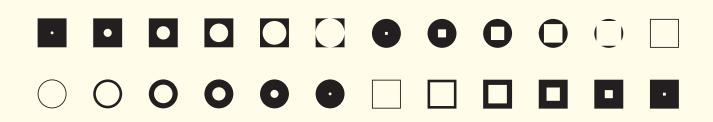
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THE HUMAN Voice

Psyche Soma Function Communication



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PREFACE

I wish to thank all those who have, in various ways, assisted me in writing the present book on the human voice.

My thanks are due, first and foremost, to my students, who have provided me with experience both comprehensive and versatile, and whose progress has furnished me with important illustrative material in writing my case histories. Needless to say, the names of those I discuss have been changed.

Next, I wish to thank Anne Rosing-Schow, Ruth Hansen and my daughters Cecilie and Michala Eken for professionally inspiring discussion and relevant as well as constructive advice on matters of both form and content during the lengthy process of composing the manuscript.

I further wish to express my thanks the Augustinus Foundation, Mansson's Legat, as well as the Friends of San Cataldo for support during the research phase of my writing.

Copenhagen, April 1998, Susanna Eken

The present manuscript is a revised version of the 1998 publication. The manuscript has been thoroughly reworked, and corrections, abbreviations and additions have been inserted in the original manuscript.

The same manuscript has formed the basis for the English translation, which is now available for the first time. In this connection I wish to express my thanks for the enthusiastic effort put into translating this book by professor and singer Marianne Børch.

Equally I am truly grateful to singer and voice teacher Marianne Rørholm for proof-reading the manuscripts.

I sincerely wish, finally, that the book will continue to inspire both singers and voice teachers.

Copenhagen, September 2014

Susanna Eken

INTRODUCTION

This book grows out of my fascination with, and love for, my pedagogical work with the human voice. As a voice teacher, I am constantly amazed at the very nature of the voice as well as its infinite possibilities. No two voices sound alike, and the character of a voice is inextricably bound up with a human being's personality and inner life.

I therefore wish with this book to review and present the experience of my many years as a pedagogue working with speaking as well as singing voices. This background, which has encompassed working with all kinds of voices, from the training of functionally weak speaking voices to teaching professional singers at the very highest level, has enabled me to assess the potential of every individual voice, be it in the context of the so-called master class or in the format of extended individual instruction.

My philosophy is that the possibilities for developing a voice are determined by a dynamic interaction between congenital characteristics (heredity), childhood conditioning (environment), as well as the professional imprint (development, improvement, rehabilitation, re-training) by which the natural instrument may be enhanced.

This basic view will be analyzed in the first two sections of the book. Chapter 1 will deal, first, with the "innate" or natural talent and voice, and then go on to consider childhood's influence upon this natural talent. This links up, in chapter 2, with a description of the voice as an instrument, and of the voice's functional potential within a classical training scenario. In my view, an understanding of these features is the necessary foundation for a close analysis and diagnosis of the individual instrument – i.e. of the voice as well as the body – whether during the initial phase of instruction or during a later course of re-training or rehabilitation. Finally, Chapter 3 discusses useful communication strategies for a singing teacher – particularly as these relate to long-extended courses of solo teaching.

By focusing upon these three main areas, I have deliberately chosen not to discuss certain related issues. First, I shall bypass the analysis of musical interpretation and artistic expression, since these topics are so comprehensive that they require an independent and thorough presentation. Secondly, and partly in consideration of this book's proportions, I devote my book purely to an analysis of voice development within the aesthetic framework of classical professional singing. I am convinced, however, that fundamental training in healthy and expedient functions may form the basis for operating within a wide range of artistic and musical genres. This is not, of course, to suggest that singers within a popular or rhythmic repertoire should obey the aesthetic and sound ideal of classical singing; my point is that knowledge of expedient vocal

techniques may serve to develop healthy speaking or singing voices irrespective of genre.

Since speech and song are different uses of the same instrument, I strongly feel, moreover, that a teacher should base her work on an assessment and training of both the singing and the speaking voice; therefore I use, throughout the book, the term voice teacher in preference to terms such as speech trainer or singing teacher. American usage has, incidentally, adopted a new professional designation – that of vocology – which encompasses the teaching of both speaking and singing, and I find that this is both the widest and most suitable designation (Tietze 1994).

I wish that this book may shed new light on an old tradition, and I hope that the methodology expounded in "The Human Voice" may become a working foundation and source of inspiration for voice teachers as well as for anyone with an interest in singing. I do not believe that a reader may learn how to sing by reading this book, but I do believe that a reader be able to learn something about singing.

Voice and Personality – A Holistic Approach to the Human Voice

Throughout the book, the general approach will be a holistic view of human nature that encompasses both mind and body – both emotions and soma. In working with the human voice, psychological and physiological mechanisms are inseparable, and in the ongoing work of voice education, we must seek out a relevant and professional approach to both areas. We cannot just deal with the "instrument;" we must deal with it in the context of the entire human being.

Moreover, the function of the voice itself entails a similar psychosomatic duality. The voice has, as dependent on positioning and structure, certain functional possibilities and fundamental muscular characteristics that are common to all the muscles of the body. Therefore, like all other types of musculature, the interaction and condition of these muscles may be trained and developed. At the same time, however, the voice is inextricably bound up with the personality. The voice's quality, sound and dynamics have a unique relation to the individual singer or speaker's psyche. An understanding of this connection between the voice and the emotional life of a person, we may develop and enhance the voice in ways that liberates it for confident artistic interpretation of text and music.

This view of the theory and practice of voice education approaches the unified whole as something other than merely the sum of the functions of its individual parts, and I bear in mind this imagined whole even when separating theory and practice into various elements. The various elements are like communicating vessels - every movement or change in one influence every other.

The last 40 years have seen significant developments in the study of psychotherapy, which may, in my opinion, be utilized in training the professional voice. Throughout the book I will therefore link up my method of pedagogical analysis with results and experiences from both body psychotherapy and general psychology. Within these disciplines I find a clear correlation between the mental and physical processes that influence the development of a voice.

W. Reich and A. Lowen developed the methods of body psychotherapy in the treatment of mental conflicts. These forms of therapy rest upon the assumption that psychological and physical processes are two sides of the same coin, and that during childhood and adolescence the body is developed and characterized by this psycho physical pattern. Breathing is viewed as the most precise barometer for psychological states, and breathing blockage is inextricably connected with mental conflicts and situations of stress.

These fundamental ideas have since been developed in various fields and elucidated in an extensive and comprehensive literature, of which Lowen´s "Bioenergetics" (Lowen 1988) and Wrangsjö's "Kropsorienteret psykoterapi" ("Body-psychotherapy") (Wrangsjö 1989) have been among my most valuable sources of inspiration. Many of Lowen's and Wrangsjö's ideas and exercises may be directly applied within the field of voice teaching, a case in point being the fundamental conception and approach to posture and breathing. By working with the physical aspects of breathing and sound production, we touch mechanisms that are deeply rooted in the psyche, and we risk upsetting the mental equilibrium that every human being strives to maintain.

General psychology has valuable insights to offer the voice teacher, since a singer's education typically involves a long-standing professional cooperation between two individuals. The training of an individual voice over a period of years activates powerful energies and goes through many phases that should be handled with maturity of an overall perspective. I therefore consider it natural, in analyzing the relationship between voice teacher and student and the phases of individual training, to draw upon findings from this area of psychology.

In my view, both these areas of psychology are underexposed in the current literature on vocal pedagogy. In contrast, voice theory is comprehensively covered in outstanding studies, particularly American and German (Vennard 1967, Zemlin 1968, Seidner 1982, Tietze 1994, O.L. Brown 1996, among others). While I have no intention of involving the theoretical aspects of this discipline, I consider knowledge of the voice's anatomy and physiology one of the necessary prerequisites for an understanding of the basic functioning of both the speaking and the singing voice. The initiative towards linking psychology with the study of vocal pedagogy also grows out of student demand. The approach to vocal pedagogy must be tailored to each student, who arrives with different expectations about the teacher. Students do not expect to be trained in the way that I myself was trained forty years ago. Today's youth are open and outgoing. They are not afraid to demand help and attention in areas that have not traditionally fallen within the area of voice teaching. Instead of dismissing these expectations as irrelevant to the training of a voice, this book proposes to analyze the changes that have taken place and consider their potential relevance to contemporary voice teaching.

The Disciplines of Voice Teaching

Since training of a voice includes instrument-building as well as musical and artistic development, the demands made on the voice teacher are extensive. To each of the three main fields mentioned above belongs an extensive series of disciplines that will be touched upon with more or less thoroughly during a teaching session, but which in them selves require great insight and knowledge.

Instrument building requires a concrete knowledge of the voice's anatomy, physiology and acoustics, and this knowledge must be translatable into exercises and instructive corrections. The musical and artistic disciplines require a broad knowledge of musical, literary and cultural history. They also presuppose phonetic and linguistic insight into both the native language and all the principal European languages; and last but not least, a basic knowledge of piano, musical theory, ear training, harmonics and compositional form is vital.

The task of the voice teacher is, then, comprehensive and complex. As mentioned above, while it is necessary to be an instrument builder, the voice teacher must also be a cultural mediator; that is, one who creatively passes on the cultural heritage upon which the classical singing tradition is founded. This heritage must be conveyed to the individual student, and great psychological understanding is harnessed to the task of integrating the tradition so as to become a natural and harmonious part of the student's personality and identity.

The method described in this book should not be understood as a pure alternative to the classical singing pedagogy of earlier generations, which rested upon the master-apprenticeship relationship. The conception of the pedagogue as "master" originates from the assumption that a good teacher was or is himself a great artist who, possessing knowledge of performance and interpretation, has thorough knowledge of his profession and his craft. For the advanced student this form of training is still relevant and necessary for the way it passes on western culture's musical and artistic tradition from one generation to the next; but it may be problematic if it fails to incorporate an understanding of the unique instrument, talent and needs of the individual student.

Finally, I wish to point out that the training of the human voice for classical singing will always be secondary to the voice's original function. Before language was developed, the voice's primary function served for uttering "emotional sounds" such as weeping, laughter and warning cries. Despite the secondary conditioning by voice training and the culturally generated differences inherent in all speech and song, the connection to this primitive stratum still exists. The voice may directly express a human being's psychological state and express a nuanced emotional life. Joy, sorrow, enthusiasm and despair may be heard within a single sound, and therein lie the profession's deep fascination for both student and teacher.

1. PSYCHE AND SOMA

INHERITANCE – THE INNATE TALENT

We all have a voice, we are born with a voice, we have used it since birth – we are a voice. Even as a human being develops his individuality and personality during childhood, even so the voice and body are influenced by inheritance, early environment and position within the family pattern. The result is subconsciously embedded within the body and the voice and its impact characterizes the daily communication of every adult human being. The sound of the voice reveals much about a human being's character and personality. The strong and firm voice may bear witness to energy and dominance and the hesitant, weak and toneless voice to insecurity and lack of self-confidence.

We also encounter this connection between the voice and the human being in the derivation of the word "person". In Classical Latin, "persona" (per sonare) denoted "the mouth on the actor's mask", and the voice sounded through the mouth. The meaning of the word was later transferred from the mask to the human being itself and thereby brought about the new definition of person = human being.

Everyone can sing, but the human being who as an adult wishes to train his voice must have certain special skills – those commonly summed up in the word "talent." A talent is composed of a wide range of natural qualities, which in the trained and professional singer blend together into a whole. The many elements of the talent are a combination of a naturally beautiful voice and a good musical ear, an artistic disposition and psychological and physical characteristics capable of assembling and utilizing these innate gifts. No two voices are alike. The various characteristics supplement each other in an individual and personal whole, and exceptional qualities in one area may make up for shortcomings in another. For example, the great artist can, through artistic talent, communicate feelings and moods in such a way as to remove attention from a perhaps imperfect voice, or somewhat inaccurate intonation. Inversely, a brilliant voice may to some extent compensate for a lesser ability to communicate as an artist.

In this chapter, I shall therefore, first, analyze and characterize the various elements of a talent. Then I will describe the impact of childhood upon a singer. The childhood environment creates both psychological and physical conditions for the development of talent, and it also instigates the motivation for a human being to choose singing as a career. Since it is not only the immediate familial environment that determines a human being's development, but the external societal framework more broadly, I shall conclude the chapter with a consideration of this influence.

The Elements of a Singer's Talent - The Voice

Even as no two human bodies are identical, even so no two voices possess identical qualities of timbre and sound. In addition, however, classical music makes some further qualitative demands upon the natural instrument, and therefore, to become a professional singer, the candidate must possess a voice with unusual characteristics. The voice must have a naturally beautiful sound and a reserve of energy that will enable it to project acoustically; and this energy reserve is contingent upon the structure and proportions of the body and, especially, the throat. These characteristics determine the particular quality of a voice as well as its potential for development. It is, for example, useless to hope for a classical singing career if the singing voice is so weak that it cannot be heard in a large room. Other musical styles make different demands with respect to both function and sound. For example, an air-filled, fuzzy voice need not be a disadvantage in pop or rock music, nor is the voice's capacity to project crucial, since nearly all music within that genre is amplified.

It is impossible to change the basic nature of one's innate instrument. A singer cannot, for instance, decide for himself whether to be a bass or tenor. Nor can a singer – in contrast to a violinist or a pianist – go out and buy a more expensive and better instrument if dissatisfied with the quality of the one he possesses. The singer must learn to live with the innate instrument such as it is, as well as with its shortcomings, and improve this innate material as best he can by means of training.

Musicality

Musicality – a "good ear" – is, just like intelligence, an innate potential. One may stimulate the growth of this potential by listening to music, as well as by playing an instrument. The earlier a child begins to relate to music, and perhaps learns to play an instrument, the easier and more playful the learning process will become, and the musical talent developed all the more.

Going hand in hand with musicality is the ability to learn and memorize music, a sense of rhythm, sound, and harmonic understanding, and an appreciation of style. A musically talented person finds it inspiring to work with the nuances of sound and with rhythmic textures and shapes. He feels that the creative process challenges him to express the intentions that a composer may have put into his work. He takes joy in forming a phrase so as to make it expressive and vibrant, and part of an overall tensional span. A musical phrase that communicates feelings and expression simply and directly, often moves a listener more profoundly and precisely than many words.

Artistic Talent

Artistic creativity is just as important a part of a singer's talent as the natural voice. But what does "artistic" mean? What are the characteristics of an artistic and creative personality?

The artistic expressive urge communicates, first and foremost, an inner wealth of imaginative impulses. This talent, too, is natural – and environmental conditions in childhood can then either stimulate or inhibit it. The artistic personality's meeting with lyrics and music is the "focal point," and this focal point must generate sufficient energy to reach out to an audience. It is at this very moment, when the artist conveys his personality through the creative process and projects his emotional ideas and imagination, that we in the audience are touched. Bypassing our voluntary control and reservations, the singer may bring us to experience emotions that make our hair stand on end, our hearts pound, and tears run down our cheeks without any prior thought. This rapture, this feeling of being swept along, this intoxication through the influence of the human voice, are all generated from the artistic talent.

Administering a Talent

One of the singer's most needful competences is to have a talent for having a talent. Qualities such as application, concentration and perseverance are essential to training the adult voice. A good instructor is not enough; equally important is the manner in which the student receives the instruction. The vocal student's psyche has to muster a high degree of concentration, apart from being receptive and flexible.

The English language has an appropriate term of this educational responsiveness in the term "trainability" – that is, the ability to open oneself to guidance and formative influence. The term also implies the gifts of a vivid imagination, adaptability, and most importantly, a memory function by which an exercise may be repeated in the same way many times and a sense of placement may be recalled. This ability should, moreover, be somewhat critical – meaning that that best conditions for a course of development are established if trainability is combined with a flair for quality and an intuitive sense of what is right and what is wrong. Some singers have a strong sense of what has to be learned, as well as of finding the persons who can instruct them. It is often these singers who achieve the best results in their professional lives.

Very few are born with such talent that they find expression through classical singing natural and playful rather than complicated. The differences in innate talent cause the profession to be full of injustices. Some just "do" what others spend years developing through concentration and hard work.

For most singers, the road to a professional career is difficult. However, their driving force will most often be both a confidence in and respect for their natural talent, and the joy of devoting themselves and their voice to the interpretation of lyrics and beautiful music. The opportunity to express the essence of one's being through a wonderfully psychological and physical medium brings immense satisfaction, and the joy of giving others a rich experience makes up for the necessary sacrifices involved. Singing becomes a way of life so gratifying that the singer gladly invest his precious youth in education and training. Few select a singing career for materialist reasons, and no instructor can guarantee in advance that a talent may be sufficiently developed and sustained so as to ensure a lucrative professional career. Singing talent is far too dependent on uncertain and unpredictable factors, human as well as instrumental, to allow such a guarantee.

ENVIRONMENT - EARLY CONDITIONING OF VOICE AND BODY

Even the greatest natural talent – even the most wonderful voice – is determined by influences in the early childhood environment. A musical and artistic environment may stimulate and develop the innate talent; likewise, environmental circumstances in early childhood may destroy the innate potential. Even the greatest talent can be so damaged by the past that it cannot be brought to flourish. Over the years, I have worked with talented students who had to give up otherwise promising singing careers because of serious childhood traumas; however, I have also been fortunate to meet students who have succeeded in overcoming them.

Voice and Language

The voice is inseparably tied up with our emotional life and our contact with the world around us. Starting at birth, the voice is conditioned by our circumstances as human beings. Through his voice, the small child may express sorrow and joy, anger and fear. His needs may be met through the use of his voice. Later on, the child learns to communicate by way of speech, as he learns to combine sounds into the language code of the surrounding world. The child also learns that using language he may give something to others, even he may be rejected by them. Thus a child's linguistic learning process already begins in the tender years, and the linguistic code is broken – that is, the child speaks the environment's language – at about the age of three. This early learning process belongs to the unconscious part of a human being. None of us has any memory of how we learned our native language.

The voice accompanies our growth and development, and becomes a parameter for our circumstances and constitution as human beings. The voice continues to carry the imprint of the singer's early childhood environment and position within the family pattern. The child who is brought up with numerous proscriptions such as "Don't do that" or "Don't yell so loud" often develops speech patterns adjusted to these demands, that is to say, the voice muscles are affected, making the voice weak, insecure and hesitant.

Such early conditioning is powerful, and often unconsciously follows the child's development into adulthood. Not only is vocal strength determined by the time the child reaches adolescence, but other linguistic components such as syntax, linguistic and expressive confidence, even articulation of the language itself, are equally affected.

This process of development usually takes its natural course. Fortunately, for most adults, the voice functions normally and without problems, and thereby serves its purpose, which is to communicate by means of words. It is when we want to explore, improve or adjust this communication – for example, by wanting to use the voice professionally as singers or actors – that we find ourselves in trouble. If we want to develop the voice so that it works better and more suitably for the task at hand than it does of its own accord, we have to enter into a training process that we may call voice development (or better perhaps, voice-consciousness-development), whether this pertains to speaking or singing.

