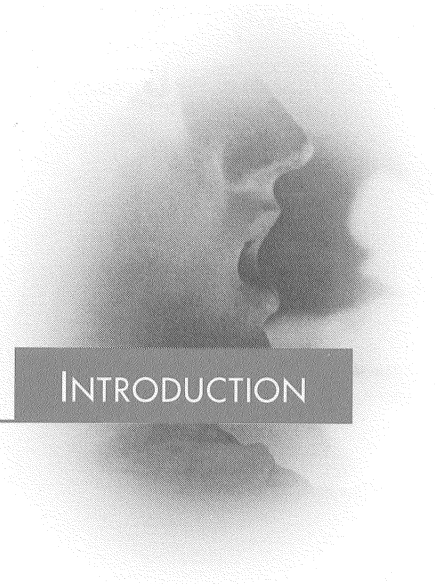

Advancing the Technique

Introduction

Any voice can produce an amazing range of possible sounds: tones that range from a jagged shout to a rolling whisper, from a marshy sob to an expansive laugh, from a gravelly cello to a slippery flute. The same voice can produce imitations of Donald Duck, Sylvester Stallone, or Richard Nixon. It can produce tones that sound angry, seductive, happy, or sad and the musical sounds of pop, Broadway, jazz, country, opera, and art songs. The physical structure of the vocal system enables this incredible variety.

To advance the technique for singing with excellence, we need to appreciate the wide range of sounds in our voices. Once we understand the system's flexibility, we can better understand our task: to coordinate the parts that control the voice. (See the heading, "Functions of the Voice and Select Body Parts," in v. 1, ch. 4.)

To produce the sounds we want, we need to find the right combinations of the parts that control the voice. We come to view these parts of the voice as we view the controls on a synthesizer: all are at play for each sound, but they move to different settings to produce different sounds.

Throughout the last volume, we explored how to deepen the flexibility of these parts, how to refine their possible "settings." (See Volume 2, "Building a foundation.") We worked with deepening the flexibility in the supportive body, the breath, phonation, and resonance. By working with tone qualities, kinesthetic sensations, imagery, and instructions, we mobilized the underlying parts that control the voice, stretching and working them to increase their

individual flexibility. In this volume, we work at another level—building flexibility in how we coordinate the parts that control the voice.

A tiny change in one voice control can often make a big difference in the sound. Let's look at a few controls, which can contract or relax to create many configurations:

- How much the cricothyroids contract to stretch the vocal folds
- How much the thyroarytenoids contract to thicken the vocal folds
- How much the vocalis muscle contracts
- How much the extrinsic muscles contract and pull on the larynx
- How much the interarytenoids contract
- How much the cricoarytenoids contract
- How the tongue, jaw, lips, cheeks, head, and larynx move
- How much the abdominal muscles contract
- How much the intercostal muscles contract
- How much the diaphragm contracts

For every sound, we set these controls one way or another and into and out of myriad combinations. To get the tone qualities we want, we need to coordinate the controls in particular ways, contracting one a little here and another one a little there and configuring and reconfiguring them for each particular sound.

We cannot adjust these parts consciously, as we describe in Volumes 1 and 2. We cannot say to ourselves, "Contract the cri-

cothyroids a little more," and be effective. We need to adjust the parts indirectly, through our kinesthetic and aural sensations, our imaginations, and our emotions. Sometimes we can combine our sensations of singing in new and surprising ways, through deliberate exercises, to coordinate those parts into a desired combination. Sometimes just feeling an emotion has an effect on the controls, adjusting the parts and causing a change in the tone—all while we are only conscious of the emotion.

However, whether we change these controls directly or indirectly, we progress when we learn to develop flexibility in coordinating them to get to the sounds we want. The more ways we can coordinate, combine, and recombine them, the better our vocal quality becomes.

Like Rubbing the Tummy While Patting the Head

Coordinating the parts for singing is like rubbing the tummy while patting the head—moves that are simple by themselves but awkward and unfamiliar when we try to put them together. For instance, your student can move her jaw or her lips separately, but moving them in a particular combination at the same time may feel strange. However, as your student progresses, she becomes familiar with each new combination and keeps learning new ways to combine those parts, making finer distinctions about how they work together.

For example, as she sings from one pitch to another, she might learn to lift her ribs slightly, nod her head slightly, release her jaw, lower her larynx, and round her lips, all at once—a combination that she might have never made before. At first she may not be able to achieve this combination at a particular pitch. But as she makes finer distinctions—learns to lift her ribs just enough, release

her jaw so it falls in a precise way, lower her larynx not too much but not too little, and round her lips just enough—she coordinates these movements with greater precision and familiarity.

