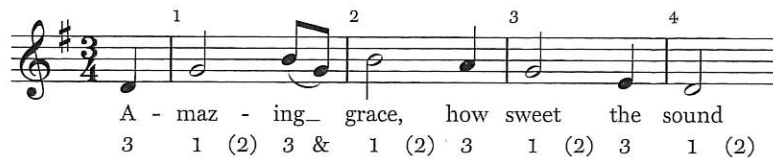
Meter signatures you are most likely to see in simple meters include the following:

- Simple duple: $\frac{2}{2}$ **¢** $\frac{2}{4}$ $\frac{2}{8}$
- Simple triple: $\frac{3}{2}$ $\frac{3}{4}$ $\frac{3}{8}$ $\frac{3}{16}$
- Simple quadruple: $\frac{4}{2}$ $\frac{4}{4}$ **c** $\frac{4}{8}$ $\frac{4}{16}$

Counting Rhythms in Simple Meters

By interpreting the meter signature, we can now write counts for each beat into a score. Example 2.3 repeats the melody for “Amazing Grace,” with the counts written below. Each full measure gets three beats; if no new pitch sounds on a given beat, as for beat 2 in each measure of the example, write the count in parentheses. The two eighth notes in measure 1 are written “3 &” (or “3 +”) and counted aloud as “three and”; the “and” is the **offbeat**. The quarter note D preceding the first full measure is an **anacrusis** (also called an **upbeat**, or **pickup**). Count it as the final beat of an incomplete measure, as indicated by the number 3 in the example.

EXAMPLE 2.3: Newton, “Amazing Grace,” mm. 1–4a 



A - maz - ing_ grace, how sweet the sound

3 1 (2) 3 & 1 (2) 3 1 (2) 3 1 (2)

Try it #4


Write the counts beneath the following melodies. (The final measure of (c) is incomplete.)

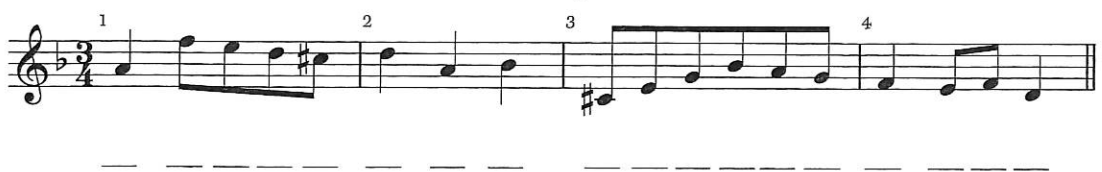
(a) Horner, Mann, and Weil, “Somewhere Out There,” mm. 40–42 



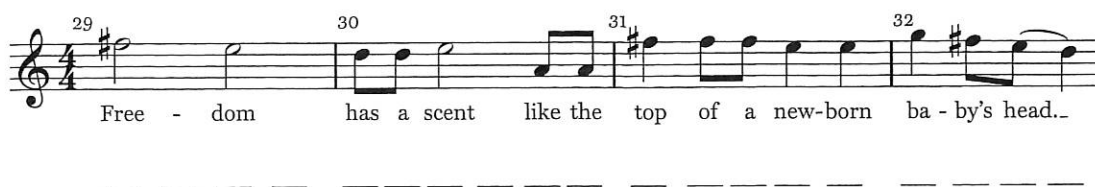
out there, out where dreams come true. _____

1 2 (3) 4 _____

(b) Anonymous, Minuet in D Minor, mm. 1–4 



(c) Bono and U2, "Miracle Drug," mm. 29–32a 






Beat Subdivisions

Now listen to Variation 19 of Handel's Chaconne in G Major, while following the score in the anthology. Here the stately melody is played in quarter and eighth notes in the right hand, while the left hand accompanies with energetic groups of sixteenths. These sixteenth notes represent the beat **subdivision**.



KEY CONCEPT In simple meters, the beat divides into twos and subdivides into fours.

EXAMPLE 2.4: Handel, Chaconne in G Major, mm. 153–156 

In music with a quarter-note beat, the beat divides into two eighths () and subdivides into four sixteenths (), or it may divide into a combination of eighths and sixteenths (like ).

