

## Diphthongs

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Some vowels are pure vowels – they have the same formants throughout their duration in a word: like the “ee” in “leak” or the “ih” in “sit”. But most vowels tend to change as they you move through a word. Examples of these are the “oh-ee” in “boy”, the “ah-ee” in “high”, and the “ee-oo” in “beautiful”. These “changeable” vowels are called DIPHTHONGS (if they appear to have two vowel sounds) and TRIPHTHONGS (if they appear to have three vowel sounds).

Singers can appear less artistic than their potential if they ignore diphthongs, so the savvy singer learns to make them work well and automatically.

The general term “diphthong” seems to imply that it has two discrete vowel sounds. That is not the case. It’s more appropriate to say that those two vowels are the approximate “end-points” of the diphthong and the vowel changes through an entire “spectrum” of vowel sounds during the word. Artistic and synchronous delivery of the “spectrum” of vowel sounds adds clarity, color, interest, and forward motion to sung music.

To learn to sing them “at pace” practice singing them “slowly” so the ear can hear and adjust through the word sound.

Try the word “high”: start with an “h”, followed by “ah”, followed by each of the vowels in a line between the “target vowel” (the one held the longest) and the final vowel: “h-AH-a-ay-eh-ee”.

Try the word “boy”: start with a “b”, followed by “oh”, followed by each of the vowels in a line between the “target vowel” (the one held the longest) and the final vowel: “b-OH-??-??-ee”. Note it takes you across some “uncharted territory” of the vowel chart. Fear not! You just don’t use those vowel sounds as “target vowels” in your language. Some languages do.

Try the word “cute”: Here the target vowel follows the short vowel” “k-ee-??-??-OO-t”.

Great ensembles have learned to execute their diphthongs reliably so their lyrics can be clearly heard, synchronization is enhanced, and a greater proportion of singing energy can reach the audience!

# Ear Warm-up

Words by Steve Jamison

The musical score is written for Tenor and Bass parts. The Tenor part is on a treble clef staff with a 2/4 time signature and a key signature of one flat (B-flat). The Bass part is on a bass clef staff with the same time signature and key signature. The score consists of 8 measures. The lyrics are: 'We sing late We at times You could go all night'. The notes are: Measure 1: Tenor (G4), Bass (F3); Measure 2: Tenor (A4), Bass (G3); Measure 3: Tenor (B4), Bass (A3); Measure 4: Tenor (C5), Bass (B3); Measure 5: Tenor (B4), Bass (A3); Measure 6: Tenor (A4), Bass (G3); Measure 7: Tenor (G4), Bass (F3); Measure 8: Tenor (F4), Bass (E3). The lyrics are placed below the Tenor staff, with 'We' and 'You' on the first line, 'sing' and 'could' on the second line, 'late' and 'go' on the third line, 'We' and 'all' on the fourth line, and 'at' and 'night' on the fifth line.

1 or 2 parts sing lyric 1, the others sing lyric 2  
repeat in cycles of 5 without changing key

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Wild.” You, too, can get your ensemble to feel the powerful “lock & ring” of introducing some “complementary” sound to your chords.

Try this exercise:

First: Choose a “big” chord from one of your songs. I’ll choose the big chord on “-rade” of “pa-rade” in the middle of “South Rampart Street Parade.” I’d have my chorus sing the chord a few times to let it settle in as best as they can do it then choose one part (maybe the baritones) and instruct them to sing the complementary lyric sound “ō” or the word “rode.” Now I’d have them sing the chord a few more times. Each time it should ring more and more. The “ō” sound seems to disappear within the “ā” sound!

Second: I’d fine tune it. I’d tell the baris I have a big rotary dial (rheostat) that I will turn to change them from “ō” to “ā” and maybe I might even try just the baris to see if they can follow my direction as I turn the dial. Now I’d put all four parts together and hit the chord, wait for it to lock, and then start turning the dial. Everyone WILL be able to tell when we have achieved “maximum lock & ring” and it’s always after a very short turning of the dial! I’d do it a few times and then I’d see if the baris could go right to it by them selves – no turning of the dial. Amazingly the baris land on it them selves – or at least close and then adjust to make it lock. This is new territory for lots of baris!

