from Listen to This by Mark Evan Bonds

THE ELEMENTS OF MUSIC: A Brief Introduction

Melody

Melody: The Tune. Melody is a single line of notes heard in succession as a coherent unit. A melody has shape, moving up or down in ways that capture and hold our attention over a span of time. A melody is like a story: it has a beginning, a middle, and an end.

Rhythm

Rhythm: The Time. Rhythm is the ordering of music through time. Not all music has a melody, but all music has rhythm. A drum solo, for example, makes its effect primarily through rhythm. Rhythm can operate at many levels, from a repetitive, underlying pulse or beat to rapidly changing patterns of longer and shorter sounds.

Harmony

Harmony: Supporting the Melody. Harmony is the sound created by multiple voices playing or singing together. Harmony enriches the melody by creating a fuller sound than can be produced by a single voice.

Texture

Texture: Thick and Thin. Texture is based on the number and general relationship of musical lines or voices. Every work of music has a texture from thick (many voices) to thin (a single voice). Sometimes one line or voice is more important; at other times, all the lines or voices are of equal importance.

Timbre

Timbre: The Color of Music. Timbre is the character of a sound. The same melody sounds very different when performed by a violin, a clarinet, a guitar, or a human voice. These sources can all produce the same pitch, but what makes the same melody sound different is the timbre of each one.

Dynamics

Dynamics: Loud to Soft. The same music can be performed at many degrees of volume, from very soft to very loud. Dynamics determine the volume of a given work or passage in a work of music.

Form

Form: The Architecture of Music. A single melody is usually too short to constitute a complete work of music. Typically, a melody is repeated, varied, or contrasted with a different melody. The way in which all these subunits are put together—the structure of the whole—is musical form. Form is based on repetition (A A), variation (A A'), contrast (A B), or some combination of these three possibilities.

Word-Music Relationships

Word-Music Relationships: How Words Shape What We Hear. If there is a text to be sung, we must consider the relationship of the words to the music. How does the music capture the meaning and spirit of its text? And even if there is not a text to be sung, many works have titles that suggest how we might hear them. Titles like *Winter*, *Rodeo,* and *The Rite of Spring* strongly influence the way in which we hear these works. Some composers have even written detailed descriptions of what a particular work is about in what we call "program music."

Genre

Genre: Great Expectations. When we get into a car, we imagine what kind of a trip we are about to take and where we are going: business, pleasure, across town, across the state. When we listen to a work of music, we have similar expectations. Symphony, opera, and song are all examples of genres. Each one tells us in advance how long it is likely to be, what kinds of instruments or voices we will hear, and what kinds of forms we might hear. Genre also tells us about the function of a work. Dance music, for example, serves a different purpose from music to be used in a service of worship.

No matter what the period or style, all music grows out of some combination of these basic elements.

In any given work, these elements all work together quite closely. But by isolating and examining the nature and function of each separately, we can better appreciate their specific contributions to the music we hear.

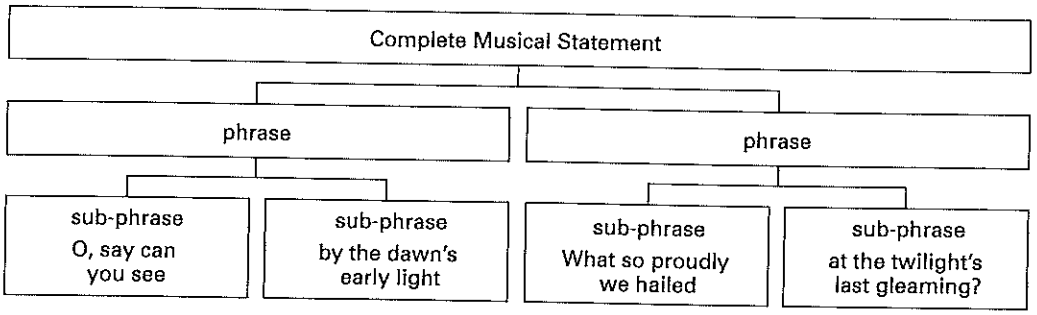
We can best isolate the functions of these various elements by considering how each of them operates within a single, well-known work. We all know "The Star-Spangled Banner" from having heard it countless times, but how often have we actually *listened* to it? We can hear and recognize the tune easily enough, but listening demands that we focus on its various elements and the ways they work together. Let's look at each of the basic elements of music to see how it functions in this song.

