Voices to Eden: Pedagogy, Rationalization, and Modern Voice Culture

Steven Andrew Purvis

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ABSTRACT

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Steven Andrew Purvis
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Voices and bodies have always been intricately linked within the Western imagination. Common sense dictates that bodies produce voices. Consequently, the art of singing has often been presented as the natural progeny of the body. For centuries, voice instructors and physiologists have attempted to explain, through both empirical practice and scientific knowledge, how the body produces the voice. In particular, they have sought to define the ideal conditions which facilitate the production of a healthy and beautiful voice.

In the mid-nineteenth century, such issues were urgently pursued by a new class of voice specialists, who brought novel forms of knowledge and cultural understanding to the study of the embodied voice. Mechanistic models, which approached the voice as a static, anatomical function, were supplanted by organic models, which presented the voice as being the result of an organic and developmental process. Apparently, voices grew and, like growing plants, they needed to be cultivated, by the careful and rational hand of a voice instructor. There was also a growing sense that modern singers were practising
a degenerative art, which if left unaddressed would lead to the eventual degeneration of individual voices and the vocal arts as a whole. Rational training of the voice seemed to be the only option available in order to avert disaster. Furthermore, this rational method of training and singing was seen as being sanctioned by nature itself. Thus, the training of the voice merely involved bringing vocal practice into alignment with the voice's own natural and corporeal logic.
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CHAPTER 1: Introduction

Singing occurs frequently in our daily lives. If you counted the times you heard it each day, the number would surprise you. In truth, until attention is directed toward it, one is oftentimes quite oblivious of it. Proof of this may be found in the fact that many of us hum or sing upon occasion without thinking what we are doing. Furthermore, in moments of abstraction, we may be in the presence of music without being consciously aware of it. Familiarity with singing, however, does not necessarily imply knowledge or understanding. Therefore it may be well, before beginning the study of voice, to ask "What is singing" and "Of what value is it?"

Anne Pierce, Class Lessons in Singing (1937: 1)

Voices and Bodies

...what you hear is not simply a certain pitch, you also hear the body.
   Joke Dame, "Unveiled Voices" (143)

...the voice draws our attention to something happening in the body itself.
   Simon Frith, "The Body Electric" (1)

Voices come from bodies. There is no truth simpler. Part of the pleasure of attending a live concert is in seeing and hearing an embodied voice. In this era of sound reproduction, it may, in fact, be the first chance you have to see, in the flesh, the person who produces a voice you've been listening to for years on tape, CD or radio. From among the audience, you can closely watch the singer as the voice rushes forth
from her/his open mouth—out of that place from which voices come.

The relationship between body and voice is clear: bodies produce voices. Even when listening to recorded music, the listener is confident that the voice she hears once came from a living body (perhaps, even the same one displayed on the recording's sleeve).¹ And audible clues on the recording (eg., breathing or vocal timbre) help the listener to reconstruct the absent, but present, body of the singer. Common sense dictates that somewhere behind the recorded voice there must be a body. After all, there cannot be a voice without a body.

What is the relationship between voices and bodies? Although we might accept that voices come from bodies (a truth we also understand through our own bodies and voices), we have little idea what actually occurs inside the body during the act of vocalization. How does the body produce a voice? Also, where exactly is the voice located in the body? The lungs? The throat? The mouth? We know that the voice comes from somewhere inside there, but where? And what exactly is going on inside there anyway? By using the language of musical analysis, we can better understand the sounds themselves and the musical conventions which inform them. We can talk, infinitum, about coloratura, messa di voice or intonation, but such discourse

¹Performers, like Laurie Anderson and Diamanda Galas, have begun to undermine such assumptions through their music and performances, but they are exceptions, since they have consciously sought to undermine the very norms that are addressed here.
does not get us any closer to understanding what corporeal events give form to the voice.

Confusion grows further when we try to explain why some people have beautiful voices and others do not. What is it that makes one voice more aesthetically pleasing than another? Why can't I sing like Cassandra Wilson or Marilyn Horne? Is there something wrong with my body or is it just my voice? Are some bodies (or voices) just more gifted than others? Or, is it possible that voices are made, as in the case of the archetypical torch song singer, who must experience life's woes (and consume lots of cigarettes and scotch) before finding his voice. This leads to another question: what is the relationship between the voice and the self? Is the voice a messenger from the soul? And, if so, does this mean that gifted singers have special souls, ones which allow them alone to express joy and pathos in beautiful melodies?

It almost appears as if singers constitute a separate species. Perhaps, they have evolved special bodies to produce special voices. Still, what makes their voices and their bodies special? And what is this special relationship between voices and bodies?

Voices of The Nineteenth Century

Such questions have been parleyed for centuries with little resolve and I am not about to break with tradition. The following thesis will, however, give attention to the main
issue at hand: bodies and voices. In particular, it will address how embodied voices and vocal bodies were understood in the late-nineteenth century. From 1850 to 1920, new modes of knowledge and new forms of cultural understanding were brought to bear on the voice to create new hypothesis about the origins of the voice and new theories about its correct functioning. In short, a highly specialized discourse (or, rather, a constellation of discourses) emerged for describing and analysing the voice and the art of singing. And, even today, this uniquely modernist discourse continues to have parlance within both critical and popular circles.

By 1900, an entire culture had emerged around the voice and its instruction. Within the musical press, the latest theories of singing were debated, often in fervent tones, and self-proclaimed voice specialists from diverse fields and backgrounds (eg., singers, voice teachers, physiologist, laryngologists, philosophers, and psychologists) were composing lengthy treatise on the voice, many of which were widely read. Moreover, the very way in which the voice was discussed within these texts began to change. Increasingly, critics, singers, voice teachers, and music historians began to speak about The Voice, a trans-historical Idea with its own culture and teleology. Individual voices were still discussed and analyzed, but they became representative of a larger 'voice culture'. Consequently, the voice was no longer ephemeral (ie., bound to the immediate Present); instead, it
was heir to a cultural and historical legacy. Emphasis thus shifted from the micro-level to the macro-level, from the immediate to the abstract, and from the individual to the Cultural. Music critics, for instance, could now move beyond individual voices to make grand pronouncements about the overall health of 'voice culture'.

'Voice culture' became a common rallying point, even though there was little consensus about its actual composition. The very idea that the voice had its own culture (i.e., logic and rationale) was very seductive. Correct voice production thus became a matter of identifying and following the natural laws of the voice. In a sense, if you listened closely enough, the voice would tell you the secrets of its own cultivation. Thus, the primary task of singers and voice instructors was to identify and obey the laws of natural singing.

As a cultural formation, 'voice culture' served as a complex relay point where diverse cultural and historical factors converged, within a dance of synthesis and augmentation. Under 'voice culture', artistic and musical concerns became united with scientific and medical thought and together they were propelled by the modernist ethos of rationality. Once united, this trinity provided the voice with an origins, a profile, a logic, and a destiny.

Each of these factors will be individually introduced below, along with the chapters in which they are discussed.
The Voice of Medicine and Science

Developments in medical science allowed for a new class of voice specialist, who was equipped with new technologies (e.g., laryngoscope, x-rays, photographs, and motion pictures) and new forms of knowledge (e.g., physiology). Science, it appeared, could now plunge beneath the surface of the body and unveil the corporeal secrets of the voice. Garcia's laryngoscope, for instance, allowed for the close inspection of the throat and the glottis during the act of singing, something previously unimaginable.

Apparently, science could provide knowledge about the voice which traditional voice experts, who relied on empirical practice, could not. Nonetheless, science did not completely revolutionize vocal practice or reduce the voice to a lifeless, theoretical model. As will be discussed in Chapter 2 ("Cultured Voice/Embodied Voice"), science merely allowed for a 'deeper' and more corporeal understanding of the voice. In other words, like Garcia's laryngoscope, science seemed to be a passive tool which merely allowed the singer's body to declare its truth.

Changes in the natural sciences, during this time, also influenced how the voice was understood and conceptualized. Evolutionary biology and physiology were giving life to two important ideas: development and environment. Previously, organisms (or parts of organisms) were studied as if they were machines which once set in motion merely follow an isolated
and predetermined path, until they stop functioning and die (not unlike a wind-up toy). In contrast to this static model, evolutionary biology and physiology presented life as being contingent, responsive, and variable (within limits, of course). Therefore, to understand how an organism functions, you must study it in its environment and you must also study it over time (i.e., as it develops and evolves).

The voice was similarly conceptualized as being organic. Voices are not born, instead they are organic entities which evolve and grow. And, like a living plant, they need to be carefully cultivated in a healthy environment. If properly cultivated, in accordance with Nature's logic, a healthy and beautiful voice will be produced. This developmental and teleological model allowed for the construction of meta-narratives which mapped the individual, the social, and the historical development of the voice.

Crisis In The Vocal Arts

Among musical practitioners, there was the growing sense that the vocal arts, in general, were in crisis. The latest generation of singer's, it appeared, were technically and aesthetically inferior to their predecessors. In fact, many singer's were literally losing their voices and were being forced to retire. Some predicted that if this trend was to continue, the vocal arts would reach extinction in a few short years. Although few could agree on the cause of this
degeneration (eg., improper instruction; decadent music; excessive life-style), all agreed that a standardized method of singing and voice instruction was required.

More than ever, the singer needed to be guided by the expert hand of a qualified voice teacher who, through careful instruction, would help the singer to cultivate a beautiful voice, the singer's natural birthright. As will be seen in Chapter 3 ("The Age of Degeneracy: Angels and Screamers"), the natural way of singing was often associated with bel canto, the old Italian tradition of singing.

The Rational Voice

Within this climate of crisis, voice experts were lead, by apparent necessity, to embrace a rational ethos. The beautiful voice, it was assumed, could only be produced and protected by adopting a universal system of instruction, based upon the natural laws of singing. Any other program of action was unacceptable. You either follow a set path of action, which leads to artistic salvation, or the vocal arts will degenerate forthwith. In other words, only certain means will allow you to reach the desired ends.

Although there was little consensus over what the actual means should be, all agreed that only a single and appropriate means (of singing and voice instruction) would lead to the necessary ends (ie. the beautiful voice). Moreover, necessity dictated that the vocal arts be ordered in accordance with the
ends sought. Thereby, the means were removed from the 'here and now' (i.e. their historical and social context) and were defined and organized through their relationship to the Idea of ends (i.e., the transcendent Idea of a beautiful voice).

This abstract (and abstracting) relationship between means and ends will be explored in Chapter 4 ("Systems of Rationalization") through the work of Max Weber.\(^2\) And in Chapter 5 ("The Art of Breathing"), I will demonstrate how rationalization was applied directly to vocal practice by examining theories of breathing. Voice experts contented that by making breathing more balanced and efficient, the singer would be able to produce a naturally, beautiful voice (i.e., an organic voice). Rationalization, it was felt, would allow the body to naturally produce the Voice.

One singer who was able to produce the Voice, through such rational means, was Enrico Caruso, who was dubbed "The Master of Natural Singing" (Marafioti: 1). Often considered the best tenor of his generation, Caruso was celebrated for his ability to strictly, but instinctually, follow the natural laws of singing. He became a champion for 'voice culture' and served as a model which other singer's attempted to emulate. The final chapter (Chapter 6: "Mastering the Natural Voice") will examine how Caruso was defined, through medical, aesthetic, and rational discourse, as being a new breed of

\(^2\)A similar form of Weberian analysis is pursued by Paul Theberge in his thesis on performance practice and technological rationalization (1987).
singer (e.g., the sculptor-singer or the engineer-singer), through which the natural and the rational were united to produce an organic voice (i.e., the Voice).

Choosing Subjects

When I began my research, I quickly learned that 'voice culture' was an immense historical and cultural formation. Not only is it an overwhelming phenomenon from a historical and theoretical perspective, but it is also an astounding phenomenon in terms of the amount of cultural production associated with it. Brent Monahan, for instance, lists well-over two-hundred voice manuals in his taxonomic study of modern vocal pedagogy (1978). Clearly, for practical reasons, I could neither analyze nor write about this many texts (even if I could locate and attain copies of them). In addition, it turned out that existing theoretical paradigms (whether in communications or musicology) were not easily adapted to my study of voice culture. Therefore, in a sense, this thesis represents a theoretical exercise, in which I attempt to fashion the theoretical and analytical tools required for the study of embodied voices.

While preparing for this thesis, I read dozens of voice manuals and browsed through many more. I also consulted a number of articles published in The Musical Times (a magazine for musicians and their teachers, published in London) and researched the careers of numerous singers and voice
instructors. When it came to write the final product, I narrowed my attention further and focused on a handful of voice manuals (most notably, Mario Marafioti's *Caruso's Method of Voice Production*; Richard Bacon's *Elements of Vocal Science*; Enrico Caruso and Luisa Tetrazzini's *Caruso and Tetrazzini on the Art of Singing*; Leo Kofler's *Art of Breathing As The Basis of Tone-Production*; and David Taylor's *The Psychology of Singing*). In terms of form and content, these texts proved to be exemplary of the discourse surrounding 'voice culture' as a whole. Also, they were penned by well-respected voice teachers or singers who held (and still hold) considerable influence within music.

In order to demonstrate how the rational voice became manifest, I also chose to devote the last two chapters to two specific issues: theories of breathing and the voice of Enrico Caruso. In the case of the former, I could have talked about other aspects of vocal practice (e.g., registers, intonation, posture, and even diet), but breathing was the issue most frequently addressed in voice manuals, since improper respiration appeared to be a rampant problem among modern singers. Moreover, each of these aspect would take a chapter in itself. Caruso was chosen because he was the most celebrated and thus written about singer of his age. Even today, he is seen as setting the golden standard for correct singing. Caruso is also the only singer, of whom I know, who has not only written articles about the voice, but has also
been the subject of a major scientific, artistic and pedagogical study (i.e., Marafioti's *Caruso's Method of Voice Production*).

By focusing on these two examples, I also intend to demonstrate how the particular became a site for articulating the general. 'Voice culture' gained saliency and power by stitching individual bodies, voices, and biographies onto itself. In both form and action, the particular was seen as recapitulating the will and Idea of the whole. Thus, when I recount Caruso's biography (i.e., his development as a singer) in Chapter 6, I am retracing (with an analytical mind) the very meta-narratives which 'voice culture' produced in order to give 'flesh' to its otherwise abstract ideas. Also, in themselves, each of these examples embody a further permutation on 'voice culture.' Like a mirror, they served as reflection points where 'voice culture' established, displayed, and verified its power and hegemony.

**Historical Approach**

Although this is primarily a theoretical and analytical study, historical issues are significant. Historiography is important for two reasons. First of all, 'voice culture' is a specific historical and cultural formation, dating roughly from 1850 to 1920 (these dates will be explained shortly). Second, 'voice culture' gained power by building a History (and a Future) for the voice, and thereby it effaced its own
historical specificity. Part of my task, therefore, was to reconstruct and trace the social and cultural contours of this hidden and denied history.

There was no clear historical event which prompted the 'birth' of 'voice culture'. Rather, during the early nineteenth century, an assortment of diverse social and discursive practices converged within an orbit around the voice to form a specific cultural formation. By 1850, 'voice culture' was an accepted fact; the discourse produced by teachers, singers, and critics was firmly rooted within the conceptual soil of 'voice culture'. And, when Garcia's laryngoscope was introduced in 1854, it was embraced as being a tool which validated the dictates of 'voice culture'.

At the other end, 1920 marks the final year in which Caruso sang in public. Obviously, 'voice culture' did not die alongside Caruso, who fell ill in 1921. Nonetheless, Caruso was an important transitional figure who, while embodying the ideals of Italian singing, moved the voice into the modern age of sound reproduction. With the phonograph, the relationship between bodies and voices began to change again, in ways both sympathetic and antagonistic to 'voice culture'. Such a history should be studied on its own, but with the lessons of 'voice culture' clearly in mind.

Theoretical Approach

As mentioned above, Max Weber's concept of
rationalization (as well as his framing of rationalism within Western society and history) will be pivotal to the arguments presented here. However, this thesis is hardly Weberian in form or perspective. As we proceed, my alliance with certain disciplinary traditions or theoretical schools will become apparent. Recent debates within the fields of communications studies, musicology, popular music studies, feminism, philosophy, and cultural studies will find expression here and, in general, they have shaped how I approach my subject matter.

Communications studies, with its immense social and theoretical outlook, has allowed me to examine questions which cross not only cultural and ideological boundaries, but also disciplinary boundaries. I am particularly indebted to the writings of Raymond Williams. Williams demonstrates, in a provocative manner, that culture is both a historical concept and a dynamic process. In both Keywords and Marxism and Literature, Williams shows that 'culture' is a contingent "historical formulation" (1977: 11). Especially in Keywords, Williams tracks how the concept of 'culture' has changed in both its forms and means of articulation, over the past few centuries. Certainly, this same historical legacy must be considered when trying to explain the concept of 'voice culture'.

Furthermore, in contrast to traditional Marxist thought, Williams proposes that culture should be studied as "a whole
way of life, a general social process" (1958: 282). In other words, culture can not be understood either as an isolated phenomenon, which is separate from other historical formations (eg., society and economics), or as the static resultant of a mechanistic historical processes (eg., economic determinism). Culture is a dynamic historical formation (or, rather, a series of formations), where numerous social, economic, and historical factors converge. In a sense, culture is a living thing which must be studied organically, not mechanistically. By relation, 'voice culture' should not be approached as a static resultant (or product). To fully understand 'voice culture,' we cannot merely fix our gaze upon a single factor or cause (eg., the vocal arts). Instead, we must, on occasion, cast our gaze sideways, across society, to look at other historical formations which contribute to the "historical formulation" of the Voice (eg., scientific knowledge and practice; rationalism and Idealism; and Modernist culture). And when we do narrow our attention in order to examine specific aspects of 'voice culture' (as in Chapters 5 and 6), these examples are not strictly self-contained or exhaustive, but rather help us understand a larger cultural formation of which they are a integral part.

