



Resonance

*The vibrations that determine
the quality of your voice*

BY RENA COOK

HOW DO YOU KNOW the difference between the sound of a violin, a cello, and a standing bass? What is it about the quality of the sound that identifies each instrument? How would you describe a trumpet's sound in contrast to a tuba? Can you describe the difference between the voices of James Earl Jones and Fran Drescher? Or Gwyneth Paltrow and Roseanne Barr?

We use words like high and light, smooth and smoky, warm and mellow, piercing and bright, to describe vocal tone. Just as each musical instrument has a distinctive quality, each human being has vocal attributes that are unique. In addition, the human voice is flexible, changing with emotions, objectives, and given circumstances.

It is the actor's task to maximize flexibility and freedom so the voice can be heard clearly, so it can be warm when called for, stern if necessary and even ugly in response to the emotional and situational demands of the character.

One key component of vocal quality is resonance. The sound created at the vocal folds is amplified, enriched, and filtered in the resonating chambers of the body. In a very general way, I think of resonance as what happens when disturbed air (breath that has been set in motion by the vocal folds) bounces around the hollows of the body that make up the vocal tract—the throat, the mouth, and the sinus cavity. The sound gains energy, and some qualities are amplified while others are dampened. Resonance is your body's natural amplifier.

The trombone has a larger, deeper, lower tone than the trumpet. Why? Because it has a bigger resonating tube. Likewise, the tuba will always have a bigger, deeper sound than the trombone. The throat, mouth, and nasal cavities that make up the human resonating tube give

us an advantage over brass instruments, because they are flexible. We can make our vocal tract longer, shorter, wider, or thinner. With practice, our resonators can be more free, open, athletic, clear, strong, and responsive.

What happens when you put a mute in the end of the trumpet? The sound is muffled. The jaw, tongue, and soft palate can be our mutes, dulling, choking, and stifling the tone if we let them. Our task then, as actors, is to insure that our resonators are open and free of tension so we can be loud or clear, beautiful or ugly, warm or strident, whatever our character requires, in a healthy, safe, and reliable way.

In order to maximize resonance, we need to look at the jaw, the tongue, the soft palate, and the throat. All can be affected by hidden tensions that dampen and restrict resonance.

The jaw is a large hinge that serves as a gatekeeper to aid in the control of strong emotions. This results in tension, which will also affect the throat as it stifles or closes off resonance. To maximize space in the throat, we need to relax the jaw. It is not about creating big space at the front of the mouth, it is about releasing the jaw at its hinges, creating

About this series

THIS IS THE THIRD of four articles on vocal training, a series assembled by Rena Cook, professor of voice at Oklahoma University, in which nationally prominent voice and speech coaches introduce our readers to the fundamentals of their work. The series:

March—Alignment and the voice, by Antonio Ocampo-Guzman

April—Breathing and the voice, by Judylee Vivier

This month—Resonance, by Rena Cook

September—The articulate actor, by Dudley Knight

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Massaging the jaw hinge.

space between the back molars. The jaw should naturally drop straight down as it opens and surrenders to gravity. Keep in mind that tendons link the jaw to the throat and finally to the larynx itself. Tension in the jaw radiates to tension in the vocal folds. If the jaw remains held or tight, the vocal folds will also tighten and constrict, causing them to work harder. The result is fatigue and loss of power, ease, and clarity.

The tongue is a huge muscle that often seems to have a mind of its own. The root of the tongue can carry tension that we are not even aware of, pulling back and down the throat, muting our sound, dampening clarity and warmth.

The soft palate, at the back edge of the hard palate, has limited mobility but what it has can be maximized. The soft palate also has few nerve endings, so it is harder to feel and challenging to control. A flat or lazy palate can dampen sound and give the voice a nasal quality by allowing air to escape into the nasal cavity. Our goal is a lifted palate to create a big space in the back of the mouth.

The throat above the vocal folds can be widened. There are muscles there that constrict and narrow the space, even press down on our vocal folds, keeping them from vibrating easily. We want to create a big wide opening.

I frequently speak of resonance in terms of vibration. When resonance is activated we feel vibrations in the throat, jaw, face, chest, and sometimes even the top of the head. Our job as speakers is to maximize vibrations, to open our body up to vibrations.

The following set of exercises promotes the opening of the vocal tract and the releasing of vibrations, thus maximizing the resonance of the voice.

The jaw

To release the jaw, use the heel of hand to massage the jaw hinge in downward motions. The focus is on releasing the jaw to gravity, not forcing it open. With each pass of the hand the jaw releases a bit more. Repeat five times at a slow rate of speed, remembering to breathe normally.

Take hold of the jaw with both your hands, thumbs underneath, forefingers on top, and open and close the jaw with your hands. Imagine that the jaw is passive, that the hands are doing the work. Remember to keep breathing and maintain a sense of length in the back of neck.

Chew lightly in forward circles as if you are eating a very chewy taffy. Do not move the jaw side to side. Think of easy circles that go down and up. Repeat ten times.

Relish the feeling of a loose jaw, released, hanging, lips can be open or



Tongue-speak.