Thus, as a voice teacher I never worked with a new and unused instrument. The training of a singer always begins within an existing context – as if starting on a fat novel from page 200, to use an analogy. The action of the first 200 pages is unknown – especially for the teacher, but also partly for the student. The cooperation between teacher and pupil – the actual and conscious voice training itself – is therefore not dependent only upon the pupil's innate talent, but also upon what "action" has taken place in the first 200 pages of the novel; or, in other words, upon whatever unconscious luggage the student carries with him in the form of mental and muscular habits of body as well as voice.

The speaking voice in spontaneous use is the most revealing avenue to detecting subconscious aspects of a human being. It has been used since childhood, and its subconscious habits may persist in the adult and come into conflict with the singing voice once training begins. Therefore one finds students who have one identity when they speak and another when they sing.

In order to prevent the speech habits from blocking the development of the singing voice, one has to find the cause of this change in identity.

I may exemplify my point by a case study, that of the student Anna, who was in her mid-twenties when I began to teach her.

Anna was a big and sturdy girl with a large and fine dark mezzosoprano voice – a rare instrument that was well-suited for professional training. Unfortunately, the voice had a persistent break in the middle range, corresponding to the tones in the speech register. The speaking voice was remarkably light and "little-girlish" and did not in any way correspond to of physical projection of her personality. Anna's ability to connect body and breathing was poor and extremely difficult to work with. It was clear that she disliked her own body. During the work process, it repeatedly came out that she lived in conflict with her home environment, which clearly thought she ought to choose an academic education instead of an artistic one, and that, because of her size and temperament, she failed to conform to the family's norms and expectations. She ought to have been – according to herself – petite, lovely and intelligent. This entire discovery was triggered by very simple vocal exercises by which we found a way to establish a direct connection between body and sound. In other words, when the genuine and personal voice quality came through in her natural speech, she discovered her voice's true identity. It was not the light voice of a little girl, but a strong, warm, sonorous voice. This experience cast Anna into a mourning process, where for long periods she cried for hours a day, but as an adult, she was able to handle this new identity: knowing that it was genuine, she gave herself permission to be herself. Anna's story has a happy ending. She is now a professional singer working in her true element at a theater.

The voice teacher, therefore, cannot settle for being just a singing teacher and making decisions concerning the singing voice. She also has to make decisions with respect to the speaking voice and its habits.

Aggression and Frustration

Even as the voice receives its characteristics, so the body will be marked – in posture, movement and body language – by childhood conditions. The child's psychological development influences the body's development and formation.

To understand this we need to go back to early childhood developments. One of the first and most fundamental human needs is the need for recognition, and one of the first acts of a the child's life is to "reach out". "Reaching out" invests energy and action in expressing a need that the child would like to have fulfilled. The need can be quite concrete, such as hunger or a desire for a certain object, but it can also have an emotional content. Thus, the need manifests itself naturally in a physical act that psychologists characterize as "aggression". Here the psychologist uses the word according to its original Latin meaning of "reaching out", and not in the sense of current modern usage that will usually carry negative associations to, for instance, "anger" or "attack."

If the child's attempt to have its needs met, its "aggression", is rejected, the child becomes "frustrated." This frustration can be conquered by repressing the aggression and halting the act, but such repression may initiate physical blocks. A physical block is an impulse transmitted from the brain – in our instance, an impulse to reach out for an object – which is halted within the musculature carrying out the movement. The brain sends a message to the muscle, but the muscle fails to carry out the movement and becomes tense instead. It blocks the movement because the child's experience has taught it not to react.

Aggression and frustration are two fundamental circumstances of life in all people. None of us has had a childhood free of frustration. Nor would that be desirable. From the beginning of our lives, we establish natural defense mechanisms that will protect ourselves either against emotions that are too strong, or against threats from the outside world that are too great. The body reacts to frustration by the reflex of physical blocking – a response sometimes referred to as armoring.

We may distinguish between two kinds of armoring: the first, the temporary armoring, is instantaneous and occurs within every human as a reflex to fear or threat. It is relinquished the moment the threat no longer exists. This reflex is simple and primitive and is observed within every species of animal. The second kind of armoring persists into permanent armoring. It arises in the same way, initially as a protective reflex. However, through repetition it becomes ingrained in the musculature until it finally becomes a chronic tension. This tension may remain in the musculature, and, unconsciously, in the body's muscular movement patterns, even if the psychological cause of the tension has been eliminated.

The inevitable consequence of psychologically conditioned armoring is that breathing becomes inhibited. Superficial breathing, just like constrictions in other physical areas, is evidence that emotions such as intense passion or anxiety are being repressed from one's consciousness. A decrease in breathing affects the entire body's level of energy and reduces feeling, especially if the feeling involved takes the shape of strong or frightening emotions. Thus the feeling becomes more easily endured. We describe this mechanism through expressions such as "holding one's breath out of fear" or "freezing." Such psychological conflict is extremely energy consuming. Powerful inner forces may oppose or inhibit each other and thereby engage - and drain - a great deal of the body's energy.

Since inhibited breathing is fundamentally a psychological mechanism that enables repression of emotions and inhibits exertion of energy, it becomes doubly problematical for the person who wants to express himself through his voice. First, the physical energy required for vocal expression is lacking, and second, the connection to the emotions expressed in music and text is weakened. Consequently, the teacher must take this problem in hand and understand that proper use of the voice and genuine and natural expressiveness are both dependent upon the free flow of physical and psychological energy.

However, working towards deep and unrestricted breathing will not easily provide the solution to every problem. Nor are emotions hidden and compartmentalized within definite areas of the body. But if one assumes that stifled emotions lie within permanent physical constraints and suppressed breathing, then the opposite is just as true: for working with uninhibited breathing brings easier access to emotions and repressed feelings. I often experience this during singing lessons, where time after time I encounter reactions such as tears, laughter, aggression and anxiety.

In virtue of the connection between the psyche and the voice, the voice teacher, whether she likes it or not, is saddled with a task that demands psychological knowledge and insight. We must seek assistance from the field of psychology if we are to understand this aspect of vocal education. Nevertheless, we should remember also that the process of voice teaching differs significantly from psychological diagnosis and treatment. As voice teachers, we have to consider the instrument, the text and the music as the "the common ground" between teacher and student, not the traumas of the early childhood environment. The objective of the pedagogical relationship between teacher and student is a professional vocal, artistic and musical development; this necessarily entails a personal development, but it does not have that as its sole purpose.

Let me illustrate the student-teacher relationship by means of an example.

Ben is a young man who aspires to become an actor. In his last year of study, he is considered very talented and in possession of great physical expressiveness, but his voice is very feeble, and his greatest problem is to make himself heard in a major auditorium. All phoniatrical (medical) examinations of Ben's vocal apparatus show a normal, healthy voice. Consequently, there are no innate reasons for its weakness.

Since the voice shows little improvement during Ben's more than three years of speech training prior to my meeting with him, and since it fails to make significant progress during the first two weeks of my normal training procedures, I decide to examine whether the functional weakness may be psychosomatic. It is therefore natural to begin to examine the circumstances of his childhood such as his position within the family pattern as well as his home and school environment.

When I question Ben about problems in connection with starting school and school attendance as a whole, he happens to reveal an essential reason for his weak voice.

He was the principal's son. He was expected to behave himself and was not allowed to be conspicuous. He must not yell, say impolite words or attract unfavorable attention. He became a quiet boy. In compensation, his body language became overdeveloped, whereas the voice became underdeveloped and blocked.

With acknowledgement of this recollection, the speech training began all over again, "from scratch" as it were, and the response was clear. Simple breathing exercises while lying on the floor suddenly caused anxiety. This condition was further reinforced through exercises that did not allow compensations in the form of bodily movement or gesture. During very simple vocal exercises, where Ben had to stand completely still, sweat began to pour down his face, but nevertheless, there was, for the first time, a harmony between body and sound. Certainly the sound was untrained, but it was not weak or blocked, and through steady training it became better and better, indeed, after some time strong enough to fill an auditorium.

This example demonstrates the difference, but also the connection, between the voice teacher's field of operation and psychological treatment. As a voice teacher, I do not delve into the traumas of childhood or attempt to analyze or treat them. I use the information available to understand the vocal manifestations of the traumas. I am able to work on these problems professionally and, through uncovering the root of the problem, I obtain a basis for a work process that is necessarily connected with the student's identity.

SINGING AS A PROFESSION

The innate talent and the character-building influences of childhood, of course, may in many ways influence the individual human being's wish to become a singer. It may at times be difficult to understand how young people get the urge, as well as the courage, to try to make a living within a profession where one is dependent upon innate talent, childhood circumstances, and a highly complicated muscular interaction between certain tiny muscles

centrally located in the throat, which are even vulnerable to commonplace illnesses such as the common cold or sore throat. The innate talent is the sum of the childhood environment's positive or negative influences, and these influences create different "types" of singer. Therefore, I find it relevant to describe three fundamentally different approaches to choosing singing as a career that as an educator I have met and had to relate to. Of course, the description of these three singer types is not inclusive of all singers, but it does account for some fundamental features that characterize the vast majority of singers.

Singing as Natural Extension of the Personality – Natural Self-Confidence

To stand up and sing in front of other people is to "mark off one's territory." Artistic expression always needs space, and can, at times, involve pushing others away. If we accept the above psychological definition of aggression, we could say that singing is an act of aggression.

When you sing, you reach out. You give or share yourself, preferably without letting go of yourself. The singer who possesses a natural degree of selfconfidence dares to lay him or herself open to others' judgment and criticism, as the personality itself is not fundamentally disturbed by such criticism. If a student possesses sufficient self-confidence, it is possible to receive and accept judgment without losing the self. The singer achieves inner peace if he is able to say: "I'm doing it as well as I can."

Self-confidence is a product of the balance between the aggression and frustration mentioned above. A child's successful aggression – that is, reaching out – gives the child the confidence that desires may be satisfied and that actions lead to consequences. Inversely, blocked aggression – frustration – may reduce self-confidence.

The above is not, of course, a exhaustive definition and explanation of the concept of self-confidence, but it is my experience that the child who has been given "space" to be himself has considerable self-confidence. Singers who have had harmonious childhood conditions, whose self-confidence is well-functioning, and who do not have permanent physical or vocal blocks, have great natural preconditions for handling the mental stress always inherent in artistic performance and in a demanding singing career. These singers may, as a natural aspect of their personality, express emotions in a dimension beyond that of everyday life. For them, it is natural – almost a native language – to imagine themselves as "expressive artists", and they are often the ones who best utilize their talent and achieve the finest careers.

In my many years as a voice teacher, I have taught several of these natural singers, and as an example I shall mention Carl, whom I met some years ago.

Carl grew up in a non-musical home, one without instruments or musical interests. One day at the age of five, he heard by chance an opera aria on the radio, and he says that from that day on, he knew he wanted to be an opera singer.

Carl grew up. He was fortunate in possessing a large and rich baritone, and a body that was stocky, solid and robust with a broad, handsome face and large resonance chambers. In other words, an ideal build for a singer. As a young man he drifted about, occupying himself with many things that had nothing at all to do with music. But the old urge to become a singer was still there, and every other natural requirement for pursuing a singing career turned out to be present, even if these were not stimulated until late in his life. He was encouraged and guided towards a singing career, and his development was meteoric. Today Carl has a major international career as an opera singer.

This success story is, of course, unusual, but the combination of a deep unconscious urge or longing and a healthy and normal upbringing has provided a durable result. Naturally, many other components had to fall into place, too: good educators, inspiring role models and a large portion of that conceptually elusive "luck."

The Artistically Gifted Person – the Nervous Disposition

In another category, we find people for whom being a singer is not necessarily founded in natural self-confidence, but for whom the need to express themselves is so great that it may at times be perceived as "cry for help", a prerequisite for survival, and the only way in which they can "have a voice". A dimension beyond that of everyday life gives them access to a space they have been unable to find in their regular lives. The voice and the music provide these people with the opportunity to release feelings and thoughts, which are otherwise suppressed. Their singing serves as a vent for emotional pressure, as a natural outlet for a vivid imagination and strong feelings. Singing here becomes almost a "healing" process or "self-therapy" leading to a better and richer life.

Such singers often come from an oppressive or tense family background and frequently lack the fundamental self-confidence that should emerge with the formation of their personality during early childhood. To regain or reconstruct the missing or shattered self-confidence at a later point is a difficult and demanding process and often necessitates therapy sessions alongside the vocal training.

The above description of the "survival singer" lists characteristics that a psychologist would perhaps call neurotic or nervous. There are many psychological definitions of "neurosis," and what it is or is not, and experts are far from agreement on this point. In the present context, I choose to adhere to the view that a nervous disposition is not an illness, but an expression of the way in which a human being as a whole reacts to a particular life situation. Certain people are born with a highly-strung sensibility that makes them particularly susceptible to the various influences of life. Fortunately, this sensitivity also endows them with particular potential for increased artistic experience and expressiveness.

Such sensitivity should neither be labeled as pathological nor condescendingly belittled; however, it seems reasonable to state that many singers are psychologically delicate artists for whom singing becomes a necessary counterweight to their sensitive disposition. They are severely inhibited by their need for self-expression even while that need is so urgent, and they must be taken seriously because they invest themselves and their lives in meeting every artistic, musical and instrumental demand upon a singer. To sing becomes a way of life requiring much concentration and asceticism. Vocal expression imposes serious constraints upon their existence.

This group of singers is by far the largest, and it contains many individual variations at all professional levels, but common to them all is that the conflict – the battle between the delicate personality and the vocal material – is continuous. The voice teacher must be aware that the development of a voice, which involves letting go of tensions and muscular compensations, may easily disturb the personality's defense mechanisms, resulting in anxiety within the delicate and vulnerable student.

Anxiety

Anxiety has many aspects, and we have probably all experienced some of these. Anxiety may be felt both physically and mentally. Anxious singers who suppress their emotions present a special problem because repression of fear implicates those muscles that contract the throat and control the inhalation and exhalation of natural respiration. Since the voice teacher's confrontation with the singer's anxiety reflexes is a daily phenomenon, I find it relevant to analyze the most frequent causes and effects through examples. (Many more anxiety-related problems exist than those I can mention here, and a thorough analysis of the many causes of fear falls outside the subject of this book.)

The act of singing – whether in the study or the concert venue – demands a presence within the moment and a state of physical and psychological openness free from corrective control by a governing super-ego. The singer therefore often feels exposed and vulnerable, without direction, and

experiences a conflict where the need to manage and control intertwines with the desire and need for free self-expression. This anxiety-provoking condition can arise from every aspect of voice training, from the simple exercise, which requires that the mouth be open, to the complex communication of a complex emotion through voice, text and music. The physical reactions can be dizziness, hot flashes, nausea and shaky knees. The psychological conditions may bring about weeping, nervous collapse and the reliving of repressed childhood traumas.

The work of removing the need to control the immediate performance, and build up instead a confidence in freedom and openness as unthreatening conditions, is often a prolonged pedagogical task. How to achieve a state of confidence and calmness must be trained at every level, all the way down to the simplest attack of a vowel.

I have deliberately chosen the following two clear examples of the nervous and anxious singer, one a student and one already engaged upon a professional career.

> Dora was in the midst of her music semester, and her musical and vocal talents were considerable. The voice was beautiful and sonorous, and all the learning skills were present. But a certain "something" was missing. It was difficult to find out what it was, since there were always so many disturbances during the lessons. She could never stand still. It was impossible for her to do a single exercise without moving, she lacked concentration, and she had excuses for and comments upon everything. Dora was very diligent, and had high aspirations for herself, but every time she was confronted with a "simple" or "spontaneous" expression, either in vocal exercises or in a simple phrase or song, she mobilized evasive mechanisms to hide her deep anxiety. Every time she had to let go of her super-ego and just sing, she panicked. This panic expressed itself in exaggerated laughter or crying fits, and at intervals there were phases where she "hibernated." In other words, she stayed at home in bed and called in sick without an actual physical reason.

> Dora's panic attacks became more and more violent as her education proceeded. She was constantly making new demands on herself. In the end, this brought about a "collapse". That is, it became clear to her that a change in her study method was needed, and she decided to take a leave of absence, which was to be used to achieve clarity for a mental "realization process". The control of the super-ego was replaced by a focus upon finding inner peace, allowing the self to be at rest and gradually accept being "imperfect".

When her vocal training was resumed after a year's break, Dora's procedure during lessons had undergone a fundamental change. Now, it was Dora herself who would pause during a lesson in order to regain peace and concentration. The frequent crying fits disappeared, and even the actual daily standard of achievement was markedly better. Dora concluded her education successfully, and is now well under way in her professional singing career.

This anxiety-ridden battle between the personality and the voice does not necessarily end with the years of formal training. The adult professional singer, too, may have significant problems that often embody the opposite fear – namely, the fear of being successful, even though that is what he really would prefer to be, deep down. A singer can become frightened by joy and happiness, frightened by the strong emotion raised in response to the free and spontaneous physical function by which voice and music, when unobstructed, may convey thoughts and emotion. And perhaps last, but not least – the singer may fear success itself as a mark of an excellence that will force him to freely display his personality, and thereby reveal who he really is.

Eva has been singing for many years. She comes from a small country village and has strong religious feelings and firm and serious moral principles. Eva is a little on the "wild" side – she has an incredible amount of vitality and reserves of energy which fortunately also give rise to great diligence and versatility as a singer. At times, there have been vocal problems in connection with over-singing, but she has learned to discipline herself and has entered a very positive developmental phase. Gradually, she is assigned more and more significant parts – and in the end, a very important role for which she is perfectly suited. In other words, things are going very well for Eva.

Suddenly she herself begins to create problems where there are none, and rehearsal periods degenerate into a true nightmare. Eva becomes worse and worse off psychologically – still for no apparent reason.

The opening night was a success. But after it came a prolonged course of illness and therapy. During this time, Eva was forced to face the conflict between becoming so good that more and more demands were made on her and her fundamental feeling that she had no right to succeed as she did. After a two-year break, Eva returned to the stage and is now doing well as a singer. But the "jack-in-the-box" pops up every time she is successful. It still causes her enormous anxiety to have made a name for herself. But now she is so aware of the problem that her fear can be sufficiently contained to enable her to perform satisfactorily and to live a rewarding personal life. The voice teacher can treat the symptoms of these conditions both physically (through vocal exercises) and psychologically (through empathy and insight), but the actual problem-solving must be approached in the context of the entire personality. The control of anxiety and the rebuilding of self-confidence is slow work that involves making up one's mind about one's life as a whole – and not just about vocal development.

General and Specific Self-Confidence

The sports psychologist and mental coach treat similar problems by recognizing that lack of self-confidence can ruin an otherwise well-prepared athletic performance. Some sports psychologists working in the field distinguish between general and specific self-confidence.

The general self-confidence is determined from early childhood and can therefore be influenced only through a lengthy and substantial effort on the part of the student, while the specific self-confidence is vocational (i.e. appropriated within the parameters of the specific discipline itself), and is therefore to a much greater degree susceptible to influence from preparation and mental training. I think this definition also works in the context of vocal pedagogy, since it is, and should be, possible to build specific self-confidence in a singer by means of teaching and psychological understanding. In developing technical control of the voice, and self-knowledge relative to the potential of one's talent, the teacher can provide the student with an honest and realistic self-awareness that strengthens and confirms them in what they are good at, and in which they therefore should feel confident (Railo 1996).