In regards to communications studies, as a whole, I also feel that it is important to broaden our analysis of voice (or voice culture). Unfortunately, the voice continues to be a neglected area of research, within this field, as researchers
tend to focus more on technologically-driven forms of communications. Even those who write about the voice in relationship to the telephone, radio, television or sound recording, tend to focus on how the technology produces (or mediates) the relationship between voices and bodies for the listening audience. Very little is said about voices and bodies themselves, or how systems of rationality (separate from those of technology) operate to construct embodied voices. On occasion, critics like Simon Frith will analyze how aesthetic conventions operate to textually construct a "vocal identity" (6), but such deconstructive strategies get us no closer to understanding the corporeal implications of the voice. In the end, they leave the voice suspended in the realm of textuality. By contrast, this study will examine how the voice is (culturally) framed within the body and how the body frames the voice.

Musicology has also been caught within the textual trap (a predicament leading back to the late-nineteenth century). As Susan McClary has noted on numerous occasions, musicology has pointedly avoided and even effaced the presence of the body, in terms of both musical production and consumption, by focusing on the abstract qualities of music (1985; 1990; 1991). In the process, the entire social function and social history of music has been ignored. Fortunately, in recent years, there has a emerged a new form of musicology (sometimes called 'New Musicology' or 'Feminist Musicology') which has
struggled to ground music within the historical, cultural, and social sphere. It is from authors within this tradition (e.g., Kerman; McClary; Shepherd; Citron; Subotnik) that this thesis takes its theoretical and analytical bearing. In part, this thesis also provides another example of how Western culture has evoked scientific and naturalistic discourse to abstract the voice and music from the realm of the social and the corporeal.

Finally, although few direct references are made to Michel Foucault, his work clearly forms a backdrop upon which my own ideas play out. Foucault repeatedly demonstrates, in his work, how knowledge and power are mapped, both discursively and interpretatively, onto the embodied subject (1973; 1978). As a result, the body or the self appears to declare its own 'truth' without the intervention of culturally produced knowledge. Furthermore, strategies to rationalize the self are projected onto (or into) the body itself and thus, it appears as if the self calls for and sanctions its own rationalization.

The singer's body began to 'speak' in a similar fashion before the analytic gaze of the physiologist and the voice teacher. Aesthetic, scientific, practical, and cultural knowledge were united under the rubric of 'voice culture' and then sutured onto the body itself. Once linked to the body, 'voice culture' appeared to be a natural and organic extension of the voice. In effect, the voice declared its own Culture,
and any ties it might have with a wider cultural formation were, thereby, erased and denied.
CHAPTER 2: Cultured Voice/Embodied Culture

Among these many bodies is the magical body of myth and memory; the votive, sacrificial body; the body penetrated, but also impenetrable; the infected body; the invaded body; the bleeding body; the body damaged by devils and dybbuks; the body possessed by ancestral spirits; the archaic body of legend; the body in and out of harmonious balance; the body as disequilibrium and disease; the self-healing body of belief and trust; the body in time; the transparent radiological body, thin as celluloid; the modern, industrial machine-body; the hairy half-animal body, slave to the Full Moon; the sacred body of psyche and soul; the solitary, unknown, medical body; the shared body; the body crowded with autonomous organs; the dissected, dismantled body; and the fragmented body of Dr. Frankenstein's monster—re-assembled by Science into an automaton of flesh.

All of these bodies are different, and yet somehow they are all the same, for they all revolve—like spokes of a complex wheel—around the same familiar human form, staring back at us from the depths of the mirror.

Cecil Helman, The Body of Frankenstein's Monster (1)

The Empirical Voice

It was common wisdom, long before the nineteenth century, that when in the absence of a teacher (and her/his attentive gaze) the voice student should practice in front of a mirror. According to Pietro Francesco Tosi (1647-1732), the author of Observations on The Florid Song (first published in 1723),

'Tosi's Observations on The Florid Song is considered by many teachers and historians to be a classic text on singing, despite having been written for the castrato. Many of the basic principles of singing presented in nineteenth century manuals date back to Tosi's work.
a looking-glass is an invaluable educational tool which can underscore, in a visual manner, problems relating to posture and technique:

When he studies his Leffon at Home, let him sometimes fing before a Looking-glafs, not to be enamoured with his own Perfon, but to avoid those convulsive Motions of the Body, or the Face (for fo I call the Grimaces of an affected Singer) which, when once they have took footing, never leave him. (88-89)

With the aid of a mirror, the student can closely observe her/his body during the act of vocalization and respond to a myriad of problems which might otherwise become habitual, perhaps in the long term, deleterious. Impediments such as a slight backwards tilt to the head (causing a restriction of air flow in the throat) or the grimacing of the face (causing aesthetic vexation in the audience) can be identified and corrected by this simple practice of self-observation.²

Although useful, a dressing-room mirror offers little insight into what actually happens inside the body during the act of singing. From its exclusively external perspective, you might catch a brief glimpse inside the mouth and its full harbour of anatomy, including teeth, tongue, palate, uvula, and pharynx. Otherwise, the majority of the vocal organs remain out of view; their presence and function hidden beneath the folds of skin and flesh, which mantle both throat and

²At the same time, the student also learns that she is always being watched by an omnipresent audience. In effect, she is always on stage and must therefore act appropriately, especially since bad habits, formed in practice, will inevitably be carried forth into the concert.
breast. No matter how hard one peers into the mouth, the glottis always remains invisible (that is, just around the bend). Granted, one can observe the rising and falling of the breast during respiration, but the lungs themselves cannot be seen with the naked eye. Even those elements which are visible, like those discussed by Tosi, are usually of minor significance, since they appease more to aesthetic conventions than to pragmatic principles.

Prior to the mid-nineteenth century, no one could break the 'skin barrier' to observe the inner workings of the voice. Although autopsies provided physiologists with a substantive understanding of vocal anatomy, the actual ('real time') functioning of this anatomy remained a matter for debate. Within this empirical vacuum, theories multiplied and vied with each other without resolve. One of the more popular theories suggested that the larynx operated like a resonating pipe, similar to a flue pipe in an organ, while another mused that the glottis created sound in a reed-like fashion. Finally, in 1741, Antoine Ferrin (1693-1769) correctly proposed that the glottis operated as a vibrating, variable-tension membrane (Duey: 17). However, this hypothesis would remain unproven for over one hundred years, during which time empiricism dominated the field of vocal pedagogy. As Philip Duey notes, most voice instructors had only a rudimentary understanding of physiology and, on the whole, their teachings were "entirely empirical in nature" (18).
To avoid confusion, we need to briefly define what was meant, in this instance, by empirical (or empiricism) for as Raymond Williams reveals: "It is difficult to read far in modern English without meeting confusing or at least difficult uses of empirical and empiricism" (1983: 117). As will be seen, debates about empirical practice (eg., A scientific practice or a venue for quackery?) became central to the struggles over 'correct' voice instruction. For now, though, it is enough to state that voice instruction (and vocal knowledge, in general) was based, at this time, on knowledge gained through trial and error (that is, direct and tried experience). In other words, what you teach is what has worked and will work. Theory plays no part in this process or, if it does, theory follows practice and, in itself, is inconsequential. To put it yet another way, what you know is what you know and not what you propose. This is not to say that this experience-based knowledge did not wield authority (little lone, an ideology), for it actively sought to cloak itself in the guise of tradition (a complex cultural formation in itself). Still, this empirical practice claimed an immediate and unmeditated way of understanding the voice and its operations.

Not surprisingly then, many instructors were sceptical of science and its abstract theories, especially those theories which attempted to abstract the hidden, corporeal workings of the voice. They seriously doubted that science, with its own
empirical logic, could be of any practical assistance to the singer. After all, singer's had been practising their art for centuries without knowing the biological and mechanical rudiments of voice production. You do not need to see your vocal organs to know how to use them. More offensive still was that science threatened to turn the voice into an object to be poked and prodded, like a cadaver, and thus bled of all its warmth, vibrancy, and life. Such an opinion was summed up by William James Henderson, when he wrote, "the art of singing is an aesthetic art, not an anatomical study" (69). In other words, the voice resides in the practice and art of singing, not in the organs that produce it.

At the same time, to deny the corporal realities of the voice would have been absurd. Thus, it was always assumed, however reluctantly, that the voice originated from inside the body, from an interior, rather than exterior, location. Though this point may appear self-evident, its meaning became extremely overdetermined, especially in the context of the late-nineteenth century when human action and behaviour was increasing individualized and internalized through new modes of science and technology, which were radically remapping and remaking the public body.¹

¹Such trends were readily apparent in the fields of phrenology and physiognomy, whose ideological legacy would be later inherited by the practitioners of eugenics and so-called intelligence testing (see Gould). Allan Sekula argues that both areas of 'scientific' practice are representative of a "single hermeneutic paradigm [that] gained wide prestige" at the middle of the nineteenth century and which proposed that
Also, this reluctance to enumerate the physical and the material, foregrounds a general dis-ease with the body and corporeal experience itself. As Susan McClary has repeatedly shown, the Western classical tradition of music has continuously sought to deny the corporeal origins and affects of music:

As far back as Plato, music's mysterious ability to inspire bodily motion has aroused consternation, and a very strong tradition of Western musical thought has been devoted to defining music as sound itself, to erasing the physicality involved in both the making and the reception of music. (1991:136)

Obviously, the voice teacher cannot simply deny the presence and the significance of the singer's body, since it is the very materials with which she works. And, unlike the musical analyst, she cannot escape to find refuge within the abstract realm of musical notation. The embodied-figure, staring back from Tosi's looking glass, cannot be easily dismissed. Still, "the surface of the body, and especially the face and head, bore the outward sings of inner character" (10-11). In short, the character of any person could be determined by examining (or 'reading') specific parts of the body and comparing them to an abstract, statistical norm. Sekula writes:

Physiognomy analytically isolated the profiles of the head and the various anatomical features of the head and face, assigning a characterological significance to each element: forehead, eyes, ears, nose, chin, etc. Individual character was judged through the loose concatenation of these readings. In both its analytic and synthetic stages, this interpretive process required that distinctive individual features be read in conformity to type. (11)

By composing a statistical sketch of a person's anatomy and matching it to a distinct type, the inner nature of the individual can supposedly defined.
this image can be tainted by clouds of suspicion and denial, a reality which will become apparent later.

Thus, differences in opinion aside, most agreed that the singer's voice came from inside, from an interior site of enunciation. Whether a gift of God, a gift of nature, or a gift of empirical practice, the voice attained body and form within the singer's body, a site apparently separate from the world at large into which the voice flowed. If the flesh, kept the vocal organs in, it also kept the world out and those elements which defined it (including, the social, the political, and the historical). Accordingly, the voice of an Adelina Patti or a Charles Santley appeared to be self-contained, as if its genesis and operation was governed by a sovereign law. This notion of separateness was reinforced by

'As Susan McClary notes, music in general was already seen as existing outside of the social. Even those who began to study music under the guise of positivism or scientific method tended to "depend upon and reinforce the concept that music is autonomous, unrelated to the turbulence of the outside, social world" (1985: 149).

'A similar form of interior enunciation is encountered by Susan Sontag in her work on illness (1989). Sontag argues that nineteenth century diseases, like tuberculosis, were metaphorically defined as being self-generated, as the consequence of an interior state of being: "a form of self-expression" (44). For instance, to be tubercular was to be "sensitive, creative, a being apart" (32). In fact, TB was often associated with artistic creativity, as it seemed to spur creative passion. In general, TB marked a movement away from a system of divine jurisprudence where disease was "a punishment which fits the objective character" (46). Nonetheless the punishment for these inner illnesses was no less moral in their implications; it was now the sinner, not God, who made himself/herself sick: "the character causes the disease" (46). Weakness in character literally leads to physical weakness. Cancer, for example, was first diagnosed as
the invisible nature of the vocal organs themselves. In effect, the voice existed like a 'black box' of unknown and mysterious origins, which on occasion opened and released other-worldly sounds. Although the voice was audible, its origins (and organs) remained an elusive, but ever present, referent.

Garcia's Laryngoscope

In 1854, the origins of the voice finally came into view, when Manuel Garcia II (1805-1906) used the newly invented laryngoscope to observe the glottis during vocalization. The once external mirror now moved inside the body (mounted on the arm of the laryngoscope) to lay bare the inner workings of the throat. A previously hidden and secrete world was suddenly open to observation and, in this instance, the observer and the observed were the same person: Manuel Garcia, singer, voice instructor, and inventor of the laryngoscope.

Apparently, the idea for the laryngoscope came rather easily to Garcia, who later provided this written account of his discovery:

One day, in the autumn of 1854, I was strolling in the Palais Royal, when suddenly I saw the two mirrors of the laryngoscope in their respective positions as if actually before my eyes. I went straight to Carrière, the surgical instrument maker, and, asking if he happened to possess

being caused by a lack of passion (21). Sontag's study reveals that a shift in disease metaphors occurred in the nineteenth century whereby: "Disease is the will speaking through the body, a language for dramatizing the mental: a form of self-expression" (46).
a small mirror with a long handle, was supplied with a dentist's mirror. Returning home, I place against the uvula the little mirror (which I heated with warm water and carefully dried), then flashing on its surface with a hand mirror a ray of sun light, I saw at once the glottis wide open before me, so fully exposed that I could see a portion of the trachea. From what I then witnessed it was easy to conclude that the theory attributing to the glottis alone the power of engendering sound was confirmed, from which it followed that the different positions taken by the larynx in the front of the throat have no action whatever in the formation of sound. ("Manuel Garcia": 228)

Thus was the first case of laryngoscopy or, rather, auto-laryngoscopy.

In the end, no new discoveries resulted from Garcia's observations. As he peered down his throat, the conceptual world did not shift under his feet. Instead, his observations facilitated a theoretical house cleaning, whereby Ferrin's theory, proposed a century before, gained complete dominion. Still, the act of observation was, in itself, portentous, since it provided a breach through which to witness the hidden workings of the voice. For the first time, it was possible to visually extract the voice from the depths of the body (i.e., the 'black box') and expose it to the light of day. In effect, Garcia made the secret and invisible world of the singer's anatomy visible and thus knowable.

To better understand this oracular function, we must turn to Garcia's own history as a singer and voice instructor. Before becoming an instructor, Garcia sang in his father's

"For an extensive discussion of the design and use of the laryngoscope, See Browne and Behnke: 115-123."
opera company, which was well known for having brought Italian opera to North America in 1825 and 1826. Manuel Garcia Senior (1775–1832), Garcia's father, sang with the company as did his mother, Bertha Garcia and his sister, the famous Maria Malibran (1808–1836). At the end of the North American tour, Garcia found that his voice was deteriorating and he consequently decided to end his singing career. On returning to Paris, he commenced studies in medicine, including vocal physiology (Coffin: 25). Apparently, his own physical ailments influenced his choice of specialty. Once he completed his studies, Garcia then joined his father, as a voice instructor. Later, he would hold positions at the Conservatoire of Music in Paris and the Royal Academy of Music in London. Over the years, students, as famous as Jenny Lind, Julius Stockhausen, Sir Charles Santley and Mathilde Marchesi, sought out Garcia because of his extensive knowledge of both medical science and the Italian school of singing.¹

¹Pauline Viardot (1821–1910), Garcia's other famous sister, did not start performing till the 1840s.

²Garcia was versed in the Neapolitan style of singing, descending directly from the master Niccolò Porpora (1686–1767). Garcia Senior, who was Garcia's primary teacher, was originally trained in Naples under Giovanni Ansoni, a student of the Italian school. While in Naples, Garcia Senior gave frequent performances, including the premiere of The Barber of Seville (the part of Almaviva was written specifically for Garcia by his acquaintance, Rossini). Although such a genealogy might seem unimportant now, at the time, Garcia was seen by many as being one of the last proponents of the Italian art of singing, a tradition threatened, many feared, with extinction (Coffin: 12-14; Pleasants: 130).
According to historical accounts, Garcia's did not lecture his students on the science of singing and even issues of anatomy were rarely discussed. In recounting his experiences with Garcia, Charles Santley commented that:

I was a pupil of his in 1858 and a friend of his while he lived . . . and I never heard him say a word about larynx or pharynx, glottis or any other organ used in the production and the emission of the voice. (Coffin: 30)

In keeping with empirical practice, Garcia never placed theory before practice. In fact, his students were instructed in the basics of voice production, no matter their prior experience. As Jenny Lind discovered, during her studies with Garcia in 1841, Garcia was intent on rebuilding the voice from the base up:

I have already had five lessons form Signor Garcia, the brother of Madame Malibran. I have to begin again from the beginning; to sing scales up and down, slowly and with great care; then to practice the shake—awfully slowly; and to try and get rid of the hoarseness, if possible. ("Manuel Garcia": 227)

No radical surgery here. Even his new invention, the laryngoscope, had no direct application in terms of voice training. After all, inserting a laryngoscope into one's mouth hardly promotes comfortable and correct vocalization; even Tosi's looking glass proved more fruitful as an educational aid.

