Voice Science and Voice Pedagogy
Vocabularies: Can They Merge?

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More than twenty-five years ago, I wrote a column in a precursor to this journal known as The NATS Bulletin. The column was entitled, “A Word About Words.”¹ I began to realize that my scientific explanations of voice production contained words that were deliberately avoided by singing teachers. The language of voice habilitation was facilitative, filled with words of ease, relaxation, and minimal effort. The language of physics, in which I was trained, contained words like pressure, stress, force, tension, compression, contraction, strain, resistance, and constriction. No judgment of good or bad, or right or wrong, was attached to these words in physical science. They were well defined quantities, their definition agreed upon by the international standards organization (ISO), and they could all be measured with instruments. In voice pedagogy, I was introduced to new words like support, appoggio, heaviness, or weightiness in a voice, spin, ring, shimmer, chiaroscuro, spinto, robusto, and all the register terminology. Over the years, I have learned to live with the two vocabularies, but there are moments when word conflicts do impede progress.

The greatest conflicts arise when we try to explain what needs to be relaxed (limp) and what needs to be engaged (firm). Singing requires highly selective activation of muscles. Two or more muscles in close proximity to each other, perhaps even innervated by components of the same nerve, have to be turned on or off differentially. This means that stiffened tissue and relaxed tissue may lie side-by-side. The singer may not sense this differential activity, and the teacher may not have the words or mental images to bring about the sensations. To be safe, more attention usually goes to the “relaxation” component than the “firming-up” component.

Scientifically speaking, high notes cannot be produced without high tension in some part of the vocal folds, and loud notes cannot be produced without high lung pressure. Mechanical stresses and strains are absolute necessities for vibrations to occur. Muscle contractions are needed to produce forces, and forces are required to move tissue or air, or to stabilize structures. A constriction in the vocal tract is needed to move and control resonances of the airway.

Our vocabularies can begin to merge if some compromises are made that will not degrade the integrity of any of the disciplines of vocology. Here are some examples:
• Stiffness can be expressed as firmness.
• Strain can be expressed as stretch.
• Constriction can be expressed as narrowing.
• Tension can be expressed as strength under elongation.
• Lung pressure can continue to be expressed as support.

I hope that many of you can find additional constructive vocabulary. I would love to hear about some words or expressions that have worked for you. Over time, as the physical aspects in voice production are fully understood, we will lose our fear of words.

NOTE

Old year! upon the Stage of Time
You stand to bow your last adieu;
A moment, and the prompter’s chime
Will ring the curtain down on you.
Your mien is sad, your step is slow;
You falter as a Sage in pain;
Yet turn, Old Year, before you go,
And face your audience again.

Robert William Service,
“The Passing of the Year,” vs. 2