The voice teacher, then, is capable of approaching symptoms both technically and psychologically. During the process it is important that the educator build up a thorough understanding of the instrument within the student. The student should get to know his own voice, its distinctiveness, its strengths and weaknesses. First of all, an understanding of one's instrument provides a feeling for what the voice can tolerate and of its "bottom limit" – that is, the quality of singing on an "off" day. Second, it provides a healthy detachment. By relating "instrumentally" to one's voice (based, of course, on knowledge of how it should be treated), a singer learns to avoid emotional traps in which nervousness or crying can ruin the day's work and achievement. Such selfawareness builds the specific self-confidence and thus eliminates some of the effects of mental anxiety.

Singing as Fulfillment of Others' Expectations

Finally, a minor group of singers are those who sing in order to fulfill other people's expectations, especially those of ambitious parents or role models.

Fulfilling these expectations marks the entire development of their personality, and the child is only "satisfied" with himself if he succeeds.

Children who are brought up by strict parents often develop an unrealistic perception of themselves. They feel that they are only valuable if they are clever, and they get angry with themselves if they cannot fulfill their parents' ambitions. Since these students often have blocks within the body precisely because of these ambitious expectations, their system, both physically and mentally, easily risks overload and collapse. The collapse – or crisis – becomes twice as difficult to handle for both the teacher and the student. Since the cause has really nothing to do with a lack of talent, but with the towering expectations that it entails. The child who has learned to perceive himself through the reactions and judgments of adults loses his "innocence" and his carefree attitude, and consequently loses spontaneity and an authentic relationship to himself. The critical super-ego – "I wonder what other people think?" or "Am I good enough?" - becomes the all-important criterion of success and thus the greatest enemy of a harmonious and natural development. The fear of rejection and refusal take control over the muscles of the body and throat. The personal self-image becomes completely distorted since "I'm only something if I'm brilliant - not if I am just myself."

> Frederick was gifted and supremely skilled. He was in every way a model student, who during the entire course of his general education had always gotten top grades, as his family expected. If he got a B, he was always asked why he did not get an A, and an irreparable catastrophe occurred the day he came home with a C. His vocal and musical development progressed swiftly – he was diligent and with a level of ambition far beyond that of his fellow students. Many were a little afraid of him because he made inhuman demands upon himself, and so indirectly upon others. His development advanced by leaps and bounds until the day his girlfriend left him. That he was rejected and "found wanting" had a domino-effect: his entire life collapsed and, although the crisis had nothing to do with his voice, it triggered tremendous vocal problems. His voice disappeared, it became hoarse and broken, and his meticulously developed technique collapsed. For a long period of time he had to cancel all arrangements and start over physically and psychologically, and went through a painful process in order to recover his mental health and vocal technique.

A feeling for, and knowledge of, the connection between the voice and the personality, and of the basic principles within the delicate disposition or temperament, enable the voice teacher to sharpen his ability to interpret a situation or a symptom, and put these situations into their proper voice pedagogical context. If the reason for a person's desire to sing is understood, a teacher has a better foundation for guiding him. A waste of precious time due

to misperceptions – the underestimation of physical and mental symptoms – is a frequent casualty of singing lessons. Encountering a student with fine music talent and very good vocal material, but with severely inhibited muscular functions, a teacher needs to know in advance that the project of developing such a talent to a capable level will be demanding both for the teacher and the student. Many crises will have to be averted, and many phases of fruitless labor and frustration to be suffered. Students are simply incapable of receiving otherwise reasonable and competent direction if their overall physical and psychological condition is rigidly determined by compensatory mechanisms.

The voice teacher should never be vague in diagnosing and evaluating a student's potential to his face. It is so easy to sweep problems under the carpet and explain negative experiences away as "having a bad day." The teacher must be competent in helping the student to be honest with himself and learn to know his own personality.

SOCIAL CONDITIONING

Beyond the innate and early childhood-influences upon identity formation, the external societal framework, too, has a part to play in a human being's development. An understanding of contemporary society is therefore necessary for the teacher in approaching the experiences and responses of young people.

As mentioned in the introduction, young people of today make different demands on a teacher than in earlier days. A reason for this could be the major change that has taken place within societal norms just since the 1960s, and the educational system feels the impact of that change. The youth of today are the children of the 60s' generation and are often brought up in a very anti-authoritarian manner. But the more relaxed their external behavior becomes – the more informal they are – the greater becomes their need to develop their own "center of gravity". Where society used to prescribe firm limits for social, religious and moral behavior, the present generation proscribes most of such rigid requirements, thus leaving it to the individual to find the limits within him self. The radical development within methods of psychotherapeutic treatment seen in recent decades speaks eloquently of the difficulty young people have in finding out who they are. An increasing number of them need help and treatment for their daily journey through life, and increasing numbers among them both demand and expect this assistance.

The artistic world has always been a sensitive barometer of society, and so the said development has clear reverberations within artistic forms of expression. In non-interpretive arts such as poetry and painting, we see rapidly changing

styles and "-isms" as reflections of divided, turbulent and often disillusioned artistic temperaments.

Within the interpretive branches of art such as theatre and music, these disintegrative tendencies put a severe strain upon young people that seek to enter this world, for these professions require them to work out a balance among an often strict tradition of form and aesthetics, the informality of modern times, and their own confused and tentative egos. The young singer has to find within himself the proficiency, self-confidence, and belief in his own potential and abilities to produce the art of times past with the voice of the present. At the same time, the competition and the ideals of the media industry are tremendous – almost everything is achievable – and media communication makes universal comparisons on an international scale an everyday challenge.

The students of the present generation therefore approach the teacher with massive expectations about how to solve this basically irresolvable conflict. The young demand – often perhaps in resistance to society's complexity – clear and direct information, and purposeful and realistic (though not necessarily authoritarian) pedagogical guidance. They are aware of the competition and are often ambitious. On the other hand, they meet the teacher with openness about themselves and their inner workings.

Today, the student clientele one encounters at the Academy of Music is large end extremely heterogeneous, and the changes in social norms place new demands upon the pedagogue. The increasing acceptance of individual personalities and focus upon individual development demand that attention will no longer self-evidently focus upon the striking natural talent, the beautiful voice or richly expressive artistic potential. Qualities such as diligence and openness to pedagogical guidance may be valuable pedagogical tools. The influences of a student's upbringing may hamper, but also strengthen, a talented singer, and the pedagogue's task is to assess the exact distribution and balance of the various elements within the individual talent; only then may she establish the best possible circumstances for guiding individual students in developing their natural and socially determined potential.

2. FUNCTION

As elaborated in Chapter 1, a voice is the product of the life we have lived. The voice cannot be dissociated from our personality, but we may use it in various ways, and through a proper assessment of talent potential, a voice teacher may advise and guide the person who wishes to sing.

A singer may specialize in whatever genre he prefers – but he cannot choose what is a healthy and expedient use of the voice. Every individual is subject to certain basic physiological laws, which must be respected. Even as you cannot be a ballet dancer and a marathon runner at the same time, even so you cannot sing Heavy Rock one evening and Mozart the next. The muscles simply cannot manage the required accommodation. If one chooses to express oneself within a "modern" idiom, for instance in rhythmic music, certain specific musical and functional demands are made upon the voice. The choice to express oneself by means of classical music places other demands upon the voice.

This means that, although a voice teacher needs to respect a singer's generic preferences, and while she needs to gain insight into the influences of inheritance and environment and a student's motivation for wishing to sing, a knowledge of the structure and function of the voice combined with an assessment of the developmental potential of the individual voice is possibly the most crucial of all her tasks.

In the following chapter I shall offer a brief description of the voice as an instrument, taking my point of departure in the culturally conditioned demands made upon a voice within classical music. The fundamental build of the voice determines absolutely what a voice may offer and sustain, and an appreciation of this fact much underpin what I call the wholesome and expedient use of the voice. Familiarity with the demands of a cultural tradition and insight into the vocal instrument are therefore both prerequisites for an analysis of the basic functions in classical singing, always respecting the imperative that these be healthy and expedient. After the initial description, I shall present a method for analysis and diagnosis of the individual instrument – which I define in terms of body as well as voice. This methodology forms the foundation for the training of the young singer as well as the rehabilitation of the singer experiencing vocal problems, and I shall therefore towards the end of my chapter review a typical case of rehabilitation.

CLASSICAL SINGING – A CULTURAL PRODUCT

Classical voice training is premised upon a culturally determined aesthetic. According to the canons of the Western cultural tradition, classical singing has a specific sound ideal, and we train the voice to meet its aesthetic demands. The perception of timbre and sound in the East is entirely different, and so a trained Chinese singer will sound quite different even if the anatomical build of the voice as well as the resonance cavities are the same, so that a Chinese trained in our culture will develop a voice suited to our aesthetic.

Western classical music places certain demands upon the instrument under development, which the individual instrument as well as the personality must have natural qualities for meeting. Similarly, a ballet dancer needs, in physical build as well as temperamentally, to be predisposed towards channeling artistic expression through the rigorous stylistic demands that underpin classical ballet.

The stylistic demands that our culture places upon a voice have been cultivated and developed over the last three to four hundred years. The foundations of today's vocal technique were laid in the Baroque era of the 17th century, when castrato singers developed an ornamental coloratura technique which modern singers spend much time and effort emulating. The castrato has certain advantages in virtue of a small, and pre-pubertal voice box combined with the size, strength and resonating cavities of an adult male physique. The early singers' training was a slow process. The selected talents spent years in "functional base camp," as it were, perfecting themselves in a rich repertoire of vocal techniques and musical improvisation. Only when the voice could freely range over two to three octaves, once the skills of coloratura, drills, ornamental grace notes and cadence elaboration had been appropriated, was a singer released upon the world to take part in the musical environment proper.

The vocal and stylistic requirements as we know and dictate them today were formulated in that distant past. We do, for instance, insist that the voice display a functional homogeneity and imperceptible register change, although neither is natural for the voice as such. An untrained voice will normally have changes of register and a marked glottis effect between registers. The overcoming and artistic manipulation of register changes is the very distinguishing mark of classical music, and the student requires long and persistent practice to master the art. Apart from smoothness and deftness of register changes, the distinctive treatment of a musical phrase in classical singing requires also the so-called legato function – in other words, the ability to connect a series of notes so smoothly that transitions are imperceptible, whether the singing is slow or fast. The tradition also requires the singer to master the staccato – that is, short, distinct, and clearly differentiated serial notes, and that the voice be able to expand into a forte or withdraw into a piano.

A singer may come to meet these stylistic requirements if, in the course of his training, he develops a specific set of muscular-physiological functions.

The muscles of the vocal chords and breathing apparatus may be trained and developed like any other muscles – and professional vocal training may in many ways be compared with that of the sports elite. Excessive training exhausts and strains the system. But if the training programme is ably put together, and followed in practice, this will build, strengthen and the muscles, and gradually the voice builds the strength necessary for singing many hours a day. In other words, you influence, strengthen and increase the sustaining power of these two tiny vocal chords – no more than 1 cm in length – by having them give out sounds, singing vowel and consonant scales, and you develop the breathing apparatus and physical self-awareness to develop the "support" of the voice.

However, the development of a voice is time-consuming. Muscle functions do not grow over night no more than plants do: nature sets its own pace. The voice teacher may be compared with the care of a gardener, who manures and waters, but the gardener, too, is unable to bring the rose to grow and bloom through forcible means.

THE VOICE AS INSTRUMENT: MENTAL FOCUS - BODY - SOUND

To train a voice in a way that develops its functional capacity to the full, you must keep in mind three basic qualities of the voice.

All musical instruments operate on the basis of three features: energy, which may activate the sound waves; a source of vibration, which initiates the sound production, and a vibrating component, that is the resonator, which transmits the sound. The voice, too, works according to this triple principle. The body's muscles mediate the energy needed to activate the vibrations. In the larynx, the vocal chords are the vibrating entity, and the cavities of the throat and mouth are the resonators.

In our daily lives we all use our voices with no thought upon breath, voice function, or resonance. Spontaneous speech is unconsciously melded with the desire to communicate, and spontaneous breathing and spontaneous speech both function so smoothly, that very little energy is needed to make it all function and ring out.

Professional training adds a dimension to the tripartite instrumental function, and the instrument may show varying degrees of constructive response to this. The voice teacher's task is to assess the basic material and then develop a balanced vocal function in such a way as to remedy any defects. He needs to build weak secondary functions in such a way that a new or second nature emerges by which the basic potential is optimally exploited. To this process I apply the term "instrument building.

Mental Focus - The Onset of sound

The development of a voice will always depend upon the body's energy flow. Energy and its transformation into action are mental as well as physical concepts that are hard to define, especially with respect to the mental aspect. In the body, a mental impulse may be transformed into physical energy. We all know states of physical well-being that translate into fast, sprightly movement, joy and smiles, and we know the reverse: that sadness may result in physical lethargy, slow movements and weariness.

The vocal student needs, like his or her teacher, to be able to summon committed professional energy. One has to teach a student that vitality and mental focus are the prerequisite of vocal communication, and that professionalism at every level demands an ability to summon energy at will. In other words, on the assumption that mental energy may translate itself into physical impetus – we inculcate in the instrument a precise muscular coordination. The ideal aim is for the energy to flow with least possible resistance from mind to body and on to a focused sound. This transition from body to mind requires an extraordinary awareness of the coordination of the muscles of the body as well as of physical stance or carriage, and the development of physical flexibility must be targeted towards achieving this free and economical expenditure of power. Even the simplest functions must be trained long and persistently, for it is very tempting to waste excessive energy and bodily exertion than to economize with lightness and precision. This is a basic principle shared among singers and instrumentalists alike. Only, for the violinist and pianist, it is the weight and strength of the arm that much translate into stroke and touch. The sublime achievement of mental concentration converted into precise physical movement is beautiful conveyed by the metaphorics of the zen buddhist book, Zen and the Art of Archery (Herrigel 1971)

Body – Posture

The sound is initiated by mental and physical energy, and is therefore influenced by the breathing function and a proper posture. A proper posture frames and is the prerequisite of free bodily movement. The body is constituted by muscles paired off in their attachment to the skeletal frame with the result that each movement will provoke a corresponding movement in other muscle groups. By means of this muscular interdependence, the body's muscles are coordinated in functions that may be more or less successful, balanced, free and harmonious – or, inversely, more or less strained, blocked, and awkward. The ideal bodily stance in practical use should, then, transmit muscular energies uninhibitedly and fast, or, in other words, without blocks. This is an ideal demand that will rarely be the point of departure in teaching, since we are all – as described in Chapter 1 – predetermined by childhood conditions. However, everyday posture may be gradually influenced and improved, for instance, through the techniques of the Alexander Method.

The Singer's Posture

A smoothly functioning balanced body, and a proper overall posture are prerequisites for the development of the posture required during speaking and singing. To achieve an optimal deployment of the vocal instrument, we influence the basic overall posture in such a way as to facilitate breathing and a fine-tuned control of exhalation. In other words, an enhanced and more forceful use of the voice requires that the body develop an operational mode. This professional body posture places certain demands upon the primary physical balance and, therefore, upon the muscles engaged in the upright position. He body must be aligned with a central plumb-line going from crown to heel. A stable grounding of the feet is the enabling basis for a proper balance upwards through the legs and into the body. The base of the pelvis should be lightly tightened, the back lengthened and expanded to stretch out the lumbar sway, and the lower circumference of the chest cavity expanded. This expansion indirectly causes and expansion of the lung space, and offers the least possible resistance to the downward pull of the diaphragm. The neck should be relaxed, and the head be carried high with natural flexibility. The muscle activity for this "working posture" should be dynamic and flexible never static, tense, and fixated. Overly tense muscle functions must always be loosened for the optimal energy to be achieved – and, on the other hand, areas lacking in tension may need to experience an exaggerated tension before a properly balanced activity may be reached. Training this active posture may therefore alternate between exercises in relaxation and activation.

It may take years to correct problems of bodily stance. Proper muscular interactions are achieved only by constantly challenging and adjusting innate or culturally determined blocks, and this ongoing adjustment and correction must take place alongside a healthy development of the voice.

Breathing and Support during Singing

Breathing happens as a reflex-determined response to the body's demand for oxygen. The brain issues an impulse to the diaphragm, which contracts, causing the surface of the diaphragm to diminish. The short muscles connecting the ribs (the rib muscles) are equally activated. The ribs lift up slightly (as bit like the handle on a bucket), and the chest cavity expands. The result is a wider lung capacity. The expansion causes the atmospheric pressure in the lung to fall. As the pressure becomes lower than that outside of the cavity, the air is sucked into the lungs to even the pressure. The above describes a *normal inhalation*. The expansion of the lung space is rendered possible by the elasticity of the pulmonary tissue. During inhalation the tissue is inflated much like a balloon, even as a balloon has an elastic contractory pull in its sides, even so the lung tissue has the capacity for contraction. Note, then, that exhalation of breath from the inflated lung cavity is a passive effect of the very elasticity of the lung tissue. This function, combined with the relaxation of the diaphragm, amounts to *normal exhalation*.

Breathing During Rest as against Breathing During Sound Production

We have two breathing rhythms: one for rest and one for the production of sound. As mentioned, in a state of rest, exhalation is passive. The body continually seeks the equilibrium of balanced energy. The inhalation phase is short, whereas exhalation is longer. The moment we speak or sing, we require an intensified and a more subtle coordination of both bodily and breathing muscles. The entire vocal mechanism is subjected to demands determined by the dynamics, the melody, tempo, and timbre of a phrase as well as its extension, by which singing makes demands far beyond those of spontaneous speaking. The breathing rhythm changes – the inhalation phase is shortened while the exhalation phase is extended to meet the demands of phraseology.

Forceful speech and singing requires considerably more air than spontaneous speech, and the muscles involved in breathing – in as well as out – are engaged to a correspondingly higher degree; furthermore, the equilibrium between these two opposite functions need to reach the ideal adjustment in the production of a musical phrase, i.e. line, timbre, dynamic, and articulation.

The exhalation phase may be extended by keeping the muscles engaged in the inhalation phase active, even during exhalation. This activation delays the elastic withdrawal that is natural to the lungs, and at the same time, one may strengthen the exhalatory flow by building up and activating the muscles of abdomen and flanks. This muscular coordination is what we call "support."

Building the breathing and support function is, naturally, one of the pillars of voice teaching, and the relevant literature has multiple descriptions of the support function during singing. I wish at this point, however, to call attention to the quandary faced by all voice pedagogues: the interdependence of the physical and the psychological. First, muscles can do only what they have been taught to do. If they are out of order, i.e. if they have not been deployed in everyday life, voice pedagogy may not expect them to be strong, lithe, well coordinated and in good condition. This takes a certain period of rehabilitation. Secondly, all this work intervenes directly into the defense mechanisms of the body. One may therefore expect to encounter reactions not necessary rooted in the training of the support function. Every kind of work

involving the student's muscular coordination may easily disturb the student's mental equilibrium, and he or she may experience periods of mental instability such as aggression towards social others, insecurity and anxiety. The student needs to be prepared for these reactions, and the work will succeed only of the student is truly motivated.