Consequently, the origins of the voice were to remain elusive and they continue to be so today. As Berton Coffin noted recently:

It is not known what the vocal cords look like in the production of good sung tone [sic], nor will it ever be
known because any device inserted into the vocal tract upsets vocal function to such an extent that no good tone or variety of good tones can be made. This also pertains to insertion of fiberoptics through the nasal passage. As an example, try to speak while holding one of the nostrils closed. The waves formed upon the air particles are disturbed and they in turn disturb the action of the vocal folds. I show no pictures of vocal cords in singing vibration because I feel that none have or can be taken of good singing vibration. (164)

Can we assume therefore that Garcia's training as a physician was inconsequential? No, for ideas, endemic to medicine, clearly influenced his work. For instance, emerging theories of pathology were particularly important, since Garcia was frequently being consulted by singers who had damaged their voices, often as a result of improper voice production. It was Garcia's role, therefore, to help these singers by (1) curing their ailing voices and (2) correcting faults in technique so as to prevent further complications. He was, in all respects, a doctor-teacher, a new hybrid of voice specialist who united the worlds of music and medicine. And as a medical and artistic practitioner, he struggled to make sure that no one else would lose her/his voice as he had.

For Garcia, the laryngoscope served as an important diagnostic tool which permitted him not only to observe the vocal organs, but to evaluate their relative health and efficiency. As T.H. Huxley noted years later:

. . . in the laryngoscope [the physician] had gained a new ally against disease, and a remarkable and most valuable addition to the series of instruments, all of which, from the stethoscope onwards, had come into use within the memory of living men, and the use of which had effected a revolution in the practice of medicine. (quote from "Manuel Garcia": 229)
With the laryngoscope, Garcia was able to enter the body and view the vocal organs in operation. And, once revealed, the vocal organs apparently 'spoke' to him about disease, about the normal and the pathological. That is, through studying the organs in operation, he discovered the truth about their correct and healthy functioning. And, like those who preceded him, Garcia located the voice and its meanings within the body, as a sign of inferiority.

In his study of the medical clinic, Michel Foucault describes a similar process whereby clinical knowledge and modes of analysis are collapsed onto the very object under observation, with the result that the object itself seems to speak its own analysis. In other words, the body of a patient, under the gaze of the physician, appears to speak its own pathology which the physician simply reads like a textbook: "the disease gradually declares its truth, a truth it offers to the eyes and ears" (1973: 110). The truth thus appears to arise from the body itself and not the analytical gaze of the physician.

Like its cousin, the microscope, the laryngoscope offered Nature to the naked eye. And, it did so without endangering the myth and mystery of Nature. There are two reasons for this: (1) the laryngoscope appeared to merely re-present the 'vocal chords' (basically, it captured Nature in its full form, without obstruction), (2) there was still a gap between what the 'vocal chords' are, or what they look like, and what
they do (i.e., how they produce sounds). The later is the most
difficult to comprehend. For instance, there is still an
inexplicable link between the glottis and the operatic voice;
it actually requires a certain leap-of-faith to see them as
being connected, in any way. The glottis or the larynx, in
themselves, neither explain nor predicate the glissando of a
mezzo-soprano. Also, as Coffin points out, it is impossible to
observe the vocal organs, while a perfect tone is produced.

As Cecil Helman notes, in his discussion of germ culture,
the microscopic view of germs does not lead straight to
comprehension:

Magnified many thousands of times, their power is still
mysterious to the modern eye. How can such tiny toys,
such little crayons or balls or sticks, cause fever or
pain? How can this pink sphere, or that innocent red
spiral, fester a mind or slaughter a body? (32)

In a similar fashion, one could ask: How can the cartilage and
the muscle which constitute the larynx cause the seraphic
tones and textures which echo throughout the opera house? How
can this space, this gap, which we call the glottis, cause the
resonating power and tenor of Ben Heppner's voice? Still, the
laryngoscope helped sustain the notion that the singer's body
harboured a deep and primordial meaning. Apparently, the
singer's body had a tale to tell about singing. And in this
respect, the glottis and other vocal organs seemed to be
oracles which can recite the truth of the voice.

Cultivating the Voice

32
Up to this point, my use of the term 'voice' (or 'the voice') has been ambiguous and at times contradictory. What is the voice? And, in terms of Garcia's findings, where is the voice? Is the voice to be found in the throat, in a specific arrangement of vocal organs, or is the voice the sounds which emanate forth from the singer's open mouth? Throughout the nineteenth century, few were willing or able to answer these questions.' Ironically, most voice manuals do not bother to explicitly define their topic. Out of 100 manuals review by Brent Jeffrey Monahan, in his exhaustive review of vocal pedagogy, only 2 authors attempt to define the voice in any detail (12). This is a confounding reality indeed.

Such exegetic lapses did not render the voice meaningless. Rather, there was an excess of meaning associated with 'the voice', an excess which could not be adequately accounted for. To demonstrate this issue, we will examine the following statement: Cecilia Bartoli has a beautiful voice. What is being called beautiful here? There are a number of possible answers: (i) the sounds which Bartoli produces while singing are beautiful; (ii) Bartoli's singing (i.e., vocal execution) is beautiful; (iii) the material properties of Bartoli's voice are beautiful. In other words, 'beautiful' applies, equally and concurrently, to sound, technique, and

'Even today, few are able to explain what the voice is. This problem has become more pronounced with the emergence of identify-based politics, in which frequent references are made to the voices of people belonging to x or y community or group.
physiology. Moreover, 'voice' is both an object noun, referring to sound and anatomy, and a process noun, referring to the process of singing. Consequently, the initial claim could also imply that Bartoli always has a beautiful voice (an object owned) or that Bartoli has a beautiful voice only when she sings (a process mastered). Perhaps, its not surprising then that most books do not attempt to define 'the voice'.

Other instrumentalists, like violinists or pianists, are not subject to such conflations of meanings or categorical confusions, since they exercise their skills on external instruments. Singers constitute a special case because unlike instrumentalists they embody their own instrument. When Bartoli sings, she in effect plays herself. She is her own instrument. A pianist, on the other hand, is corporeally separated from the piano which has its own distinct properties (eg., tone and material form). Obviously, no one would confuse Louis Lortie with his piano. The initial claim, 'Bartoli has a beautiful voice', can not be easily applied to a pianist or any other type of instrumentalists. Any similar claims

16On occasion, critics do discuss the resonating qualities of, for instance, a violinist's upper body, especially in the case of female performers. Such blatantly gendered discourse is comparable to debates about the bodies, both male and female, of singers (eg., Maria Callas' body weight). However, in these cases, the violinist's body is presented as a complimentary, rather than primary, resonating body. Therefore, the violin sound can not be conflated with the self.

17Although during a specific performance Lortie may become 'joined' with a piano (any piano!), this union is different than the one which exists between a singer and his voice.
(eg., 'Lortie has a beautiful piano' or 'Lortie plays beautifully') fall far short in their meaning. There are no visible lines separating Bartoli from her voice; she is her voice and the voice is her.

Further complications arise, since definition ii and iii are in potential conflict. As previously mentioned, empirical tradition tended to promote the notion that the voice was the sole progeny of empirical practice. Accordingly, culture, not nature, produces the voice. This strategy of denial is clearly inherited from Cartesianism, with its attempts to divorce the self from the body. In this case, attempts are made to deny the corporeal origins of the voice, a hopeless task since the voice can only take form in the body. Still, attempts are made and in the process the body is designated as a site of potential danger. Specifically, the body threatens to transform the voice (and the self) into a material object, like Lortie's piano. Even the original statement, momentarily turns the voice into a possessable object which Bartoli 'has'. Such Cartesian splits are frequent and serve to highlight the contradictory meanings which animate 'the voice'. At one point, the voice may be seen as an expression of the human soul, while at another point, it may be described in almost mechanistic terms (for instance, the vocal chords are sometimes compared to violin strings; Marafioti: 4-5).

Still, there is no denying that where the voice goes, the singer goes; they share a common body and a common ontology.
As a result, the voice is often closely associated with the self. In claiming that 'Bartoli has a beautiful voice', we cannot help but make certain claims about Bartoli herself, about her body and her subjectivity. In short, the self apparently speaks through the voice and the voice apparently speaks of the self.

The closeness of voice, body, and self creates special problems. A piano out of tune is a mere mechanical problem which can be easily fixed, but a voice out of tune can be symbolic of a myriad of problems, relating to the self. A pianist can always attain a new piano, but a singer cannot simply remove her vocal organs and exchange them. Similarly, unlike a piano, the voice is part of a living body which grows and develops; it does not come ready-made and it doesn't always stay the same. Thus, voice manuals often address the importance of cultivating, growing, and nurturing a healthy voice. This is especially important in the case of young adults, whose bodies are rapidly changing, along with their voices. In part, the role of the instructor is to cultivate the singer, to teach him/her how to use and care for the voice. Apparently, with proper instruction, the voice will grow to its own natural potential. In this sense, the voice is not made, rather it grows.

At this point, technique and physiology merge (i.e., definitions ii and iii). This union became manifest in the term 'voice culture.' Although many authors refer to the
notion of 'voice culture,' it was Marafioti who provided its most exact definition. In his book on Caruso, Marafioti calls for what he refers to as "a radical reform in voice culture" (52). Note that Marafioti doesn't say a radical reform in singing, although singing is certainly a part of 'voice culture.' Instead, Marafioti contends that voice has its own distinct culture and that "voice culture must be natural in its basis, and scientific in its basis" (52). At one and the same time, the voice is situated in the cultural (that is, in the social) and the cultural is turned into the natural. In a sense, it appears as if the voice creates its own culture.

Like 'voice', 'culture' is also a process noun and an object noun. According to Raymond Williams, 'culture' was primarily an agricultural term applying to the growing and tending of crops and animals. Later on, its use was expanded to include "a process of human development" (87). Finally, by the mid-nineteenth century, culture (or Culture) became "an independent noun, an abstract process or the product of such a process" (88). Voice culture, as a set of practices and principals, is clearly an object. Still, the older notion of culture (or cultivation) comes into play, since the voice itself appears to be a natural object, like a plant, which must be cultivated, in accordance with the golden dictates of voice culture.
From Anatomy to Organicism

As seen previously, there was concern among voice experts that science, with its abstract and detached method, would reduce the voice to a mere object (e.g., an assortment of inert organs expunged, without regard, from their living host). Apparently, if science had its way, there would be no difference between a singer's voice and the pianist's piano; they would be machines in kind. The field of anatomy was particularly culpable, since it approached all organisms, no matter how simple or complex, as if they were mechanical systems, governed by a fixed set of laws. Under such a paradigm, the human heart could be understood, simply, as a mechanical pump which forces blood to circulate throughout the body. While such analogies are not necessarily wrong, they often oversimplify the nature and the function of the organ(ism) they seek to depict. The heart, after all, fulfills a number of important functions, simultaneously, and its efforts often depend on the collaboration of other parts of the body.

Ultimately, anatomical studies convert organisms into an assembly of mechanical systems (or organs) and each part of this assembly is assigned an individual and pre-determined task. As machines, these organs exist in isolation and their operations are relatively static, not unlike a metronome which, once set in motion, passively marks time without either external or internal intervention. Such a paradigm is an
obvious anathema to notions of individuality and individual agency, since it impedes any consideration of creative and contingent action (elements of paramount importance to the personal and interpretive art of singing). Furthermore, the machine analogy leads to a narrow, analytical perspective, which precludes any analysis of how these organs exist within a set environment (e.g., as parts of a unified organism) or how these organs function in alliance with other organs. The anatomical eye only sees the organ itself which has been estranged from the life world of organisms (and similarly, organisms themselves are isolated from their environment and the wider 'community' of organisms).

Manuel Garcia attempted to divorce himself from such a static model. Granted, anatomy still informed how he understood the voice, but the lessons he had once learned as a singer were never forgotten. Empirical tradition was not cut asunder by the brutal scalpel of medical knowledge, for as Charles Santley notes: "[Garcia] taught singing and not surgery" (Coffin: 30). With Garcia, anatomy or, to be more precise, physiology was brought together with empirical knowledge. He approached the voice as a unity in which each part was governed by a shared 'voice culture.'

The organic idea is manifest on two levels here. First of all, the vocal organs themselves are seen as equal and related parts of an organic unity. No single part of the vocal anatomy has precedence in voice production. Second, the relationship
between these organs and empirical practice is also organic; both are natural extensions of the other and each embodies the same Idea of 'voice culture.' Thus, empirical practice can be interpreted as an organic outgrowth of the 'biological' voice itself.

Such a union, whereby biology and cultural practice were wed, is representative of an overall paradigmatic shift which occurred during the early nineteenth century. According to Ruth Solie, this paradigmatic shift gained its initial force with the philosophical writings of Leibniz and crescendoed two centuries later, when the biological model of life came to displace the old mechanistic model. Without delving too deeply into idealistic philosophy, we can note that Leibniz (and the idealist philosophers who followed him) proposed that existence and significance resided not in the material realm, although it may take form there, but within "the ideal realm" or, to quote Hegel, "the Idea" (Solie: 149). For our immediate purpose, we can equate "the Idea" with the system of relations which bind parts within an organic whole. And this leads to the second important point made by idealistic philosophy: there is "a strong interrelationship between all things" (ibid). That is, each part has an equal and constituent relationship with the whole.

The differences between idealistic thought and anatomical thought became glaringly apparent, when physiology emerged as a field of study. Physiology, unlike anatomy, attempted to
examine both the function and the phenomenon of living organisms. In other words, physiology attempted to examine the operations of life within the context of their functioning (i.e., 'living'). The significance of this shift was two-fold. First, emphasis was given to the "multiplicity-and-unity" of life which lead to theories about the inter-relationship between parts and wholes. Second, emphasis was give to "process rather than structure" (ibid: 150). Simply put, to understand how a human arm functions, you do not just examine the anatomical structure of the arm (eg., bone, muscle, nerves, blood, skin...), rather you study how the arm works and how all these anatomical parts work together, within an organism, to make an arm.

Two central tenets of organismic were incorporated into voice culture. First, the voice was increasing seen as an organic whole comprised of equal parts (whether cultural or physiological), none of which can be removed, damaged, or altered without fundamentally affecting the constitution of the vocal whole. For instance, surgical removal of any part of the vocal anatomy (the diaphragm, for instance) will effect overall voice production, if not impede it completely. This organic model was also applied to cultural factors, like lifestyle, diet, repertoire, and performance practice. The theory of recapitulation was also appropriated by voice culture. Basically, the theory of recapitulation stipulates that within an organic entity, each part recapitulates, in
both form and function, the Idea of the whole, or to quote Bonsanquet, "every finite existence necessarily transcends itself and points towards other existences and finally to the whole" (ibid: 149).

This is exactly what occurred when Garcia spotted his own glottis with the laryngoscope. He didn't just see the glottis or the voice in the singular. Rather, he saw the Voice in its entirety. By examining the part, the glottis, he gained knowledge and understanding about the whole. Ironically, though, the glottis doesn't actually exist (at least, in the sense of having material mass), for the glottis only exits through its relationship to other body parts. That is, the glottis exists only as a gap, a small space, which is created by the 'lips' of the vocal chords. The glottis, literally, can not exist on its own. Moreover, the relative form of the glottis provides information about the form (or health) of the surrounding organic parts and even the whole. It operates like an oracle, providing a momentary glimpse of the organic whole.

On the reflexive surface of the laryngoscope, the voice declared its organic truth and the truth of the organic voice. Anatomy did not replace art or technique. Instead, these two things became closely bound, linked by elaborate relays of discourse. For instance, despite being able to read the signs of pathology in the throat, Garcia never assumed that this pathology originated, in all cases, from inside the body. One
does not necessarily follow the other, especially where organism is concerned. Rather, Garcia contented that internal complications often pointed to external, environmental factors (again, "every finite existence necessarily transcends itself and points toward other existences and finally to the whole"). Therefore, a strained voice, which is incapable of producing a loud, sonorous tone, might indicate deficiencies in instruction and technique (eg., improper breathing or an ill-defined vocal range). In this case, the glottis functions like an inverted laryngoscope, by recapitulating the outside world (a world which includes empirical practice).

Theories of recapitulation also emphasize how an organism changes and develops over a period of time, as part of its biological development. This process of development is not unique to each, individual organism; other organisms of the same type have experienced it before and will experience it again, indefinitely. In the field of evolutionary biology, this theory is often expressed with the catch phrase 'ontogeny recapitulates phylogeny'. Stephen Jay Gould explains this "mellifluous tongue-twister" as follows:

...an individual, in its own growth, passes through a series of stages representing adult ancestral forms in their correct order—an individual, in short, climbs his own family tree. (114)

The very idea of 'voice culture' is based on a theory of recapitulation, that each voice grows and develops like a living organism and in doing so it reenacts what other voices
have done previously and will do in the future (if properly cultivated). Through recapitulation, biology and cultural tradition become closely bound to create a voice culture which has teleological authority. Apparently, there is no way for the individual to step outside of these "ancestral forms" and chart her own path. In fact, voice instructors felt that they could help nature along by keeping singers from going teleologically astray.

These "ancestral forms" also point to a universal logic, an Idea, which underpins the process of development. Hegel, in a discussion about Art, provides this definition of the Idea:

The idea, which is essentially concrete, carries the principle of its manifestation in itself, and is thereby its own free manifestation...But inasmuch as in this way the Idea is a concrete unity, this unity can only enter the artistic consciousness by the expansion and further meditation of the particular aspects of the Idea, and it is through this evolution that the beauty of art receives a totality of particular states and forms. (Solie: 134)

In a similar fashion, Garcia and others argued that the voice "carries the principle of its manifestation in itself". And, like the art critic, voice instructors were setting out, along with their students, to meditate on "the particular aspects of the [vocal] Idea". Garcia's oracular organs pointed to the possibility of a unified theory of the voice (i.e., 'a golden rule'), whereby the voice and its modes of production could be measured and evaluated.