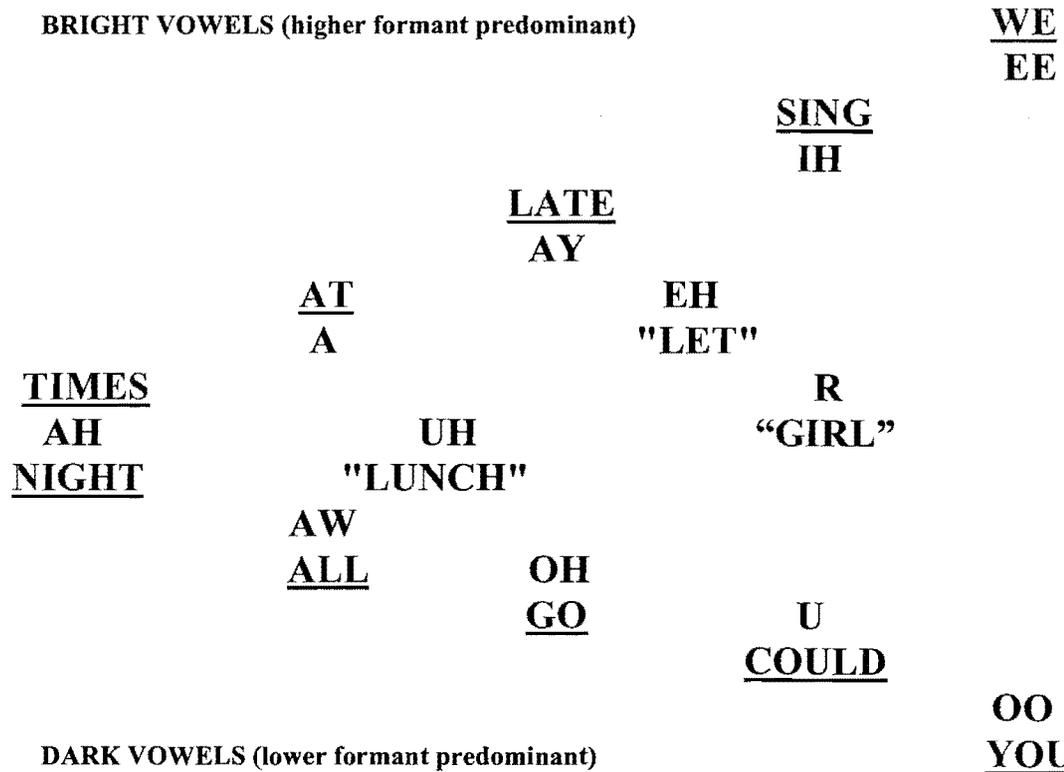
Every time the chorus sings that chord from now on their senses will be better tuned and the chord will work better. And, it wasn’t just the baris that changed— as the chord locked better the other singers subtly relaxed and started to allow more of the complementary sound into their initial sound. The great part is the chord is better not just because of what the singers “know” or can think of on the fly, but because of how efficiently they “sense” something and respond to it intuitively.

There are medalist level choruses that use this exact exercise whenever a chord doesn’t sound just right. Taking out the thinking and the “craftsman-like” approach of everyone trying to force a vowel to match or sing a tone “an onion skin higher,” and replacing it with a training exercise which engages the senses and encourages a more intuitive response will yield a faster and more robust road to “artistry.”

# VOWEL CHART (Showing VOWEL PAIRS)

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BRIGHT VOWELS (higher formant predominant)



DARK VOWELS (lower formant predominant)

<u>VOWEL:</u>	AH	A/AW	UH/EH	AY/OH	IH/U	EE/OO
<u>(compliment):</u>	(uh)	(aw)(a)	(eh)(uh)	(oh)(ay)	(u)(ih)	(oo)(ee)

See associated:

EAR WARMUP EXERCISE TO IMPROVE TUNING

"YOU COULD GO ALL NIGHT"

"WE SING LATE AT TIMES"

As singers we're concerned more about how to use the audible spectrum to hear and produce "matched" vowels, so let's have some fun. Take out the attached "ear warmup exercise" and sing it. The tune and arrangement are the familiar "may, me, my, mo, moo." In this exercise one or more parts will sing a set of lyrics using the bright vowels and the other parts will sing their "complementary" vowels from the dark side. As you sing through five times as instructed you'll notice more "lock & ring" the defining "singing" characteristic of the barbershop style.