The old Italian singing schools lacked today's extensive knowledge of anatomy and physiology, but for all that they coined numerous images for the antagonistic cooperation between the muscles of inhalation and exhalation. From the literature going back as far as the seventeenth century we find excellent advice such as "begin the phrase with a feeling of inhalation." Knowing what we know today we may benefit greatly from reading the prescriptions of these old singing schools. Their appreciation of musical requirements and care needed in training a natural talent may be a source of inspiration in today's training of a professional voice.

Pressure – Flow – Glottis Resistance

The breathing muscles control the flow of air from the lungs upwards towards the vocal chords. The process consists of an inter-play between the energy of the breath pressing and flowing upwards (pressure and flow), and the resistance by which the vocal chords (or glottis) impede the exhaled air. The healthy and economical control of this interplay is of fundamental importance for the development of the instrument. The majority of functions and the most frequent cause of vocal strain may be traced to an imbalance among these three energies. I therefore consider it necessary to define them more precisely.

Pressure

The term "the pressure below the vocal chords", subglottal pressure, refers to the air that normally remains in the lungs after inhalation. The lung pressure is determined, first, by the passive elasticity of the lungs, and, secondly, by the muscular activity in the diaphragm and muscles of the abdomen and flank. The subglottal pressure changes along with various stages in the process of exhalation. If the lungs are fully inflated, the pressure is high, if they are half empty – which is to say that the elastic energy of the lungs is expended – then the pressure is lower, but the exhalation muscles may stabilize as well as increase the pressure by intensifying the pressure.

Two factors may impede the subglottal pressure: first, an ill-functioning and ill-coordinated breath control, and secondly, inadequate compression of the vocal chords. Many singers go for loudness and forcefulness – i.e. for a large voice – and by increasing the pressure they overexert their voices to levels beyond the natural potential of their instrument. Since sound quality and a

healthy function are dependent upon the coordinated use of exhaled pressure and flow, this "high pressure function" will often entail a considerable strain and damage of the voice.

Flow

Flow refers to the amount of air escaping the vocal chords per second. In sound production at low frequency (deep notes) the open phase of the vocal chords is large, thus allowing a relatively large amount of air to escape per second. During the higher frequencies of high notes the open phase is shorter, allowing correspondingly less air to escape per, whereas the number of per second will be increased. This means that the complete amount of air expended may be the same at deep as at high notes, and the outgoing flow should be felt and intended as a constant flow. This is the reason why the comparison between a singer's sound production and a violinist's bow comes so naturally. The perfect resistance between bow and string achieves the best quality of sound.

Glottis Resistance

Glottis resistance refers the resistance of the vocal chords to the exhalation. This may vary in strength according to the degree of efficiency in the closing muscles of the vocal chords. If the voice is over-compressed, we speak of increased glottis resistance, and the voice becomes tense and hard – if the voice is under-compressed, the voice offers insufficient resistance and the sound becomes breathy and poor in resonance.

The knowledge of posture and breathing, of pressure, flow, and glottis resistance, must be translated into practical exercises and prescriptions. The pedagogue with intimate knowledge of optimal fundamental functions will find it easy to analyze and diagnose inadequate and functions, and, in consequence, prescribe exercises adapted to the needs of the individual student and the immediate situation.

Sound – The Larynx and its Function

Imagining sound, i.e. in even thinking about a note, causes a constriction of the opening; to out it in more detail, the vocal chords move into position for phonation, and the rhythm of breathing adjusts itself as a matter of reflex, resulting in a fast inhalation phase, while exhalation becomes subordinated to the needs of the phrase. The exhalation, which escaped freely in a state of rest is resisted, and thus lengthened. This resistance, and the gradual relaxation of the inhalatory muscles and the body's urge to return to a muscular equilibrium cause the air pressure beneath the vocal chords to rise, resulting in the production of sound as the vocal chords vibrate. The closing, opening, and adjustment functions of the larynx are the result of a subtle muscular interplay, which I shall pass over in the present context, but I wish to call attention to the miracle that by even thinking about – for instance in response to hearing, say, the chamber note of A – one is able to imitate its wave frequency and activate one's vocal chords at 440 vibrations per second. The muscular activity of a voice is always founded in this physical mechanism, and the motor function needs to be extremely refined for changes in frequency to happen with speed and precision.

Resonance

The vibrations of the vocal chords cause the air adjacent to the chords to move, and the cavities, especially those above the vocal chords, determined the resonance of the voice – what listeners experience as sound quality and personal timbre. The sound produced by the vocal chords is basically stronger than that which is experienced by listeners. The resonance cavities muffle, select, enrich, and beautify the primary function by means of their shape and size. The most important resonatory spaces are thus immediately beneath and above the vocal chords. These are the laryngeal and oral cavities. To put it differently, we have a mostly stable main branch and a very changeable side branch, as the oral cavity is in constant movement and thus change during articulation.

Sound Production – Subjective Experience and Objective Resonance.

Present-day knowledge of physiology tells us that there is a major difference between the subjective experience and the concrete objective formation of sound. The sound may be felt in many places in the head and chest, i.e. places that are not in fact capable of resonation. Such subjective sensation is transmitted through vibrations in the skull and skeletal structure, and this phenomenon is not in itself a form of resonance.

The technicalities of resonance and sound quality are one of the most hotly debated issues within singing pedagogy. The richness of a voice is indelibly connected with the quality of the natural voice as well as with the artistic and musical personality of the individual person. Some singers possess a 'passion for sound' – others do not. Old singing schools privileged timbre and placement, but modern schools know that it is the very voice in its natural potential that fundamentally determines the resonance that is possible for any voice – and so the pedagogue's task is to liberate, build upon, and expand the possibilities of a natural and personal timbre of an instrument.

BASIC FUNCTIONS IN CLASSICAL SINGING

The Singer: Instrument and Instrumentalist

As discussed above, a singer unfolds his potential, physical as well as mental, in a dimension beyond that of everyday normal use. Singing is an activity that needs to be developed in close affinity with the individual person's personality, and my goal in voice teaching is a voice that operated healthily, freely, and dynamically through the least possible expenditure of effort. Every function should – however challenging and expansive – require the least possible exertion. This makes me, as it were, a functional 'minimalist'; I use exercises that are few and simple, but which require an ever increasing degree of concentration and degree of perfection, as defined in relation to the voice material's basic quality and the stage in the singer's development. I employ the same simple fifth and octave excises for the beginner and the experienced professional singer. This point of departure in an ideal of least-possible-effort and simplicity of exercises relate to certain clear and fundamental axioms that must determine how to plan any student's individual course of study. I shall, in the following, describe some of the functions that are the pivotal point in the day-to-day work of the voice pedagogue, and about which every voice teacher must make some crucial and self-conscious choices during her work within classical voice training, where functional and aesthetic ideals need to be harmoniously integrated within the individual talent.

Vocal Register and Natural Compression

The most striking feature of the voice as employed in classical music is its even quality and dynamics as well as the smooth transitions between notes – what we call the 'legato' function, and its clear and focused sound. In technical terms this presupposes that the natural transitional areas of the natural voice be evened out, and that the primary closing function of a voice be trained to function precisely at every level of the vocal range. By means of exercises the voice acquires a new second nature, which equalize the breaks in the natural voice.

I define the registration of the voice as the precisely balanced mixture of vocal chord elongation, thickness, tension, and compression in the production of any pitch or sound quality.

In playing a string instrument, the same note may be produced from more than one string; even so the voice may sing the same note in various ways. We have multiple possible ways of mixing elongation, thickness, and tension, particularly in the speaking range and the middle range of the singing voice. The imaginative picturing forth of the desired sound may conjure widely different qualities in the tone formation, all of which may be healthy and expedient in production – although they may also, unfortunately, be quite the opposite, and thus overly strain the muscles.

The Speaking Voice

With most people, the speaking voice will be lower than the singing voice. It will normally operate in the pitch range corresponding to the 'loose string' of the voice, or, in other word, the length, thickness and compression that is natural to the laryngeal muscles during rest. The loose string is dependent upon the size of the throat and the natural innate length and thickness. A relatively long string has a deeper frequency, and so some voices are naturally deeper than others. Small larynxes with short vocal chords will of course have a higher frequency, and so a more high-pitched speaking voice. The singing voice, too, is determined by the size of the larynx. Singers in the higher range will, as a rule, have a smaller larynx than others.

The Basic Voice-Function – Heavy and Light Voices

The basic function in a voice consists of two opposed muscular drives: one is the closing function – the adduction or compression of the vocal cords – the other the elongation of the vocal chords, known as the lengthening tension or stretch. Developing an even register requires this lengthening tension, but the tension differs from one type of muscle structure to another. If the adduction of the vocal cords is spontaneously the stronger in a voice, the result will be what I call a 'heavy' voice, one which tends towards over-compression, one which is stiff and locked in the higher range. If the basic structure of a voice by nature is 'light', the lengthening tension is more easily activated than the compression. The voice is likely to command a wide range, but the middle register will often be insufficiently compressed and breathy (Forchhammer 1974).

The technical work to achieve an expediently balanced overall function of the respectively 'heavy' and "light" functions requires extremely different strategies. They have in common the need to develop a firm and reliable 'back closure' function; this means that the closing function of the back muscles, fastened on to the arythenoids, must cooperate with the diaphragm so as to provide the antagonists needed between the compression and lengthening tension.

A wide range of exercises are developed to enhance back closure, length tension, elasticity, and upper range of the 'heavy' voice type which ever its range or pitch – and yet other, but corresponding problems – with balanced compression, crescendo function, stability, and focus – present themselves with respect to the light and elastic voice.

The muscular development in the balance between back closure, length tension and the precisely focused onset of sound in the entire vocal range is the core of all technical training. A precisely focused attack is built by establishing a precise balance between the closing muscles at the back of the larynx and the diaphragm. If the larynx and onset-closure are sealed by a downward pull through the lungs to the lowered diaphragm, this makes for a stability and counterweight to the stretch of the vocal cords, which, incidentally, is controlled by muscles on the outside of the larynx. A precise muscular balance is in my opinion one of the very most important points of attention in developing a voice suited for classical singing.

The back closure is most easily detected in the speaking range. It sounds like a slightly crackling noise. One may also find the point of closure by also soundlessly to allow the vocal chords to 'kiss' in an A-sound. If back closure is inadequate, and insufficiently grounded in the inhalation position of the diaphragm, the voice easily collapses, resulting in a extreme compression in middle of the vocal chords. This inexpedient over-compression is the spontaneous response everyone will know in connection with the effort of lifting something heavy.

The exercises for the "voix mixe" – the well-balanced compression and register equalization, depending on the innate voice's qualities, have my highest priority in developing a young singer's voice. The aim of "least possible effort" increases the concentration and control of muscular balance and coordination of voice and body. When the muscle coordination is well balanced the voice "grows" by itself, and the technique becomes a new nature. This healthy growth is never ending even for singers as late as in their sixties.

Exercises for the "voix mixe" may be compared with the basic exercises of every other instrument. The more meticulously and precisely they are appropriated, the greater the singer's freedom in shaping a phrase in a desired manner – and the singer's confidence will grow, since his singing in of new repertoire is self-conscious and consistent. I compare a singer's registration with the finger work of other instrumentalists. An expedient finger work achieves the easiest way of playing, which in the long run will settle into a determined reflex. This achieved, one will find more energy released for forming the phrase and artistic expression.

The mixing of register needs to be worked into the voice at every range, and it is this trimming of natural functions that separates the classical tradition from other musical genres that do not have the same ideal of egality. Unfortunately one may easily overdo the compression and register-equalization and result, in the long run, with a deteriorating function. By reinforcing the exhalation pressure, one may 'lift' the heavy part of the voice towards the upper range (cf. the 'lifting function' mentioned above). This may sound quite plausible and produce an enriched and heavier sound, but at the same time it creates some new and ever greater transitional problems, especially concerning vocal stamina. The high pressure and the very firm adduction of the vocal cords easily ruin the intrinsic muscles of the voice. The voice "burns out", and unfortunately many singers only make a short career if their vocal technique is based in "high pressure" singing as described below in the Ida-example.

The optimal balance between compression, lengthening tension and precise attack in the entire range of the voice is the same for both male and female voices. Is a voice not developed in its entire range for classical singing or for some reason out of balance, it is possible to restore it through precise exercises.

The development of inadequate functions is possible. The system is simple – and it doesn't even require many and variegated exercises – but it takes time and functional consistency.

Let me offer an example:

I met Gerda when she was 19 and had come directly from an upper secondary musical college. She had a very dark and heavy voice with an unusually rich and personal timbre, but with a minimal range. Acceptable notes beyond d2 were unavailable. She wished to sing oratorio and lieder, and this repertoire got her admitted to the Academy of Music. I closely monitored her progress and felt how she experienced an increasing frustration since – even with her naturally beautiful voice - she might only command and interpret a very small repertoire, while opera was totally beyond her. She realized with increasing clarity that that if she wished to make a living as a singer, she would have to make up for the 'lack' in her natural voice, and so she began the slow and focused work of building into her voice a useable upper voice. Time, patience, and consistency were key concepts in her daily work, and after five years [!] she succeeded. The voice continues to command the positive gualities of her timbre, but her range has increased by a sixth, and her potential repertoire been expanded so as to accommodate the entire operatic mezzo range.

Classical music offers each type of voice a reasonably well-defined repertoire, which, often of a high musical, and sometimes also textual, quality, is composed for the well-functioning voice. If a singer is to cope within the professional world, he is expected to master the repertoire suited to his voice type. The student needs, with the assistance of the pedagogue, to become familiar with the demands of this repertoire tradition.

Active - Relaxed- The Open Throat

As mentioned above, the voice is best prepared for responding to the call for the production of sound, quality, and phrase if the contact to the body is available, and if the control of the flow and pressure of the exhalation exist in a balanced resistance of the vocal chords to the exhalatory air, and if the throat is "open" and the muscles around the larynx relaxed.

One of the major paradoxes surrounding the development of a voice for use in classical singing is that the throat is built for constriction. Its basic function serves the swallowing process and protection of the breathing tube. This primary function must always be kept in mind in classical singing's ideal demand for an open throat and throat position. An open throat presupposes an absence of activity in the throat muscles – not an activity. One need in this connection to remember a basic physiological rule: a muscle is capable of one function only: the muscle may be either shortened or, if its end points are attached – they may be tensed. If the muscle is to be lengthened, this requires a passive function generated through the activation of another muscle or muscle group.

This means that there are no muscles capable of opening the throat itself. The open condition is achieved by having the larynx unfolded – as close to the relaxed exhalation position as possible. In this state the larynx is in a low position, which facilitates the production of an even sound. It is, first and foremost, achieved by means of relaxing the neck muscles, i.e. the muscles on the outside of the throat and the muscles above the larynx (which is otherwise able to lift the larynx), and by maintaining an ideal balance with the diaphragm. The larynx is stabilized via the lungs by the downward movement of the diaphragm, and the openness is maintained above it by the proper positioning and relaxation of tongue and jaw. The tongue should be relaxed and not interfere during the voice onset, and the jaw opening should be that of biting into an apple. If this preparation for a phrase is supplemented with a "friendly mien" – an "inner smile", a desire to communicate, then the facial muscles will be activated into a natural and very individual coordination slightly lifted open condition, which I call "the alert" or "listening face." Physiognomies are of all kinds – some are lifted so as to show their complete set of teeth, others have a long upper lip rendering the teeth covered even in this smilingly open position. Preparing the attack of sound by this "friendly mien" creates the widest possible space in the throat, and the longitudinal tension and the primary voice closure may be activated without interference from the larvngeal constrictors. The result is a stable larvnx and thus stable resonating cavities, which together are the enabling conditions for building a precise voice onset, good back closure, and an even sound quality. If the throat muscles are overly active in a vertical direction, precise register and evenness of sound are obstructed.

The most serious difficulty with this open throat position is that it requires little but precise physical energy coupled with an intense mental energy and focus, which often provoke insecurity and anxiety. Old singing schools had poetic terms for this minimal function such as "inhale as in smelling a flower" or "smile inwardly." The attack should be developed as precisely as possible on the basis of this relaxed physical, but mentally sufficiently tense, energy. The inner muscles of the larynx – the valve itself – should be trained towards extreme litheness and elasticity towards a firm and precise compression over the entire voice range and in every kind of registration. This precedes the next stage during which the voice is trained to sustain the muscles to enable the professional artist to sing for many hours a day without getting tired.

The Focus of the Voice

The singing voice is unique in that it may be heard over a large orchestra. This is possible because certain of the voice's overtone clusters are strong in frequency areas where those of the orchestra are weak. In developing a voice, it is important to build a strong, subjective sense of this sustaining or carrying power – often conveyed by characterizing the voice as "ringing" or "focused". To achieve this effect old singing schools thought out complete systems for the way a note should be felt in the face or head (Lehmann 1909). I prefer, rather than the term "placement" to concentrate upon the "focus" of the voice. I define focus on the basis of a precisely functioning primary attack, and the clear and even carrying power of all vowels. Functionally healthy closure is thus also a prerequisite of clear articulation of vowels and consonants.

It is necessary, in trying to effect this focus, to avoid descriptions of place or position especially in the early phases of teaching. When a sound is produced in a healthy way within the scope of the individual voice, I ask the student where he or she experiences the sound. This means that the student describes his own experience instead of taking over mine, which may not chime in with his personal feeling. If one attempts to position a voice hampered by problems, proper positioning will only be achieved through muscular compensations that may, in the long run, prove counterproductive in the voice's development. I have, for instance, rehabilitated many students who had inculcated a technique requiring a "mask placement". Concentration upon the mask placement obstructed the training of the basic vocal technique and often caused a lift in the entire cluster of facial muscles. This led to massive tension in the back tongue, since the lift activated the root of the tongue, producing a tension that closed the throat and obstructed the development of the upper vocal range.

A precise focus is, as mentioned, dependent upon the firm compression and lithe registration of the vocal chords, and it is only achieved after years of training. As a rule, young voices have weak closure especially in the mixed register areas of the middle range. This is one of the reasons why young voices are rarely clear and focused, and a reason why they may only imitate the musical and dynamic phrases of a mature voice by unnecessary expenditure of energy, i.e. compensations that tire and obstruct the healthy development of the voice. Training a voice may not be forced, but a healthy and expedient use of the voice may lead to an ever greater "tonicity" of the vocal chord muscles – i.e. a natural strength and inherent tension – and the stronger the inherent tension of the vocal chords, the firmer and more precise the spontaneous closing mechanism and thus the compression of the vocal chords.

Time Horizon for Voice Development

I am often asked how long it takes to develop a voice for professional use. The answer, of course, is not simple, as it will always depend upon circumstances of prior to and beyond the education itself, such as innate talent and childhood background. However, developing the muscle functions – those of both body and voice – takes years. There is good reason for the three to five years of teaching that academies of music prescribe even to the student who brings talent and prior studies to his task. Unfortunately, professional development of the voice may not begin until the voice is fully developed at the end of puberty. Singers, therefore, begin schooling their instrument at a late stage, and even so the schooling will usually be complete only after the official end of the educational progress.