Voice Manuals
Following the discovery of the laryngoscope (though not necessarily as a direct result of it), the voice became the subject of a massive exegetic project. Self-professed 'voice specialists,' from diverse professional and research fields, set out to identify the rules (or Idea) of correct voice production. Doctors, philosophers, and singers alike penned extensive treatises on the edicts of voice culture. Even the 'voice doctor,' Manuel Garcia published a series of studies on the subject. Between 1850 and 1925, over 400 new voice manuals were published, internationally, in a variety of languages, including English, French, German, and Italian (Monahan: 297-325). Although there are many examples of voice manuals which predate this period (Tosi's being the most obvious), it was during this period that the voice manual became self-defined as a genre, with its own mini-industry. In 1896 alone, at least 13 new manuals were published (ibid: 311-312), which does not include new printings or editions (or foreign language editions) of already popular manuals. A decade after its initial publication in 1887, Leo Kofler's influential text *Art of Breathing As The Basis of Tone-Production* was in its seventh edition. Most importantly, never before had such widespread knowledge, encompassing the arts and the sciences, been brought to bare on the voice. Still, many of these texts proposed contradictory theories and their authors were quick to beleaguer other's for their lack of theoretical or practical propriety. As was noted in the *American Art Journal,*
on February 17, 1883, in review of Kofler's book:

It is a well-known fact that the vocal profession presents a medley of various theories in utter contradiction to each other, and to endeavour to bring system and order out of this chaos is a Herculean task. (Kofler: 283)

Differences in philosophy and methodology aside, all of these texts tended to support the notion that there was a single truth (or Nature) to the voice which need only be discovered. Through their own means, each of these manuals sought to uncover this truth, to lay it bare as Garcia laid bare the physiological truth of the glottis. All were in pursuit of a common goal. And this goal was frequently defined in the singular. Thus, these manuals often speak of a single system of singing. As Luisa Tetrazzini, the famous coloratura soprano, notes in her own writings on the voice: "There is only one way to sing correctly, and that is to sing naturally, easily, comfortably" (Caruso and Tetrazzini: 10). Ironically, Tetrazzini then goes on to argue that singing has no real method or at least not a singular method:

The height of vocal art is to have no apparent method, but to be able to sing with perfect facility from one end of the voice to the other, emitting all the notes clearly and yet with power and having each note of the scale sound the same in quality and tonal beauty as the ones before and after.

There are many methods which lead to the goal of natural singing—that is to say, the production of the voice with ease, beauty and with perfect control. (ibid: 10)

\[1^{12}\]

\[1^{12}\]A more accurate reading (?): singing has a method but this method should not be apparent. Thus, to have a broken scale is to reveal the method.
Still, all of these methods (this "multiplicity-in-unity") leads to a single goal: a beautiful and healthy voice. And, although the final goal may have been obvious to all, the actual means for getting there were ripe with confusion.

In terms of content, there was a considerable variety among these texts. While some texts, like Charles Santley's *The Art of Singing*, gave more general information about the daily and professional trials of a singer (e.g., diet and choosing a repertoire), others dealt with the more specific details of singing. Most texts though fell somewhere in between, providing a comfortable union between empirical knowledge and scientific practice. In short, extensive description was combined with precise prescription.

A series of topics recur throughout these manuals, which tended to be rather uniform in structure. To start with, an introductory chapter often establishes the underlying philosophy of the teaching method and technique of singing which the manual promotes. Often this includes a commentary on the present state of singing and vocal pedagogy. In the process, the author usually chastises other, less well intentioned and informed teachers for corrupting both the student and the art of singing. Only the author, it appears, knows the true and tried method of singing.¹³ What then

¹³Some manuals go to extensive ends to establish their authority. Certainly, Caruso and Lehmann, as well-known performers, had little difficulty in convincing their readers of their authority within the vocal arts, but lesser-known figures often struggled to established their authenticity. One
follows is an extensive discussion of the voice, focusing on its care and its modes of production. In regards to technique, the following topics are often discussed: breathing; phonation, articulation, and diction; resonance; range and voice registers; the speaking voice verses the speaking voice. On occasion, issues of musical interpretation are addressed, but this is more exemplary of manuals written by former singers. A series of vocal exercises are also often included in the final chapters.

Anatomical diagrams and basic discussions about physiology slowly began to appear in these manuals. Overall, this information served to supplement, rather than displace, established ways of understanding the voice. For instance, take the issue of resonance as it relates to the production of vowels. Through profile sketches of the head, Marafioti illustrates both the correct and incorrect placement of the voice during the singing of vowels (236-248). Principally, when the tongue retreats to the back of the mouth, the point of resonance similarly draws backwards to the rear of the masque. As a result, the voice gets caught in the back of the mouth and the vowels sound small and muffled. Instead, the tongue should be pushed towards the front and top of the

method of accomplishing this was to include letters written by performers (or their relatives) in which the teachings of the author were praised. For instance, Marafioti's study of Caruso is prefaced by two letters: one from Caruso himself and another from Victor Maurel, a French singer and a contemporary of Caruso's.
mouth, which will also push the voice placement forward towards the front of the masque (i.e., the sinus cavity). These diagrams, along with x-rays and photographs, are utilized by Marafioti to support a specific theory of correct vowel production. Although his means of presentation may have been new, his final solutions are less than revolutionary. In short, Marafioti, like so many others, was merely looking for scientific evidence which would support what was known all along.

In *Elements of Vocal Science*, Richard Bacon argues, in a similar vein, that there is a single scientific method to singing and that, in fact, some singer's may already instinctually follow it:

> Science appears to me to imply the perfect union of taste and knowledge—the complete combination of style and manner—a thorough acquaintance with the rules of art, and a power of reducing them to just practice. (86)

In other words, the truth is already there. Its just waiting to be discovered. And once familiar with this truth, the teacher can assist the student in learning the "just practice" of singing.

**Who needs to read a voice manual?**

For a number of reasons (foremost, limitations in resources), this study will not investigate patterns of consumption as they pertain, historically, to these manuals. I will not be asking 'Who read these texts?' or 'How were these texts used by the (prospective) voice student?' Instead,
my attention is devoted, exclusively, to the manuals themselves and the historical context of their production. However, I feel it necessary at this point to address a rather absurd statement made, on this issue, by Wayne Koestenbaum in his own writings on voice culture.

Always the literary critic, Koestenbaum confidently declares half-way through *The Queen's Throat* that:

Like many literary texts (novels of sentiment, eroticism, suspense), a voice manual exhorts and shapes the body of its reader. And the voice manual cares most about the nonsinger, the amateur, the onlooker. What gifted singer truly needs to read *How to Sing*? Only the loser turns to textbooks. Voice manuals address the aspirant who will never become a singer, and who requires a field guide to the unobtainable. (1993: 157)

I cannot possibly prove whether or not only "loser[s]" purchased and read these texts (and neither can Koestenbaum). Still, such a claim seems ludicrous, especially when framed, historically and textually. A quick peruse of these texts reveals that their authors were concerned about the then present state of singing. Everyone was in agreement that there was a crisis in singing (including many singers!). In fact, some even blamed voice manuals for this degeneration (Marafioti: 11). Again and again, these texts propose that in order to save the vocal arts interventions were required at the level of practice. Practice thus formed the horizon (i.e., the horizon of expectation) towards which these texts were continuously moving.

What is most disturbing is that, with relative ease and apparently without concern, Koestenbaum erects a singing class
system. Henceforth, there is a clear and critical distinction between the amateur (non-)singer and the gifted singer. As Foucault would say, the gifted singer emerges as a distinct species, a being apart from all others. The gifted singer is always and already what he/she is. All they do is open their mouths and the music comes out. No training required. On the other hand, the other class, the under-class of losers, just fantasises about being singers and to enhance this fantasy they read voice manuals, the pornography of voice culture (complete with 'dirty pictures' of the throat; ibid: 160-161).

On the whole, Koestenbaum's history tends to be too selective and too heavily informed by Lacanian psychoanalysis. He ignores the fact that incorrect (or 'bad') singing was increasingly seen as a systemic problem with eventual dire consequences." And that the singer, no matter how "gifted" was frequently told to seek assistance in learning how to sing. Furthermore, it was frequently debated whether or not it was helpful (or even possible) to draw a distinction between singers and non-singers. Often, even those singers who had established careers needed help from a professional teacher or doctor (eg., Jenny Lind). And as Garcia knew from experience, loosening one's voice (ie., becoming a 'loser') was an all too

"For Koestenbaum, these manuals do convey or propagate a sense of crisis, but this crisis seems to be textually produced. Accordingly, these texts have nothing to do with the real lives of singers who continue, without disruption, to practice their art. Instead, these texts are a type of horror fiction which allow the non-singer to explore, in horrifying detail, his/her own lack
common experience. In general, learning to sing is tough work; it doesn't just happen. Even the professional, pays a corporeal cost, a point even Koestenbaum admits:

For bodies are neither predictable nor efficient; voice and homosexuality arise, as industries, to extract (or express) what no body, left to its own devices, would care to produce. (228: 1991)

Finally, who besides a singer (and a 1990s cultural critic with a propensity for kitsch) would be interested in reading about the side-effects of tobacco use on the singer's respiratory system? These "bizarre books", as Koestenbaum calls them (ibid: 157), hardly represent 'light reading' or, for that matter, literature. Certainly, these texts tend to fetishize and eroticize the voice, but singers and voice teachers were hardly immune to such pleasures.
CHAPTER 3: The Age of Degeneracy: Angels and Screamers

Fatigue encapsulated, as Nietzsche recognized, the paradoxes of modernity: Was not material progress undermined by the unreasonable demands that it made on the body and spirit? Did not scientific and technological advances produce a dark underside in the physical and psychological exhaustion of modern life? The nineteenth-century obsession with fatigue, both metaphoric and real, located in nature, in the body, and in the psyche the negative dimension of the considerable energies required to service the new productive forces unleashed by nature and harnessed by society. Nietzsche saw little way out since "nothing avails, one must go forward—step by step further into decadence (that is my definition of modern 'progress')."

Anson Rabinbach, The Human Motor (20)

The rapid disappearance of good singers has become so alarming in the last few years, that the complaint so widely expressed by those who are concerned about the future of the art of singing seems more than justified.

The deterioration of the vocal art has affected even the Italian school of bel canto, which, judging from its contemporary representatives—with the exception of a few celebrities—shows real evidence of degeneration from the glorious old traditions.

The causes responsible for this decadence are growing so rapidly that a solution of the problems essential to the very life of the art of singing has become imperative.

P. Mario Marafioti, Caruso's Method of Voice Production (24)

Descending Voices

By the 1860's the diagnosis was dire. The vocal arts, it appeared, were in decline (Duey: 5). Critics surmised that, after two hundred years of predominance, the Italian tradition
of bel canto was finally losing favour. Notably, its demise was both precipitated by and overshadowed by the dramatic seething of German Romanticism as exemplified by the Wagnerians. Laments, like Marafioti's, for the old Italian school were common and by summoning similar images of imminent crisis, they created a catastrophic tapestry of decadence, degeneration, and decay. Signs of atavism (i.e., de-evolution) were to be found everywhere: every sung note, rather than floating upwards towards ascension, was apparently plummeting earthward, as if weighed down by an unbearable burden; and lips and tongues, which once moved with grace, now stumbled and crashed upon jagged and oblique tones. When compared to their predecessors, modern singers seemed to be technically, aesthetically, and physically primitive. These new, modern voice's lacked both agility and subtlety. Apparently, in a single generation, the angels had become screamers (that is, 'throw backs' to a more uncivilized and deleterious art). Across Europe and North America, an epidemic of fatigue was apparently spreading and, in its wake, silence or cacophony followed.

Such an abject prognosis was not exclusive to the vocal arts. Since the rise of industrialization and industrial capitalism, comparable fears about decline had made their way into every corner of Western society (from economics to literature). On whole, the West floated, rather uneasily, upon duelling tides of optimism and doubt. Although greater
economic and cultural prosperity was in the offing, there was the sense that if not properly managed this will to progress, this will to harvest and refashion Nature, might eventual defy human control (like the proverbial steam locomotive in Emile Zola's La Bête humaine). This progress could, in effect, either re-make or unmake the world. Everything seemed possible.

As Anson Rabinbach notes in his study of fatigue, such contradictions animated nineteenth century ideas of progress:

In the fading light of a century that "accomplished wonders far surpassing Egyptian pyramids, Roman aqueducts, and Gothic cathedrals," whose industry caused the "revolutionizing of production, the uninterrupted disturbance of all social conditions" (Marx), fatigue came to play a major role in the "mobile army of metaphors" that dominated the language of social description in the late nineteenth century. Exhaustion was the constant nemesis of the idea of progress, the great fear of the "Age of Capital". (21)

Potentially, progress could go too far and thus undo all that it had accomplished, leaving the world exhausted and more deprived than it was to begin with.

Out of this cacophony, there emerged diverse and competing visions of modernity which were as rich with diagnostic significance as they were contradictory. Even those who confidently rallied behind the modernist cause hesitated, on occasion, to contemplate the possible cataclysmic outcome of the modernist project. Anxious prophecies of "decline, social disintegration, and even cosmic death" abounded on all sides (ibid: 21). According to Marshall Berman, many of the great modernist (eg., Goethe, Marx, Baudelaire, and Moses)
were caught within these duelling tides:

They are moved at once by a will to change—to transform both themselves and their world—and by the terror of disorientation and disintegration, of life falling apart. They all know the thrill and the dread of a world in which "all that solid melts into air." (13)

On the boulevards of Paris, for instance, Baudelaire discovered a modernity of the streets which far from being static in nature was a "moving chaos" (159) which yielded up sights of both sublime beauty and inexplicable horror. Modernity was neither singular nor stable. It guaranteed everything and nothing.

Among voice practitioners, there was a growing sense that change was possible and, moreover, that rational change was necessary, in order to stop the physical and cultural haemorrhaging of the voice. The old piecemeal methods of voice instruction were no longer suitable or even desirable; they needed to be replaced by a single, standardized system of voice instructors, based on rational laws of voice production. In this climate of crisis, in which wayward change had already caused havoc, there appeared to be only one adequate response: initiate further change, but change of a more rational nature. Change or die seemed to be the only option. Modernity had to be met with modernity (which is not to say that all voice practitioners consciously rallied under the banner of modernity or that there was consensus over the type of change required). A backwards retreat was not possible, although going forward in a set direction might bring you right back to
were you originally started, to a pre/post-catastrophe Eden.

Within this age of catastrophe, the Christian story of 'the fall,' of 'Man's' descent from Eden, acquired new found meaning and power. In this updated version of the tale however, industrial and consumer culture assumed the role of the devil, the corruptor of the human spirit and flesh. Such a parable was central to the writings of Thompson Seton, the co-founder of the American boy scouts movement. Seton proposed that American men, having been separated from nature, were becoming "feminine" (i.e., over-cultrated). In no uncertain terms, conspicuous consumption and industrial labour were emasculating men and, by relation, the American nation itself (Seltzer: 149). Only by returning to nature and the (male) body could America, the fallen nation, be regenerated (i.e., re-naturalized). Ironically, Seton sought to accomplish this by introducing young boys to strict, military-like regimes of disciplinary training. Therefore, the return to nature corresponded with a return to the rational ethos of modernity. At the very moment when Seton appeared to leave modernity behind, he recuperated its myth of progress (i.e., the rational ethos of Ford's assembly line).¹

¹This coupling of nature and culture is central to what Mark Seltzer calls "the body-machine complex" (13). Within this complex, there is a duality of discourse in which the material and the representational, the body and the abstract, and the natural and cultural are united. Neither 'the cultural' nor 'the natural' is logically or synchronically displaced by the other, rather they form a logistics, or complex, in which praxis is "floated" (40). However, "the body-machine complex" functions within a context of (cultural)
Voice culture produced its own narratives of degeneration and rational regeneration. In these modernist tales, the singer was a tragic figure, exploited by profiters and seduced by the decadence of modern musical life which increasingly had ties with commerce. Every nation and city housed a proliferating class of voice teachers, who promised to impart the long forgotten secretes of Italian singing, for a price, of course. And too often, the price was too high:

The country is overrun with inferior teachers of singing; men and women who have failed to get before the public, turn to teaching without any practical experience, and, armed only with a few methods, teach these alike to all pupils, ruining many good voices. Should these pupils change teachers, even for the better, then begins the weary undoing of the false method, often with no better results. (Tetrazzini and Caruso: 5-6)

Atavism seemed to be creeping in from all fronts; its progress marked by a decline in the vocal arts (i.e., bel canto). In all the capitals of singing (e.g., Paris, London, Milan, and New York), singers were loosing their voices (remember Garcia). Blame was levelled at bad instruction, improper technique, excessive aesthetics, and economic and material decadence. And, as in the case of Seton, regimented education seemed to be the best solution which would allow the voice to return to

panic or, what Seltzer refers to as, the "a logic, or panic, of reduction" (134). Stated simply, there is a panic that one term will be displaced (or reduced) by the other term and thus gain dominance. The immediate response is to take flight and assume a defensive position at either extreme: the cultural or the natural. Seltzer proposes that we move away from this either/or situation in order that we may examine "the links and relays progressively set in place "between" these oppositional domains" (40).
its pre-rational state. In particular, voice culture beckoned a return to bel canto, the Eden from which the modern singer had fallen.