Stems, Flags, and Beaming

Your ability to sight-read, remember, and write music will be greatly enhanced by learning the typical rhythmic patterns that can occur within a beat and notating them correctly. Look, for instance, at how stems and flags are notated in Example 2.4. In the left hand, the beams group four sixteenths into a single beat, which

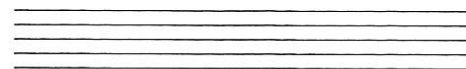
stands apart visually from the rest. Flags are written on the right-hand side of the stem, whether the stem goes up or down (compare the last right-hand eighth notes of measures 153 and 154). As mentioned in Chapter 1, the stems on notes below the middle line extend up, and those above it extend down. When several notes are beamed together (as in the left hand), the stem direction corresponds with the majority of the notes in the group (or with the second note, if there are only two).

Try it #5

Circle the incorrectly notated stems and flags.



Notate them correctly here.



Five rhythmic patterns for the quarter-note beat unit are given in Figure 2.5: learn each pattern with its correct beaming. Familiar patterns like these can be combined and recombined in different ways in rhythms, just as words can be recombined in a sentence.

FIGURE 2.5: Five common one-beat rhythm patterns in simple meters

(1) 1 &

(2) 1 e & a (not 1 e & a)

(3) 1 & a (not 1 & a)

(4) 1 e & (not 1 e &)

(5) 1 e a (not 1 e a)



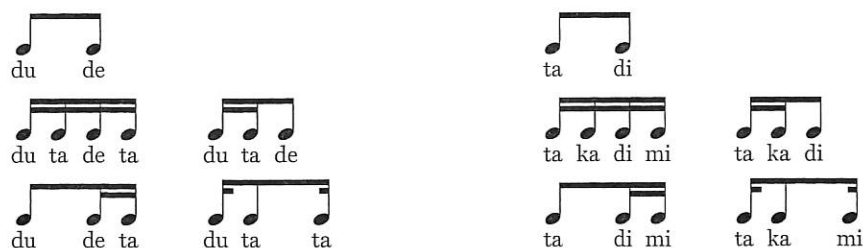
KEY CONCEPT Rhythms should be beamed to reflect the beat unit. For example, groups of eighth and sixteenth notes that span one quarter-note beat unit, such as , are beamed together.

There is one exception to the beaming guideline: in many older vocal scores, beaming corresponded with the sung syllables, rather than the beat unit. Though you may encounter the vocal notation style in scores, this text will stick with modern (“instrumental”) beaming.

Another Way

Music educators may prefer other counting syllables, such as those developed by Zoltán Kodály (e.g., ta, ti-ti) or Edwin Gordon (e.g., du, du-de). Syllables for the five basic patterns

in Gordon's system are on the left. A third system, which assigns every subdivision its own syllable (ta-ka-di-mi), is shown on the right.



Your memory for rhythmic patterns will be improved if you associate them with a counting system of numbers or syllables, in Figure 2.5. There are several such systems available, and each has advantages: choose one and use it consistently.

The single-line rhythms that follow in *Try it #6* and elsewhere in the book are notated with **rhythm clefs**, employed as their name suggests, to show only rhythm, not pitches. To draw a rhythm clef, write two vertical lines preceding the meter signature.

Try it #6

Circle beats that are beamed incorrectly, then renotate the entire rhythm on the second line with correct beaming. Write the beat-level counts beneath the given line, as in (a), to help you.

(a)
 The first line shows a rhythm in 4/4 time. The notes are: quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter. The beat-level counts are written below the notes: 1, 2, 3, 4, 1, 2, 3, 4. The second line is a blank staff with a rhythm clef and a 4/4 time signature, intended for the student to rewrite the rhythm with correct beaming.

(b)
 The first line shows a rhythm in 2/4 time. The notes are: quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter. The second line is a blank staff with a rhythm clef and a 2/4 time signature, intended for the student to rewrite the rhythm with correct beaming.

(c)
 The first line shows a rhythm in 3/4 time. The notes are: quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter, quarter. The second line is a blank staff with a rhythm clef and a 3/4 time signature, intended for the student to rewrite the rhythm with correct beaming.

Counting Rests and Dots

Rests represent durations of silence. Each rest lasts as long as the note that shares its name (e.g., eighth rest and eighth note; see Figure 2.3). Be careful when you read and write whole and half rests, because they resemble each other. The difference is not in their shape, but in their placement on the staff: the half rest “sits” on top of the third staff line, while the whole rest “hangs” from the fourth line. (You might think of the whole rest as “heavier,” and thus it has to hang from the line, while the “lighter” half rest can sit on top. Or remember that a *half* rest is shaped like a *hat*.)