Melody

Melody is a single line of notes heard in succession as a coherent unit. A *note* is the smallest unit of music, the building block out of which larger structures are created. So what makes the notes of a melody hang together? How is the melody of "The Star-Spangled Banner" organized, and how do we know it's over, other than by having heard it so often? Think about how we sing this melody and where we draw a breath:

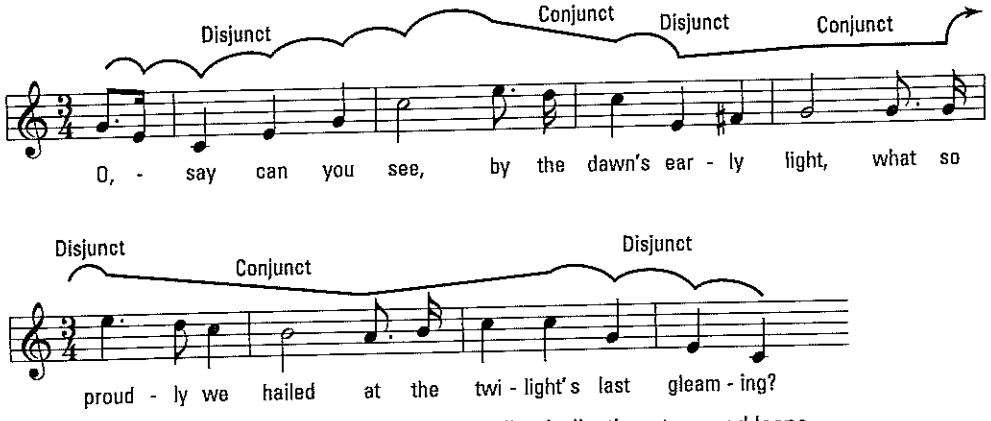
O, say can you see (breath) by the dawn's early light (breath)
What so proudly we hailed (breath) at the twilight's last gleaming? (breath)

These breaths correspond to the ends of **phrases** in both the poetry and the music. The first line of the text breaks down into two phrases (O, say can you see / by the dawn's early light), which make up a larger phrase (the entire line). Together they constitute a complete unit of thought, a question. But do we feel a sense of closure when we sing "dawn's early light"? Not really. The phrase sounds as if it hasn't quite finished yet, which indeed it has not. Only when we get to the end of the second line ("twilight's last gleaming") do we feel anything approaching a sense of musical completeness. The second line is organized on the same principle as the first (two sub-phrases), and together, these two phrases make a still larger unit that is self-contained. By the time we sing "at the twilight's last gleaming," we feel as if we have reached a goal of sorts. This is the end of a still larger phrase, a complete musical statement. When we hear a point of arrival like this, we are hearing what is called a **cadence**. A cadence is like a period in a sentence: it signals the end of a unit. We sense a point of resolution, of closure.



The melody of "The Star-Spangled Banner" is typical of the way melodies in general are constructed: smaller units (sub-phrases) combine into larger units (phrases), which combine into still larger units (complete statements), which end with a cadence. These complete statements—musical sentences, in effect—combine to create an entire musical work. Sometimes it is helpful to listen to the structure of the smallest units; at other times, it is helpful to listen to the medium- and large-scale units. In the end, we can listen to how all these units operate together to form a complete and satisfying whole.

Another important component of melody is the nature of the **melodic motion**. Do the notes move smoothly in stepwise fashion (as in "land of the free")? Or do they make big leaps (as in "What so *proud*ly we hailed")? Smooth, stepwise motion is called **conjunct motion**; motion by leaps, especially large leaps, is called **disjunct motion**. Most melodies consist of a combination of both kinds of motion. "The Star-Spangled Banner" alternates between the two. It opens with disjunct motion ("O, say can you see by") followed by a brief passage of conjunct motion ("by the dawn's"), followed in turn by a large leap downward (between "dawn's" and "early") followed by more conjunct motion. Graphically, this variety of motion can be represented in such a way that even if you cannot read music, you can see the relationship between the downward or upward movement of the notes and the distances between them.



The opening of "The Star-Spangled Banner" with a line indicating steps and leaps

mymusiclab

CD I • Track 1
Melodic motion in the opening phrase of "The Star-Spangled Banner"

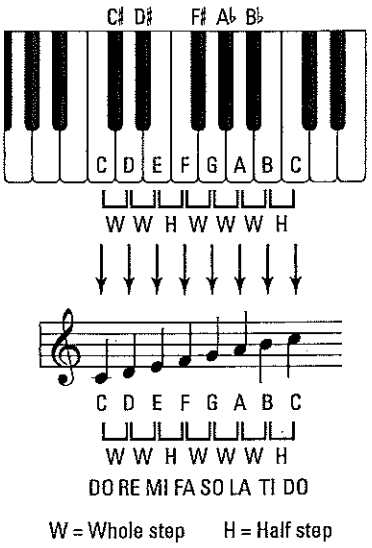
Very few melodies are entirely conjunct or disjunct. The national anthem is typical in combining both kinds of motion, and in balancing downward and upward movement.