<u>These are the vowels in this exercise:</u> High to moderately phonated complements	
<u>Bright vowels:</u>	<u>Dark vowels:</u>
We \ 'wē\	You \ 'yū\
Sing \ 'sīŋ\	Could \ 'kúd\
Late \ 'lā\	Go \ 'gō\
At \ 'at\	All \ 'ól\
Times \ 'tīmz\ or \ 'tū(ē)mz\ diphthong	Night \ 'nīt\ or \ 'nū(ē)\ diphthong

Here are some more common vowels: Low to non-phonated complements

Brighter vowels:

Let \ 'let\ raised

Darker vowels:

Lunch \ 'lʌ/nch\ basic, un-phonated sound

Strangely phonated vowels:

Girl \ 'gɔɪ\

between *i* and *ú* (either can complement)

Why is this exercise a good "ear warmup?" Because we have worked hard to learn the "vowels" that we are supposed to sing, but that has been a largely cognitive exercise where we agree on which "vowel" we should use. Utilizing complementary vowels engages the ear in "hearing" the overtones of the vowel and "tuning" the vowel we sing to the overtones of the vowel we hear. This is true "matching" and produces clearly audible overtones. Superior matching makes it much easier to hear the overtones we need to sing in tune!

Repeated exposure to this exercise makes the singers more able to intuitively match vowels with other singers and sing in tune with other singers both in section and in a chord!

Advanced use of complementary vowels:

Many fine quartet singers intuitively sing a lyric sound displaying considerable sound of the complement. Get video of "Four Voices" and watch the sounds the bass makes as opposed to the rest of the quartet, likewise the baritone of "Jokers

## The spectrum of phonated lyric sounds and their complements

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*Definition: basic un-phonated sound – the “uh” sound made when you 1) put the upper teeth over the lower lip making the back of the jaw drop, then 2) drop the lip. [It’s your basic “caveman sound”]*

*Definition: phonated sound – modification of the un-phonated sound by throat, mouth, tongue and lip configuration, as well as engaging various resonators. [An “oo” vowel is an example]*

Probably everyone is familiar with the visible spectrum of light. I’m going to use it as a basis of comparison to the “spectrum of phonated lyric sounds” we sing (often inadequately labeled “vowel” sounds).

The eye is the sensory organ that can SEE colors (or “frequencies”) of light (as well as register their intensity or “brightness”). We don’t look for colors of light, we see them. Looking is a cognitive act – seeing is a sensory act. Let us not forget we are capable of seeing not only the common “signposts” of the visible spectrum (red, orange, yellow, green, blue, violet) but every color in-between. What is often overlooked is that although this visible spectrum is linear, its perception is not: blue and yellow light shining on the same surface seem to produce white light! These color pairs - which seem to “complete” each other and produce a brilliant, full-spectrum “white” light - are called “complements” of each other. Although there are three common “complementary pairs” (blue-yellow, cyan-red, green-magenta) there are almost an infinite number of complementary pairs and every color has its complement.

The ear is the sensory organ that can HEAR pitches (or “frequencies”) of sound (as well as register their intensity or “volume”). We don’t listen for pitches of sound, we hear them. Listening is a cognitive act – hearing is a sensory act. Let us not forget we are capable of hearing not only the common “signposts” of the audible spectrum (the “vowels”) but every vowel in-between. What is often overlooked is that although this audible spectrum is linear, its perception is not: “say” and “so” sung at the same time seem to produce a full, rich, ringing, more locked sound! These vowel pairs - which seem to “complete” each other and produce a brilliant, full-spectrum sound - are called “complements” of each other. Although there are several common “complementary pairs” (see attached vowel chart) there are almost an infinite number of complementary pairs and every vowel has its complement. Keep in mind – singers not only hear vowels they can produce them as well!