A whole rest is sometimes written to indicate silence that lasts a whole measure regardless of how many beats are in that measure. In music with a half-note beat unit, such as $\frac{4}{2}$, you may see a double whole rest or note (breve), which lasts four half-note beats (Figure 2.6a). Finally, some scores (particularly orchestra parts where players rest for many consecutive bars) include multiple-bar rests. Here the number above the rest tells the player how many bars to rest. The rest in part (b), for example, is counted 1-2-3-4, 2-2-3-4, 3-2-3-4.

FIGURE 2.6:


(a) Breve



(b) Multibar rest



When a beat begins with a rest, write the appropriate beat number in parentheses, as in Example 2.5. This helps you count the durations of silence (or accompaniment) as accurately as the pitches.

EXAMPLE 2.5: Handel, “Rejoice greatly” (vocal part), mm. 8–11 

whole rest quarter rest eighth rest half rest

8 9 10 11

Re-joyce, re-joyce, re-joyce great-ly,

(1 2 3 4) (1 2) & 3 (4) & 1 (2) & 3 & a 4 & 1 2 (3 4)

A **dot** adds to a note half its own value, as Figure 2.7a shows. That is, a dotted-quarter note equals a quarter plus an eighth, a dotted eighth equals an eighth plus a sixteenth, and so on. Dotted notes are generally paired with another note that completes a full beat or full measure. Some typical patterns are shown to the right,

along with their counts in $\frac{4}{4}$. **Double dots** (more rare) add to a note half its value plus another quarter of its value (part b).


FIGURE 2.7: Use of dots

(a) Single dots

(b) Double dots

Slurs and Ties

Listen to the dotted passage from “Rejoice greatly” given in Example 2.6. The small arcs written above some of the notes in measures 92–93 are **slurs**, connecting two (or more) different pitches. Slurs affect performance articulation—bowing or tonguing, for example—but not duration: the notes encompassed by a slur should be played smoothly, or **legato**, rather than detached. For singers, slurs identify groups of pitches sung to a single syllable.

EXAMPLE 2.6: Handel, “Rejoice greatly” (vocal part), mm. 92–96a 

The small arc above the F in measures 94–95, on the other hand, is a **tie**, connecting the same note. The F in measure 95 is not played again; rather the tie adds the duration of the two note values together, so “shout” lasts three and a half beats. Counts for the beats spanned by a tie are written in parentheses to show their full duration.



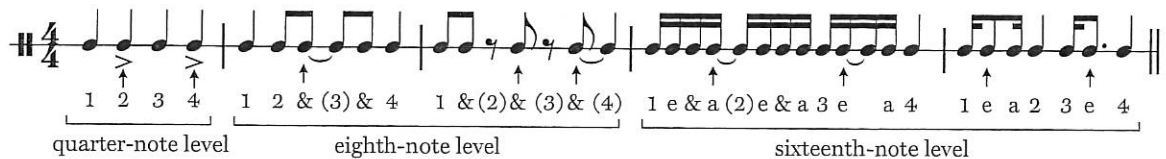
KEY CONCEPT Ties and dots should be notated in a way that clarifies the meter rather than obscuring it. For example, an eighth tied to a quarter would be clearer than a dotted quarter in the rhythmic context shown below, because it makes the placement of beat 3 explicit.





Syncopation

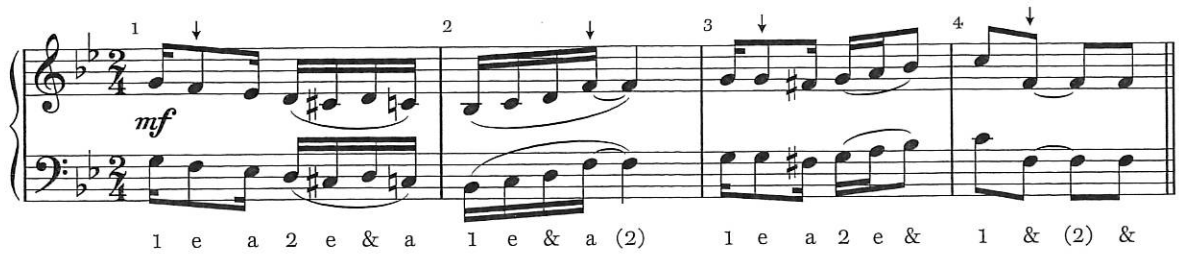
Syncopations are created when an expected accent is displaced or moved to another beat or part of a beat—by dots, ties, rests, dynamic markings, accent marks, or the rhythm itself. Syncopations are marked by arrows in Example 2.7. They may occur at the level of the beat (accents on beat 2 or 4 rather than 1 or 3), the division (on “&”), or the subdivision (on “e” or “a”).