The notes of any given melody typically derive from the notes of a **scale**. The familiar "do-re-mi-fa-so-la-ti-do" is a scale, a series of notes that moves stepwise and covers a complete span called an **octave** (so-called because it covers eight notes). The distance between each note is called an **interval**. The intervals in the standard scale are mostly whole steps,

with two strategically placed half steps. Every adjacent note on the keyboard, whether it is a white key or a black key, is a half step apart.

mymusiclab

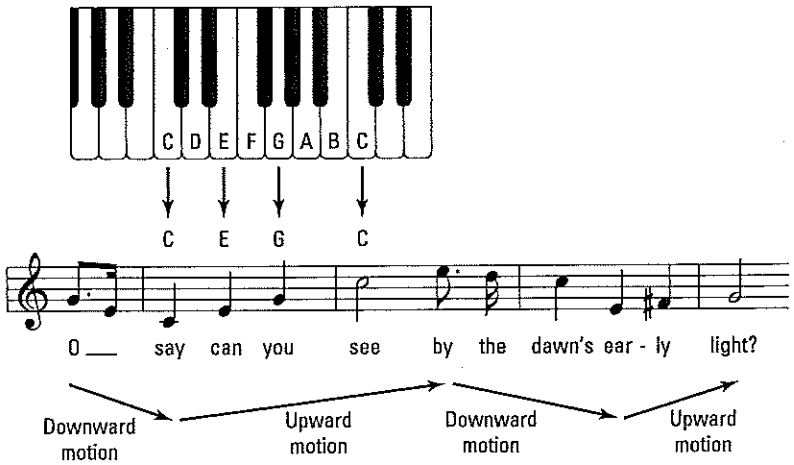
CD I • Track 2
The C major scale



A scale by itself is not particularly interesting as a melody, but a scale provides the notes—the essential building blocks—of a melody:

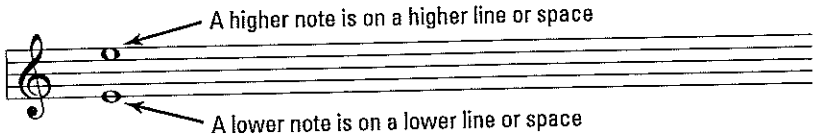
mymusiclab

CD I • Track 3
The opening of "The Star-Spangled Banner"



The opening of "The Star-Spangled Banner" in the key of C major

The upward or downward movement of notes is conveyed graphically in music notation. A melody that moves downward also moves downward on the staff (the system of parallel horizontal lines). Again, even if you cannot read music, you can see that higher notes appear higher on the staff than lower notes. This kind of visual aid can help reinforce what we hear.



mymusiclab

CD I • Track 4
Lower and higher notes

Scales can begin and end on any pair of notes. The diagrams on page 4 show a scale that begins and ends on the note "C," and a melody that centers on this same note (on "O, *say* can you *see*"). Because C is the central note of the scale on which this melody is based, we would say that this melody is in the **key** of C. But the same melody can be played in any key. Thus "The Star-Spangled Banner" can also be performed in the key of D, or the key of A-flat, or any other key.

In the standard system in use in Western music since about 1600, there are 12 keys, one on each of the 12 half steps in any octave (see the scale diagram above). In notation, the sharp sign (♯) indicates that a note is raised a half step, while a flat sign (♭) indicates that a note is lowered a half step. For each of these keys, whether it is E-flat or F-sharp or A, there are two modes, major and minor. The **major mode** corresponds to the scale produced by singing "do-re-mi-fa-so-la-ti-do." Melodies using these notes tend to sound brighter and somehow happier. "The Star-Spangled Banner" is in the major mode. Like all national anthems, it seeks to convey a mood of optimism and joy, and it does this in part through its use of melody derived from a major-mode scale.

The **minor mode**, by contrast, strikes most listeners as darker, more somber, and less optimistic. Most of the notes in the minor mode are also in the major. But two of the seven notes—the third ("mi") and sixth ("la")—are slightly lower, and this creates a very different kind of sound. Listen to what "The Star-Spangled Banner" would sound like in the minor mode; all the notes are the same as in the original except for "mi" and "la."

mymusiclab

CD I • Track 5
"The Star-Spangled Banner" in minor mode

Clearly, the minor mode is not well suited for a national anthem: it sounds too pessimistic, too dark, too sad. A national anthem might have a brief phrase in the minor mode somewhere in the middle, but not across the board. The minor mode is perfect, however, for songs expressing grief or anguish. And many musical works move back and forth between the major and minor modes to create contrasting moods. (In fact, "mode" and "mood" come from the same root word in Latin.)

SCI-TECH

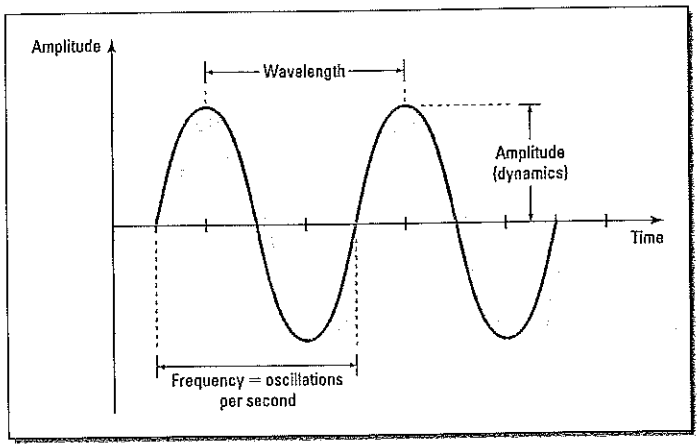
The Acoustics of Melody

What makes the notes in a melody move up or down and sound different from one another? What makes some parts of a melody louder than others? **Acoustics** is the science of sound—how it is produced, transmitted, and perceived—and a few basic principles of acoustics help explain the most basic elements of melody.