Rossini and the Classicists

Before recounting the basic characteristics of bel canto, the relative import of bel canto vis-a-vis nineteenth century voice culture needs to be clarified. Without doubt, not all music critics, instructors, or singers defended bel canto against the Germanic onslaught. In fact, many celebrated its demise, arguing that it was a feeble and juvenile art, and a much smaller group worked, enthusiastically, to dissolve its legacy. Ironically, many of bel canto's foes utilized a rhetoric common to the defenders of bel canto. That is, they accused bel canto of depositing itself to commercialism and populism, while they saw themselves as defending the classical ideals of Western art music. To quote William Weber, "The militancy of taste for the classics was a reaction against the intense commercialism of musical life during this period" (1986: 371). Music publishing, mass concerts, salon music, to name only a few, were, it was argued, corrupting the Western tradition. And in the ensuing fray, the combatants were

'Classical', in this case, does not correspond with the classical style or the classical period. Rather, it is used in the more general sense, as it is used today, to refer to the classical canon of Western music. That said, classical still retains, in this context, an idiomatic sense, corresponding to a certain conception of what the canon is and should be.
caricatured as being either "classicists or Rossinists" (ibid).

I do not intend to gloss over these historical complexities, which become even more exasperating when you consider that, although allies against the "Rossinists", the classicists and the Wagnerians were also adversaries. Still, bel canto was a powerful, though often fought over, idea. Furthermore, the classicist, like the defenders of bel canto, presented themselves as defending a golden tradition (or a canonic Idea) against the decadence of modern music with all its commercial trappings. In the end, they were, I believe, foes of the same ilk who fought, on occasion, for different goals, but fought under the same cultural assumptions. Furthermore, not before long, Rossini was also inaugurated into the classical canon, although he never gained the stature of Hyden, Mozart, or Beethoven.

Bel Canto: The Idea

It is generally agreed today that bel canto ("beautiful song/singing") originated in Italy during the mid-seventeenth-century and reached its artistic and technical pinnacle with opera seria ("serious opera") in the eighteenth century. Among its premier proponents were Farinelli (1705-1782) and Caffarelli (1710-1783). Each of these singers, according to written accounts, possessed voices of tremendous power, resonance, range, and flexibility. For instance, Francesco
Mancini (1679-1739), the influential voice instructor, provided this account of Farinelli's vocal faculties:

His voice was thought a marvel because it was so perfect, so powerful, so sonorous and so rich in its extent, both in high and in low parts of the register, that its equal has never been heard in our time. The qualities in which he excelled was in the evenness of his voice, the union of registers, the art of swelling its sound, the portamento, a surprising agility, a graceful and pathetic style, and a shake as admirable as it was rare. (Mancini quoted in Reid: 25-26)

Bel canto was a performer's art. Through great effort and extensive training, the voice was crafted and perfected and, if compositional and dramatic form were compromised in the process, it was of little consequence. Cadenzas and da capo arias provided singers with opportunities to display vocal agility (eg., messa di voce, portamento and coloratura) and vocal sensitivity (eg., pure intonation and sympathetic improvisation).

With the passing of the nineteenth century, the beautiful sounds of bel canto were dissipating; their final echoes paling before the chromatic and dramatic affluence of German declamatory tradition. Rossini, the last great bel canto composer, was replaced by Wagner who made exacting and, some would argue, inhuman demands on his singers. Henceforth, little space was given to the singer and his/her beautiful voice, as the composer's 'voice' (ie., music) gained ascendancy. In light of bel canto's demise, there emerged a

'The saliency of a such claim has been and continues to be debated by musicologist, many of whom are better versed, than I, in the area of nineteenth century composition and
performance. Within these tumultuous, historical waters, I take my bearings from Joseph Kerman. In "A Few Canonic Variations", Kerman admits that:

Even in the nineteenth century, musicians operated more or less as they always had, relying primarily on the internal dynamic of tradition rather than on the external authority of composer's ideal texts . . . Nineteenth-century instrumental and vocal virtuosos improvised freely and often played fast and loose with the text before them. (110)

Although basically correct, such admissions often ignore the contradictions of this "notoriously two-faced century" (110). These contradictions were most manifest in Romanticism itself, which cherished individualism above all, but sought to express these values through increasingly rationalized means (eg., professional musical institutions like symphony orchestras; see Weber 1986). True, the composer acquired new found freedoms which were previous denied under Classicism (Wold et al.: 134); to quote William Weber, "Romanticism . . . smashed strict social customs that had subordinated the composer to tradition" (1986: 366). Nonetheless, as is often the case, when old customs fall, new ones take their place. Such new found freedoms came at the expense of performers, who increasing were called upon, in the role of underlings, to give voice to the creative vision of the artistic genius ("the light from which imagination would spring"; 1986: 366). Kerman writes:

The performer was thought to have something inspired of his own to bring to the music; yet the underlying assumption was that he should be representing the composer's inspiration and doing his best to convey this faithfully, "authentically". (113)

In terms of idealism, the performer's role was to give voice (that is, material, sonic form) to the composer's Idea. Apparently, behind every utterance, every sung note, the composer's voice could be heard, like a distant echo (Cone: 1974). At the same time, the composer's voice was increasing presented, through concert programs, the musical press, and musical analysis, as being emblematic of a deeper historical Idea (or canonic Idea; see Citron: 17) which drove the so-called progressive evolution of Western music. Such a shift is apparent in the emergence of historical interpretation, whereby the performer attempts to recreate, from history, the artistic vision of deceased composers. Once again, the performer is a servant to another's Idea (in this case, the force of history).
sense that the vocal arts, in general, were in crisis, a sentiment particularly fostered by bel canto's proponents. The critic and anti-Wagnerian, E. Hanslick, lead the toll, announcing bitterly that the vocal arts were approaching death:

There triumphs now in our opera houses mostly lungs, bad taste, monstrous caricatures and foolish exaggerations, hence the most objectionable misuse of the human voice. (Duey: 9)

Beyond being "objectionable," this "misuse of the human voice" was also dangerous. In particular, it was felt that Wagner's work made inhuman demands on the voice. These new vocal traditions were leading a physical assault on the human voice—belligerently draining it of its lithe and sonorous qualities. Like the earth which was mined by industry, the human voice was being carelessly stripped of its natural resources.

Emile Behnke, a physiologist and voice instructor, accused modern composers, especially Germans, of causing this "evil," as he called it. Composers were destroying voices because of their lack of understanding of the natural qualities and limitations of the human voice (1890: 3). Forced to perform relentless vocal gymnastics, singers were literally becoming exhausted. To such an extent, that they were incapable of completing the most rudimentary vocal gestures. In anxious tones, critics and voice instructors speculated about a possible future in which the beautiful sounds of the human voice would never be heard again.
However, if such a destiny awaited, it was not simply the result of the composer's deleterious art. There were other contributing factors. Behnke notes that the vocal blight often stuck early: "in many stances while their owners [were] still under training" (ibid: 2). Inferior teaching seemed to be the primary cause. Many students were being seduced and financially exploited by charlatans, who professed knowledge of bel canto when in fact they were ignorant about the basics of good tone production (see Marafioti: 20-21). Other ill-advised teachers were testing the latest scientific theories from physiology and laryngology on their unsuspecting students who suffered from unknown side-effects (see Behnke: 6-7). Overall, there were too many 'schools' of singing. A single, standardized system of voice instruction based on a universal system of singing was needed. There were sustained and often fervent calls for educational reform. Above this din, rose the voice of Charles Santley, the famous British baritone and music critic, who in 1908 wrote:

For some time regret has been expressed that the Art of Singing is dying out. There is no reason why it should: but it will die out if the system of teaching at present generally in vogue continues. (ix)

Authors like Santley argued for a new, universal system of singing instruction, based on a unified theory of voice production. Furthermore, it was believed, that such a system would be predicated by natural law. In short, a healthy and correct voice was a natural voice. With this in mind, Luisa Tetrazzini, the coloratura soprano, informed the prospective
voice student that: "There is only one way to sing correctly, and that is to sing naturally, easily, comfortably" (Caruso and Tetrazzini 1923: 10). Again, like a flower, the voice needs to be cultivated and help along the path towards complete development.

Generally, this single, natural method was equated with *bel canto*. A double return was thus prescribed: a return to nature and a return to history. A neotenous narrative took shape in which *bel canto* represented a lost Eden from which the singer had fallen. It appeared as if the singer, like Seton's modern man, had been seduced and emasculated (i.e., de-voiced) by modern, consumer culture, and only by returning to *bel canto*, the laws of nature, could the golden voice be regained. However, as in the case with Seton, the return to nature corresponded with a return to culture. The singer was not granted immediate entrance into Eden, rather he/she had to earn his/her passage by engaging in intensive training. The self had to be ordered before it could inherit its natural birthright.

Ironically, even *bel canto* was, in part, a product of modernity. As Philip Duey illustrates, the term *bel canto* only emerged as a specialized term, used to denote a specific tradition or technique of singing, during the late-nineteenth century (3-4). Previously, *bel canto* referred only to singing in a general, descriptive sense. About mid-century, the term first emerged in the Italian lexicon and by 1900 it was part
of the standard terminology, used by music writers, instructors, and performers, throughout Europe and America, to describe a particular singing technique.

Bel canto quickly acquired the status of Idea and, as such, it was luminescent with discursive power. It was frequently deployed to grave effect within pedagogical and aesthetics debates. Voice manuals, from the period, frequently included protracted commentaries about the legacy of bel canto. Still, beyond the most rudimentary historical facts, there was little consensus about the actual constitution of bel canto. Even its most basic characteristics (e.g., tone quality and intonation) remained open to interpretation and debate. After all, the term 'beautiful singing' could be applied to many different forms of singing, including sprechsong. In effect, bel canto served as an empty referent which could be filled with diverse and competing theories of voice production. Since no sound recording existed, its nature could be debated without any final resolution. Its meaning, its sound, would always remain elusive and this elusiveness made bel canto even more alluring (i.e., more golden).

Not surprisingly, this alluring quality was also shared by Farinelli, the champion of bel canto. If bel canto was Eden, then certainly Farinelli, the possessor of an angelic, child-like voice, was Adam. He was the voice of Nature. But there is one slight problem: Farinelli as a castrato, a surgically altered human being. Some authors have argued that
castration had minimal effects on Farinelli's voice, especially when compared to the effects of vocal training (Reid). Still, his unparalleled vocal abilities had much to do with his being a castrato. For instance, Farinelli was said to have possessed lungs of tremendous capacity. As a result, he could sing elaborate, extend passages without an intervening breath (Pleasants:77). Although training obviously played a part in breath control, enhanced lung capacity was also a well-known side-effect of castration (ibid: 44; Duey: 52-53). Castration even had a direct effect on training. Unlike other singers who had to wait out puberty, the castrato could be trained continuously and intensively from childhood until adulthood.

Debates about physiology and technique aside, it is clear that Farinelli was a castrato, as were the majority of his colleagues. Therefore, the golden voice of bel canto was possessed by men, who had been castrated in order to preserve their angelic voices, the very voices which 'voice culture' wanted to attain and preserve. In all truth, was this the natural tradition of singing (ie. the musical Eden) to which the nineteenth century wished to return?
... it is not allotted to the ordinary race of men to burst the limits assigned to our common nature and rise to particular distinction. We may nevertheless say, we must all deteriorate or improve our own condition by the choice we make of means and ends. Among these, I earnestly, sincerely, and from long experience, recommend a diligent study of music, as scientifically conducted as opportunity will permit, in conjunction with and in subordination to other necessary intellectual attainments, as opening an eligible, agreeable, and certain road to much of what we rationally desire in the choice of our own accomplishments, and to more of what is beneficial in our progress through life; to happiness of which a right understanding, and a moderate use of various enjoyments submitted to our acceptance or rejection, are chiefly "requisite and necessary as well for the body as for the soul".

Richard Mackenzie Bacon, *Elements of Vocal Science* (22)

Which Way to Eden?

...what is rational from one point of view may well be irrational from another.

Max Weber, *The Protestant Ethic* (26)

The above adage, by Max Weber, pertains to the formal and the operative differences which can exist between distinct modes of modernist knowledge (eg., law, science, technique, training, and administration), which make parallel, but unique, claims to rationalism. In their own language and on their own terms, law and science, for instance, make bids to a comparable ethos of rationalism,
but when examined from the 'disinterested' position of the other (i.e., science or law), such bids may appear to be quite irrational. Weber's strategy is not to relativize rationalism and thus excise it of any wider social and historical value (he is hardly a harbinger of postmodernist thought). Rather, he deftly illustrates that all modern forms of knowledge, subscribe to a similar notion and process of rationalism, even though they may appear to be manifestly alien in type. It is this widespread turn towards rationalism, whether in architecture, management, medicine, or music, with which Weber is primarily concerned.

Rationalism can assume a multiplicity of forms, many of which seem discordant (or 'irrational') when brought together. As Weber notes: "by this term very different things can be understood" (1958b: 26). The criteria by which rationality is determined can vary tremendously, depending on the context. One should not, therefore, conflate rationalism with scientific practice, although science is a form of rational practice. In contrast to science, empirical practice may appear to be irrational, but according to its practitioners, who turn to common sense experience to tell them what is reasonable (i.e., 'tried-and-true'), it is no less rational (Weber, 1958b: xviii). Moreover, empirical practice and scientific practice frequently accuse each other of irrationality, without any apparent lost of faith in the edicts of rationalism.
Weber's theory of rationalism can assist us in better understanding the singular, but multifarious, object of this study: voice culture. While writing their treatise, curing voices, and training singers, voice experts kept their eyes sharply focused upon a shared conceptual horizon: that is, the horizon of rationalism. Granted, the individual manifestations of rationalism varied from case to case, even to the extent that they were often in direct conflict. Nonetheless, these experts, whether laryngologists or traditional voice instructors, sought in a similar fashion to rationalize the voice as well as its means of instruction and production. Moreover, rationalism as a prescriptive practice for assigning evaluative meaning (e.g., marking and ranking practices on the basis of their relative 'rationality' or 'irrationality') served as a powerful discursive tool with which voice instructors could castigate other vocal practices for their apparent 'irrationality'. Thus, beneath a common conceptual horizon, theories and practices of the voice clashed; each asserting their own rationality, while challenging the rationality of their foes.

Most voice manuals made the same three claims about the voice in regards to rationalism: 1) a correct voice can only be produced and sustained when its operations are formed and informed by a rational system of instruction (i.e., only a single rational means will lead to the ideal end); 2) this
single system of instruction is based upon a set of rational laws which are sanctioned by nature (therefore, these rational laws and the ends sought precede, as well as exceed, the means, which are merely contingent); 3) all other methods (or means) of singing and instruction are irrational by nature and thus deleterious to the voice (i.e., these irrational means will lead to an irrational end). All voice experts were searching for a similar rational ends (i.e., the ubiquitous golden voice), but the question was: what are the best means for reaching this end?

This issue of means and ends is given special attention by Weber, who argues that the Occidental world is unique in its privileging of systems of rationality, whereby means are chosen, organized, and maintained in order to guarantee a desirable and necessary ends. In approach, Weber’s research is less concerned with rationalism as a static historical resultant (i.e., a passive object turned-out by a Tayloresque assembly line), than it is with examining how rationalism operates as a process (i.e., a realtime system of social relations). In other words, Weber focuses on how society acts rationally (or conceives itself as acting rationally), not on how society is rational.

In the introduction to The Rational and Social Foundations of Music, Martindale and Riedel write:

In applying the term "rational" to social action, Weber was concerned to isolate one kind of relation between the means and ends of action. A social action is rational when the means utilized in the course of
action are chosen because of their efficiency or adequacy to the attainment of the ends in view. (Weber 1958b: xviii)

The means may also be chosen on the basis of their "appropriateness" in regards to the desired ends (ibid: xx).

Under the rubric of rationalism, means and ends become closely bound (in theory, at least). As a result, the means are no longer self-sustained, as their significance now depends on a narrative trajectory leading from means to ends. Furthermore, the validity and the expediency of the means are judge in relationship to a concept of ends or, rather, an Idea of ends to which they inevitably lead.

A social action, an economic plan, or a harmonic progression, is no longer chosen in accordance with immediate needs or requirements. Rather, it must be deemed appropriate through its relationship to the larger logical process (i.e., a long-term plan) which binds means and ends, the present and the future. In terms of most daily activities, the relationship between means and ends is fairly obvious. However, when we address more elaborate and sustained actions, this relationship can become astonishingly complex, especially when means and ends are spatially and temporally separated.

For instance, the act of brushing one's teeth is simple to understand and immediate in terms of its implications. The ends (i.e., clean teeth) quickly follow the means (i.e., brushing one's teeth). However, brushing one's teeth can
also be understood in the context of an individual's lifelong struggle to combat teeth decay. In such a case, the means and the ends become temporally and spatially separated. In fact, you might not know the results of your hygienic efforts until your next dentist's appointment. And unless you develop a painful infection or cavity, the ends can only be completely appreciated by the dentist who is assisted by a battery of technological tools.

The further removed means and ends become the more abstract their relationship and the greater the role theory or faith must play in linking the two. This separation between means and ends reaches an extreme in the case of Christianity where doctrine asserts that living by the commandments of God is a means for gaining entrance into the kingdom of God, the desired ends. ¹ Although the scriptures, teachings, and trappings of the church are immediate, what they preach and what they promise are not and thus it requires a leap of faith to link the means (eg., religious,

¹In the following discussion of (religious) faith it is not my intention to equate religious teachings with scientific theory, as if they operate in the same way or make similar claims about the world. Certain teleological assumptions do apply to each (at least as science was practised in the nineteenth century) and certainly science has been used and can still be used to forward certain ideological positions by intentionally obscuring the relationship between means and ends. Nonetheless, I would never propose that evolutionary biology, for instance, is merely a religion which exists only on the basis of faith. Unfortunately, such arguments continue to be used by those who wish to see creationist theory taught alongside evolutionary theory in our schools, as if they are theoretical equals.
moral, and physical obedience) and the ends (eg., religious and spiritual salvation). Faith is required for two reasons: 1) a causal relationship between means x and ends y can not be proven (eg., means x may not lead to ends y or means a, b, c . . . may also lead to ends y); 2) the existence of ends y can not be proven, at least not until the ends are met. In spite of there elusiveness, the ends always hold control, since they apparently dictate which means are necessary. And since they are so elusive, they and the means they sanction become irreproachable and historically transcendent.