By learning to coordinate these parts, she adds another option to her growing number of choices, increasing the range of sounds she can produce at will. She learns to coordinate the parts of her vocal system in many different combinations, with finer and finer distinctions, steadily increasing her skills to sing any sound she wants.

When managing the parts through indirect measures—emotions, the imagination, aural sensations, and kinesthetic sensations—the combinations become endless. For example, at the top of a phrase, you might ask your student to feel joy while she lifts her ribs, feel the tone move forward in and around her lips as she arches her tongue slightly forward, and listen for a ring in the tone while she centers the top pitch.

Though complex, managing all these sensations is not all that hard; it's simply unfamiliar. You often ask your student to combine two movements she can do separately but not together, and the resulting combination may be tricky until she gets the hang of it.

Putting the movements together with finer distinctions, your student can play with their settings along a continuum—by lifting the ribs too much, then too little; by rounding the lips too much, then too little; by nodding the head too far forward, then too far backward; by feeling ecstasy, then anger. From the extremes, she can then fill in, moving from one end of the continuum to the other, combining the movements toward a particular use of her voice. In other words, you can teach your student to coordinate the parts that control her voice through a stochastic process. (See the heading "Stochastic Processes," in v. 1, ch. 1, and the exercise "To Cast Your Teaching Along a Continuum," in v. 1, ch. 1.)

Ultimately, your student develops greater flexibility, becoming more facile at mixing and matching different sensations, emotions, and movements of the articulators—different ways of moving the parts that control her voice. She becomes familiar with new combinations much more quickly and anticipates new combinations more intuitively. As a result, she begins using her voice more and more expressively.

The Goal for Advancing the Technique

As your student sings the vocal lines laid out by a composer, she can easily contract one or more of the variables too much or too little, sending her voice into all kinds of unintended tones. You might hear her fall into breathy tones, flat pitches, wobbles, clicks, or pulses. She might stumble into an irregular vibrato. She might skim the edge of a raspy tone as she sings through rough spots, muffled spots, or thin spots in her range. When she doesn't coordinate the parts of her voice as she would like, she blazes a bumpy trail across her tonal landscape, leaving behind an uneven vocal line.

But a great singer has more choices. Across the same tonal landscape, she coordinates the intricate parts of her voice with precision, leaving behind a smooth vocal line. Like a ballerina who balances her body from leap to leap, the singer balances her voice from pitch to pitch, sliding the parts of her voice from one complex configuration to another.

We might conclude that we need to sing smoother vocal lines to advance our singing technique—a common presupposition among voice teachers. Let's examine this presupposition, however, and clarify this goal.

We expect to hear smooth vocal lines in most art songs and operatic arias, but students might not always want to sing with smooth vocal lines. For Broadway music, pop, jazz, and country, your student may want to roughen up her vocal line, belt out numbers, or sing breathily. But when she acquires the skills to sing smoothly, she acquires the greatest range of flexibility. She can then sing into any part of her tonal landscape. As a result, she can use her voice to more fully realize her artistic expression.

You might think you want your student to sing with a consistent tone quality because you don't want to hear weak spots or bumps. But without variety, she sounds dull. Like all great singers, she needs to pull out an array of qualities from her voice—including supple, dramatic, soaring, pianissimo, emotional qualities—and she needs enough flexibility to vary those qualities from phrase to phrase.

Instead of limiting her to one tone quality, you want your student to exploit her tonal landscape, to sing vocal lines that have color, nuance, and dimension. You want her to explore high floating tones, rich expressive chest tones, and soaring crescendoes. Otherwise, singing in a monotone voice, she muffles an otherwise sparkling expression.

To clarify, you want your student to acquire the skills to sing smooth vocal lines yet sing with a great variety of tone colors, so that she can sing into any part of her tonal landscape with expected results. The more skills she has for this, the more choices she develops and the more flexibility she builds in her voice. Having developed this dimension in her voice, she can realize her artistic vision—a vision she develops at a wholly separate level of work. (See ch. 19, "Teaching and learning artistic independence," in v. 4.)

Aiming to develop your student's skill to sing anywhere in her tonal landscape rather than just the sound qualities of a particular style of music, you can teach her to broaden the capacity of her voice to fulfill her art. And to organize your teaching, the overall goal can be rephrased: you want your student to acquire the skills to sing smooth transitions in pitch, timbre, and dynamic levels.

Smooth Transitions in Pitch, Timbre, and Dynamic Levels

The human voice, expressing its full range in music, offers a lot to keep track of. Besides the stylistic demands of the music, we must contend with the unique qualities of an individual voice. Where do we start? How do we manage it all? As beginners, we can get lost in the multitude of sounds in a voice.