A big yawn opens the back of the throat.

gently closed as long as you maintain a feeling of space.

The tongue

While the jaw is hanging loosely, relaxed to the pull of gravity, shift your focus to the tongue. Be aware that the tongue is resting on the floor of the mouth, gently touching the bottom teeth.

Allow the tongue to fall out of the mouth past the lips. Feel it lengthen gently toward the floor. Then stretch it gently toward the ceiling. Allow the tongue to gently clean the lips as if you have just taken a bite from a big juicy peach and you don't want to miss a drop.

Tongue-speak

Continue to let the tongue hang out of your mouth. Count out loud from one to ten, keeping the back of the neck long. Relax the tongue back into the mouth, letting it rest where it normally does. Count out loud again with a sense of a released jaw and tongue.

Try a piece of text, a few lines of a speech, a poem, or a nursery rhyme, in tongue-speak, allowing the tongue to hang loosely out of the mouth.

Then speak the text with the tongue easily back in the mouth.

Pay attention to the ease that is created when the tongue and jaw take their rightful places as relaxed

articulators, free of tension and not attempting to artificially create a louder sound.

The soft palate

Yawn widely with the tongue laying gently against the bottom teeth. Enjoy the yawn. Stretch your arms as if you have just awakened from a restful night's sleep. Be aware of a huge space opening at the back of the throat. Do this several times to remind the throat that open and released allows for optimum resonance.

Imagine that you have a big, red juicy apple in your hand. Lift it to your mouth and sink your teeth into it as if to take a large delicious bite. Feel the lift of the soft palate. Repeat and just before your teeth are ready to sink in say, "Hello," or perhaps, "Tomorrow and tomorrow and tomorrow."

Repeat the bite of the apple, creating a large yet easy open space. At the moment of readiness say, "Why fly so high," or "But soft, what light through yonder window breaks," or "When shall we three meet again." You can use any lines of text, or even bits of poetry. On each breath, bite the apple to keep the soft palate high. This will warm the sound and enhance resonance.

Through this exercise you are building an awareness of the lifted soft palate. You are also teaching the

soft palate, through muscle memory, the raised position for confident speech that carries effortlessly.

The throat

When you laugh easily all the muscles in the throat open. Try having a good laugh out loud to see what I mean. Now make the laugh smaller, at a level of about number four on a scale of one to ten. Next, imagine that you want to laugh but don't want it to show on your face; just feel an inner smile gently retract the throat.

Another easy way to find this sense of opening or retraction is to imagine you are looking at a puppy. What is your instinctive response? You breathe in and sigh out on an "ah." Imagine you are looking at the puppy; you draw in a breath and before you voice the "ah," feel the throat retracting open. We'll call this the "puppy posture."

On an easy inhale open the throat with the inner smile or the puppy posture—whichever works best for you—and say "Tomorrow and tomorrow and tomorrow." Try counting one to ten, or try one of these phrases: "When shall we three meet again?" Or "Now is the winter of our discontent."

Before each sentence or phrase, breathe in gently and think of the inner smile or puppy posture. You are building a muscle memory of the open and released throat.

Humming to increase vibrations

Humming is one of the easiest ways to release vibration and increase resonance. Start a comfortably low hum with a big space in the back of the mouth. Hum until you feel the need for a breath. Stop the hum, breathe and start the hum again. Tap gently on the chest to loosen the vibrations. Feel that you can fill your upper chest with vibrations. Keep the back of the neck long and the space in the back of the mouth wide.

Raise the pitch a little and continue to hum with a long, straight neck and big space between your back molars. Move the hum around on your face, or chew so that the facial muscles are moving the hum around. Explore various pitches in the lower to middle part of the voice as you continue to hum.

Blow through the lips on a hum (think of horse lips). Let the pitch vary in small loops as you blow, widening the loops of pitch as you continue to hum. This gathers and in-

creases the strength of vibrations and begins to loosen the pitch range.

To bring vibrations forward say: "Key, key, key, key, key." Speak on a middle pitch, keeping the back of your neck long. Aim these vibrations on the back of the upper teeth.

Intoning

Finally take the bit of text, poem, or monologue you have been working on and intone it: sing the whole monologue on one note. Choose a note that is comfortably in the middle of your range. Breathe at the end of each thought until you have intoned the entire monologue. Feel the vibrations forward in your mouth. Then speak the monologue with attention to the spot where you felt the most vibrations while intoning.

TO SUMMARIZE: each individual has a unique vocal quality that through practice can be more flexible. Resonance is an important compo-

nent of quality and can be maximized by opening the vocal tract to create a space so vibrating air can be amplified and enriched. More resonance translates to greater vocal ease with more clarity and carrying power that can be responsive to the changing needs of character and situation.

You don't have to be James Earl Jones or Gwyneth Paltrow to have a confident, warm, authoritative or flexible voice. It is not something that you are born with, that some special few have and others don't. You can practice your way to greater vocal freedom by keeping the jaw released, the tongue forward and down, the soft palate lifted, the throat wide and the sound moving forward. Then you can claim your spot along with the actors whose voices you most admire. ▼

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