At this point, the means and the ends become part of closed equation which is governed by its own teleological spirit. Consequently, the ends become fixed (ie., fated and unquestionable) as do the means. It thus seems inevitable that x will lead and must lead to y. Greater stringency on the part of the means can thus be attributed to the nature of the ends sought and, since the ends exist outside of the present, they cannot be questioned or deemed false. In this event, necessity apparently guides convention. In other words, social action is lead by historical necessity.

Such a process occurred, for instance, when Marxist economic and social theory was united with science (in particular, Darwinian theories of evolution) through the Idealist philosophy of Hegel. Hegel's teleology placed historical necessity into the driving seat of economic and social planning; all was done, with eyes firmly planted on
an idyllic horizon of revolutionary possibility, and the present be dammed. This 'Marxist science,' is described by Ernesto Laclau and Chantal Mouffe as follows:

... everything depends on the predictive capacity of this science and on the necessary character of such predictions. It is no accident that the category of 'necessity' has to be affirmed with ever increasing virulence. It is well known how 'necessity' was understood by the Second International: as a natural necessity, founded on a combination of Marxism and Darwinism. The Darwinist influence has frequently been presented as a vulgar Marxist substitute for Hegelian dialectics; but the truth is that in the orthodox conception, Hegelianism and Darwinism combined to form a hybrid capable of satisfying strategic requirements. Darwinism alone does not offer 'guarantees for the future', since natural selection does not operate in a direction predetermined from the beginning. Only if a Hegelian type of teleology is added to Darwinism – which is totally incompatible with it – can an evolutionary process be presented as a guarantee of future transitions. (1985: 20) [italics added]

In practice, systems of rationality depend on a "predictive capacity" to lend them fuel. In the shadow of such predictions, necessity becomes paramount in determining the means and this necessity is deemed natural, an offshoot of the Hegelian Idea which lies passively beneath the infrastructure of history, waiting to barge forth at the close of history. Its as if history itself pushes society and culture forth. The present is only understood through its "location in a priori succession of stages" and "the concrete" or the present means "is reduced to the abstract" (ibid: 21). Consequently, the means disappear, subsumed beneath the glow of a distant horizon.

Before continuing, it must be noted that in both theory
and practice rationalism undermined many of the fundamental precepts of organic and evolutionary thought. Evolutionary theory was not a predictive science; it could not predict how a species would grow and develop in the future. It couldn't even predict if a particular species would survive, since survival depends upon a myriad of factors, many of which are contingent and thus highly unpredictable. Organicism resisted teleology in a similar fashion. According to the organic model, "a strong interrelationship [exists] between all things" (Solie: 149). Between each part and between each part and the whole, there is an equal relationship of co-dependence (ie., "every small thing mirrors the whole universe"; ibid: 150). Thus, there is no centralized or hierarchical order of power.

However, once organicism was united with rationalism, the relationship between parts and whole changed dramatically. The whole was now preeminent; in effect, it existed prior to its constituent parts which it now defined. A clear hierarchy emerged. Each part was now derived exclusively from the whole, or in Weberian language, the means were stipulated by the ends. Despite this shift towards a hierarchical and centralized model, certain ideas, endemic to evolutionary and organic thought, still held favour. In fact, many of these ideas were 'highjacked' and used to reinforce rationalism's hegemony. For instance, it was still assumed that each part recapitulates the whole,
in both form and action. Apparently, if left to their own devices, each part would naturally fall into alignment with the whole. In effect, the whole represented the prior idea which each part attempted to emulate, as if guided by natural instinct.

Abstracting the Golden Voice

It has often been our lot to meet highly talented persons with the most healthy and powerful organs of speech, who, as soon as they attempted to use them artistically, not only made a very disagreeable impression upon us, but frequently even forced us to leave the place in which they were speaking. On departing, we would exclaim with regret:—"It's too bad they do not know how to employ the means given them by nature—what great results they could accomplish!"

They did not understand how to use their organs? Is singing, is speech, then, an art? Are there laws and rules which must be obeyed and followed in order to make our speech pleasing and effective?

Oskar Guttmann, Gymnastics of the Voice (3)

Apparent necessity was also compelling voice culture down Hegel's teleological path in a desperate quest for pragmatic as well as aesthetic salvation. As we have seen, predictions of decline were falling with ease from the lips of voice instructors, who warned that unless precautions were taken, the golden tradition of singing would succumb to the cacophonous onslaught of artistic and economic decadence. Only two possible futures were imagined. In one, the voice would be restored to its previous glory after being carefully cultivated like a rare and fragile flower, while
in all other futures, this flower would be arrested by its own feebleness. In order to avoid the later, concerted action, based on rational thought and planning, was required. The status quo was no longer sufficient.

I do not wish to over-emphasis the morbid tone of these predictions; would-be Nostradamuses these voice instructors were not. And, in terms of scale and significance, their predictions pale drastically before the grand prophesies of 'Marxist science'. Still, these gloomy forecasts lent a sense of urgency to voice culture and the search for the golden voice. In this time of necessity, the beautiful voice, the golden voice, was no longer just desirable, it was a necessity.

In the introduction to *Art of Breathing as the Basis for Tone-Production*, Leo Kofler confesses that necessity lead him to focus on certain issues and not others:

> The reason that I have paid so much attention to the laws of tone-production is because I know that without them voice-culture is a farce, and instead of leading to artistic singing, vocal instruction is degraded to a system of tricks and to virtuosity in howling. (3) [emphasis added]

Although Kofler's discourse is hardly bombastic, its implications are clear and sobering: either the most appropriate means are pursued (i.e., the natural laws of correct tone-production as decreed by "the Old Italian School") or degradation and "howling" will ensue. Basically, no or be damned.

The statement "without them voice-culture is a farce"
is particularly significant, since it foregrounds certain nineteen century assumptions. Voice instructors, previous to this, focused their skills primarily upon immediate affairs (i.e., the manifest, micro-level); they did not bother themselves with a universal 'voice culture'. Kofler and his contemporaries, on the other hand, were attentive to the long-term and macro-effects of their pedagogy. When they use the term 'voice culture', they are speaking about more than one singer, or a group of singers, and their relative health. Through abstraction, 'voice culture' inserts the voice into a wider cultural formation (or tradition) which itself can be assessed in terms of its relative health.

There is a significant shift in scale here from the local and the individual (i.e., the directly knowable) to the universal and the Cultural, which can only be known through supposition and inference. Again, we encounter Hegelian idealism. Clearly, Kofler is not speaking about the immediate (i.e., the directly manifest), he is speaking about an Idea, a teleological Idea which lies behind and informs the manifestations of individual voices.

Once the voice is abstracted to the level of Idea, the dictates which are presented on its behalf become increasingly difficult to challenge within the context of the present. The main reason being that these dictates and the logic which informs them no longer exist in the here-and-now (i.e., the present). The present and any actions or
decisions which happen there within are authorized 
exclusively by a logic which exists outside of the  
historical present.²

To return to Max Weber's analysis, the present means 
become subservient to the desired ends and, as means and 
ends become increasing disparate, in terms of space and  

²It was during the nineteenth century that music, i.e. 
general, "assumed a history" (Kerman: 111). Prior to the mid- 
eighteenth century, music making was considered, above all, to 
be a temporal bound 'action' and as such its effective power 
was restricted to the pure Present. By definition, music was 
empirical and contingent; its use, value, and meaning was 
defined by the immediate and the tactile. Although there were 
repertories (i.e., collections of musical works performed by 
musicians or music ensembles), there was no idea (or Hegelian 
Idea) of repertory from which one could solicit an 
epistemological appeal. Thus music seemed self-apparent in 
meaning and ephemeral in function.

By the late-nineteenth century though, musical 
performance and appreciation was increasingly organized around 
the "idea of canon" (Kerman: 106) or "a sense of canon" 
(Citron: 33). The canon was generally accepted as the natural 
progeny of a selective process (a sort of musical Darwinism) 
whereby the works of 'master composers' were efficiently and 
impartially segregated from the works of so-called lesser 
composers. A canon, by definition, was a collection of 
definitive works which individually and collectively embody an 
intellectual, cultural, or stylistic tradition (or stages there 
within). Once canonized, musical works were then, according to 
William Weber, "studied and emulated by practitioners and 
honoured in ritual and iconography" (1986: 362). Similar to 
religious icons, canonic works served as universal symbols (or 
archetypes) invested with a divine and transcendent power. 
Ironically, at the very moment when music became endowed with 
history, it attained, to quote Marcia Citron, an ideology of 
"timelessness" and "immutability" (15). On the one hand, the 
canon was continuous with history (i.e., music was always and 
already canonical), but on the other hand the canon superseded 
history (i.e., the canonic standard or Idea was historically 
transcendent). Although anchored in history, the canon 
resounded with abstract, teleological significance. Thus, like 
Eric Hobsbawn's "invented tradition," the canon could make 
historical claims, while simultaneously appearing 
"unchangeable and invariant" (2).
time, their relationship becomes more abstract in nature. When the path leading from means to ends can not be directly traced, the ends come to represent little more than a theoretical promise which the means seek to embody. Furthermore, since the ends determine the means chosen, the logic behind the means themselves become increasingly abstract, in that they point towards a meta-narrative. Furthermore, the value and saliency of these means is no longer judge (just) in respect to the present or the immediate, instead this must be determined through comparison to a larger, trans-historical standard (e.g., the golden standard).

Henceforth, any action, carried out in the now, is no longer self-contained or self-determining, since it influences the progression of an entire historical narrative. If a mistake is made, you can't simply rewind the clock and start over again. Each micro-event has macro-significance and it is in light of this macro-significance, that micro-events should be organized. Hence, the necessity, under rationalism, of choosing and organizing means "in terms of efficiency, adequacy, and appropriateness of means to ends" (Weber: xx). And these ends, we should remember, evolve out of "a natural necessity" (Laclau and Mouffe: 20) and, I would add, a historical and teleological necessity. All challenges are thus thwarted, once voice culture is inserted into a historical narrative which is slowly
unwinding towards a series of inevitable ends.

Obviously, the proponents of 'voice culture' are engaged in a type of interpretive act which allows them to interpret individual voices as being representative of something of a higher order. Before their exegetical gaze, voices no longer make meaning on their own; they only have meaning in regards to the Idea of a beautiful voice. Similar to Garcia with his laryngoscope, these voice experts attempt to plunge beneath the surface of the voice in order to discover its hidden and deep meaning. They seek to envision the 'voice culture' behind the individual voice and then bring them into alignment through rational means.

This interpretive act does not reduce the voice (or 'voice culture') to a lifeless object, divorced of all its beauty and magic. Rather, like Garcia's laryngoscope, it gives it greater life, greater meaning. To speak of 'voice culture' and its requisite beautiful voice requires a "poetic imagination," to quote Paul Ricoeur (15). Like the psychoanalyst who seeks to tell the story behind a patient's dream, these voice doctors are engaged in an elaborate hermeneutic practice:

This hermeneutics is not an explication of the object, but a tearing off of masks, an interpretation that reduces disguises. (ibid: 30)\(^3\)

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\(^3\)According to psychoanalysis, a patient's dream can not make sense on its own, since it is in a (manifest) language which disguises meaning. It is the analysis job therefore to translate this text into an intelligible form by linking the surface elements of the dream to deep, structural meanings.
The primary point being that the immediate, whether it be a voice or a dream, is seen as a stand-in for something else, for a deeper and perhaps transcendent meaning.

As part of this interpretive and therapeutic process, the subject under analysis must surrender a portion of her/his autonomy. Only through an external intervening party, either a psychoanalyst or a voice teacher, can the singer produce a beautiful voice. The primary assumption being that the subject can not reach the desired ends on his/her own, without an external listener and interpreter who attempts to unmask the healthy voice which lays hidden within the subject.

Now, this patient-doctor relationship is not inherently fallacious in the sense that the services of the doctor are inconsequential to the production of an ideal voice. Again, unlike Wayne Koestenbaum, I do not believe that operatic voices are just born; they certainly require vigorous routines of training, requiring consultation by voice experts. However, these doctors/instructors are presented, both by themselves and others, as merely fulfilling an intermediary role (i.e., a means), whereby the singer can acquire her/his birthright: a beautiful voice. In other words, these instructors and the routines of instruction they promote do not produce voices, they merely cultivate

(i.e., an Idea) which corresponds with the patient's psychological history (Ricoeur: 25).
voices. Similar to Seton's military-like programs, rational instruction allows the singer to return to nature, to a pre-rational past, in which the voice can operate freely and naturally without (cultural) obstruction. In this musical Eden, the singer's mouth opens and beautiful tones simply flow out.

According to Luisa Tetrazzini, training in itself cannot produce a beautiful voice and too much training can, in the long term, be detrimental, since it causes one "to sing with the brain rather than the heart" (Tetrazzini and Caruso: 5). As a finishing tool, though, training can allow the heart to be set free. In other words, training operates to unlock the voice from the body.

Of course, it is never asked 'what makes for a beautiful voice?', since these seraphic sounds are presented as being a natural progeny of body and spirit. The fact that these voices may be the result of aesthetic and cultural convention is ignored or, if they are addressed, these conventions are seen as mere means for attaining a desired ends: bel canto. In either case, the beautiful voice holds complete teleological power and thus can not be judged or found wanting. And even the singer, who gives body to the voice, is seen as a mere means, a vessel, were this rational, but natural, voice (i.e., the Idea of bel canto) can become manifest.

Such strategies of abstraction and rationalization will
be explored further in the next two chapters. According to 'voice culture,' the voice was an organic entity, comprised of individual constituents (eg., parts of the vocal anatomy or elements of vocal technique), which work in rational unison to produce the whole voice. And, in both form and function, these parts recapitulate the will and Idea of the whole (ie., bel canto). Within voice manuals, each of these elements were discussed at length and their relationship to the whole was clearly mapped. In the next chapter, I will show how breathing was interpreted and then rationalized in accordance with the whole. And then in Chapter 6, I will examine how all of these elements came together in the figure of Enrico Caruso, who as an organic singer recapitulated the very Idea of 'voice culture'.
CHAPTER 5: The Art of Breathing

These two bags, called lungs, serve as the reservoirs of air like two bellows in an organ, and in the same manner as these are worked, by a certain motor power, so is the air made to enter the lungs by the action of certain muscles. The important task before us is to learn through what muscle-action we can fill the lungs with air in the most satisfactory way in the inhaling, and how they must be worked in order to convert the air into the singing-voice during exhalation.

Leo Kofler, Art of Breathing (31-2)

Short of Breath?

No issue was debated more among voice experts than the issue of breathing, except perhaps vocal registers. For most of us, breathing is an unconscious act which, although vital to our daily existence, is paid little attention. Among voice practitioners, however, breathing or, to be more exact, the art of correct breathing is a vital cornerstone for voice production. For them, breath represents the natural resource from which the voice springs. Without it, there can be no voice, and if there are any disturbances, in either inspiration or expiration, the overall constitution of the voice is seriously undermined. Therefore, learning how to breath properly is essential, since it provides the foundation on which the voice is built.

Luisa Tetrazzini evokes this idea of foundation building, when she writes:
A singer must be able to rely on his breath, just as he relies upon the solidity of the ground beneath his feet. A shaky, uncontrolled breath is like a rickety foundation on which nothing can be built, and until that foundation has been developed and strengthened the would-be singer need expect no satisfactory results. (Caruso and Tetrazzini: 11)

Without this proper foundation, the singer is bound to fail, no matter what other efforts are made.

In fact, this was the main problem, plaguing the vocal arts. Apparently, most singers lacked the ability to control their breathing in an effective and rational manner. At their worst, these singers produced voices which boomed like thunder, but were off-balanced, off-pitch, and unsustainable. Leo Kofler suggests that these singers were no less gifted than their predecessors, except for the fact that they did not understand how to breathe, a problem which eventual leads to more systemic problems. Kofler writes:

If the great singers of our days have a fault, however, which their predecessors did not have, it is bad breathing. The pupils of the old Italian masters had wonderful skill, power and control of breath, which, listening to our present singers, we might believe to be a lost art. The majority of 'stars' of the concert and operatic stages in our time, are equal to those that have preceded them, with the exception of their method of breathing, which, in nearly all of them is absolutely painful. This is the reason why the majority of singers lose, or at least impair, their voices at a time of life when they should be at their best. (78)

Tetrazzini recalls encountering one such singer, who although a powerful breather could hardly produce an audible note:

A girl came to see me once whose figure was really entirely out of proportion, the lower part of the lungs having been pressed out quite beyond even artistic lines.
"You see, madam," she exclaimed, "I have studied breathing. Why I have such a strong diaphragm I can move the piano with it!" And she did go right up to my piano and, pushing on this strong diaphragm of hers moved the piano a fraction of an inch from its place.

I was quite aghast. I had never met such an athletic singer. When I asked her to let me hear her voice, however, a tiny stream of contralto sound issued from those powerful lungs. (ibid: 14)

Tetrazzini was not the only one aghast by such displays. An entire generation of such "athletic singer(s)," who focused on brawn rather than technique, were apparently filling the opera houses and salons of Europe and America. Offended critics referred to these singers as 'screamers' or 'howlers' who exhausted both themselves and their audiences with their misguided art.