The Young Voice

As mentioned, it is natural for young voices to be diffuse and imbalanced with respect to muscular function. The register transitions are usually quite audible and the voice uneven. The vowel "I "(as in "meet") may be over-compressed, and the vowel "A"(Ah) breathy and unfocussed. The body contact is also more or less routinely underdeveloped. All these deficiencies are normal to a young talent. Therefore, the first couple of years must be spent working in basic functions securely and in consciously, of course based on voice and body type. Time, consistency and a systematic approach are key concepts of vocal exercises during a young singer's initial training.

The young student will often get into trouble over repertoire. The student who is enthusiastic and diligent will wish to sing a repertoire that is too taxing for the immature voice. An ear for musical may be developed long before the vocal material, and the student attempts to produce a phrase as it ought to be, but on the basis of an inadequate function. This may happen only through muscular compensation. It is important, therefore, in the early phase to motivate a student to sing what he can rather than what he wants. Rehearsing material too difficult for the voice may, in the long run, obstruct a proper development. The early stages of learning should involve consolidation of good habits and the development of a self-conscious feel for the instrument, and, to a large extent, to building the student's musical culture.

In rare cases, the innate instrument is so extraordinary that it is richer than its cultural conditioning. I have met cases of voices "born" to sing classically – that is, the spontaneous voice was rich in resonance and virtually without register transitions, the voice compression was firm and precise, and the vocal range sufficient large for a classical repertoire. Here one encountered the opposite problem: the musical development had to be stimulated through a progressively prepared repertoire, and the voice has to build stamina and endurance. Although everything worked ideally, the voice was not in the habit of hours of singing and so was often overworked.

There are, in other words, some muscular considerations that should preclude making too early demands on a voice. By training a repertoire at an age before the fully developed larynx, this will reverberate with the habits of an immature mode of production. The result may be lovely and seductive. But if the singer continues, after reaching full maturation, and with this the full size of the larynx, to sing in the manner that was previously natural and successful, then this happens by means of compensation, and the voice is strained.

I may offer an example:

Hanne came from a musical home, and she was herself very musically talented and learnt to play the piano at an early age. She also listened to a lot of music at home – especially opera – and she conceived a deep wish to become an opera singer. She started solo lessons at the age of 11, and she learnt to sing many operatic arias. The whole family thought it exciting with this talented girl, and she often performed for others.

Hanne grew into a tall and fine girl. Her body became very longlimbed and her muscles very lithe and hyper-mobile. Her neck was long and her throat large with long vocal chords. She wanted to train to become a professional singer, and since she was rich richly endowed both artistically and musically, this should, on the face of it, present no problems. Her voice had a span of three octaves – her long vocal chords made that possible. But her basic function was out of order. She could sing either with her "little girl's voice" – the voice she had used as a child. She could maintain this voice by compensations by constricting throat and pharynx . High coloraturas ran smoothly, but everything else was a problem. Some interpreted her voice as that of a mezzo, as she had such deep notes and was able to produce a dark timbre. However, the mixed register was marred by a large break over which she had no control, and so she was unable, despite all her potential, so sing even a simple song or hymn.

She labored with these problems for years, but had in the end to concede that the early strain upon her instrument, and the unconscious routines and habits this had ingrained into its function, had been so indelibly a part of her basic function that her voice was precluded from the normal development of an adult voice, and she had to give up professional ambitions with respect to her voice. The problem might have been less serious if her physique had developed into a little chunky body with short muscles with a short throat and small vocal chords, i.e. if puberty had not brought about so radical a change away from her child's voice.

ANALYSIS AND DIAGNOSIS OF VOICE AND BODY

Analytic Method

A pedagogue should have a fundamental understanding of the vocal instrument and its basic functions; over and beyond that, however, she must be self-consciously in command of a methodology for assessing the overall potential of a student. Naturally, this general assessment is directed towards both voice and body. The methodology must enable the teacher to as gather much information as is needed for the diagnosis that will, subsequently, result in a pedagogical programme.

Normality – Individuality

Our analysis of voice and body may take its starting point in a conception of normality – an awareness of qualities that are common to the majority, as against those that characterize an individual – features peculiar to a single person. Conducting such an inquiry requires one to clarify to oneself the precise meaning of "normality." Common usage usually equates the "normal" with the "average" - what is, in other words, shared among most people. However, it is possible to evoke a meaning beyond that of everyday parlance: "normality" may in certain contexts be defined as what is "optimal" or "ideal;" here, "normality" denotes the highest possible standard. This measure of comparison is not statistical, but normative. The normative conception of normality presupposes certain values, and an increasing approximation to these values amounts to an ever-increasing degree of "normality."

Applying standards of comparison to voices and voice quality possessed by musically and artistically gifted persons is a complicated procedure, since everything that is beyond the average – in the sense of what is shared among most people – cannot in this context be viewed as abnormal. Rather, in the course of constant day-to-day confrontation with the problematics of "talent" and "professionalism," one's conception of the normal shifts until the unusual becomes the "normal." Consequently, I consciously operate with both statistical and normative criteria of judgment when I correlate the basic quality of a voice, its potential range of operation and functional stability, on the one hand, with, on the other, innate talent and culturally determined aesthetic demands.

From this correlation emerges a continuum from the normal to the extraordinary.

Voice Analysis - The Normal Voice

These are voices that are used in everyday verbal communication and communal singing. They may be more or less functionally stable or carry more or less well, but they live up to every demand for comprehensibility and stamina. Such voices are unproblematic for speakers and listeners alike. By far the majority of human beings belong in this category.

The Normal Voice Trained for Professional Use

Certain voices need to be used for professional purposes, those, for instance, of a politician, a church minister, a teacher, or a lawyer. For these, the voice needs to carry a message beyond that of normal speech. Stamina, timbre, and intonation span become crucial for successfully conveying the intended meaning of a statement. Such voices may tire through continuous strain – be it in lectures or teaching – unless they are healthy and strong by nature as well as training. Normal voices may benefit from voice coaching, which may render them capable of sustained professional use.

The Normal Voice in the Context of Artistic Speech and Singing

The moment a voice is to be deployed in an artistic context, i.e. with an expressive range and expansion beyond its normal strength and intensity, the demands with respect to timbre, strength, flexibility and articulation suddenly become considerably greater than those normally made upon a voice. In such cases, natural artistic and musical talents play a considerable part in the development of the voice. The particularly imaginative and musically gifted human being has the best possible chances of developing a natural voice into a professional instrument or speaking voice.

The Exceptional Voice

Voices of this kind are possessed by a small minority of people, and they feature qualities such as carrying power, suppleness, and beauty of timbre, both in speaking and singing. In combination with a natural and healthy musical ability and expressive talent, these qualities constitute the basis for developing the voice for professional employment. In this category, too, there is considerable variation, from those, which are "good" to those born with exceptional gifts. This "top standard" category comprises the students admitted to academies of music and opera schools.

Naturally, the two last-mentioned groups are of particular interest for voice teachers, since those who possess natural talent offer greater potential for development than do the former groups. This is not to say that the former may not glean considerable benefit from voice training. I wish to make it clear that the methodology basic to both the understanding and training of professional voices is no less useful in training normal or functionally weak voices. I am personally convinced that voice teaching should seek to liberate the natural potential of any student. The goal of voice training is a healthy and effective use and further development of the innate potential.

Hypotension – Hypertension

Having performed the initial analysis of degree of normality and individuality – an analysis that assesses projected purpose and functional stability – we may proceed to a functional analysis of both voice and body which seeks to judge whatever is "too much," and what "too little." Any bodily exertion, for instance walking or standing, entails a certain neutral tension – some degree of muscle tone. This is normal and common to all. On either side of this neutral tension we find hypotension – deficient tension – and hypertension, or excessive tension.

The bodily muscles, and thus also our voices, are a product of these balanced tensions. From the circumstances of our upbringing and growth in early life, the body becomes habituated to excessive tension, natural exertion, or hypotension. The same applies to the voice. It may be too strained – i.e. overly compressed; its tension may be too weakly sustained; or its use may exist in balanced tension with the other muscles of the body. It is natural, therefore, to use the conceptual pair of "hypo" and "hyper" to analyze the basic quality and natural talents of a voice so as to assess the promise of its future development and range of possible use.

Diagnostic Method: Ask – Listen – Observe

The assessment of a voice takes its point of departure in certain important information that has to be gathered; in certain functions that have to be picked up through listening; and in the coordinated function between vocal and physical operations that have to be watched.

Questions – Subjective Symptoms

The first questions inquire into subjective symptoms and are needed equally for speech and singing analysis.

The unique qualities of a voice render vocal diagnosis a challenge. There are so many variables that it may be hard to find one's bearings. Individual differences may be physical as well as mental. Some speech voices are highly sensitive to lengthy or faulty use, whereas others are tireless speakers despite severe dysfunctionality with respect to pitch, glottis, or over-compression. Singing voices may follow the same pattern. Some are sensitive to strain others untiring even under severe strain.

It is, nonetheless, possible to pose a criterion of functional health: a demand that every muscular exertion be performed with a maximum of precision and a minimum of physical tension. This criterion of healthy functionality is particularly important in training the young singer, since the most crucial enabling factor in bodily over-exertion and faulty function is, in fact, youth itself.

Young singers may – in ideal circumstances – overexert themselves even while they manage to sound quite well, and may remain unaware of and untroubled by the dysfunction. He may have been talking or singing too much and have become slightly tired with added symptoms of hoarseness and diffuseness in the speaking voice, but in young people, the voice recovers quite fast and of its own accord, usually within a few hours, if allowed to rest. At the very least, the voice will be fully recovered by the day after. Unfortunately, this capacity for regeneration is severely reduced with age, and at the age of c. 35, even exceptional singers may find it hard to live up to ever-increasing professional demands. They need more time for singing in and studying new parts, they need more rest, and at times they may find themselves short of such time. And so, voice development comes to a standstill. Moreover, the voice begins to change. The upper register no longer feels natural and may function only in a mezzo or a forte; the attack function becomes imprecise and often delayed; the vibrato becomes either too fast or too loose and wide; the middle range becomes diffuse or uneven; and intonation may begin to faulter – especially in transitional areas – even for musically gifted and professionally stable singers.

It is therefore extremely important to note that the surplus energy of youth must not – especially in the case of the high-range talent – tempt the singer

into careless or slovenly training of vocal functions, and even in the very first diagnostic session, the pedagogue must be particularly attentive about healthy as well as unhealthy functions in the use of voice. The argument that "it sounds good anyway," or "it doesn't make him tired" are valid only if the case of very young singers, and on no account does it legitimize superficial technical supervision or allowing a student to study a repertoire too extensive or demanding his level.

Objective Symptoms

In a thorough voice diagnosis, the pedagogue needs to ask a long list of questions. First, she needs information about the speaking voice, which has, after all, been in daily use since birth. Symptoms acquired since birth or during growth may strongly determine linguistic habits and influences. Next in line comes the importance of knowing the annual frequency of a student's colds or lagyngial inflammation; does he suffer from allergies, or is he under regular medication? This information may point to the state of the mucus membranes of the throat. Tender mucus membranes are more readily vulnerable to overexertion – and inversely, overexertion is prone to leading to tender membranes, which, in turn, become susceptible to viral infection. In other words, it may be hard to determine which comes first and which last, but frequent colds or laryngeal inflammation – occasionally entailing a complete loss of voice – should always be subjected to rigorous medical examination.

Next, subjective and objective information must be correlated with the vocal habits of the student:

How, and how much, does the student work on a daily basis? What is his or her repertoire – and does he perhaps sing in a choir? Does the student use his speaking voice professionally – for instance – as a teacher?

The answers to these questions come together in a general idea of the relation between the subjective and objective symptoms.

Listening

During the voice interview the pedagogue needs to listen to the habits of the student's voice. This includes the quality of the spontaneous speech and laughter, and a more emphatic use of speech in connection with a text reading or an outcry and the monitor of the voice's range and mode of operation during a song as well as an aria or a lied.

One needs to compare the pitch, timbre, compression, strength and articulation of the normal speaking voice with its more specific function during formal speech, laughter, or shouting. Which is the higher, which is deepest? Laughter is rich in information about the spontaneous potential of a voice, and it is rarely as conditioned by the upbringing as is the speech function. A deep voice combined with a very high-pitched laughter often suggests that it is the speech function that is artificial. Laughter is often the "genuine article," and is therefore particularly eloquent about the potential of the singing voice. I have, for instance, met young baritones, who wished to sound as dark, grown-up, and masculine as possible, and who might even preferred to be categorized as bass-baritones. If the laughter function is highpitched and effortless, this is strong evidence that the darkened timbre is a mannerism, rooted, perhaps, in a desire or an ideal that departs from the natural quality of the voice.

On needs, furthermore, to listen to the speaking voice at its strongest. Some voices become deep during shouting, others become bright and high-pitched. This spontaneous reaction, too, has significant symptomatic value.

The Voice in Speaking as against Singing – The Speaking Voice

It is no less important to attend to the speaking function than to that of singing, since the speaking voice is normally used so very much more on a daily basis than the singing voice. The spoken pitch should not be too deep. Many assume, mistakenly, that a deep pitch relaxes upon the voice. However, the middle frequency of the spoken voice should be pitched at about a fifth above the lowest note in the professionally useful range. The middle frequency is the middle note in the intonation pattern of the speaking voice (prosody). In sopranos, the speaking voice is often pitched at between c1 and e1, whereas darker voices are placed a third below that. Conditioning inculcated during childhood and adolescence, and related to unconscious habits, may have a considerably different quality than the singing voice, as illustrated the case of "Anna." The voice teacher needs to even out any discrepancy between the functions of speech and singing: considerable energy may be withheld in an inhibited and repressed sound production, and these counterproductive tensions may, in turn, cause severe strain upon the primary function. The potential for development of a singing voice will always be limited by an inadequate speech function.

The Singing Voice

The final task is to analyze the range, timbre, compression, homogeneity, and technical as well as expressive capacities of the singing voice. It is crucially important to assess timbre and quality as evinced in an ordinary song as well as, subsequently, in a "classical" lied or aria. When testing the voice in range expanding exercises surprises may pop up too. Exercises in vocal range may reveal a wide natural span, but the vocal habits, or rather vicious habits,

render the voice strained and impeded – a problem possibly grounded in a mistaken conception of proper sound quality or faulty technical training.

Having analyzed the quality of a voice with respect to aesthetic richness, functionality, and deployment, I analyze the voice it its natural function, i.e. determine the voice category.

This functional analysis aims, first and foremost, at discovering if the voice is marked by some hyper-function or over-compression, or a hypo-function or under-compression. If the voice is naturally over-compressed with a small range, I characterize it by the term "heavy;" if it is light and under-compressed but with a wide range, I call it "light." And I never, in this first analysis, make any final decision as to whether I am dealing with a soprano or a mezzo, a baritone or a tenor.

Indeed, I find this principal division into heavy and light voices much more precise and useful for all types of voice – whether male or female. The difference between heavy and light voices within the same vocal category is much more important than is the difference between a light mezzo and a light soprano.

Observing

Beyond certain natural vocal qualities, we all have some individual bodily features that contribute to the development potential of a voice. No two people are alike with respect to physics or muscular constitution.

So, in examining and listening to a person, one needs in addition to attend to the whole person. One needs to look at the body, the face, the articulatory movements, and spontaneous breathing function, and to register the overall personal aura or charismatic presence.

Types of Body

We know the division into body types all the way back to the Classical world. Today as well, the body has been described and categorized by psychologists and therapists, and my analysis and assessment of a human body and its carriage leans upon their research, even as my use their terminology, although in a form simplified to suit my own purposes (Wrangsjo 1989).

Within voice training it makes sense, once again, to divide body types on the basis of "hyper" or "hypo" functions, in other words, to distinguish between the overly tense (or rigid) body type and the insufficiently toned (or collapsed) body type.

Naturally, one finds between these two extremes a host of mixed cases. We might conduct this analysis solely with reference to our observations, thus

bypassing the psychological factor, but we need to constantly keep in mind that blocks are rooted in a mental-physical complex, and that corrections in physical posture or pattern may trigger mental conflicts and resistance, breakdown, or evasion.

The Rigid Body

In the rigid body, the upper body is tense, the solar plexus area cramped and often aggressively protruding. The back is strained and the lumbar curvature exaggerated, the legs are often over-stretched and the neck tense and stretched.

The Collapsed Body

The collapsed body often features weak, sloping shoulders, a stoop – often especially the top of the back – a fallen-in chest, and a retracted solar plexus area. Moreover, as a rule one observes a lower body poorly coordinated with legs and chest. The legs are feeble, the thighs strained, and the head slightly protruding and drooping.

Types of Muscles

Both body types – those mentioned above are the extremes – come with corresponding states of muscle tone. With the rigid type, muscles are normally severely overstrained, hard to loosen and render elastic. This tendency repeats itself in the state of the voice. It may be tense, rigid, over-compressed and heavy.

The collapsed body type often features weak muscles, and there may be extreme mobility (even hypermobility) in many joints. The difficulty here is to achieve proper muscle tone, and it may take arduous and time-consuming work to build the muscular activity demanded to establish the ideal posture for the vocal function. Along with the collapsed body type one usually encounters an inadequate vocal compression by which an excess of air is allowed to escape, but it may be elastic and fast and possess a wide range.

Typical Areas of Bodily Blocking

Having at this point surveyed the body as a whole, I proceed to a more detailed analysis of the blocked areas of a body. In this description, too, terminology from the body-oriented discipline of psychotherapy proves useful. Some parts of the body are more tension-prone than others, and I divide the body into five horizontal "rings of tension" – the so-called permanent defense blocks of block rings (Lowen 1988)

Tensions around the Mouth

The mouth is circled by one large ring muscle. This may be exceedingly susceptible to strain, and may be clearly seen from a person's articulatory pattern. Such tension impedes and strains articulation and similarly impedes the free movement of the jaw, and it has often been developed along with the personality formation at an early age.

The task, then, is to discover whether the articulation muscles are free or inhibited, and whether the textual enunciation is precise in speaking as well as singing. If it is diffuse, we have to trace the cause. Is the jaw locked and immobile because of a faulty bite function, or is it owing to tensions in the jaw muscles themselves? Singing requires a wide-open mouth, and it is therefore of crucial importance that the jaw muscles be free and natural. Often the opening function may be inhibited by asymmetrical facial build or faulty dental position or bite function.

Severe tensions in the mouth inhibits natural articulation, and as such may typically be observed among people who always, as it were, speak with a smile, or who wish to conceal their teeth, or among those who are too shy to open their mouths at all and speak up freely. Such tension has numerous audible manifestations. In the first place, they entail a generally slurred articulation owing to limited mobility in the organs of articulation. Secondly, they limit versatility in sound quality and melody of language, and thirdly, the limited opening at the front may lead, at the back, to a lowering of the root of the tongue, resulting in tensions of back tongue and tongue floor. These tensions are highly visible and they are easily picked up even by an untrained ear.