From a technical point of view, sound is vibrating air. Musicians can cause air to vibrate in three basic ways:

- By striking a surface (drums, cymbals, xylophones, and any other percussion instrument)
- By plucking or stroking a taut string (guitar, banjo, violin, and any other plucked or bowed instrument)
- By blowing air (flute, clarinet, trumpet, and any other wind instrument, including the human voice)

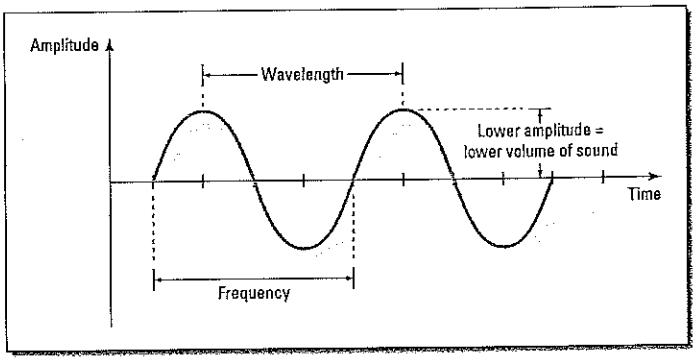
The patterns of vibration set in motion by these actions determine the pitch and volume of the sound. **Pitch** is the position of a sound on a range from very low (the bass register) to very high (the soprano register). Through an oscilloscope, we can "see" the shape of the **sound wave** of any sustained pitch. In its simplest form, the sound wave of a single pitch looks like this:



The structure of a sound wave

The distance between the peak of each wave is known as the **wavelength**, and the number of wavelengths in one second—the **frequency**—determines the pitch of the sound. The higher the frequency, the higher the pitch. The pitch to which most North American orchestras tune their instruments is an "A" played at a frequency of 440 cycles per second (cps, also known as hertz or Hz, named after Gustav Hertz, the nineteenth-century German physicist who studied sound waves). The lowest note on the standard modern piano is also an "A," but at a frequency of only 27.5 cps; the highest note, a "C," vibrates at 4,186 cps. The normal human ear can perceive frequencies in a range from approximately 20 cps (extremely low) to 20,000 cps (extremely high). Some animals have a far wider range of hearing: dogs, for example, can respond to frequencies as high as 50,000 cps, even though the sound of the dog whistle producing this frequency is inaudible to us.

What makes sounds loud or soft? **Dynamics**—the volume of sound—is determined by the size of each wave, its **amplitude:** The same pitch—440 cps—at softer volume would look like this:



The same pitch as the previous sound wave, with a smaller amplitude, producing a lower volume of sound

The frequency—the distance between the peaks of each wave—is the same, but the amplitude is smaller; thus the same pitch sounds softer. The wavelengths in a louder version of this same pitch would have the same frequency, but the amplitude would be higher.

Rhythm

Rhythm is the ordering of music through time. The most basic framework of this temporal ordering is **meter**. In music, as in poetry, meter is an underlying pattern of beats that maintains itself consistently throughout a work. If we slowly read aloud the first line of "The Star-Spangled Banner," we can hear that it falls into a regular pattern of three-beat units: LONG-short-short, LONG-short-short, etc., with the long syllables accented (emphasized), the short ones unaccented (— = long; ˘ = short):

˘ — ˘ ˘ — ˘ ˘ — ˘ ˘ —

O, | say can you | see, by the | dawn's early | light?

In poetry, this meter is known as *dactylic* (LONG-short-short). In music, this meter corresponds to what is known as **triple meter**: one accented (strong) beat followed by two unaccented (weak) beats. The rhythm of the music to "The Star-Spangled Banner" is thus organized within the framework of triple meter (**1**-2-3, **1**-2-3, **1**-2-3, etc.), following the meter of its poetry. (The "O" at the very beginning of the text stands outside the first unit: both rhythmically and textually, its function is to get us started, without actually saying much of anything.)

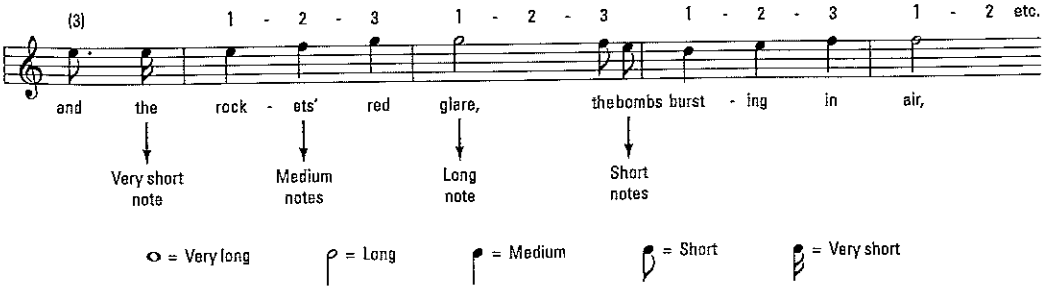
3 | **1** 2 3 | **1** 2 3 | **1** 2 3 | **1** 2 3 | **1** 2 3 | **1** etc.
O, | *say* can you | *see* by the | *dawn's* early | *light* What so | *proud*-ly we | *hailed* . . . etc.