The young woman, in Tetrazzini story, is plagued by two related problems. First, she is unable to properly control her breathing. By over-using an already over-developed diaphragm, she attempts to force the voice out of her body through sheer muscle power. Second, her method of singing is unbalanced (or inorganic), since the diaphragm is mistakenly privileged over other parts of the 'vocal anatomy', which results in the voice being trapped within the body (eg., the chest the throat, or the masque). These are common mistakes made by singers and their causes and remedies were discussed at length within voice manuals.

Still, there was debate over how much attention should given to breathing within vocal training. After all, the new breed of diaphragm singers became what they are because of
excessive breath training (or at least too much exercising of the diaphragm). Kofler, in fact, was subject to considerable criticism for proposing that as part of their training students should practice what was called "breathing-gymnastics". By "breathing-gymnastics", Kofler is referring to a regimented program of exercises in which the student engages in a series of physical activities which serve to promote correct physical posture, exercise the muscles associated with breathing, and expand the ribcage. Clearly, Kofler saw "breathing-gymnastics" as being an essential "Source of Good Health" (75). However, not everyone felt this way, as Kofler notes:

A writer in Werner's Voice Magazine, some time ago, made a very bloodthirsty attack upon breathing-gymnastics. He seems to be a regular Blue Beard in dealing with antagonistic opinions, except that he does not cut their heads off himself, but endeavours to bring them to their end by proving them to be murderers. He brands breathing-exercises as unhealthy, and even accuses them of having brought about fatal results. This is such an extravagant assertion, and so repugnant to reason, as well as contradicting experience of all experts in this matter, that I refuse to believe that this statement was made knowingly and thoughtfully. If there ever was such a case, it must have happened under extraordinary and peculiar circumstances. But what would one or a few isolated cases prove against the invigorating and health-giving breathing-gymnastics? Absolutely nothing! (75)

In Kofler's defense, the exercises he presents are hardly life threatening (in one, the subject lies flat on her back on the floor with her head slightly propped up and in another, the subject stands erect with his hands placed palm-down of the sides of his chest and breathes in and out). Still, the hyperbolic tone of these exchanges is emblematic of the high
stakes, whether factual or not, involved in the battle over breathing and 'voice culture' in general.

Rational Breathing

Voice instructors followed two strategies in attempting to address the problem of improper respiration. First of all, students were encouraged to better economize their breathing. Certain singing techniques and vocal exercises, it was argued, would permit the student to more tightly and sensibly control the expenditure of breath, resulting in a more balanced voice which would not fade mid-way through a vocal passage. In a sense, the student was encouraged to become more fiscally minded about their breathing. And such rational metaphors, from economics as well as science, were used in voice manuals to present the method of correct breathing. For example, Caruso once remarked that:

To keep the voice fresh for the longest possible time one should not only never overstep his vocal 'means,' but should limit his output as he does the expenses of his purse. (Caruso and Tetrazzini: 58)  

Finally, students were also encouraged to sing organically, a method which would eliminate any inadvertent, physical

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1Caruso also gave the following advice to the prospective singer:

If the singer gives much of himself as well as of his voice to the public he should still hold his breathing supply in, so to speak, as he would guard the capital from which comes his income. Failure should thus be impossible if there is always a reserve to draw on. (Caruso and Tetrazzini: 65)
blockages which would obstruct the free flow of air. The
challenge, therefore, was to clear a path whereby the breath
and, by relation, the voice could easily pass by the
components of the vocal anatomy and out of the body. When
successful, the breath/voice would freely flow out of the
singers body without any hinderance.

The laws of efficient breathing (or "breath
distribution") are central to the principles of singing as
proposed by P. Maria Marafioti. Marafioti chastises his
colleges who ignore "the fundamental law of physiology that
governs all human functions". This fundamental law is
explained as follows:

The amount of energy developed by a human organ in order
to produce a certain action constitutes what is called a
physiological function. This amount should be the minimum
the organ can produce, and the result should be the
maximum efficiency as related to the energy employed.
This balanced relationship between power and efficiency
constitutes the normal function of an active organ, and
establishes, the correct mechanism of every organic
function.

Applying this principle to the physiological
mechanism of breathing in voice production, it is evident
that the minimum of breath which is capable of putting in
vibration the vocal cords and generating sufficient sound
vibration for producing the different tones of the vocal
range, constitutes the normal amount required for the
correct function of singing. (88-9) [original emphasis]

In theory, Marafioti's description is correct; there can
be an optimum balance between "power and efficiency" in
breathing which, for what it is worth, can be called "the
normal function". However, when talking about operatic
singing, there is nothing normal about the patterns of
respiration required. Part of the reason singers need to be
trained in breathing is that they are using their breath in a unique and sometimes strenuous fashion which is unlike regular breathing. Of course, this is not to say that this breathing is abnormal (i.e., unhealthy or unnatural), but it is not Natural either.

What is at stake here, though, is that Marafioti is attempting to rationalize breathing in order to produce vocal effects which, if left to its own devices, the human voice would not or could not normally produce. Rather than admit this fact, Marafioti assumes that the operatic voice, which slides gracefully between extended passages without any (apparent) intervening breath, is the Natural voice. The role of rational instruction and technique is thus denied, since they appear to merely help the voice grow naturally into its normal functioning.

Moreover, Marafioti extends his thesis about "the normal function" of breathing to include issues of aesthetics and musical convention. In short, he contends that proper breathing leads to correct tones, leading to the corollary that these tones themselves are natural or normal. According to Marafioti:

From this principle we derive the very important deduction that only the normal breath has the physiological property of producing correct tones; in other words, scientifically, only the normal breath can give the exact number of vibrations necessary to produce a tone in its exact pitch, and in its normal volume, loudness, and quality. A surplus of breath, by increasing the number of vibrations of the tone, alters the pitch and the aforementioned dimensions—volume, quality, and loudness. (89)
Again, Marafioti is partially correct. Certainly "exact pitch" requires an "exact number of vibrations", but "exact pitch" in itself is not natural or normal, in the sense of being 'God-given.' In Marafioti discourse, though, it appears that "exact pitch" and "its normal volume, loudness, and quality" are an organic outgrowth of the voice itself.

Such strategies, whereby the historical and social components of music are denied animate Western, 'classical' music as a whole. By reducing music to mathematical tones and natural intervals, music theory, for instance, reduces music and the process of musical production to an abstract, rational process which seems to transcend the social world. Susan McClary comments:

From the time of the ancient Greeks, music theory has hovered indecisively between defining music as belonging with the sciences and mathematics or with the arts. Its use in communal rituals and its affective qualities would seem to place it among the products of human culture, yet the ability of mathematics to account for at least some of its raw materials (tones, intervals, etc.) has encouraged theorists repeatedly to ignore or even deny the social foundations of music. The tendency to deal with music by means of acoustic, mathematics, or mechanical models preserves its mystery (accessible to a trained priesthood), lends it higher prestige in a culture that values quantifiable knowledge over mere expression, and conceals the ideological basis of its conventions and repertories. This tendency permits music to claim to be the result not of human endeavour but of rules existing independent of humankind. (1985: 150)

McClary does not deny that music theory can assist us in better understanding music, but she does object to its attempts to establish a (natural) hegemony over musical knowledge. In a similarly, overdetermined fashion, Marafioti's
discourse claims that normal breathing and exact pitch are natural extensions of physiology and are therefore "the result not of human endeavour but of rules existing independent of humankind".

Invisible Breathing

Clearly, in the concert hall where the body of the singer is fully present, it is impossible to deny the human origins of the voice. Common sense dictates that voices come from embodied subjects. Still, singers were encouraged to hide the labour involved in their art. Breathing, in particular, was suppose to be completely invisible. Thus, when performing, the singer should not show any outward signs that she is breathing or at least breathing in an irregular fashion. The reasons for this arise primarily from performance conventions which dictate that a performer should disguise the fact that she is engaged in strenuous physical act, especially when in an operatic role. The singer should thus avoid facial grimaces or abrupt intakes (eg. gasps) of air which would prove aesthetically unappealing.² Sudden intakes of air can also disrupt the singing itself. If at all possible, a performer

²According to Tetrazzini, a natural correspondence exists between correct tone production and a pleasant expression:

A singer's mouth must always look pleasant, not only because it creates a disagreeable impression on the audience to see a crooked and contorted mouth, but also because natural and correct voice production requires a mouth shaped almost into a smile. (Caruso and Tetrazzini: 30)
should learn how to breathe in a fashion which will not be audible to the audience, for again this would prove to be aesthetically unappealing and would detract from the music being performed."

Thus, breathing should be both physically and audibly invisible. Only the singer should be aware of the efforts of singing:

I know a great many singers who, when they come to very difficult passage, put their hands on their chests, focusing their attention on this one part of the mechanism of singing. The audience, of course, thinks the prima donna's hand is raised to her heart, when, as a matter of fact, the prima donna, with a difficult bit of singing before her, is thinking of her technique and the foundation of that technique—breath control. (Caruso and Tetrazzini: 15)

The mechanism of the voice should always remain hidden. In fact, Tetrazzini prided herself on being able to hide her breathing and thus make singing look effortless:

People have said that they cannot see when I breathe. Well, they certainly cannot say that I am ever short of breath even if I do try to breathe invisibly. When I breathe I scarcely draw my diaphragm in at all, but I

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'The same logic applies to shifts in vocal register. When singing a glissando, for instance, a shift in registers and voice placement should not be audible to the listener. Tetrazzini advises that such changes must remain hidden:

As the voice ascends in the scale each note is different, and as one goes on up the positions of the organ of the throat cannot remain the same for several different tones (sic). But there should never be an abrupt change, either audible to the audience or felt in the singer's throat. Every tone must be imperceptibly prepared, and upon the elasticity of the vocal organs depends the smoothness of the tone production. Adjusting the vocal apparatus to the high register should be both imperceptible and mechanical whenever a high note has to be sung. (Caruso and Tetrazzini: 20-21)
feel the air fill my lungs and I feel my upper ribs expand. (ibid: 14)

A Natural singer is singer who breathes easily and invisibly. Thus, it appears as if the voice rushes forth without any labour whatsoever. Attention, then, shifts from the act of creating sound to the sound itself, which appears without apparent origin in the physical world.

This Cartesian ruse is again typical of Western High Culture and its fervent attempts to divorce itself from the corporeal. As McClary puts it:

In many cultures, music and movement are inseparable activities, and the physical engagement of the musician in performance is desired and expected. By contrast, Western culture—with its puritanical, idealist suspicion of the body—has tried throughout much of its history to mask the fact that actual people usually produce the sounds that constitute music. As far back as Plato, music's mysterious ability to inspire bodily motion has aroused consternation, and a very strong tradition of Western musical thought has been devoted to defining music as the sound itself, to erasing the physicality involved in both the making and the reception of music. (1991: 136)

In other words, the body should never get in the way of "the sound itself", but this was a frequent problem with singers whose breathing was interrupted by blockages in the body. At such moments, the presence of the body became painfully obvious. For instance, some singers when they attempted to project a loud voice pitched their heads backwards (or sometimes forwards), causing the throat to close. As a result, the voice is caught in the throat and cannot pass through the mouth and the masque, producing a throaty sound. According to Caruso, if the singer just
relaxes, stands in a normal position, and breathes natural the voice will be effortless carried out of the body (Tetrazzini and Caruso: 57).

When the breath flows freely, the voice flows freely. Once all the passages are open, the voice magically appears, as if summoned from some hidden and mysterious place within the body. It comes forth fully formed without any apparent labour or method. Wayne Koestenbaum describes this "open-door policy" as follows:

The secret of good singing might consist in opening the throat's door so "knowledge" can come out. Such an open-door policy won't permit the auditor ever to see the throat's secretes, but it will release the flood of buried stuff; and openness only comes to the singer who ignores his or her own mechanisms . . . In _How To Sing_, Enrico Caruso insists that the throat is a "door through which the voice must pass," and that the door must be left open lest the breath seek "other channels"—morally dubious detours. (1991: 211-212)

Once all the doors are open, the breath, the courier of the voice, rushes forth into the open air. Problems only arises when one of the doors is closed. Then, the voice gets caught within the body (eg., the masque) and begins to deteriorate.

In conclusion, this "open-door policy" had saliency throughout the vocal arts. For instance, within pedagogical practice, the instructor was assigned the role of door opener, a figure who opens the physical and psychological doors within the singer so that the voice may pass. And the singer was the passage through which the voice flowed. Teacher and student worked together, establishing the conditions which would allow the Idea of 'voice culture' to become manifest. This process
of door opening and the notion of the singer as passage (or, rather, vocal medium) will be discussed in the next chapter through an examination of Enrico Caruso.
CHAPTER 6: Mastering the Natural Voice

The Sculptor

I am told that many people in America have the impression that my vocal ability is kind of a "God-given" gift; that is, something that has come to me without effort. This is so very absurd that I can hardly believe that sensible people would give it a moment's credence. Every voice is in a sense a result of a development, and this is particularly so in my own case. The marble that comes from the quarries of Carrara may be very beautiful and white and flawless, but it does not shape itself into a work of art without the hand, the heart, and the intellect of the sculptor.

Enrico Caruso, Great Singers on the Art of Singing (Cooke: 86)

When given the opportunity, in either interviews or his own published essays, Enrico Caruso stressed the above point.¹ His voice, he contented, was not a natural gift, endowed to him by the will of God alone, and besides being ludicrous, such claims were a blunt affront to both himself and his art. Caruso, instead, insisted that his voice was a carefully

¹A voice manual, entitled How To Sing: Some Practical Hints, was published under Caruso's name in 1913, but shortly after its publication, Mme. Meyerhiem, a well-respected singing instructor, filed suit against Caruso and the publisher for copyright infringement. Meyerhiem accused them of copying chapters, in verbatim, from her own book, L'Art du Chant Technique. Her suit was successful and she gained an injunction against the sale of the book. Soon after, Caruso distanced himself from the publisher (see Oprista Popa, "Caruso Bibliography" in Caruso and Farkas: 583-4).
crafted tool which was developed through a long and continuous process of intensive labour. The young student was also advised by Caruso that the art of sculpting (or cultivating) the voice is a career-long process which never ends: "The great thing is, not to stop...Every act of each opera is a new lesson." (Cooke: 87). There are always new things to be learned and, since the voice continues to grow and develop throughout a singer's career, the voice must be repeatedly recast and re-tuned. In effect, singing is hard work. Moreover, if the voice is to grow to its own full potential and remain healthy, the singer-sculptor cannot work alone, but must work in concert with the voice teacher, who will lend a pedagogical hand in the sculpting.

Caruso was aware that such opinions ran counter to popular belief which tended to rarefy the voice by focusing on its fruits rather than its labours. Still, in a small way, Caruso attempted to demystify his sanctified practice by admitting that the art of singing is much harder than it appears and that in order to succeed, the singer needs to be a devoted and disciplined craftsperson. Certainly, natural

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\footnote{In a 1909 essay published by The Metropolitan Opera of New York, Caruso remarked:}

Of the thousands of people who visit the opera during the season few outside of the small proportion of the initiated realize how much the performance of the singer whom they see and hear on the stage is dependent on the previous rehearsal, constant practice and watchfulness over the physical conditions that preserve the most precious of out assets, the voice. (Caruso and Tetrazzini: 45)
assets, like those possessed by the marble of Carrara, are of importance, but these assets need to be cultivated with grave and ceaseless attention.

It is ironic then that Caruso was frequently championed as being an untrained singer whose voice, with its rough but purified qualities, harkened back to a more natural tradition of singing (eg., the old Italian school). For audiences and critics alike, Caruso seemed to provide a momentary glimpse of a lost vocal Eden. However, this vision of Eden did not exclude the voice-sculptor, the pivotal figure in Caruso's discourse and the culture of the voice. Instead, this new, modernist Eden was populated by a new hybrid, the singer-sculptor whose voice was not "God-given", but rather it was fashioned in accordance with divine law (ie., the law of Nature). In other words, the beautiful voice was a teleologically-given (eg., "a result of a development"). Caruso, in particular, became emblematic of this new hybrid, a truth fully realized when Caruso was dubbed "The Master of Natural Singing" by his friend and medical advisor P. Mario Marafioti (1).

The Development

Like many of his noted predecessors, Enrico Caruso (1873-1921) was born to a Neapolitan family who although of relatively meagre means lived at the geo-cultural hub of Italian singing. From an early age, Caruso expressed an
interest in pursuing a career in both singing and art (he was also a talented sketcher), but such aspirations were met with blunt resistance by his father, who wanted his son to follow in his own path as a mechanical engineer.\(^3\) Years later, such differences eventually lead to open conflict, ending in Caruso's being expelled from the family home at the age of 15. Before this occurred though, Caruso received some vocal training from his school master, a trained musician, who according to Caruso attempted to exploit the young boy's talents for his own financial gain (Caruso and Tetrazzini: 40).

After being expelled from home, Caruso hired himself out to sing in churches, weddings, and festivals, but soon after lost his voice, when adolescence moved his voice into the tenor range. He only 'regained' his voice after he consulted Guglielmo Vergine, a well respected teacher in Naples. As it turned out, Vergine was yet another profiteer who through contractual trickery fooled Caruso into signing away 25% of his future earnings (a contract later nullified; ibid: 43). After the Vergine-affair, Caruso never again consulted a teacher (except for a brief period during his military

\(^3\)Some sources, like The New Grove Dictionary of Music and Musicians, suggest that Caruso came from a poor family (Sadie: 839). Besides being factually wrong, such misnomers helped feed the popular notion that Caruso, like most other Italian tenors, was a sort of 'noble savage' who by sheer noble instinct rose above his social position without the intervention of high culture. The full implications of such concepts will become apparent later in this chapter.
service; "Enrico Caruso": 625). Thus, at best, Caruso's training was "incomplete and irregular" (Sadie: 839). And ironically Caruso's own experiences speaks vividly about the dangers of voice instruction, a profession he would later ardently defend.