Because you can reduce all vocal sounds to three variables—pitch, timbre, and dynamic levels—you don't have to pay attention to all the possible sounds your student produces. You can narrow your attention to the transitions in pitch, timbre (including the vowel, consonant, tone color, and register), and dynamic levels. When you hear an anomaly in your student's voice, you can notice whether it occurred when she sang a transition between two pitches (or pitch ranges), two timbres, or two dynamic levels.

By tracking transitions in pitch, timbre, and dynamic levels, you make singing smooth transitions more manageable. For example, suppose you want your student to sing in her high floating tones and, during the transition from pitches in her middle range to those in her upper range, she stumbles into strident, loud tones. Because she can dramatically influence the timbre with her vowels and the dynamic levels with her breath, you know that she needs to change her vowels and her breath—to coordinate them in a different way—in order to smooth the transition.

In this volume, we offer many such strategies for smoothing the transitions in pitch, timbre, and dynamic levels. All depend on you first hearing the problems in your student's voice, which is a matter of noticing anomalies in a vocal line. These skills, like all others, improve over time. As a beginning teacher, you might be listening too intently for a "pretty" sound and might not notice anomalies. As an advanced teacher, you notice even subtle anomalies, which pop out vividly.

Smooth Transitions in Pitch

Problems with pitch are usually the first we notice in a singer, as nothing pops out in our perception more than out-of-tune singing. Instead of precise and smooth transitions from pitch to pitch, the singer leaps from one pitch and arrives flat or sharp on the next one. Even the best singers sing off pitch under certain vocal conditions, however, so it is important to realize that our sensitivity to singing on pitch can become more and more refined.

Clarifying the goal of smooth transitions in pitch

To demonstrate the variations of smooth transitions as they relate to pitch, your student needs to learn how to:

- Maintain the same pitch while singing from one tone quality to another, one vowel to another, one consonant to another, and one register to another
- Maintain the same pitch while singing from one dynamic level to another
- Sing from one pitch to another pitch without an involuntary change in timbre or dynamic levels

Keeping track of transitions in pitch

When you monitor transitions in pitch, listen for sharp or flat singing. When you hear an anomaly, first notice the pitches involved. From what pitch to what pitch was your student singing? She might have been singing the pitches of a simple interval, a rapid scale, or a trill. Notice which part of her range was involved: the low end, the middle, or the top end.

You soon become familiar with transitions between certain pitches that present common problems. For example, without the proper skills, a mezzo-soprano often stumbles between Eflat5 and E5, and a tenor often stumbles between Fsharp4 and G4. (See the heading, "Events and Registers," on page 27.)

Smooth Transitions in Timbre

The next place to focus your attention when you hear an anomaly is the transition in timbre. You probably already remember your student's voice by its timbre—its overall tone color. It could be luscious and silky, bright and flutey, or deep and rich. Or maybe it is involuntarily harsh and strident in some areas of her range.

"Timbre," however, is an umbrella term that refers to more than a general tone quality. It refers to all qualities in the vocal sound that do not relate to the pitch or dynamic level, and it includes vowel sounds, consonant sounds, tone colors (such as bright, dark, or brassy), and registers. (See the headings, "Two-Register View of the Voice," on page 49, "Three-Register View of the Voice," on page 53, and "Ten-Register View of the Voice," on page 62.)

You are hearing smooth transitions in timbre when you hardly notice a rich sound deep in the range becoming silky in the middle or a clear consonant becoming a precise vowel, without unwanted intrusive sounds. You are hearing anomalies in timbre when you

hear such qualities as distorted vowels, raspiness, weakness, tightness, breathiness, or abrupt shifts from dark to bright.

Clarifying the goal of smooth transitions in timbre

To demonstrate the variations of smooth transitions in timbre, your student must learn to:

- Maintain a similar timbre while singing from one pitch to another
- Maintain a similar timbre while singing from one dynamic level to another
- Sing from one timbre to another without an involuntary change in pitch or dynamic levels

Keeping track of transitions in timbre

To keep track of your student's timbre is complex because timbre includes so many aspects of a sound. When you focus your attention on undesirable qualities, the task becomes easier. Did the tone become too bright (shoutlike) when she sang from an [o] (oh) vowel to an [a] (ah) vowel? Or did the vowel become distorted when she sang from a silky tone to a stentorian tone? From a warm to a brilliant tone?

Once you identify the timbres involved, you should relate any anomaly to the pitches your student was singing. After you keep track of these pitch and timbre anomalies for a while, you can expect the process to become automatic. You notice the vowels, consonants, tone colors, registers, and pitches involved simply by listening to your student.