In music, each of these rhythmic units is known as a **measure**. Ordinarily, the first note of each measure receives a relatively strong accent, which helps project the pattern of the meter, just as you would emphasize certain words ("say," "see," "dawn's," "light") if you were reading the text out loud without singing it.

mymusiclab

CD I • Track 6
Accented notes

But meter is only one aspect of rhythm. Not every note of "The Star-Spangled Banner" is simply accented or unaccented, strong or weak. Some notes are noticeably longer in duration than others ("say can you SEE," "the rockets' red GLARE"), while others are extremely brief (the word *the* in "and the rockets' red glare," for example).



Rhythmic values

These longer and shorter notes function flexibly within the broader framework of the underlying meter. So long as the basic pattern of the rhythmic unit is maintained (**1**-2-3), the actual number and duration of the notes within each unit can vary considerably. A melody

in which all the notes were exactly the same length would be quite monotonous. Here is what the beginning of "The Star-Spangled Banner" would sound like if all the notes were of equal value:

The opening of "The Star-Spangled Banner," with notes in all the same rhythmic values.

CD I • Track 7
Opening phrase of "The Star-Spangled Banner," all in notes of equal value

The meter is still triple (**1**-2-3), but the individual notes have lost all rhythmic differentiation.

What would "The Star-Spangled Banner" sound like in a different meter? An American composer named E. E. Bagley (1857–1922) actually worked the opening of the melody into a march he called *National Emblem*. Here, the music moves in **duple meter**, with only two beats to each measure (**1**-2 | **1**-2 | **1**-2 | etc.). This corresponds to the function of the music, to help soldiers or band members march in step (**Left**-right | **Left**-right | **Left**-right | etc.).

CD I • Track 8
E. E. Bagley, *National Emblem*, opening phrase of "The Star-Spangled Banner" (repeated), in duple meter

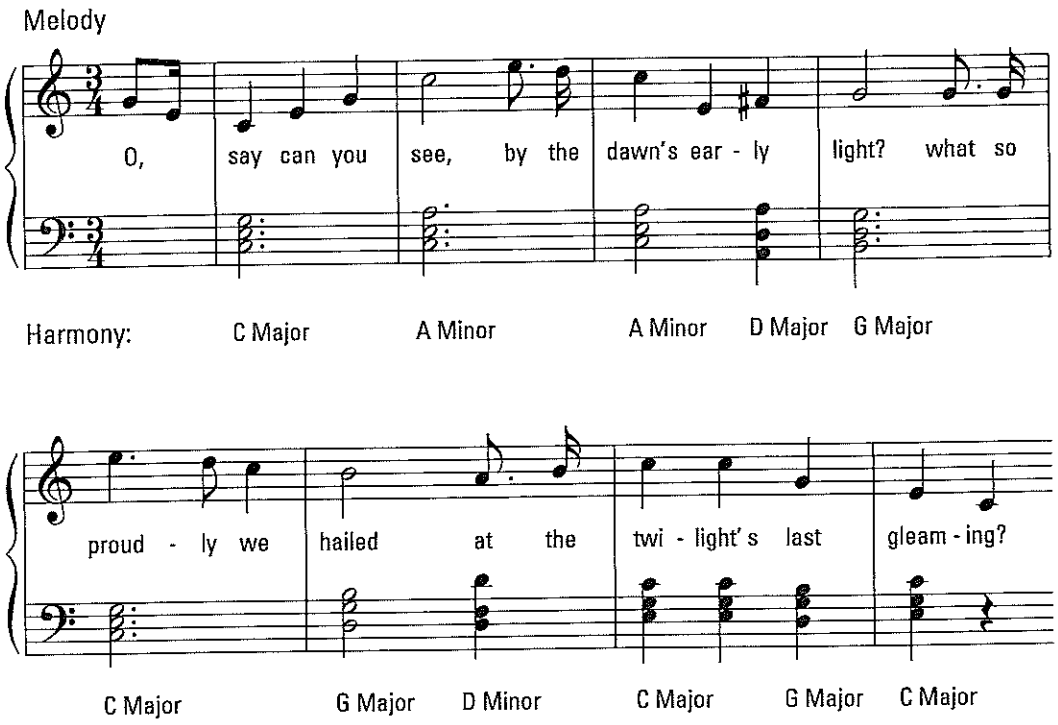
Notice how the pitches (the notes) are the same as the tune we know as "The Star-Spangled Banner." But the meter—the framework of the rhythm—is fundamentally different: LONG-short | LONG-short instead of LONG-short-short | LONG-short-short. Could we march to the standard version of "The Star-Spangled Banner"? Not really, because it's in triple meter, and with two legs, it's much easier to march to duple meter.