EXAMPLE 2.7: Syncopated rhythms




Syncopations can be found in all styles, but they appear especially frequently in popular music, jazz, and ragtime. Within a quarter-note beat, the rhythms  and  are the most typical syncopation patterns. In each, the longest duration of the rhythm is on the “e” of 1 e & a instead of the stronger “1” or “&.”

Listen to the beginning of Joplin’s “Pine Apple Rag” (Example 2.8), and locate the syncopations within the beat (mm. 1 and 3) and across the beat (mm. 2 and 4), marked by arrows. Syncopations across the beat are usually notated with ties: here, the expected emphasis on beat 2 comes earlier, on the first of the tied notes.

EXAMPLE 2.8: Joplin, “Pine Apple Rag,” mm. 1–4 


1 e a 2 e & a 1 e & a (2) 1 e a 2 e & 1 & (2) &

Joplin’s “Solace” (Example 2.9) also includes many syncopations. Notice that every measure of the excerpt shows a tie from the last sixteenth of beat 1 to the first sixteenth or eighth of beat 2, creating a syncopation mid-measure. Measures 10 and 12 also feature syncopations produced by ties from the last sixteenth of the previous measure. Such syncopations are characteristic of Joplin rags. They are highly effective because of the steady accompaniment pattern in the left hand: syncopations can only be perceived if there is a strong sense of the underlying beat for them to play against.

EXAMPLE 2.9: Joplin, “Solace,” mm. 9–12 

1 e & a (2) e & a (1) e a (2) & 1 e & a (2) e & a (1) e a (2) &



Hemiola

Another metrical displacement pattern is illustrated in Example 2.10. Look at the beat-level counts given in level (a), and read the rhythm aloud on “tah” or counting syllables while conducting in three. As you probably felt from your performance, the rhythmic patterns and tie across the bar line in measures 3–4 temporarily disrupt the triple meter. Now read the rhythm again, while following the counts in level (b) and changing the conducting pattern as indicated. As the counts show, the beats in these measures group into twos, implying a temporary duple meter despite the overall triple meter. This type of grouping is common enough in musical practice that it has its own name: **hemiola**.

EXAMPLE 2.10: Hemiola pattern in triple meter

(a) $\frac{3}{4}$ 1 2 3 | 1 2 3 | 1 (2) 3 | (1) 2 (3) | 1 (2 3) ||

(b) $\frac{2}{4}$ 1 (2) | 1 (2) | 1 (2) | $\frac{3}{4}$ 1 (2 3) ||



KEY CONCEPT A hemiola is a temporary duple rhythmic grouping in the context of an underlying triple meter. Typically, two measures of $\frac{3}{4}$ meter are heard as three measures of $\frac{2}{4}$ meter. A hemiola may be articulated by rhythmic durations, accents, or melodic patterns that imply duple groupings.

Measures 255–256 of Example 2.11 present a hemiola with a more complex rhythmic pattern.

EXAMPLE 2.11: Bach, Chaconne, from Violin Partita No. 2 in D Minor, mm. 251–256 $\text{♩} \text{♩}$

(a) $\frac{3}{4}$ 1 2 3 | 1 2 3 | 1 2 3 | $\frac{2}{4}$ 1 2 3 | (1) 2 (3) | $\frac{3}{4}$ 1 (2 3) ||

(b) | 1 2 | 1 (2) | 1 (2) | 1 (2 3) ||

We may hear a hemiola as a temporary change of meter, or as both meters (duple and triple) continuing at the same time, creating a type of syncopation. A hemiola typically appears at the end of a large section or movement as in Example 2.10, where the change in metrical feel indicates the approaching end. Hemiolas are typical of Baroque style (1600–1750), but may appear in later works (by Brahms, for example) as well.