You learn to notice familiar patterns that create anomalies for particular voices. For example, without the proper skills, a mezzo-soprano might open her vowel too much around Eflat5, producing

an unintentionally strident, bright tone color. A baritone might close his vowel too much around B3, producing an unintentionally muted, weak tone color.

Smooth Transitions In Dynamic Levels

Another quality to notice when you hear an anomaly is the transition in dynamic levels. We are used to hearing beginning students sing too loudly or too softly, but even with advanced singers, we sometimes hear individual notes pop out too loudly in a scale.

You want to hear gradual changes, as in a balanced *messa di voce.* (See the exercises under "Teaching Messa di Voce," on page 550.) You want to have the sense that your student can make finer and finer shifts in dynamic levels anywhere in her range.

Clarifying the goal of smooth transitions in dynamic levels

To demonstrate the variations of smooth transitions in dynamic levels, you want to teach your student to:

- Maintain the same dynamic level while singing from one pitch to another
- Maintain the same dynamic level while singing from one timbre to another
- Sing from one dynamic level to another without an involuntary change in timbre (vowel, consonant, tone color, register) or pitch

Keeping track of transitions in dynamic levels

To keep track of transitions in dynamic levels, listen for anomalies—sudden, uncontrolled shifts in loudness or softness. Do they occur when your student sings more loudly or more softly? Which

pitches and timbres are involved in the transition in dynamic levels? Again, you learn to see and hear familiar patterns for voice classifications and within your student's individual voice. For example, light sopranos often drop off too softly below Bflat4 as they sing a descending scale.

The Uneven Tonal Landscape

The vocal system has many parts and they can work together in many ways, giving us the wide range of possible sounds. If it had fewer parts—say, only a jaw to control resonance and no lips, tongue, soft palate, or larynx—we could express only a narrow range of tones.

The sheer number of variables that control each transition in pitch, timbre, and dynamic levels poses a challenge to singing with smooth transitions, but it also gives our human voices their diverse tonal landscape—and the potential expressiveness of our art.

We can push any variable of the voice a little more or less, each time modifying the sound, which means we can produce a given pitch with different timbres and dynamic levels. The variability of the human voice is at the heart of becoming an expressive singer, and it's at the center of teaching.

However, this range of variability has boundaries—a maximum range of pitches and limited tonal qualities for a given pitch range or for maximum loudness, for instance. The parts that control the voice reach limitations both individually and together, and these limitations produce an uneven tonal landscape. For example, the robust tone qualities of the lowest range of the voice sound different from the qualities of the highest range.

Coordinating the Parts that Control the Voice

This volume helps you teach your student to coordinate the parts that control her voice so that she can sing smooth transitions in pitch, timbre, and dynamic levels across her uneven tonal landscape.

We cover this topic in two chapters: "Teaching and Learning the Tonal Landscape" and "Teaching and Learning a Smooth Vocal Line."

Mapping the Tonal Landscape

In the first chapter, we learn to plot the places in the range where the voice must work differently. We plot such things as the extended range, the normal singing range, the tessitura (the part of the range in which the voice is most comfortable), events (places in the range at which the voice must change), and registers.

Knowing the important "landmarks" in the range, you can expect to hear certain changes in the voice, and any deviation becomes easily noticeable. For example, an important landmark in all voices is the major passage, which is located around Eflat4. If your student stumbles around that pitch, you know she needs to smooth the transitions through her major passage—a common teaching and learning issue. The map helps you know precisely where to intervene.

When you finish with this chapter, you should also be able to classify a voice. For instance, you'll know the difference between a baritone and a tenor.

Strategies

In the chapter, "Teaching and Learning a Smooth Vocal Line," we offer many ways to smooth the transitions in pitch, timbre, and dynamic levels—little exercises we call "strategies." Following is an example of a typical strategy to tell your student:

> Gradually open your mouth at Bflat3 to Eflat4 to brighten the tone.

These strategies are aimed at how to coordinate the parts of the voice to sing transitions smoothly.

Conditioning the Parts that Control the Voice

Coordinating the voice is the first level of advancing the technique; conditioning the voice is the next level. In this section, we look at how to train the voice over time.

We discuss how to condition the voice and how to develop and smooth the routes through the voice over time. We offer exercises for singing legato, portamento, rapid scales, trills, long phrases, sostentuto, *messa di voce,* pitches in the extended range, power, and endurance. (See the chapter, "Teaching and Learning to Sing over Time," in this volume.)

With a clear map of her tonal landscape, with strategies for singing throughout her range with smooth transitions, and with careful rehearsals over time to condition her voice, your student can keep her voice balanced while she sings a vocal line wherever it moves across her tonal landscape. She can then achieve the sound qualities she chooses.