E. Bagley's *National Emblem* sheet music
urtesy BenCar Archives

Harmony

Harmony is the sound created by multiple notes played or sung simultaneously. Whether we realize it or not, we've all heard "The Star-Spangled Banner" performed in many different harmonizations. The melody stays the same, but the notes underneath the tune are different. The resulting harmony can change the character of the work, sometimes subtly, sometimes radically. There is no official version of the harmony of "The Star-Spangled Banner." (Indeed, there is not even an official version of the melody itself.)

If we think of music in terms of space, then melody can be said to be horizontal, harmony vertical. Just as melodies can outline selected notes of a scale through time, harmony presents notes drawn from a scale simultaneously, sounding together. When we hear three or more notes played at the same moment, we often speak of these as a **chord**. A melodic line can be accompanied by a series of chords that change as the melody progresses. A melody as rich as "The Star-Spangled Banner" would sound monotonous—and downright wrong—if it were harmonized with a single chord from beginning to end. The most common harmonization of the tune supports the melody with a variety of different chords:



A harmonized version of "The Star-Spangled Banner," with the melody in the upper staff and the harmony in the lower staff

mymusiclab

CD I • Track 9
Harmonized version of the opening of "The Star-Spangled Banner," Marvin Gaye, vocals

We all know what a melody without harmony sounds like (just think of the early stages of contestants performing on *American Idol*). But what about harmony without melody? Here is one harmonization of "The Star-Spangled Banner" without the melody.

mymusiclab

CD I • Track 10
Harmony of "The Star-Spangled Banner" without melody

A single melody can always be harmonized in more than one way, and "The Star-Spangled Banner" is no exception. And some harmonizations are more unconventional than others. Consider, for example, this harmonization of the melody by the American composer Louis Moreau Gottschalk (see chapter 36), from a piece for piano entitled *Union,* written shortly after the beginning of the Civil War.

mymusiclab

CD I • Track 11
Louis Moreau Gottschalk, excerpt from *Union*

Even today, almost 150 years later, musicians are still coming up with new ways of harmonizing this same melody. South City Voices, an Atlanta-based vocal jazz ensemble, recently recorded their own version of the tune. The melody is the same as the one we hear all the time, but the harmonies are not.

mymusiclab

CD I • Track 12
South City Voices. A versio of "The Star-Spangled Banner" with extremely unusual harmonies

Harmony works on a larger scale as well. If a melody is in the key of C major, its primary harmony also centers on C major, establishing this key at the beginning as a kind of home base and returning to it at the end to create a sense of closure. We call this primary key area the **tonic**. A piece that began in one key but ended in another would sound somehow open-ended and incomplete. "The Star-Spangled Banner" begins and ends in the same key, no matter what key is used in performance.

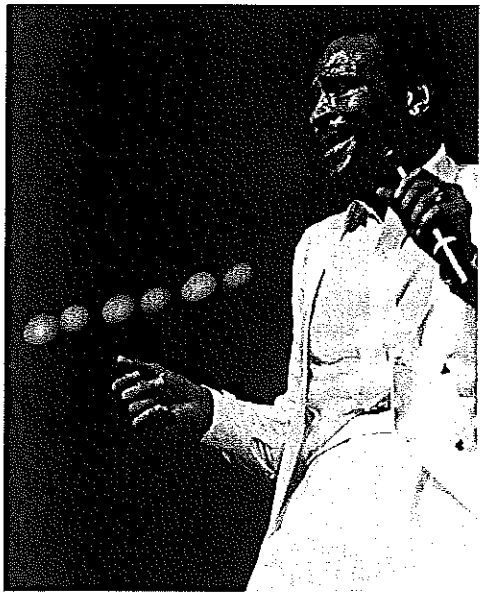
CULTURAL CONTEXT

Illegal Harmony?

The Russian-born composer Igor Stravinsky (1882–1971) emigrated to the United States in 1939 and became an American citizen in 1945. In honor of his new homeland, he made an arrangement of the national anthem that many contemporaries found offensive.

He performed the work in public only once, at the beginning of a concert by the Boston Symphony Orchestra on January 14, 1944. When word got out about the unusual harmonies in his arrangement, the police moved in and confiscated the music on the grounds of a Massachusetts state law forbidding "tampering" with state property. Threatened with arrest, Stravinsky withdrew the work from subsequent programs.

Jimi Hendrix's rendition of "The Star-Spangled Banner" on his electric guitar at the Woodstock Festival in August 1969 aroused controversy as well, but there was no suggestion that he be arrested for adding dissonances and feedback to the melody.