Tensions in Neck, Throat, Tongue and Jaw

These are probably the best-known kinds of tension, and it is at the same time the most difficult and time-consuming functions for the pedagogue to modify. The throat is, of course, adapted to the function of swallowing, and to protect and close off the air tube. This constricting and protective mechanism may be so insistently used that in the end it binds the muscles into a chronic horizontal ring of tension encompassing back of the head, larynx, throat, tongue and jaw.

Numerous physical grounds for tension in this particular area may be listed; nonetheless, these should be correlated with psychological mechanisms to explain why these tensions are so hard to modify, why it takes such a long time for them to let go, and why – even when the throat seems at last free and relaxed – they may pop back up like some jack-in-the-box in moments of stress such as recitals or rehearsals.

Mentally as well as physically, the throat marks the transition between the external and the internal spaces. Above the throat it is still possible to spit out

food, but once the swallowing process has been initiated, food is no longer subject to voluntary control. Children are often made to "swallow" something against their will. It may be something entirely concrete – such as food – but it may also be words – scorn or insult – or unreasonable demands or aggressive action. Our language is full of terms for such mental subjection: when speaking out of order, we are made to "eat our words" [i.e. take them back], one may choke on excessive emotions, and the throat may be constricted with weeping. The ring of tension develops in defense of this invasion from without – but also, at the same time, as a defense against letting out something, which should not come out. These may be deep emotion or fear and anger. The ring of tension in the larynx is often controlled – held in place – by a rigid tension in the jaw, which helps, in turn, to control material, whether in- or outgoing, of an either mental or physical kind.

Such constrictions may become permanent, and they are, of course, connected with a reduction in breathing, which may often lead to complete closure of the throat – which, in turn, entails enormous strain and deterioration of the voice muscles. The ring of tension in this area may in the end become a single functional unit, one more easily coped with by some than by others. Some may live quite happily with it – i.e. without subjective muscle symptoms – despite severe muscular constriction, others suffer massive symptoms such as pains in the neck or headache, sore throat and voice, and the voice tires easily and occasionally fails altogether.

The sound of the voice is always influenced in varying degrees by this tensional pattern, whether there are subjective symptoms or not. It is as if there is a constant obstacle to sound production, as if it has to overcome a barricade in order to escape. The voice becomes monotonous, poor in sound quality and feeble, and often even fuzzy or air-filled. The experience of inhibited vocal function may become so permanent that it becomes a feature of a personal comfort zone, or, inversely, the experience of a free, un-compressed sound is so threatening that compensatory mechanisms are preferred and deployed however wearisome and strenuous they may be.

Tensions around Diaphragm and Back

Diaphragm and back constitute an extremely sensitive zone of tension, and since it may inhibit or momentarily stop breathing, it is crucially important for the body's defensive mechanisms as well as the intake of oxygen needed to sustain the whole body.

The good and healthy voice function requires an open chest and a natural, deep and controlled breathing function. This requirement may clash with blocks generated by childhood circumstances. Most typically, a block in breathing function occurs after inhalation, i.e. one interrupts the natural breathing rhythm to hold back one's breath. If one has not expelled sufficient air from the lungs, the next breath will be shallow, since there is little space for intake for new air. This high-chested breath is often jerky, and exhalation is stopped by complete closure of the vocal cords. The consequences may be problems both with the oxygen intake needed by the body and with the voice function, which becomes strained to the point when the muscles are overexerted.

To release tensions in breathing and build breathing control is both delicate and time-consuming work. It involves the entire body from feet to head. A conscious and organic breathing function must be inculcated along with good posture and proper bodily balance. It will often be a work process entailing large swings. There will be periods of relaxing tensions during which a new sense of the body emerges – and there will be stressful periods of regression, as the newly appropriated progress cannot as yet sustain psychological pressures.

In my experience it is important to involve the student in the psychological problematic of the process – although one should not therefore take on the role of psychotherapeutic counsellor. By involving the student, one forestalls anxiety fits over reactions such as weeping, nervous laughter or aggression against an innocent bystander.

Tensions in the Pelvis

Locked muscles in the abdomen are a symptom of weak contact to the lower part of the body. This bodily zone is the centre of our physical and erotic energy. Repressed and weak feelings about sexuality often manifest themselves as a blocking off of, or a deficiency in, muscular contact with the floor of the pelvis. Every phrase and singing exercise requires a good support function, and this requirement demands of the student a sure contact with the pelvic floor, with the lowest part of the abdominal muscles and with the flank muscles of the body. The connection to the deep bodily functions needs to be re-established, and this, for some students, entails a lengthy process. Some students pick up the connection spontaneously, as the function is still available, as one may see it in all children. Others may need months of patience to pick up the very beginning of feeble muscular sensation. This mere germ of an impulse must then be meticulously nourished and trained.

Tensions in Legs and Feet

Tensions in thighs, knees and feet lead to poor physical balance and thus creates a basis for a host of other tensions in the body, in the loins and hips as well as the back of the neck. Legs and feet are our contact with the earth's surface. The more one rests upon one's feet, the better does one sense one's pull towards the ground, and the less energy one expends to maintain one's carriage or expend excessive energy.

Therefore one purpose of the basic body analysis must be to identify the heaviest point of pressure upon the feet. Some students rest upon the inner part of the sole, others on the outside part, whereas yet others lean back with their whole weight upon the heels. This basic balance is all-important for the muscular co-ordination of the whole body, and I have often, to the surprise of students, spent much time on foot exercises.

All the tensional functions of the body are mutually involved, and loosening of tensions in one area entails disturbance of others that consequently disrupts the overall balance of the body. A healthy and expedient use of the voice requires a connection to the support function, and ring tensions in, for instance, the areas of back and diaphragm have to be worked through and relaxed before they may then be coordinated with the voice function. It is not, in other words, possible to work upon relaxation without simultaneously working to build a healthy and expediently economical state.

From the very beginning of her vocational work a pedagogue should develop and perfect a sharp ear as well as a sharp eye. She should be able to listen in terms of function as well as on the basis of aesthetic and musical criteria. In addition, she must learn to assess the whole person and so be able to read bodily signs. The accommodating and somewhat diffuse concept of "charisma" spans a whole range of physical and psychological features that may, with the proper diagnostic methodology, be rendered concrete and subject to description, and which may therefore form the basis of a workable pedagogical strategy. The assessment of the voice and body as a whole will – however overwhelming this may appear to be – give a precise and differentiated picture of a student's potential. The result, then, is a realistic basis for future pedagogical work.

REHABILITATION OF THE VOICE

I define "rehabilitation" as the "re-establishment of the natural potential of a voice." Rehabilitation is necessary when the voice fails to work as it should or as normal. A voice, then, must be rehabilitated when its function is problematic and causes problems. Muscle strain and faulty vocal technique are the most common causes of rehabilitation. A young voice in professional development may have become "functionally sidetracked" by, for instance, faulty technique, or an older, somewhat "worn" singer may have performed for many years in a less than ideal manner or appeared in an unsuitably heavy repertoire.

Every case of strain must be understood in context of the quality and potential of the individual instrument held up against age, stage of educational process, and professional employment. As already mentioned, singers belong to the "top standard" category, and young singers may usually sustain a degree of stress beyond that of normal voices before the onset of symptoms; while singers of more advanced years (i.e. in their late thirties!) may suddenly develop strain symptoms without having changed their vocal habits at all, but simply because their basic technique has always been less than perfect.

A problem of overexertion should always the understood in terms of compensations. When a voice is put under pressure beyond its natural capacity, it summons "assistance" from outside. This may take the form of an activation of throat and neck muscles that supports the onset of vocalization and voice compression. If the primary closing function is inadequate, the muscles of neck and throat immediately compensate, either from the singer's fear of a fuzzy attack function, or from his wish to produce a more powerful sound than his voice is capable of producing on its own accord. It is therefore necessary to remove the compensatory tensions and then go on to rehabilitate the spontaneous and healthy function. A rehabilitation process can never proceed from hyper-function to optimal function. A phase of hypo-functional exercises is needed before genuine rehabilitation may take place.

An Illustrative Case of Rehabilitation

Ida was a child with rich musical talents, who started playing the violin when very young. At the age of 18 she began to sing, and she turned out to have an unusually beautiful voice, giving her the choice whether she to become a singer or a violinist. She chose singing, and took a "fast-lane" course of professional training. Why not? She brought so many competences to the task, had great musical talent and was far advanced in her musical development. Simultaneously, she was confident in performance and made a brilliant debut in a major theatre at the age of 25. She quickly became a popular opera singer and soloist in a classical as well as a modern repertoire, since she found it easy to learn new music. She had a versatile and exciting career.

I meet Ida when she is 38 years old. The voice is still richly beautiful with a very personal and extremely fascinating timbre, but problems have begun to pile up. The voice has lost its upper range, and the top notes of the soprano repertoire may be produced only by forcing the voice. The intonation is often low – especially in the upper middle range, although she has a perfect ear and so normally sings in tune – and the piano functions are unfocussed and breathy. Last, but not

least, since this is so easily heard: the vibrato has become much too large. The voice is often tired and strained, frequently it develops edemas that go away only through absolute rest. Ida has frequently been forced to cancel engagements, and her reputation, therefore, has begun to wilt, which only aggravates her vocal and mental problems. Since Ida's whole identity – her fundamental personality – is anchored in her profession as singer and musician, her selfconfidence is dependent upon professional success. The problems with singing have therefore led to a severe personal crisis, which manifests itself as deep anxiety and insecurity. This anxiety has, in the course of three to four years, developed into rigorous tensions in the most dangerous tension rings: the neck-throat area and the solar plexus area. Her anxiety has disrupted the overall natural energy balance between body and voice, and so breathing, support, and tone formation have all been disturbed. The simplest phrases are now a struggle, and songs and repertoire that were previously unproblematic are now entirely beyond singing.

The above rehabilitation case is "by the book" - i.e. it evinces all the problems that a pedagogue encounters in the course of a rehabilitation process. The reason why this case is as extreme as it is - and therefore also so sad - is that the basic talent and voice material have been so exceptional that all warning signals have been ignored. The voice, after all, continued to sound good, even if only at half its capacity, and the musical and artistic personality richly compensated for the vocal flaws.

It is possible to reconstruct the vocal habits that led to the problems, and to build new and lasting habits, but it takes time and demands thorough mental concentration and plenty of basic exercises. The strict professional needs must be put away for a period while the mental balance and self-confidence are rebuilt, even if the voice refuses to function as it used to do.

A meticulous course of rehabilitation may well take two to four years, and its foundation is similar to every other thorough training of a healthy voice material. The rehabilitation programme covers all the phases of the initiate's training of a healthy and normal voice; except that unlearning of counterproductive habits will require considerable attention in the opening phase. It is far easier for the muscles to learn something for the first time than it is to have to unlearn strenuous functions in preparation for re-learning new healthy functions.

In the following I shall review four central points in a rehabilitation programme, and one, which, after an initial period of dismantling tensions, also contains the phases that the typical beginner has to go through.

Relaxation of Unnecessary Compensatory Tensions

After a thorough analysis of voice and body, one may form a diagnosis and, in response to the individual voice's functional problems, build an individualized programme of daily exercises.

Hyper Function

During hyper function, the pressure beneath the voice is too powerful, the closing function of the vocal cords strained, and the handling of register too heavy. In consequence, the attack becomes overly hard, often sounding abrupt or explosive, and as a rule, consonants formation causes a lowering of the intended pitch. The speaking voice will be uneven and croaking and the singing voice lacking in lightness in the high notes. The timbre will be dry and the piano function compressed.

An over-compressed voice may develop vocal cord edemas, and unless the pressure is swiftly alleviated, this may end in a more serious pathology, the so-called vocal nodules, i.e. the formation of watery blisters that thicken the vocal cords, disturb or destroy the attack function especially in the upper middle range, the area known as the passagio. Through relaxation pedagogy edemas and voice may disappear within a couple of weeks, but subsequently, the voice needs to be handled with great care and caution so as to prevent a relapse into over-compression.

An over-compression may also develop into phonasthenia – chronic voice dysfunction. Phonasthenia has many symptoms in common with common cold and sore throat. It is therefore most important during the initial interview to inquire into the annual number of colds. Chronic over-compression causes the vocal cords to become inflamed (i.e. red), and there will often be soreness of larynx and neighbouring tissue. With singers, phonasthenia usually manifests itself as low intonation, unnatural vibrato, and failure of function in certain parts of the vocal range. With those who speak much, tiredness is accompanied by constant hoarseness and, in serious cases, voice failure (aphonia).

A person suffering from these functions should discontinue using his voice in the habitual manner. The voice needs to "be sent back to the workshop" — which is to say that one needs to train the inadequate functions so as to regenerate a properly balanced muscular coordination. The voice needs to be de-compressed, and healthy onset reflexes to be re-appropriated.

De-compression, however, is not sufficient therapy in itself. A de-compression often discloses yet another deficiency, since over-compression very often covers over under-compression. A hyper-function, in other words, may often be traced back to a hypo-function. An overly violent onset has been developed because of an insufficiently elastic muscle function and a fuzzy, air-filled primary voice closure, which is then compensated for – especially during the production of open vowels (Forchhammer 1964).

To relax the voice requires quite simple exercises in the low and middle ranges. One has to find those notes that work best for the voice. It is important to be particularly insistent about maintaining "flow," so that the sound is continuously sustained by the air released.

This work has to be integrated with other everyday habits: It is reasonably easy to alleviate the evil in itself. As mentioned, it may require no more than a couple of weeks to make an edema or voice nodule disappear. The difficulty lies in removing those general habits that have caused the voice failure. These must be the focus of concentration and motivation. During such a period one should be untiringly on the alert for the way the voice is used in every area of life – which includes spontaneous speech. It is necessary to exercise several times a day, often no more than five to ten minutes at a time, but with complete concentration.

One needs moreover, to be careful not to establish new bad habits during a rehabilitation period, for instance, by beginning to speak in a way that differs from the normal one because the voice sounds strange. One must summon one's knowledge of the proper voice function, and apply it with caution and care.

Hypo Function

If the problem is hypo function – a weak and diffuse voice – rehabilitation entails strengthening the inadequate closing function by means of staccato and sliding exercises combined with enhancing the singer's awareness of proper physical functions.

It is important to conduct a rehabilitation course in close cooperation with the throat doctor. The decisive and precise diagnosis of a voice before and during rehabilitation becomes possible only through consulting video recordings of the voice during phonation. If the physician recommends medical intervention or surgery in the treatment of, for instance, vocal nodules, the pedagogue should remember that a voice will not be fully healed through physical intervention only. The preparatory as well subsequent treatment is no less important, since the problem that caused the pathology needs to be remedied. Daily habits need changing. Otherwise, the edemas and nodules will soon return

Re-establishment of Spontaneous Reflexes and Primary Tone Formation

All sound production – whether in speech or singing – should retain elements of spontaneity, otherwise the sound becomes barren and artificial and, in turn, inadequate as a medium for conveying emotion. Singing is a "modified spontaneity," and the production of sound should be the result of a mental image that automatically – as by conditional reflex – triggers the muscles of the larynx in such a way as to achieve the desired pitch and sound quality.

It is this most important spontaneity that is often disturbed by faulty function or compensation. If pitch, sound quality, and disposition of a phrase have not been prepared through mental and physical concentration in balanced alignment with the intake of breath, the vocal onset will often be imprecise and unbalanced. An over-meticulous phraseology will compromise the spontaneous reflexes and thus their precision. There are singers who maintain a convincingly focused posture between vocal phrases, but whose appearance – and so identity – changes before the onset of every new phrase by positioning head and face muscles, jaw and mouth in the most extraordinary manner. Here, the focus is artificial. It is important instead to imagine a note and a phrase before producing either. In this way the vocal onset becomes the result of an automatic symbiosis between thought and the impulse resulting from exhalation. A note also needs to mentally aligned with the "support" – in other words, one must train the body to yield by reflexive response any amount of energy needed to carry a given pitch and length of phrase.

The re-establishment of spontaneous reflexes is achieved by starting with unproblematic and natural notes within the speaking range, and through sliding exercises – upward as well as downward – as well as through soft onset exercises, and these are the excises that constitute the joint focus of speech and singing. The same muscle reflexes are activated in both cases, and the same mode of thought and nervous impulses need to be liberated. What is healthy for the speaking voice is a good foundation for the singing voice.

These principles may sound simple and self-evident, and so, in a certain sense, they are. However, it is this simplicity that requires exercise and repetition, and which involves a certain degree of conflict-generating engagement. The pedagogue must develop a sure and sensitive ear for functions that are, respectively, free and strained. The student needs to repeat every new function so often as to build complete confidence that a certain desired sound will follow if he imagines and positions his body in a way that facilitates that sound. It is often easier to use much muscular energy than to use none, and it is hard to trust that what one imagines will happen if only the required circumstances are in order. This is the rehabilitation phase that I am most relentless in pursuing. And my persistence is grounded in the knowledge that,

monotonous and unexciting as this work may appear, it should be the central focus of a pedagogue's duty.

Synchronization of Breathing and Development of Vocal Dynamics

Once compensatory tensions have been removed and the spontaneous onset functions of the voice reinstated, one may proceed to further development of the classical instrument. The internal muscles of the larynx are trained towards maintaining a balanced function and to be elastic and strong and resistant to stress. This function should be built so as to operate over the entire tonal and dynamic span. An inner laryngeal musculature that is strong, elastic, and precisely operating renders superfluous compensatory support functions from the external throat muscles, tongue and jaw. The work is timeconsuming, since the muscles need both to lay off old habits and to inculcate new ones. It may take long to enhance the elasticity of the internal laryngeal muscles, especially if the voice has suffered years of over-compression and has been sustained by stressful pressure from beneath the vocal cords.

It is in general impossible to predict the duration of any rehabilitation period, but if a voice needs "re-building" because of technical habits amounting to over-exertion, it may well take two to three years before a new professional standard has been instated. This is not to say that a singer cannot appear professionally during this transitional phase; however, during this period, new repertoire needs to be appropriated with the utmost care, since a concert organizer cannot be expected to make concessions on the basis of failing vocal health. Therefore, ambitious professional activity is bound to delay the rehabilitation process.

If, on the other hand, the basic habits are predominantly good, and the pathology is caused by a cold or an "accident," the rehabilitation may be accomplished within weeks or months. However that may be, the costs may – both physically and mentally – be severe. Muscles, after all, have a very long "memory," and it is considerably more difficult to repair a problem than to avoid it in the first place.

Co-ordination of all Elements into the Overall Function

A healthy function reestablishes the original potential of a voice, i.e. it seeks to recover the voice as it was before the destructive strain took place. It is therefore natural to compare the reestablishment of healthy habits with the initial stages of training the young voice. A healthy, functionally expedient and gentle use of the voice is the goal of both basic training and rehabilitation. Once healthy habits have been inculcated, they must be maintained through daily exercise – and this educational programme is my definition of voice teaching.

Voice Training

The concept itself may, perhaps, sound overly technical, alien to the refinement of art, but it does not have to be that. I would compare the process with the dancer's bar school. The controlled and focussed repetition of important part functions develops a new natural mode of operation which, in turn, forms the prerequisite for a free voice function and, in turn, for a free musical and aesthetic expression.