In 1894, Caruso made his debut in Morelli's L'amico francesco, but his performance received only a tepid response from the Naples's audience. Public success alluded Caruso, for years, until he left for England where he debuted in Rigoletto at Convent Gardens (1902). Later that same year, he also debuted in New York at the Metropolitan Opera, where he performed regularly from 1902 to 1920. Unlike most other singers of his time, Caruso did not limit himself to a few, specialized opera roles, although he was well known for his interpretation of Canio from Leoncavallo's Pagliacci. Also, during his career, he made a total of 262 recordings, of which the majority were for The Victor Talking Machine Company of New York (See Caruso and Parkas).

After his arrival in New York, in 1902, Caruso was fervidly embraced, by critics and audiences alike, as being the greatest tenor of his generation. After years of mediocrity, there finally appeared to be a true proponent of bel canto and thus a proper successor to the old Italian tradition. Caruso was praised for having a naturally beautiful voice, for being a gifted vocal technician, and for singing with an unyielding heart. In all respects, he was an organic
singer: his notes were always perfectly placed and balanced; his breathing was finely controlled and immense in volume; his voice could slide effortlessly across its immense range without displaying fault or weakness; his tones resonated with full body; and his voice was keenly turned by pathos and, at times, fiery passion. To quote Caruso himself, here was a singer who was able to unite "the hand, the heart, and the intellect" (Cooke: 86) in order to sculpt a beautiful, organic voice which was finely tuned and balanced throughout.

The Master

Shortly after Caruso's death in 1921, his friend and sometimes medical consultant P. Mario Marafioti published an extensive study, a sort of postmortem, on Caruso's voice. With the Caruso family's blessing, Marafioti set out to reveal what made Caruso's voice exceptional. As Marafioti notes in the first chapter:

... the world, in its grief, is still wondering what it was that Nature bestowed on this privileged son to make him the most wonderful source of human melody of all ages. (Marafioti: 1)

Beyond explaining the working of Caruso's voice, Marafioti had additionally concerns. Specifically, by recording and analysing his observations of Caruso, he wished to establish a set of basic principles for voice culture (many of which stemmed from his own scientific hypothesis). In the Forward, Marafioti writes:

By closely observing [Caruso's] method of singing, I saw
the correct application by the master himself of the natural laws governing the mechanism of voice production, and I had the opportunity, by testing his ideas and principles, of ascertaining that they conformed with those I have developed in the scientific part of this book. (ix)

In composing his book, Marafioti was not writing about a single singer, who was a 'special case,' rather Caruso became representative of 'voice culture,' in general. That is, through Caruso, he was trying to produce a universal theory of correct voice production. And this point is definitely made at the start of the book, when Marafioti presents this decree:

CARUSO'S METHOD OF SINGING WAS NOT AN INDIVIDUAL SECRET WHICH HE ALONE POSSESSED, OR WHICH WITH HIM CEASED TO BE; IT WAS THE MOST GLORIOUS EXAMPLE OF NATURAL SINGING WHICH WILL REMAIN FIXED UNTIL NATURE EXISTS NO MORE. (xxi) [original capitals]

Simply put, Caruso set the golden standard for natural singing. However, what was Caruso's method and what makes him (or anyone) a master of singing? The former can be answered with a single word: organicism. No single characteristic defined Caruso's voice. In fact, his body had various deficiencies (eg., a congested throat as a result of smoking; Marafioti: 3) which if viewed in isolation would belie the sheer power and beauty of his voice. Only by examining the whole and its functioning could Caruso's voice be fully understood and appreciated. Again to quote Marafioti:

Not one, but several, qualifications, physiological as

'Besides using capitals to emphasis his point, Marafioti presented this statement in isolation by centring it on a single page (before the first chapter) and enclosing it within a black bordered box.
well as psychological, harmoniously combined in one individual, were responsible for making Caruso the most magnificent vocal phenomenon of the human race. (3-4)

And Marafioti then goes on to explain that Caruso's vocal anatomy, although lacking in certain means, nonetheless clearly followed the laws of nature in their operation:

His vocal organs, most obedient to Nature's dictates, were not anatomically exceptional, but in their physiological function were the most balanced vocal machinery ever known to me. (5)

In other words, Caruso is a crack technician who is able to coordinate, through rational means the operations of his vocal organs. By such means, he is even able to overcome anatomical problems.

Of course, this implies that anyone, no matter their vocal anatomy, could become an exceptional singer, with a balanced and beautiful voice, as long as they learn how to obey "Nature's dictates". In other words, through rational training, one can become a master of natural singing. However, Marafioti also argues that Caruso never surrendered himself to pure technique and could never be accused of being an automaton. Instead, Caruso, who you recall received little voice training, followed his instincts and his heart ("Everything in him was instinctive and intuitive"; Marafioti: 9), which as it turns out correspond exactly with the laws of natural singing:

Caruso's almost unconsciously focused his voice in its most exact pitch, guided by his natural instinct of giving to each note only as many vibrations as were scientifically required. (5)
It's important to note that Marafioti says "scientifically required" and not aesthetically required or culturally required. At this point, nature and science (or rationality) fold together within a common teleology. It is as if nature and science speak directly through Caruso in the form of his intuition and his voice. At one and the same time, Caruso's voice abided by both ancient, natural law (i.e., bel canto) and modern law (i.e., the science of laryngology).

The Engineer

In a sense, Caruso served as a mere medium where nature (i.e., nature's Idea) took form. All that was required of Caruso was that he rationalize himself in accordance with Nature's will. There are certain similarities between the rational, but natural, Caruso and the modernist figure of the engineer, as discussed by Marshall Berman in All That Is Sold Melts Into Air.

The engineer, according to Marshall Berman, assumes various guises within modern culture: the developer (e.g., Goethe's Faust), the organizer (e.g., the Saint Simonian's Priest), and the planner (e.g., Le Corbusier and Robert Moses). In whatever incarnation, the engineer always embodies the utopic potentials of human creativity when united with visionary, but rational, planning. In his analysis of Dostoevsky's Notes from Underground, Berman proposes that within so-called developing nations the engineer has, in fact,
emerged as "the actual symbol of human creativity" (242). On closer analysis though, it appears that the engineer does not really create at all, at least as creation has been classically defined. Instead he/she organizes what is already present by following a divine-like 'blueprint' which outlines the course of human development and technological advancement. In other words, a successful engineer is someone who can, with great self-discipline, follow a meticulous plan. Creativity thus appears to be a matter of wilful servitude to a greater will (or order).

For Dostoevsky, Berman argues, the aspiring engineer must fulfil one essential requirement:

"...human engineers must follow the logic of their own visions, 'no matter where they might lead.' Engineering should be a medium for creativity, not computation." (Berman: 242)

Initially, it appears that the Romantic ideal is upheld; priority is give to "creativity, not computation." However, creativity is presented as a "logic" which by nature, though not necessarily by empirical practice, abides by a rational law. Surprisingly, the engineer reaches a rational end by adopting a creative, rather than rationalistic, ethos. Furthermore, the engineer is, at one and the same time, both a visionary and a follower. Although the engineer follows her "own visions," she does not control their path, since their "logic" is not of her own (conscious) making. Finally, to make matters more complicated, the engineer is a mere "medium" in which natural energy coalesces. That is, the engineer
conducts, rather than inducts, energy.\textsuperscript{3}

Once affected by the engineering ethos, humans have access to power of unimaginable magnitude. For instance, Goethe’s Faust, the definitive organizer, has enough power to make and remake the world several times over. Berman writes

Faust's battle with the elements appears as grandiose as King Lear's, or, for that matter, as King Midas' whipping of the waves. But the Faustian enterprise will be less quixotic and more fruitful, because it will draw on nature's own energy and organize that energy into the fuel for new collective human purposes and projects of which the archaic kings could hardly have dreamt. (62)

Nature's energies, if arranged in accordance with nature's dictates, will result in unparalleled human development. The resources are already present; they just need to be systematically, efficiently and innovatively organized. Such an ideology of resource management pervades modern utopian thought, as William Leiss illustrates:

The secular version of the utopian dream have maintained that the natural environment of the earth contains adequate resources for human happiness and the satisfaction of needs. Human misery arises primarily out of a failure to order social relations justly...

(8)

Although the ordering of nature (exteriority) is a requisite for human fulfilment, it is chiefly an ordering of

\textsuperscript{3}The concept of "medium" also corresponds with the first law of thermodynamics, one of the most fetishized scientific theories of the nineteenth century (along with the second law). The law of conservation states that "matter and energy may be converted and exchanged but neither can be created nor destroyed" (Seltzer: 29). By relation, the engineer does not create, but rather he converts and exchanges.
human behaviour and thought (interiority) which is required. It is individual human failing alone which interrupts the correct ordering of natural resources, thus causing "human misery." Shortages and inequality can best be resolved through the adoption of the engineering ethos which will correctly order 'the self.'

By relation, the artist can be most creative by serving as a mere "medium" where natural forces can coalescence within shifting patterns of recombination. All this happens without intent or thought (that is, "computation") on the part of the artist; it just happens as if guided by a natural instinct (as in the case of Caruso).

In its earliest forms, musical analysis assumed a similar attitude towards the artist. In reference to Heinrich Schenker, Ruth Solie writes:

...however one characterizes this artistic genius it has nothing to do with intelligence or rationality. On the contrary, 'the organic poet, as it were, does not know very clearly what he is doing until he has done it.' The forces of nature are at work in him. (155)

Simultaneously, art and creativity have everything and nothing to do with the artist. Nonetheless, music still flows outward from the composer or the singer, as if spilt from an interior "vessel" (ibid).

In a similar fashion, Nature flowed outwards from Caruso's lips:

When Nature, the real master of his voice, took the lead in his vocal career, and his mind and soul cooperated efficiently, he no longer encountered obstacles in his singing. His evolution as a singer and
artist shows very clearly how only a lack of artistic education and confidence had held back the natural element which was as powerful in him at the beginning as later. (Marafioti: 9)

Initially, Caruso's voice was inhibited because of certain cultural conditions (i.e., human factors like "a lack of artistic education and confidence") which blocked the passage of the voice. The voice was already present, locked within his body. All that was required were the proper rational and natural conditions which would set the voice free. Such obstacles slowly fell away as Caruso further evolved, until he reached the final stage at which he became a passive medium through which the Voice could simply flow.

In all respects, Caruso was an organic singer, who allowed the voice to move without effort from his diaphragm, up through his throat, past the vocal chords, and out of his mouth. Once the proper conditions were established, no real effort was required on Caruso's part. Instinct and Nature took control. To quote Solie, "the forces of nature are at work in him" (Solie: 155). In the end, it seems like Caruso's father finally got his wish. As a singer, his son finally became an engineer or, rather, a singer-engineer, who was able to rationally and instinctually organize and manage his vocal means so that Nature could takes its form.

Caruso typifies how 'voice culture' was able to de-link singing from its historical and social context by projecting it onto the singer's body. Of course, I'm not prepared to argue that singing has nothing to do with the body, but
clearly the body, in itself, does not and cannot dictate the essence of the vocal arts. But this is, in fact, what 'voice culture' claimed. In short, it asserted that the body alone provided the voice with a means, a reason, and an ends. The significant influence which science, aesthetics, and pedagogy had on singing were denied, displaced, or interpreted as serving a greater good. Apparently, these cultural practices merely set the conditions which allowed singers, like Caruso, to find their instincts and, through their instincts, their voice—the Voice.
CONCLUSION

A Review

In the preceding chapters, I have presented a basic profile of nineteenth century 'voice culture'. As a result of specific historical factors, a specialized form of knowledge and cultural practice emerged around the voice. Modernist concerns about science, aesthetics, corporality, social decline, and rationalism formed an intricate cultural and discursive network in which the embodied voice acquired power and significance. Privilege was given neither to the voice nor the body, but rather they formed an organic unity. Within this unity, the voice and the body became closely linked as relays of knowledge and power stitched them together, ontologically and teleologically. Moreover, each seemed to grow and flourish within a common soil, that is, the fertile soil of 'voice culture' (i.e., Nature's Idea).

Under the rubric of 'voice culture', voices no longer belonged just to individuals or individual bodies. In terms of both reason and method, they seemed to transcend the Present. In fact, many argued that the reason why the vocal arts were in crisis was that the Present (i.e., the present means of voice production) was not being organized with the correct ends in mind. A shift of emphasis was thus required: the
present means needed to be chosen and ordered in accordance with a set end (i.e., the Idea of a beautiful voice). Consequently, vocal and pedagogical practice was separated from the social present and attained an aura of transcendence. Learning how to sing now involved simply following a predetermined path of growth and development (i.e., Nature's blueprint) which would inevitably result in a beautiful and healthy voice. According to this teleological paradigm, Nature, rather than culture, produced the beautiful voice. And even the historical and convention-based notion of a beautiful voice (or bel canto) attained an aura of transcendence.

Although such articulations presented vocal practice through an abstract (and abstracting) logic, science and, in particular, laryngology increasing framed the voice as being a form of interior enunciation which is grounded in the physical world. With Garcia's laryngoscope, the voice was firmly placed, both physically and conceptually, within the singer's body. Still, the functioning of the vocal organs was not interpreted in a deterministic or mechanistic manner. Rather, the voice was approached as if it was an organic system in which all parts work in unison. Also, each part gained its significance through its relationship to the organic whole and the underlying Idea which sanctions it (i.e. 'voice culture').

Apparent necessity also lent 'voice culture' a greater authority. According to critics and voice teachers, the vocal
arts were in a state of crisis which, if not addressed forthwith in a strict and rational manner, would result in the wholesale degeneration of singing. Only one option was in the offing: follow the teleological path leading onwards towards a vocal Eden. And this Eden, it was assumed, would be populated by gifted singers, like Enrico Caruso, who by apparent instinct follow the scientific laws of Natural singing to produce voices which embody the ideals of bel canto. Once Eden is reached, science and vocal pedagogy will have served their purpose, as facilitators and cultivators, and will no longer be significant. The Voice will now be able to declare its own truth. Nature will rush forth, uninhibited, from the singer's mouth to take the form of beautiful melodies. In Eden, even the singer does not produce the voice, but rather serves as a passive medium where the forces of nature converge and gain form. At this point, Nature speaks directly through the singer's body in the form of voice.

In a sense, the body provided the voice (and 'voice culture') with a natural alibi (and vice versa). For instance, the concept of normal, physiological functioning allowed aesthetic and cultural conventions to be mapped onto the body itself. As in the case of breathing, there appeared to be a natural correspondence between the rational functioning of the vocal physiology and beautiful vocal sounds. The body itself seemed to sanction the beautiful voice (ie., bel canto). Therefore, vocal pedagogy and the vocal sciences could claim
that they were merely trying to assist the body in attaining its natural potential: rational vocal practice does not produce voices, instead it merely creates the ideal conditions in which the Natural voice can fully develop.

Once again, we see how bodies operate, within Western society, as sites for the negotiation and inscription of knowledge and power. Like a surgeon's scalpel, scientific, pedagogical, and aesthetic knowledge cuts into the singer's body and reshapes its surfaces so that it displays the interpreter's own logic. Afterwards, the scalpel recedes quickly, leaving no visible signs of foreign entry or cultural tampering. If such interventions are discovered, it is argued that they simply help nature along its way, as it moves towards a predetermined destiny. Questions about epistemology vanish, into obscurity, before this transcendent logic, and issues of cultural, social, and aesthetic context are deemed irrelevant. All that is left is the Voice, the pure manifestation of the body's own inherent and natural logic.

**Future Research**

The next phase of this research could proceeded down a number of different avenues. Clearly, more in-depth research and analysis needs to be done on the voice manuals themselves and other related forms of textual discourse (including the musical press and personal documents). There are hundreds of
texts waiting to be read, in a variety of different languages, and these texts engage with numerous issues (eg., resonance, registers, the speaking voice, intonation, lifestyle, etc.) which it has proved impractical to address here.

Although emphasis should be placed on explicating the content of these texts, attention should also be given to examining how these texts were used by voice instructors and their students. On that note, the general research question needs to be expanded so as to include an analysis of performance practices which, at this time, were undergoing fundamental changes. Comparisons can also be drawn between singers and other musical performers. It would prove particularly insightful to compare voice manuals with manuals written for other musicians (eg., violinists)

Voice instruction, as both a profession and a philosophy, is another important area for further research. The careers of noted teachers should be studied, along side their theories of voice and their modes of teaching. Furthermore, these teachers often worked within institutions, like music colleges, which were a primary setting for pedagogical and artistic reform within the vocal arts. There are also particular musical concerns which should be taken under consideration. Much more can be written on how the conflict between the Wagnerians and the Rossinists impacted on the vocal arts. Changes in compositional practices are also important, as is the shift towards a canonic and historical consciousness. Of course,
there is also the troublesome issue of Romanticism itself, a cultural and artistic movement which promoted a specific notion of self, creativity, and art.

Finally, the next stage of research must be more explicitly framed within a feminist methodology. Many of the ideas presented here, especially those indebted to Susan McClary and Marcia Citron, derive directly from feminism and modes of gender analysis. Although I have explored the relationship between music, gender, and voice in previous work (1992a; 1992b), I decided, for a number of reasons, not to explicitly address these issues here. In the process, I also chose to ignore a number of important texts which focus on the voice and gender (Clément; Koestenbaum; Shepherd). One reason I chose to do this was that these texts, although valuable, are extremely limited in terms of their methodology (they are primarily psychoanalytic and post-modernist, in form) and tend to be rather ahistorical. At this point, though, I believe it is important to revisit these texts, with 'voice culture' in mind, so as to challenge how these texts have set the agenda for the study of gender, voices, and bodies.
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