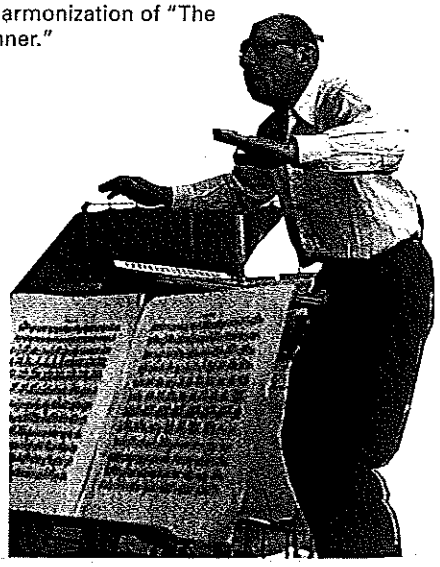


Marvin Gaye sings "The Star-Spangled Banner." The texture is decidedly homophonic: the focus is entirely on the melody, while the accompaniment (a drum set) stays very much in the background.

Mike Segar/Reuters/Corbis/Reuters America LLC

mymusiclab

CD I • Track 13
Igor Stravinsky's harmonization of "The Star-Spangled Banner."



Igor Stravinsky leads an orchestra rehearsal at the Hollywood Bowl, ca. 1955. He lived in Los Angeles for most of the last three decades of his life. When word got out about his unconventional harmonization of "The Star-Spangled Banner" in Boston in 1944, Stravinsky was threatened with arrest.

Music Division, The New York Public Library for the Performing Arts, Astor, Lenox, and Tilden Foundations

Texture

Texture is a function of the number and general relationship of musical lines to one another. Textures can range from thick (many voices) to thin (a single voice).

- When "The Star-Spangled Banner" is performed as a single melodic line, with no accompaniment at all, the texture is **monophonic** (*mono* = "single"; *phonic* = "sounding"). This may be a single soloist, or it may be a group of performers all playing or singing the same melody. When multiple performers are singing or playing a single melody together, we call this kind of monophonic texture **unison**.
- When the melody is performed with a supporting accompaniment, the texture is **homophonic** (*homo* = "same," as in "sounding at the same time"). This is the most common form of performance of this particular song whenever there is a soloist. The soloist sings the melody, while an instrumental ensemble or backup chorus provides musical support. The previous example showing the harmonized "Star-Spangled Banner" is what homophonic texture can look like in musical notation.
- When the melody is performed against another line of equal importance, the texture is **polyphonic** (*poly* = "many"). In polyphonic texture, every line is, in effect, a melody. Think about the children's song "Row, Row, Row Your Boat," for

example: every voice is singing the same music, so we can't say that one voice has the melody and others don't. And yet all the voices work together to create a satisfying sound.

mymusiclab

CD I • Track 14
Homophonic version of "The Star-Spangled Banner"

Here is what the opening of "The Star-Spangled Banner" would look and sound like in a polyphonic texture:

Opening of "The Star-Spangled Banner" in polyphonic texture

mymusiclab

CD I • Track 15
Polyphonic version of "The Star-Spangled Banner," opening phrase

Polyphonic realizations of "The Star-Spangled Banner" in its entirety are rare, but they do exist. John Knowles Paine's *Concert Variations on "The Star-Spangled Banner,"* for organ, which he wrote at the height of the Civil War, features an extended passage in which the principal melody is played against other lines that are melodic in their own right and not mere accompaniment. Listen to the melody at the beginning in a single voice, all by itself. Then notice how the same melody enters later, in a second voice (at 0:11), later again in a third voice (at 0:34), and so on. In the end, no one voice is subordinate to any other. Polyphonic texture can also consist of melodies that are different but sound good when played or sung together.

mymusiclab

CD I • Track 16
John Knowles Paine's *Concert Variations on "The Star-Spangled Banner,"* Variation 5, in which the principal melody is played against itself

Timbre

Timbre is the color of music, the character of sound. The same melody can sound very different depending on who is singing or what instruments are playing. At one time or another, "The Star-Spangled Banner" has been performed by probably just about every instrument or combination of instruments imaginable, from a solo kazoo to a large symphony orchestra. And even when performed on the same instrument, it can sound very different.

mymusiclab

CD I • Track 17
"The Star-Spangled Banner," Kevin Gaffney, trumpet

mymusiclab

CD I • Track 18
"The Star-Spangled Banner,"
Louis Armstrong, trumpet

The range of musical timbres is enormous, extending from a single instrument or a single voice to an entire orchestra or an entire chorus—or both together. As we examine timbres in individual pieces, we will look at the instruments that create those timbres.

Louis Armstrong playing the trumpet, 1964
JAN PERSSON/Lebrecht Music & Arts Photo Library

Dynamics

Dynamics is a term used to indicate the volume of sound, ranging from very soft to very loud. We have all heard "The Star-Spangled Banner" played at a single (loud) volume by a military band. We have also heard it performed at a level only slightly above a whisper, often by an ensemble of unaccompanied voices. And we have heard performances that move from the one extreme to the other. Dynamics can change suddenly, or they can change gradually. Volume is a relative quality: what seems loud to one listener might be barely audible to another, and vice versa.