Anacrusis Notation

In music that begins with an anacrusis, notate the last measure of the piece as an incomplete bar to “balance” the initial incomplete measure. Do this by subtracting the value of the anacrusis from the last measure of the piece. For example, in $\frac{4}{4}$ meter, a quarter-note anacrusis would be balanced at the end by a final measure of only three beats. Listen to Hensel’s “Neue Liebe, neues Leben,” the opening of which is given in Example 2.12a. Here the two-beat anacrusis at the beginning is balanced by a final bar in the piano postlude (conclusion of the piece) of only two beats, shown in part (b). (When numbering partial measures, call the anacrusis measure 0, and use the letters a and b to designate the first and last parts of measures.)

EXAMPLE 2.12: Hensel, “Neue Liebe, neues Leben”(a) Mm. 1–4a $\text{♩} \text{♩}$

Herz mein Herz, was soll das_ ge - ben, was be - drän - get dich so_ sehr, _

3 & 4 1 & 2 3 & 4 1 & 2 3 & 4 1 & 2 3 4 1 2

Translation: Heart, my heart, what does this mean? What is besieging you so?

(b) Mm. 73–77 (piano postlude) $\text{♩} \text{♩}$ (anthology)

73 74 75 76 77

1 2 3 4 1 2

If you listen without a score, you might hear the beginning of this song as a downbeat: why might Hensel have set this text with an upbeat? Perhaps her sensitivity to the accents and meaning of the German text suggested that the second “Herz” was the more important word to set on a downbeat, as was “sehr” at the end of the phrase.

Try it #7

For each of the following melodies, identify what the duration of the last pitch (or combination of pitches and rests) of the piece should be to balance the anacrusis.


(a) Willson, “Till There Was You,” mm. 1–4a (melody only) $\text{♩} \text{♩}$

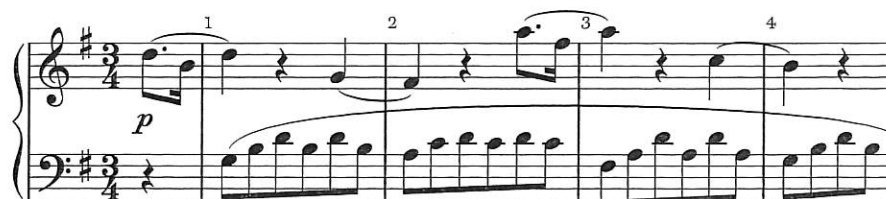
1 2 3 4

There were bells on the hill, but I nev - er heard them ring - ing,

Final note duration: _____

Hensel, “Neue Liebe, neues Leben.” Edited by Eva Rieger and Kaete Walter. © 1985 Schott Music, Mainz, Germany. All rights reserved. Used by permission of European American Music Distributors LLC, sole U.S. and Canadian agent for Schott Music, Mainz, Germany.


(b) Mozart, Piano Sonata in G Major, K. 283, first movement, mm. 1-4a 



Final note duration: _____

Beat Units Other Than the Quarter Note

The way you count the rhythm in a passage of music depends on its meter. Even the idea that “a whole note gets four beats” is correct only in certain meters, such as $\frac{4}{4}$, where a ♩ gets one beat and a ♪ two beats; in $\frac{4}{2}$, a ♩ gets a half beat, a ♪ one beat, and a ♩ two beats. Listen again to the opening of “The Stars and Stripes Forever” while following the piano score and counts in Example 2.13. The ♩ ($\frac{2}{2}$) meter instructs the performers to think of these measures “in two” (two beats per measure). To develop good sight-reading skills, practice reading rhythms with half-note or eighth-note beat units, as well as the more familiar quarter-note unit.

EXAMPLE 2.13: Sousa, “The Stars and Stripes Forever,” mm. 1-8 

1 2 a 1 & (2) & 1 & 2 & 1 2

5 1 a 2 & 6 1 a 2 & 7 e & a 2 & 8 1 & 2 &



There are various reasons why you might see compositions written with a particular beat unit. Sometimes the meter is meant to remind the performer of a particular compositional type or character—such as *alla breve* for marches. Sometimes rhythms are notated with a longer beat unit for ease of reading, so that quick-moving or complex rhythms need not be notated in small note values. In the Sousa march, for example, the *alla breve* signature allows the quick-moving pitches to be notated as eighths rather than sixteenths. And sometimes the reason for a particular beat unit has historical roots. To eighteenth-century musicians, for example, a beat unit in longer values often indicated a slower tempo and a more stately character: a signature of $\frac{3}{16}$ would indicate a sprightly jig, while $\frac{3}{4}$ would suggest the slower tempo of a minuet.

One way to gain facility with different beat units is to write equivalent rhythms in different meters, as in Example 2.14.