It is useful to plan one's "voice day:" How much do I use my voice, and for what? The voice should every day be exercised in all its dimensions. This entails, for instance, that if one employs the heavy part of the voice for much of the day – for instance, in speaking many hours a day – one needs to work over the parts of the voice that are unemployed, the light register and the upper range. Even so one needs to *think in* all aspects of the healthy voice when studying a part of preparing a concert. The special demands of a part should be considered – if, for instance, it requires coloraturas – and the specific study requirements should be integrated within the general training programme. The voice should also be prepared in advance for the study of a particular part: If a part offers particular challenges - demanding, for instance, sustained and weighty passages - these, too, must be incorporated into the whole and the sustaining power of the voice strengthened before it is put to specific use. A voice is capable of severe challenges if one knows how to compensate for the added pressure. Constant pressure reduces the staying power of a voice. It is therefore important for a singer after an arduous vocal effort, be this in concert or stage performance, to "sing out the vocal energy." I use the expression, "sing out" in contrast to the preparatory process of "singing in" to denote the process by which a singer may de-compress his voice by means of light exercises in the speaking range before the switch to talking or going to bed the preparatory. Without "singing out," the strain on the muscles will persist into the night and impair the work of the following day.

Similarly, the "singing in" of a voice must be variegated and adapted to the needs posed by the individual voice and its current tasks. A knowledge of one's voice, a command of a sensible daily programme of exercises, and a technique that is healthy and free and expands the natural potential of the voice, produce a simplicity that safeguards the voice and empowers it towards free artistic expression.

I will now continue with the "Ida" example:

Work on Ida's voice has now been going on for three years, and a good professional standard had been reestablished. The problems with intonation have been solved, and the overall function of the voice is successful and stable. Ida is back in her profession, although at a less frenetic level than before, and the youthful sound of the voice has not been recovered – instead, Ida has a somewhat darker and more expansive timbre. The mental side of the rehabilitation process has been extremely troublesome. Although Ida is an all-round talent, she finds it hard today to trust that she may meet the demands made upon her, and that her voice may survive the pressure of a period of rehearsal in preparing a recital or an opening night. Controlling her anxiety has become a problem out of proportion with the vocal challenge, since her voice is now is a fine state. This part of the process may prove extremely long, and the help and support of the voice teacher is not enough: most of the work lies with Ida herself.

The pedagogical experience gleaned from a lengthy programme of rehabilitation such as Ida's may be brought to bear upon the teaching of young voices. Having closely witnessed the painful deterioration of a voice – even in the most talented singer – the pedagogue becomes ever more careful in training the young singer, for whom the teacher's intimate familiarity with individual voices and personal potential, and the establishment of healthy and functionally expedient habits, all-important for a future career of long a happy duration.

3. COMMUNICATION

"When one indeed is to succeed in leading a human being to a certain place, one must, first and foremost, take care to find him there, where he is, and begin there. This is the secret of all the 'art of helping."

Søren Kierkegaard: The viewpoint of my authorship, Kbh.1859.

An understanding of the dynamic exchange between nature and nurture, and of the close connection between psyche and soma, have given me new tools for student analysis and diagnosis, and it has, moreover, taught me to meet the student with realistic expectations about the training process itself, especially with respect to the time required.

However, the pedagogical strategy governing the educational programme will also be determined by the particular demands of the contemporary student. Beyond guidance in achieving their voice-technical, musical, and artistic development, students expect an empathy and sympathy in many areas that relate to their existential circumstances. This demand cannot but influence the teaching situation and communication of the professional task.

In the present chapter I shall therefore describe a number of important features of the interaction between teacher and student. I hope that an understanding of the energies flowing between teacher and student, and a knowledge of the phases typical of solo sessions, may – combined with insight into intellectual and motor learning and verbal as well as non-verbal forms of communication – prepare the way for an enhanced process of pedagogical planning and strategy – resulting, in turn, in improved results.

By placing the exchange between student and teacher during solo sessions in focus, I bypass other educational approaches such as classroom teaching and the so-called "master classes." I also omit consideration of that progressive element in the discipline of vocal training, which comprehends, for instance, suggestions for repertoire expansion, study techniques, and particularly descriptions of technical exercises, which are especially difficult to expound in writing.

SOLO TEACHING AS PROCESS

Solo teaching is a two-way communication in which attention is in constant flow between the parties; cause and effect move both ways. The special element in the solo encounter is the close relation that emerges between student and teacher. Developing the fundamental professional instrument may take years, and will influence the student both personally and professionally. For long stretches, the voice teacher is an extremely important person in the student's life – indeed, at times, the most important one – since she holds the key to that which preoccupies the student, to wit, developing his voice and becoming an accomplished singer. This close bond places an enormous burden upon the pedagogue, both as regards her professional competence and her personal integrity. She must be able to communicate the entire range of vocal techniques and repertoire in a professionally responsible manner, which should issue from a series of conscious and clear choices. For this the reason the preparatory analysis and diagnosis of a student's all-round potential, voice material, and bodily constitution is of the utmost importance.

The Relation between Teacher and Student: a Question of Trust

To solicit the help of a professional authority is, in many ways, anxiety provoking for a young person. The young student has multiple questions and doubts when turning up for the first session: what is the pedagogue like? Does she like me – does she understand me – does she see me?

The student has subconscious defense mechanisms, which protect him against defeat, a sense of inferiority, and getting hurt. It is therefore all-important for the mutual trust between teacher and student that, in the very first session, the teacher appreciates the student's attempt to open up and show who he is and what he is capable of. A teacher should seek to understand rather than to assess and judge. A teacher should never (whatever her private opinion) start by declaring that "what you are doing and have learnt is totally wrong – now let me teach you to do it right." On the contrary, she should praise the student for whatever is worthy of praise, and so communicate – directly or indirectly – that "I can help you in my way – do you wish me to help you?" If the student finds the teacher confidence-inspiring and credible, the foundation has been laid for a collaborative effort that may continue for many years.

Trust between teacher and student is the foundational premise for a harmonious development of the course of study, and it will carry both partners through the problems and crises that may be expected to arise along the way. Today's youth tend to be trusting, but they also come with expectations and criticism. This makes demands upon a long-term teacher-studentrelationship, and one thing is certain: to educate a voice is a long-term process. The learning of proper muscle coordination needs to balance the overall musical and artistic development and personal maturation. This development requires continuity, and a frequent change of teacher, and so methodology, is problematic. Therefore, the trust between student and teacher should be founded in professional respect, since this is what sustains a longterm relationship. In this respect, solo teaching differs radically from the short-term master-class session, which is less dependent upon a strong trust between teacher and student.

TYPES OF PEDAGOGUE AND REQUIRED PEDAGOGICAL SKILLS

The entire tradition of musical education is built upon the masterapprenticeship model, and so its point of departure for a teaching course stages the pedagogue as master and the student as apprentice. The professional content is a classical repertoire of the highest calibre, and the quality requirements embedded in this constitute the norm and standards operative in entry tests, exams, recitals, and competitions. The relation between master and apprentice naturally invites a considerable degree of identification and imitation, which serves, both directly and indirectly, to guide the student throughout the course of his education. This teaching method has existed for centuries, and it has kept alive our musical heritage. Precisely with respect to voice teaching, however, it presents some clear problems. The voice pedagogue must – beyond her function as master and model – be an instrument builder, and the instrument is one both hidden and deeply rooted in the unconscious part of the individual student's personality. This complex state of affairs makes voice teaching radically different from instrument pedagogy, and this, too, demands that the voice pedagogue must possess and build certain indispensible qualities for her teaching to be responsible and professional.

If the pedagogue fails to diagnose correctly the composite whole of a student's talent, and fails to perceive what kind of singer he is – if, that is to say, she grounds her pedagogy mainly in her private experience, the procedure entails multiple sources of misinterpreting a student's potential. Such misinterpretation may, in turn, lead to the development of the "wrong" kind of instrument. I have, unfortunately, encountered many students who have been misunderstood and therefore inadequately taught. The cause may, of course, derive in part from the student himself – if, for instance, he desires to imitate his teacher – but part of the problem also lies with a pedagogue who, owing to poor knowledge of possibilities and problems more broadly, is able to communicate only her own personal experience.

The result of a faulty diagnosis is, sad to say, damaging to the student with respect both to his voice and to his character. A flawed vocal technique is worked into the muscular coordination of a voice, and is hard as well as time-consuming task to rehabilitate (for further discussion, see chapter 2).

Moreover, a student will become "alienated" from his own essential nature, if his voice fails to function as a natural extension of his personality. Spontaneity and directness of expression are inhibited if channeled through a "medium" that sounds artificial and unnatural, and which requires excessive investment of muscular energy. I have encountered many students who felt deeply pained and frustrated about their own voices, because they used it, and so performed musically, in a way they experienced as foreign to their genuine personality, even as their personality failed to find proper musical expression. But I have also seen the liberation and happiness of a student retrieving his "own" voice.

One should not, of course, go to the opposite extreme of the master-apprentice relationship and adopt a method we might call student-directed teaching or "learning by doing" as the ideal pedagogical approach. A student cannot of his own accord assess his instrument or talent composition. He needs an "outside ear" to see, listen, and assess. Therefore, voice teaching – as well as all other musical education – must, in obedience to tradition as well as necessity, be a methodology guided and dominated by the teacher. This is what makes the pedagogue so important and influential, and this also makes it crucially important for the pedagogue to possess a knowledge and strategic awareness that enables her to interpret the student potential correctly.

In my view, the Soeren Kierkegaard quotation cited above sums up clearly and precisely the ideal qualifications of a responsible pedagogue. Finding the student where he is, and starting from there describes the approach that I myself call the "student-supportive pedagogue." Student-supportive teaching necessarily departs from choices guided by the student's potential and level.

The pedagogue should possess considerable natural authority. She must seek, through focussed concentration and sensitivity towards the needs and talents of her student, to call forth and maintain whatever is positive in the student's development. A student-supportive approach must command a varied repertoire of methodological tools and apply these according to the needs of various student types.

There is no such thing as an easy student assessment, but thorough analysis and diagnosis coupled with a knowledge and intuition trained upon different kinds of student, the pedagogue must attempt to form a true "picture" of a student, and especially inquire why he wishes to sing, i.e. what kind of singer he is.

The Domineering versus the Yielding Pedagogue

The ideal of supporting and facilitating the student may conflict with the pedagogue's private personality. Not everybody – and certainly not major artists – may dissociate themselves so altruistically from their wonted habits of self-expression and tune into the demands of the pedagogical scenario. The

great artistic and charismatic personality will always possess authority and bring inspiration, but these features do not necessarily amount to a pedagogical ability and professional methodology suited to the genuine needs of individual students in the overall educational progress.

Unless the teacher is conscious of the energy flow of the solo class, and so also of its natural limits, and unless he has the knowledge, competence, and human maturity and self-consciously appreciated her own potential and procedure as a teacher, the relation may develop into what I consider an unprofessional scenario. Either because the pedagogue is too domineering, or because she – perhaps from the best and most careful and cautious motives – "holds back" and thus transgresses, or allows the student to transgress, the natural boundaries of the relationship. I shall therefore in the following describe different types of pedagogue that I find unprofessional when measured against the ideal student-supportive pedagogue.

The Domineering Pedagogue

The dominant and self-promoting teacher presents an omniscient authority, who expects obedience and respect. She prefers scant discussion about the content and planning of the educational course, and is convinced that the teaching will progress fast and with the best results if the student accommodates himself to her demands. This type of teacher may produce fine results with students in possession of good basic self-confidence and integrity, and who therefore do not feel threatened by a dominant, or even domineering personality; but he may prove destructive of more delicate students with less basic self-confidence. These may not thrive within the teacher-dominated relation, since they feel that too large or mistaken demands are made upon their talents. An anxiety lest they fail to meet these expectations will inhibit their performance and set back the learning process, and a healthy and natural development fails to materialize.

The Overly Considerate and Nurturing Pedagogue

If the teacher's interest in the student extends beyond the professional dimension, she transgresses the boundaries to the private sphere and mixes private and professional in a way that is confusing – perhaps even inappropriate – since she will, directly or indirectly, determine the student's life at an overall level. She unnecessarily contacts the student outside of class, and invites the student into her own life and problems. The teacher wishes to live with and through the student, and her self-perception is influenced by the student's ability to fulfill his expectations, which may perhaps be unrealistic.

This kind of teacher may also become personally unhappy if the student wishes to find a new teacher, and she may offer a student free coaching in cases where a fee ought to be the most natural thing in the world. Such fuzzy boundaries in a teacher-student relationship will always disturb and obstruct professional development.

The Yielding Pedagogue, who Sets no Limits and Makes no Demands

Some students feel that they need contact with their teacher beyond that available in the teaching sessions. They overstep the natural boundaries of the situation by, for instance, phoning or mailing the teacher with problems or questions. Unless the teacher radiates a natural authority indicating that it is unacceptable to call at all hours, or want the teacher to decide or fix things that the student himself should handle, the pedagogical relation itself will become confused and indefinite, and the student, quite simply, is badly helped. The teacher may also, out of friendliness or laziness, fail to make demands of her student –i.e. be insufficiently ambitious and demanding of the student's talents. In this situation, the student may lose self-confidence and faith in himself, and his natural development is arrested. The teacher may also, out of friendliness or caution, fail to tell as student that his professional expectations are unrealistic – either in order to avoid the unpleasant task of saying something unpleasant about the student's talent or potential, or out of fear of losing the student.

In the following, having described unprofessional pedagogical relations, I shall elaborate upon what I define as the demands one should naturally make upon the responsible student-supportive pedagogue, who must be conscious of and confident in her competences and practices as a teacher.

Student-supportive pedagogy

It is important for a teacher to distinguish between professional and personal self-knowledge. Professional self-awareness does, of course, require the pedagogue to appropriate considerable professional skills and theoretical knowledge, which in relation to professional singing comprehends multiple part disciplines such as those reviewed above as well as those briefly listed here: anatomy, acoustics, linguistics, and phonetics. As this knowledge is accumulated and assimilated, it becomes a store of qualifications to be drawn upon during exercises and verbal guidance.

Professional and Personal Self-knowledge

Since the topics relevant for singing are so comprehensive and constantly expanding, the teacher's self-study is a never-ending process. Moreover, since a single teacher cannot be expected to possess experience in all areas,

professional self-knowledge entails a clear-sighed acknowledgement that there are areas in which she excels and others with which she is less familiar. On this basis one may, if necessary, direct a student to consult an expert in a field where one is lacking.

The pedagogue's superior knowledge should not, of course, be shared with the student from the beginning of a course of study. Only such knowledge and insight as is relevant and "digestible" viewed in the perspective of the student's talent, motivation, and professional level. For instance, a student may be overwhelmed if a teacher holds out to her the prospect of a brilliant career, as in the instance of Gerda. If I had told her from the outset that I considered her material exceptionally promising, this would have stalled her process. Only after some professional maturation was she able to take her talent seriously and trust that she might indeed succeed in pursuing her ambitious goal.

On the other hand, a teacher must be honest with a student if she finds his talent incapable of reaching to the student's own ambitious expectations. It may be difficult to tell a student that a professional career is unlikely to ensue from a singing course, when this is, indeed, his highest and dearest ambition.

A pedagogue needs, beyond her professional qualifications, to possess deep self-knowledge and a mature assessment of pedagogy's role in her life and professional endeavour. This, too, is an ongoing process. Maturity and knowledge of one's own personal charisma as well as of one's private problems and conflicts are of the essence in reviewing one's teaching methodology and assess the quality of one's own approach and competent command of one's profession.

Empathy

One should never underestimate the powerful pedagogical effect, or energy transfer, that may obtain between an insightful teacher and a student when engaging in two-way communication. This energy transfer will produce positive results in a healthy and sound relationship, but results will be negative if the teacher is either dominant or lax. In an expedient two-way transfer process the sense of mutual connection needed, especially by the teacher, is called empathy.

Empathy may be defined as the ability to imagine what it feels like to be someone else. This – often intuitive – perception of other people will, in the context of a singing class, encompass the teacher's capacity for sharing not only the student's feelings and state, but also his vocal function. It springs from an ability to "read" another human being along several avenues at the same time – both the verbal and physiological avenues and all the psychological ones such as body language, tessitura, dynamics, gestural pattern and facial expression. A talented and increasingly experienced pedagogue will develop build a sensorium so sensitive that flawed functions are heard, seen and even "felt" in the teacher's own body, and her corrections will be precise because her referential framework encompasses her own as well as visual and auditive impressions. Every bit of information picked up by the teacher may be empathically experienced and personally felt. This enables her to process the impressions in a pedagogical form and consequent scenario. In this way she will be able to correct faulty functions at the professional level – for instance, by responding precisely to problems of phrase and expression – and, furthermore, at the psychological level, where she may perceive a student's personal insecurity or failing concentration.

A rich empathic flair is the achievement of a slow and ongoing process in a pedagogue's life, and it is probably one of the most crucial qualifications of a talented pedagogue. Or, to put it on its head, a human being lacking in empathy will not naturally possess the talent for becoming a good teacher, and she will often find it difficult to thrive and flourish as a pedagogue.

The flair for fine-tuned empathy must become ingrained in the pedagogue's own personality. Fortunately, since it is a knack that is virtually impossible to learn, most people do have that flair. Psychologists have conducted comprehensive experiments with empathic reactions, and one conclusion reached in these is that it is an ability that needs to be stimulated at a very early age (Goleman 1997).

Ego Support

The desire to become a singer requires considerable inner drive and mental stamina, and the student population of singers suffer, almost in the nature of things, from a certain nervous disposition; therefore, a major part of the student-teacher encounter becomes a matter of "ego support." An insecure, immature, and nervous personality should, as an inherent element in the educational programme, be helped and supported in building the individual person's self-confidence, which will, in turn, enable the student to cope with a professional career with all the insecurities and uncertainties of that profession, and to handle the frustrations of a voice development that will constantly be delayed and obstructed by colds and other common if minor health problems. I once asked a German colleague how highly she rated this ego-supportive function in teaching situation, and she responded that attention to this factor took "about 80 % of her time."

The pedagogue must gradually enable the student to assume responsibility for himself – and his own life – and for something as fragile as a voice. The teacher should monitor the student closely without transferring the wrong

ambitions and expectations. The Ego Support must, first and foremost, be altruistic and fully separate from the teacher's own personal ambitions.

The pedagogue should be conscious that she can not purely trust her own extensive ego support to remedy a student's fundamental lack of selfconfidence. Self-confidence should preferably, as discussed earlier, have been established already in childhood. A lack of self-confidence may be alleviated only if the student takes upon himself the task of reconstructing a confident self-perception – perhaps with professional therapeutic assistance (cf. the cases cited of "Dora" and "Eva".) The pedagogue may, however, back up, support, and invest major effort in building the self-confidence of a specific person as part of his talent development, and may use her teaching approach to inculcate in the student an awareness of his potential and build a stable and functional tool for his own continued technical practice and work discipline.

