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Citation

The Singers Voice Part 3
Joan Wall and Robert Caldwell
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Summary

I. Introduction

- A. All humans communicate with a wide range of sounds.
- B. In order to breathe, we use our lungs, diaphragm, intercostals, and ribs.
- C. The vocal folds and muscles in the larynx create phonation when we speak.
- D. Resonance is produced because of the air space that curves upward from the larynx to the jaw, tongue, soft palate, head, and lips.

II. The Voice

- A. The parts that make up the voice can push, pull, and shape the air that creates vocal sound.

III. Partial

- A. A partial is a simple, pure tone that cannot be split any further.
- B. When many partials come together, they create a complex sound.
- C. Timbre comes from a proportion of partials.
- D. Vowel sounds and sung tones create the enharmonic series.
- E. The very first partial is the fundamental, and the other partials are called the overtones.
- F. Higher partials are multiples of the first or fundamental partials. As frequency lowers there are more partials, and as frequency rises there are less partials.
- G. Amplitude affects partials. The higher the amplitude, the greater the amount of partials, and the lower the amplitude, the less the amount of partials.

IV. Sound

- A. When the vocal folds are close to each other, they create a brighter sound. When they are further apart, they create a deeper, richer sound.
- B. The air column changes the amplitudes of the partials.
- C. Vowel sounds become muffled when singers sing really high, because there are not enough partials to determine what vowel is being sung.
- D. The ringing of the voice is called the formant.
- E. Sound is maximized when a singer matches up the first partial and the filter.

V. Vocal Tract

- A. The vocal tract is known as the resonator of the voice.
- B. When we change our resonant space, we change our tone quality.
- C. Parts of the vocal tract:
 - i. Pharynx- the throat
 - ii. Laryngeal tube- the area between the vocal folds and the pharynx
 - iii. Mouth- oral cavity
 - iv. Nasal Cavity

- D. The vocal folds vibrate and create a buzzing sound that travels to the vocal tract, which resonates to produce sound.

VI. Tongue

- A. The tongue stretches from the tip to the hyoid bone in the larynx.
- B. The tongue is the most flexible of all the moveable structures.
- C. The tip, blade, front, and back of the tongue are the parts that can move independently to form different vowel shapes.

VII. Jaw

- A. The jaw can move up and down, side-to-side, and forward and backward.
- B. The jaw and tongue move independently from each other, but work together. The jaw supports the tongue.
- C. A singer needs to have a loose and easy moving jaw, so there is absolutely no strain on the vocal tract or folds.

VIII. Lips

- A. The lips are the opening to the vocal tract, and affect greatly the vowel sound that is produced when speaking and singing.

IX. Soft Palate

- A. The soft palate is the soft part of the roof of the mouth that is fleshy and bouncy.
- B. The soft palate opens and closes the passage to the nasal cavity.

Discussion

This video had a great deal of information about how sound is produced when singing, and especially the parts of the head and throat that are used to produce these sounds. It talked about how these parts of the head and throat work together to create the sounds and what sorts of sensations and feelings to be aware of when singing. In the classroom, I think that students should know at least the basics of this material to be able to understand what a teacher is talking about when they mention how their sound it or what vowels to make. For example, if I am teaching a class and I was a specific “a” sound from my students, I can model it, but it would also help them to know how it is created on their own and what to be aware of so they will remember and develop muscle memory for the feelings of those vowels. This will help me to know the anatomy and physiology of the singing voice, and how I can use this in my classroom to help better my students.