EXAMPLE 2.14: Equivalent rhythms notated in different meters

The image displays three musical staves, each representing a different time signature: 3/4, 3/8, and 6/8. Each staff contains four measures of music, with foot counts indicated below the notes.

- Staff 1 (3/4 time):**
 - Measure 1: Quarter note (1), eighth note (2), quarter note (3).
 - Measure 2: Quarter note (1), eighth note (2), quarter note (3).
 - Measure 3: Quarter note (1), eighth note (2), quarter note (3).
 - Measure 4: Quarter note (1), eighth note (2), quarter note (3).
- Staff 2 (3/8 time):**
 - Measure 1: Quarter note (1), eighth note (2), quarter note (3).
 - Measure 2: Quarter note (1), eighth note (2), quarter note (3).
 - Measure 3: Quarter note (1), eighth note (2), quarter note (3).
 - Measure 4: Quarter note (1), eighth note (2), quarter note (3).
- Staff 3 (6/8 time):**
 - Measure 1: Quarter note (1), eighth note (2), quarter note (3).
 - Measure 2: Quarter note (1), eighth note (2), quarter note (3).
 - Measure 3: Quarter note (1), eighth note (2), quarter note (3).
 - Measure 4: Quarter note (1), eighth note (2), quarter note (3).

When you write in meters that are less familiar, be certain that the beaming is correct for the new beat unit. For example, in the $\frac{3}{8}$ rhythm of Example 2.14, write  rather than , in order to reflect the eighth-note beat unit. (Composers are not always consistent with this guideline, as Example 2.15, in $\frac{3}{2}$, illustrates.)

Try it #8

Rewrite each rhythm below in the meter specified. Check that your beaming correctly reflects the new beat unit. Write the counts (1, 2, 3, etc.) below the new rhythms.

[illegible]

(b) $\sharp \frac{3}{4}$

$\sharp \frac{3}{8}$

(c) $\sharp \frac{2}{2}$

$\sharp \frac{2}{4}$

Example (b) shows a melody in 3/4 time with a key signature of one sharp (F#). The melody consists of four measures. The first measure has a quarter note (F#), a dotted quarter note (C), and an eighth note (F#). The second measure has a quarter note (C), a quarter note (F#), and a quarter note (C). The third measure has a quarter note (F#), a quarter note (C), and a quarter note (F#). The fourth measure has a quarter note (C), a quarter note (F#), and a quarter note (C). Below the melody is a stem with three vertical lines, representing the metric hierarchy of the 3/4 time signature.

Example (c) shows a melody in 2/2 time with a key signature of one sharp (F#). The melody consists of four measures. The first measure has a half note (F#), a half note (C), and a half note (F#). The second measure has a half note (C), a half note (F#), and a half note (C). The third measure has a half note (F#), a half note (C), and a half note (F#). The fourth measure has a half note (C), a half note (F#), and a half note (C). Below the melody is a stem with two vertical lines, representing the metric hierarchy of the 2/2 time signature.

Implications for Performance: Metric Hierarchy

One of the most important concepts to remember from this chapter is that meters are hierarchical: the quicker beat division represents a low level, the beat a higher level, and the downbeat of each measure an even higher level. Within each measure, different beats carry different metric weight, with the downbeat (beat 1) the strongest. In duple meter, the beats alternate strong-weak. In triple meter, the accents are strong-weaker-weakest. And in quadruple meter, the first beat is metrically accented, but the third beat also gets a secondary accent.

This hierarchy is sometimes represented with rows of dots, as in Example 2.15, where a greater number of dots aligned vertically indicates a stronger metric position. The first beat of each measure, then, no matter the meter, receives the strongest metrical accent, and therefore the most dots.

EXAMPLE 2.15: Anonymous, Minuet in D Minor, mm. 1–4

The musical notation shows four measures of music in 3/4 time with a key signature of two flats (Bb, Eb). The first measure has a quarter note (Bb), an eighth note (Eb), and a sixteenth note (Bb). The second measure has a quarter note (Eb), a quarter note (Bb), and a quarter note (Eb). The third measure has a quarter note (Bb), a quarter note (Eb), and a quarter note (Bb). The fourth measure has a quarter note (Eb), a quarter note (Bb), and a quarter note (Eb).