The teacher may stimulate specific self-confidence in various ways. Many causes of insecurity may be eliminated through thorough preparation and study, for instance, through a consistent methodology and unrelenting demands during sessions, and through incorporating teaching devices such as sound- or video recordings from sessions. Psychology tells us that "mind power" and precisely formulated positive thinking and mental images may enhance the practical application of the basic potential of a human being. Positive thinking cannot replace intense preparation, but it may exploit the resources that are always available in a human being. The pedagogue may, during daily teaching and in connection with particularly stressful situations such as exams and recitals, encourage and stimulate the student's capacity for maintaining a positive focus.

Student-supportive teaching requires that the pedagogue command extensive professional knowledge, that she knows herself, and that she is possesses much psychological insight and knowledge. She must, in addition, be conscious of the dynamics of the one-to-one teaching relationship, know that she is definitionally the dominant partner in the relation, and use this natural authority with respect and concern for the individual student. The trust that a student invests in the teacher creates one of the most personal bonds that human beings may establish, and so the collaborative effort must be stewarded as self-consciously and responsible as possible.

THE PHASES AND DEVELOPMENT OF SOLO TEACHING

Chaos – Structure – Integration

Like all other partnerships, the to-way-communication between teacher and student passes through various phases. The student, particularly, goes through various stages, both professional and personal, in the course of the relationship. I shall therefore in the following – briefly and perhaps somewhat schematically – review three stages of development, which I find typical of a student's progress across a long period of cooperation.

The professional and human development that the student undergoes in a long-lasting relationship may be described in terms of three stages: he discovers out of chaos a structure, and this structure gradually transforms into a hierarchy organized in a system of priorities that will finally become an integrated part of his life and consciousness.

The above terminology is borrowed from professional descriptions of the progress towards intellectual-conceptual control that every human being passes through between infancy and adulthood. The small child goes through a development from a chaotic and diffuse mode of experience, which later in childhood – after a phase of an increasing awareness and an understanding of distinctions in its environment – is further developed into an appreciation of the difference between structural elements. Subsequently, the teenager discovers that some things are more important than others; this means that various aspects of existence become integrated until the grown-up person possesses a system coordinating the circumstances and experiences of life in mutual relations.

This developmental terminology (chaos-structure-integration) may equally be applied in describing processes of shorter duration such as any major educational process, and I therefore borrow it for my purposes in analyzing the phases and nature of one-to-one teaching.

Phase One: Chaos

In the beginning of a teaching relationship, the phenomena that the student needs to appropriate appear diffusely defined and mutually indistinct. It stands to reason that the student is lacking in overall perspective and knowledge of the singing profession's artistic-aesthetis, musical, and voice technical demands. Working with repertoire and technical exercises gradually build an attention to detail, for instance with respect to genres and styles and for the variegated uses of a voice. The student slowly develops a concrete and physical sense of a healthy use of his voice – its qualities and problems. In this phase I often ask students the question, "How does it feel?" The answer forces the student to describe and understand what he just experienced, and in this way he reaches a finer appreciation of the process here and now.

The work towards getting the student to assume responsibility for himself and his own development begins, then, from the very first session. The teacher is in charge at this point, but she needs to facilitate and, by means of empathy – to coax out in the student a sense of security and a discreetly independence. The task is slowly to create order from chaos – i.e. a routine of repeated and systematic habitual exercises needs to be founded, and so the teacher must prescribe 'home work' for the student, maybe with sound or video recordings.

A single-student teaching course must start at the point where the pedagogue can easily connect with the student. In practice this usually happens in the areas of vocal or musical expression that function unproblematically. The first sessions – which should ideally take place twice weekly – will launch few and simple principles. From her store of exercises the pedagogue must seize on those most likely to succeed. This will stimulate the specific self-confidence and natural motivation, and at the same time it gives her an idea of the student's capacity for concentration, and how quickly points are taken, i.e. how much time elapses between understanding, awareness and successful acquisition. Some students are conceptually fast, but require time to work in functions in practice – others are slow to get a point, but once they are certain, the function – or the phrase – is securely store in their memory.

The initial phase is therefore a process focusing upon 'minor victories.' The student should not attempt to reach for the goal – a perfect total function – but should rather spend time on focused and precise though partial functions.

Phase Two: Structure

The second phase is the longest - it may stretch over years - and in this phase, the openness and trust built from the beginning of the partnership, is of the utmost importance.

During this phase, clarity about the specific content of individual areas will gradually emerge. Such areas, for instance, may be an understanding of weak part functions such as inadequate muscular support, a failure of the voice to close properly, or an awkward change of register. The student will gradually become an increasingly active and independent part in the student-teacher relation, and he develops professional insight in several of the areas delimited for exercise purposes. Intellectual as well as motor skills are enhanced and intermediate goals may be reached and confidence strengthened. An everincreasing coordination of vocal, bodily, and musical-artistic functions are developed. Blocked functions are manipulated carefully, but continuously, and the basic functions of classical singing acquired and strengthened. The reward is an advance vocal control – and it often materializes in sudden leaps forward.

The educational process should proceed along several parallel tracks. Since the muscular operations – whether relating to body or voice – are inseperably connected with the time factor, and so cannot be forced, this phase must concentrate on a broad range of activities. The foundation is the targetoriented technical work, but it occurs in tandem with expanding the musical and artistic consciousness and acquisition of the relevant professional repertoire. In this phase the relationship between teacher and student gradually becomes more equal, although the student is still greatly dependent upon the teacher. This phase is mostly that in which the student will experience conflicts, resistance, and crises. The development may be sloweddown or cease altogether, as in the case of "Dora", or it may be stimulated in an accelerated progress once the general and specific self-confidence are mutually integrated. Often the student will enter periods of anxiety and insecurity becoming more aware of his own imperfections - whether as beginner or rehabilitation student. He reaches out for system and structure, but cannot accommodate the process as a whole, and this leads to insecurity. He will often be emotionally unstable and many tears may be shed. Personal crises over the professional sustainability of the voice are frequent and cause anxiety and diffidence with respect both to the voice development itself – and to life in general.

The student may enter a conflicted phase with the teacher and think that perhaps 'the grass is greener on the other side', that the teacher is too persistent and the method of work too slow, and so wish himself in another place. Such resistance may – like a teenage rebellion – be healthy and natural, and despite the resistance the teacher should retain her self-respect and trust in her pedagogical method.

This phase may be extremely taxing for the teacher, since there may be much heavy going along the way. However, if the first phase relationship has been established on a basis of trust and professional respect, she has no need to be superhuman in carrying everything upon her shoulders and monitor the student's mood swings, rather she should encourage the student towards independence and responsible handling of his problems.

Phase Three: Integration

During the third phase, the pedagogue becomes relatively reticent and the student more active and controlling, as the understanding of his own instrument and a knowledge of the profession and its demands are becoming an integrated part of the student's personality. The student becomes increasingly autonomous and responsible with respect to himself, his instrument, and his profession, and he gradually learns to stand free of the teacher's authority. The teacher should end the collaboration with respect and care. If the process has been a successful one, the student will naturally proved

on his own – preferably in the knowledge that the teacher will always be ready for consultation and continued work with new repertoire or any problems that may arise.

The student's original anxiety about his situation here and now and fear of the future will be replaced by an ability to survey and form realistic expectations about the future. The student is increasingly clear-sighted about his profession and competing in it and becomes independent in making choices and ambitions, and with this happens a fundamental change in the teacher-student relation. The teacher's role as 'master' fades into the background – she may, at times, feel quite superfluous – but the student meets the teacher on an even footing, and at this point, in this phase, the teacher may show more sides of herself and reveal more personal sides of herself.

Intellectual and Motor Learning

It is important throughout for the teacher to have an understanding of the intellectual as well as motor requirements of the singing profession, since this gives her realistic expectations as to progress and change. One cannot automatically transfer learning methods from other kinds of musical education – for instance, from violin or piano – where learning has begun during the childhood years. It is extremely rare to encounter professional instrumentalist who began playing their instruments at the age when the singer begins his serious development. The early learning of the instrumentalist is usually connected to a period in their upbringing when the ability to learn musical disciplines, whether motor or intellectual, is at its highest level. Even as an adult has difficulties getting to know a foreign language without an accent, even so its is hard after the onset of puberty to acquire the subtlest motor functions demanded by musical professions. Therefore, the learning strategies of the Suzuki method is centered around so called "mother tongue learning principles". The competencies learned in early life become a natural and unconscious part of a child's personality.

The learning process of a singer start, then, with what might be called a "naturally based handicap." As described in the case study of "Hanne", classical singing in the early stages of life entails an extreme strain of the vocal chords. Only after puberty is the voice ready for development within the aesthetic ideals of classical singing. Unfortunately, this late learning onset that the physical adaptability is somewhat impaired than is the case with, for instance, a ten-year old, and any physically or mentally determined blocks in body or voice will be more firmly embedded. The young singer shares with the adult singer limitations such as a somewhat slower appropriation of muscular capacity, and he has to learn the classical disciplines of the musical profession over a shorter period than instrumentalists. These factors naturally impact the voice teaching as well. One should therefore always – as often mentioned

above – relate the problems of learning within the temporal perspective and confidence in the talent brought to the task. Only the singer with a self-evidently brilliant potential can be said to have plenty of time. If the requirements are all in existence, a major talent may manage to develop all the fields of the singing profession in about four to six years, which is far less than a musician's education. If he is less talented, industry, concentration, and a longer training period must compensate for the privileges of the natural genius. This is not to say that it is impossible to train 'middling' talents to a very high level, only it takes more time, and within the normal period of training there is little room for disturbances such as illness and personal crises and incompetent pedagogues.

The pedagogue must help the student by teaching him a conscious and systematic learning approach with respect to motor- as well as intellectual skills.

The intellectual learning – of the memory – may be divided into three: It requires apprehension, retension, and repetition. These factors are the foundation of any serious learning process (Egidius 1967). The three memory functions are most easily learned by:

- Spacing the moments of focussed learning. In other words, one gradually appropriates systematics in the repetition and memorization of texts and music
- 2) One listens to oneself during exercises. This offers useful opportunities for control and repetition
- 3) One extends the learning time by 50 to 100 % once the material has been learnt by heart. This process is called "over-learning", but this phase in the learning process is extremely fruitful and important in context of the need for large amount of memorization that is a natural part of the musical professions, and as a rule the effort does not require anything more than time and concentration.

The motor development is extraordinarily different from person to person, and, as mentioned earlier, it is dependent upon innate talent, determining influences during childhood, and "trainability" – the ability to remember and recall muscular functions and sensations. The learning of voice technical competences may be facilitated, if the prescriptions are supplemented by transfers from other physical functions. Body movement and gesture may be most effective in developing new vocal functions, which may not be directly described. By moving concentration from one part of the body to another – a finger, for instance – one will often conduct the "function" perpetrated upon the finger, back to the voice. If, for instance, one desires to build a legato, one may by firmly and continuously stroking one's finger along a table or piano transfer this firm and smooth function too one's voice and thus achieve a smooth series of notes. This principle is described in connection with many natural learning processes and has been systematized in the overall "inner game" principle (Ristad 1982, Green 1986).

In my view, the time needed for motor development is also dependent upon body and muscle type. A long and hyper mobile muscle structure requires much more time to achieve muscular coordination and strength than does a short and compact structure. For instance it takes longer time to develop a lyrical mezzo voice with a wide span than to train a firm and compact baritone. With the wide range follows an openness and balanced in the middle range of the voice – within classical singing the area of mixed register – which requires a thorough and time-consuming adjustment process. Failing this, the voice will never be optimally developed, and it may instead become an artificial alto or a soprano with limited upper expansion.

The Language of Voice Teaching

It may be virtually impossible for an outsider attending a teaching session to understand what is going on. The collaboration between teacher and student – often of many years' standing – creates a special language that others may find it hard to decode. Moreover, the same teacher will communicate with different students through different types of language.

The shared code stimulates both motivation and learning, and the pedagogue may develop a subtle form of communication that switches between the concrete and conceptually lucid, on the one hand, and, on the other, the intuitive and unconscious. Concrete anatomical and physiological explanations may for instance be accompanied by images, associations and metaphors. Play, physical transfer, and playful imagery may coax out unconscious and often forgotten muscular reflex responses, which – once recovered – must be analyzed and repeated at the conscious level. Gestural language, hand movements and imagined scenarios will divert attention from the voice itself, and thus also from the sound production itself.

The pedagogue's communication will address alternately the conscious and the unconscious strata of a student's personality, and this communication strategy is a pedagogical tool, which should be creatively harnessed to developing new functions and new muscular habits. The associations evoked to make a student experience and practice functions that cannot be directly described may be fanciful and at times so utterly crazy as to defy description. But the pedagogue cannot, as can a string musician or a pianist, talk about finger or hand positions, which are, of course, there for all to see. She must seek, through imagery and metaphor, to bring about new functions in the subtle, both delicate and invisible, interplay between the voice muscles; and then, when

this has succeeded one way or the other, describe precisely the kind of function that has been elicited. The function may be a new and more expedient registration, or it may be a precise and clear voice onset, or, yet again, it may be a rich and beautiful sound quality and graceful phrasing.

It follows from the above, and from the fact that many verbal as well as nonverbal communication strategies will often be operating at the same time, that what happens between student and teacher will often be hard to describe. The empathically, artistically and creatively gifted pedagogue moves freely among strategies so as to bring about the best possible rapport with her student, and her imagery and body language will different from student to student. During the close partnership of solo teaching, teacher and student will develop the shared "code language" that produces the best results, and which stimulates both motivation and learning.

Vocal Exercises

Even as the "code" communicates voice technical, musical and artistic images and descriptions, even so the vocal exercises become a part of the code that unites teacher and student. Repetition of the same fifth and octave exercises gives student and teacher a joint parameter for the daily shape and training of the voice, which makes the student feel secure. The thorough and intensely focused exploration of a single exercise brings an ever-increasing clarity about the muscular interplay involved; and with greater functional simplicity and precision, and with a free-flowing, easily summoned sound quality, the voice will become an obedient vehicle for artistic intentions. Through concentration such as that just described, the student builds familiarity with and mastery of his instrument.

"The exercise dialogue" – where the pedagogue demonstrates an exercise, upon which the student repeats it – may establish an intense concentration that allows the teacher to bypass words and, in their stead, communicates corrections to the student both through choice of exercise and through the way it is performed. The pedagogue, then, should move among numerous communication strategies from freely non-verbal to the concretely descriptive. Her ear should be trained to pick up subtle functional registration and apprehension, and the corrections will be generated from both auditive and visual impressions.

Musicians and singers are, by tradition and temper, liable to discuss voice teaching with little serious reflection. They will usually centre upon their own talent and not necessarily upon pedagogical explanations or individual methodologies. This means that musical education is often a linguistically obscure field, whose object is, to a large extent, unavailable for observation. Perhaps it is this confusion that causes many singers to distance themselves from theoretical voice analysis; they consider the terminology irrelevant and find that – within an artistic ambience – it is incomprehensible and even boring.

However, clarity and imaginative inventiveness are equally important pedagogical tools. The voice teacher must be able both to analyze and describe a function distinctly and precisely and, in addition, to convey this knowledge in imagery and allegories founded in her own auditive, visual, and empathic sensibility. The pedagogue who focuses solely upon concrete and functional functions will fail, since functions that may neither be seen nor felt cannot be activated by purely concrete and descriptive language. It is no use telling a student with a diffuse sound production that he "should activate the closing muscles in [his] voice with greater energy;" but a creative pedagogue may activate these closing muscles indirectly through play and sound imitation and thus achieve the desired effect.

CONCLUSION

We all ave a voice, and as described it is inseparably connected with our personality and identity. A few are fortunate enough to possess a talent for singing, are given the opportunity to use their voice as a musical h instrument, and to express themselves artistically and creatively through the aesthetic and format of classical music.

However, individual talent and the circumstances of a singer's upbringing will affect both voice and body. A person's childhood conditioning is indelibly embedded in a character and determines how the various aspects of any personality will evolve. This means that different persons with the same natural talent and making the same choice of a singing career will have different conditions for developing their voices. Some will find the choice is easy, as the talent they were born with is rich even as their upbringing has stimulated a basic self-confidence and belief that it is natural and uncomplicated to wish to become a singer. For most others, however, the choice is difficult; the foundational self-confidence may not be very strong, and the artistic temper is, in the nature of things, sensitive and susceptible to stress. This sensitivity often leads to a constant struggle to place oneself as a natural focus of others' attention and to push oneself on to becoming an expressive artist.

Furthermore, a classical singer must find his freedom by subordinating himself to a musical form highly determined by a cultural tradition. The voice, then, must be developed so as to meet the requirements of the aesthetic norms and demands of classical music. The natural voice must be schooled towards classical ideals of expression on the bass of functional, healthy, and expedient principles. This process of "secondary formation" should evolve in precise tandem with a person's identity and potential as influenced by his background. Any course of voice building must therefore rest upon meticulous prior analysis and diagnosis of the individual voice and body. The singer who fails to respect the laws of muscular physiology may easily overtax his voice and, consequently, find his development at a standstill. He may have to seek professional assistance in a rehabilitation process that may lead him back to a healthy and expedient function.

Since all muscular learning takes time, and since a singer's education encompasses numerous and variegated artistic and musical disciplines, a singer takes many years to educate, and the process takes place through continuous and close collaboration between a teacher and a student. The pedagogue's own education and insight into her own personality must appropriate a methodology that draws upon analytic, diagnostic, and empathic abilities, and she must have an overall strategy for each long-lasting one-toone teaching relationship. A capacity for understanding and developing an individual talent to its utmost potential requires insight into psychological, voice theoretical, musical and artistic areas of expertise. Moreover, the pedagogue always needs to convey theoretical elements in the pedagogical format best suited to the individual student's needs. This is the teaching strategy that I call student-supportive pedagogy.

The close connection between voice and identity makes voice pedagogy a profession of extraordinary professional ambience and personal challenge. In collaboration with her student, the voice teacher slowly builds a new second nature into the latter. The individual voice develops in the course of this long-lasting partnership. One might say, perhaps, that the education of a singer runs in a spiral that constantly oscillates between the conscious and unconscious strata of a human being. Innate and unconscious expression and functions are rendered conscious, are repeated and perfected to such an extent that they may be allowed once more to slide back into unconsciousness. Through the development of musical and artistic talents – through repeating over and over again the same exercises, states of being, and evocative imagery – the pedagogue helps her student to ascend ever upwards through the spiral and add layer to layer of this new nature.

The ideal goal for the classical schooling of a singer must be for the voice to reproduce and interpret the texts and music that constitute the cultural heritage of the Western world as if it came naturally, as if it were the spontaneous and direct expression of a state and feeling in the here and now. The singer is set free, as what is meticulously appropriated requires such a minimum of concentration that the presence in the moment – the moment shared between artist and public – may become as free and "spontaneous" as possible. The pedagogue's central task is to create the enabling circumstances of this "magic".

Voice pedagogy is a fascinating discipline because the collaboration between teacher and student touches upon such a variety of musical and human areas, and because the musical pedagogue may use herself at levels that are both concrete and artistic-intuitive. The profession is richly fulfilling because one meets with such trust and devotion from one's students, and because "our baby" – the texts and the music – are inspiring both in an overall human context and from a professional point of view. The voice pedagogue is highly privileged in contributing to keeping alive a European cultural tradition and, in this manner, helping to give to both present and future "a human voice."

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