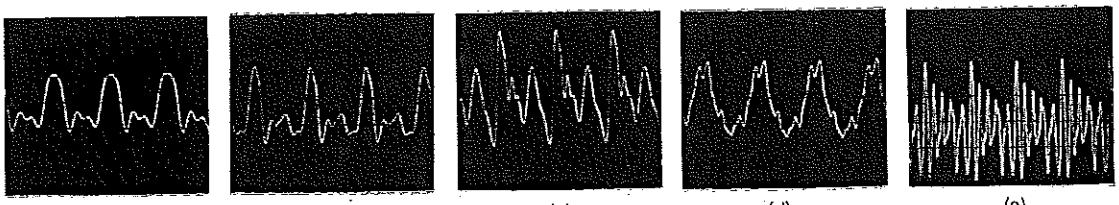
SCITECH

The Acoustics of Timbre

What makes different instruments sound different? The answer to this question goes to the heart of what timbre is—the quality of a sound, apart from its pitch or volume. The pitch "A" played at 440 cps sounds quite different on an oboe than on a violin, a guitar, or a saxophone. The basic wavelength of the sound produced by these instruments on this one pitch will all be the same, but the shape of these wavelengths varies considerably.

Just as individual colors blend different light waves, any naturally produced sound is the product of a mixture of many different sound waves. The basic sound wave is known as a fundamental. When produced by a machine (as in the case of a midi file), we hear *only* the fundamental: the sound is pure, but for that very reason it is unnatural. This is what makes midi files sound so mechanical. When produced by a musical instrument like a violin, guitar, or piano, the sound wave of the fundamental is enhanced by the addition of many partials, frequencies that resonate with the fundamental to create a richer quality of sound.

You can hear an example of how some of these partials sound by doing a simple experiment on the piano. With one hand, depress the keys C and G in the octave above middle C, but do not actually play the notes: just push these keys down very slowly and hold them in place. Now, with the other hand, strike the note middle C forcefully. What you hear is mostly middle C, but if you listen carefully, you can also hear the higher notes as well. If you play middle C again, normally this time, without the additional held-down notes, you can recognize these partials in what is known as the spectral content of middle C on the piano—the full range of sounds produced in and around a given wavelength. The most prominent of the partials are known as overtones. The timbre of all acoustic instruments results from a mixture of fundamentals and partials. Instruments that create their sound digitally (such as a keyboard synthesizer) can often mimic these instruments by adding partials to the fundamentals.



The look of different sounds: Oscilloscope readings of the same pitch (A = 440 cps) played by (a) a flute, (b) a trumpet, (c) a soprano saxophone, (d) a violin, and (e) a bassoon. Notice that the wavelength—the distance between each peak—are the same (producing the same pitch), but the shape of the vibrating air column is different in each instrument (producing contrasting timbres).

Cengage Learning

In music, it is common to use Italian terms to refer to volume:

pianissimo ***(pp)*** — very soft
piano ***(p)*** — soft
mezzo piano ***(mp)*** — medium soft
mezzo forte ***(mf)*** — medium loud
forte ***(f)*** — loud
fortissimo ***(ff)*** — very loud

Form

Form is the structure of a musical work, the way in which its individual units are put together. Form is based on three and only three possible strategies: repetition, variation, and contrast. When we say something, we can then do only one of three things: say once again exactly what we have just said, word-for-word (repetition); repeat what we have just said in a slightly different manner (variation); or say something altogether different (contrast). These three strategies apply to music as well.

In "The Star-Spangled Banner," the opening phrase of the music is repeated literally for the second phrase:

> Phrase 1: O, say can you see by the dawn's early light what so proudly we hailed at the twilight's last gleaming?
>
> Phrase 2 (same melody, repeated): Whose broad stripes and bright stars through the perilous fight, o'er the ramparts we watched were so gallantly streaming?

If we call the opening phrase of music "A," then the first half of "The Star-Spangled Banner"—the music, independent of the text—can be diagrammed as:

A A

What happens next? Do we hear yet another repetition of **A,** a variation of **A,** or something completely different? "And the rockets' red glare . . ." is, of course, completely different from what we have heard before. For that reason, we can call this phrase "B." And the concluding phrase of "The Star-Spangled Banner" ("Oh, say does that star-spangled banner yet wave . . .") is different yet again ("C"). So the form of the song as a whole can be represented as:

A A B C

This form happens to be extremely common in songs from many times and places (Martin Luther's famous hymn "A Mighty Fortress Is Our God," Stephen Foster's "Oh, Susanna," Radiohead's "Black Star," and even "Dixie," the unofficial anthem of the Confederate States of America during the Civil War). Forms can also be expanded (**AABCA**) or contracted (**ABA**) in an almost infinite variety of combinations.

Word-Music Relationships

Word-music relationships are many and diverse. The most obvious intersection of words and music occurs in works with a text to be sung. How do the notes relate to the words? So far, we have examined only the music of "The Star-Spangled Banner," not the words. Let's look now at the text and see how it fits the music.

Structurally, the text (or at least its first stanza) consists of three questions, interrupted by a statement. (The second, third, and fourth stanzas of the text provide answers to all these questions, but no one ever sings them, and for purposes of brevity, we will focus here on the first stanza.)