Hypermeasure:

Downbeat:

Add beat 2:

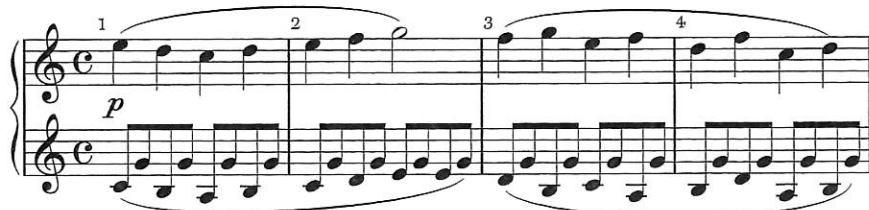
Beat level:

Divisions:

At an even higher level of the hierarchy, measures themselves typically group together in what's called "hypermeter": measures 1 and 3 are heard as metrically stronger than measures 2 and 4. This hypermetric grouping of measures is illustrated in Example 2.15 by the vertical columns of dots; in performance, think of strong and weak measures, just as you might think of strong and weak beats.

When you perform passages with continuous eighth-note motion, remember that not every eighth note is equally important. Carefully studying a work's metric and harmonic organization can help you determine the relative importance of each beat and pitch, and thus shape an effective performance. For example, listen to the opening of Schumann's "Trällerliedchen" (Example 2.16). Even though the left hand moves in continuous eighth notes, the sensitive performer will not play them all the same way.

EXAMPLE 2.16: Schumann "Trällerliedchen," mm. 1–4 



Hypermeasure:

Measure:

Half-measure:

Quarter note:

Eighth note:

The "offbeat" eighth notes of the left hand (on "and") are weakest of all in the metric hierarchy. The downbeats of measures 1 and 3 are strongest metrically, followed by the downbeats of measures 2 and 4. Try singing or playing the right-hand melody, keeping in mind the implied strong and weak beats.

In performance, you may find it helpful sometimes to think "one to the bar" to create a large-scale hypermetric alternation between strong and weak measures. This will help contribute to a performance with broad sweep, one that is not bogged down by rhythmic detail. Try comparing several recordings of Schumann's piano work; listen for strong and weak measures, and consider whether the recordings agree in their hypermetric interpretations.

Did You Know?

Baroque musicians sometimes used motion of the hand down and up to conduct performances, but their patterns were somewhat different from those seen today. German composer and theorist Johann Mattheson (1681–1764), a contemporary of J. S. Bach, describes in one treatise the motions associated with duple and triple meters: both meters are based on a downward and upward motion of the hand, but in triple meters the up-stroke lasts twice as long as the down-stroke. Because the hand motion in triple meters was uneven, they were called “uneven” meters; duple meters were referred to as “even.”

During this time, ensemble music was led by one of the players, usually the harpsichordist or organist, who signaled the first downbeat, then played with the ensemble. Sometimes opera or large-ensemble conductors indicated the downbeat by banging a large baton or staff on the floor. This proved hazardous in at least one case: Jean-Baptiste Lully, a ballet and opera composer and conductor at the French court of Louis XIV until 1687, died from an infection in his foot after energetically striking it with the conducting baton during a performance.

TERMS YOU SHOULD KNOW

alla breve	hemiola	rest	syncopation
anacrusis	measure	rhythm	tempo
bar line	meter	rhythmic value	tie
beam	• simple	• eighth note	time signature
beat	• compound	• half note	upbeat
common time	• simple duple	• quarter note	
cut time	• simple quadruple	• sixteenth note	
dot	• simple triple	• whole note	
downbeat	meter signature	slur	
flag	note head	stem	

QUESTIONS FOR REVIEW

1. What is the difference between (a) simple and compound meters, (b) rhythm and meter, (c) beat division and subdivision, (d) a flag and a beam, (e) a tie and a slur, (f) a syncopation and a hemiola?
2. What do the two numbers in a simple meter signature represent?
3. Provide two appropriate meter signatures each for a simple duple, simple triple, and a simple quadruple piece. Write three measures of rhythm in each meter, using rhythm clefs.
4. What are the notation rules for (a) stem direction, (b) beaming beat divisions and subdivisions, (c) upbeats?

5. How are syncopations created? Write two syncopated rhythmic patterns.
6. Find a piece of music from your repertoire in each of the following meters: simple duple, simple triple, simple quadruple. Choose at least one with an eighth- or half-note beat unit, and practice counting its rhythm while conducting the meter.
7. Choose a short passage from your repertoire. Try to perform it with equal stress on each beat. Then mark the strong and weak beats and perform again.