

THE PRINCIPLES OF VOICE PRODUCTION IN CHORAL SINGING;  
A GUIDE TO CONDUCTORS

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PETRONELLA LAIDLAW

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This thesis is dedicated to my husband Michael who was always there when I needed help or encouragement.

## Introduction

As a result of my close association with choral directing and singing during the last few years, I have become increasingly aware of the responsibility of choral directors for the vocal welfare of their singers. I have now reached a point where I regard it as a subject of importance to all singers and conductors in South Africa.

Choral singing is becoming more prevalent in schools, colleges, universities and churches. Commendable as this may be, it is an unfortunate truth that the quality of singing has not improved along with the quantity of work being performed. The reason for this lies, not with the singers themselves but with the direction which they receive. A director of a choral group may be a good musician, imaginative, a leader, and a strong disciplinarian. Obviously these qualities are important, but if he has no understanding of the human voice and its development, he lacks the most essential qualification for a successful choral director.

It is quite unreasonable to expect good tone, good blend, a free and natural production of sound with respect to correctness of vowels, eloquent diction, and inspired expression from a group whose director is without an understanding of the functioning of the voice. The choral director is responsible for the tone quality of his choir. He must have the vocal knowledge to correct unmusical tone, faulty pitch, incorrect vowels, bad diction, and be alert to symptoms of vocal dysfunction. Prolonged hoarseness, for example, is a typical symptom of laryngeal dysfunction. Other symptoms of a misused voice include frequent throat clearing, voice breaks, vocal fatigue, pains in the throat or the back of the neck, chronic laryngitis, "lumps" in the throat, dry throat, and taut neck muscles<sup>1</sup>. Sounds characteristic of abused voices include: a tight, harsh tone quality; strained phonation; harsh glottal attacks; a clouded, unresonant tone; an excessively nasal tone; a thin tone; and a pronounced tremolo or wobble.

Voice therapists claim that they see some of the worst vocal damage amongst music teachers, including choral directors, and in young singers upon whom teachers have made impossible vocal demands. Such damage results from a lack of knowledge and understanding of how to develop

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<sup>1</sup>Morton Cooper, "Vocal suicide in Singers", *Music Educators Journal* (September 1970), p.53.

healthy voices - a deficiency often stemming from a choral director's training programme. Something is obviously missing when the director has only vague ideas about analyzing, diagnosing and treating the vocal problems of his students (or develops chronic vocal fatigue himself). A poorly treated trumpet or clarinet can be replaced at a later time, but a voice cannot be. It is an awesome realization that the voice is an inherited one-and-only instrument and that it remains with us, good or bad, abused or cared for, for the rest of our lives. No choral director can afford to ignore the need for competency in this area.

Most vocal authorities recognize proper breathing as the basis for good singing technique, yet learning to breath correctly is usually a slow and methodical task. Kenneth Phillips<sup>1</sup> has demonstrated that even children can learn to master the art of breathing for singing with consistent practice and patience. If nothing else is done in the way of children's vocal training, they should at least be taught to breathe correctly. Children acquire good singing habits more easily and quickly than adults, who are likely to be handicapped by long-established bad habits. Children should be taught how to use the voice correctly. The purpose of this thesis is to provide the choral director with a guide to the understanding and correction of problems which may occur in those aspects of choral singing related to voice production.

Part One presents a view of the principles involved in good vocal production. Part Two acts as a guide to the choral director in the assessment and correction of poor voice production. Part Three contains an evaluation of the sound of five choirs in the Durban area, and gives evidence of the practical application of the techniques covered in the first two parts. One of the choirs was visited over a period of five weeks where corrective exercises for the various vocal problems were prescribed and regularly practised. In this particular case, a cassette tape-recording was made to document any notable changes in the vocal production of the choir, as a result of the use and practice of corrective exercises.

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<sup>1</sup>Kenneth H. Phillips, "Training the Child Voice", *Music Educators Journal* (December 1985), p.19.



## PART ONE

### Chapter 1

#### **The Vocal Mechanism**

Although it is impossible to learn the technique of correct sound production merely by means of a knowledge of the anatomy of the vocal instrument, it is nevertheless essential to have some knowledge in this regard.

The human vocal instrument functions identically to all other musical instruments regarding the following three components: an actuator, a vibrator and a resonator. An added component which is unique to the human voice is an articulator. The respiratory muscles, lungs and diaphragm serve as an actuator while the vocal cords, being the source of sound, serve as the vibrator. The resonator includes the pharynx, mouth and nasal cavity, and the lips, tongue, teeth and palate are generally regarded as the articulator.

#### 1.1 The Breathing Mechanism

Respiration consists of two phases; inhalation, during which the air passes through the glottis, the trachea and the bronchial tubes to enter the lungs; and exhalation, during which the air is breathed out through the same channels.

In the normal state, these two movements succeed one another in a regular and rhythmical manner, without any intervention of the will, as during sleep. In addition to the outward movement of the ribs, the thorax<sup>1</sup> can expand at its base, summit and sides during inhalation. So there are three respiratory movements, namely: diaphragmatic, clavicular and intercostal.

The lungs, formed of a spongy, elastic tissue, are separated from the abdominal cavity by a convex muscular partition called the diaphragm, upon which they rest. Various muscles are used during respiration.

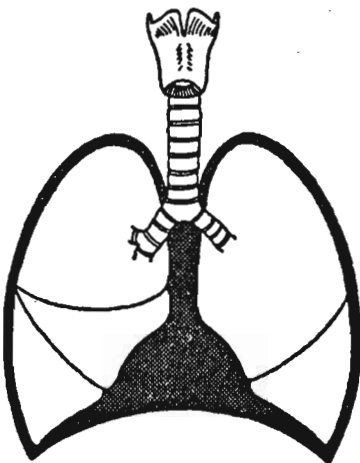
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<sup>1</sup>A bony, conical cage, commonly known as the chest cavity.

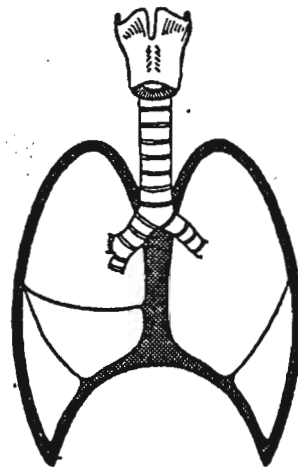


Some of the most important are the intercostal muscles<sup>1</sup> between the ribs and the diaphragm. In addition some of the throat and shoulder muscles may also exert some influence on breathing. For this reason there are various types of breathing<sup>2</sup>.

During inhalation, the diaphragm contracts and pushes downwards, while the contraction of the intercostal muscles raises the ribs. The combined action of these muscles enlarges the thorax which allows the lungs to fill with air. During prolonged expiration, such as singing a sustained note, the abdominal muscles<sup>3</sup> gradually contract while the diaphragm slowly relaxes. The controlled interaction of the two opposing sets of breathing muscles prevents the air to escape unused. This activity is also known as support<sup>4</sup>. The following diagram illustrates the difference of the thoracic capacity during inhalation and exhalation<sup>5</sup>:



Inhalation: diaphragm descended, chest wider.



Exhalation: diaphragm high, chest narrow.

<sup>1</sup>The space between each rib is filled with two layers of muscles, the external intercostal muscles and the internal intercostal muscles.

<sup>2</sup>Part one, pp. 11-12 describe the various methods of breathing.

<sup>3</sup>The abdominal wall is composed of muscular sheets, one above the other, the fibres of each wall being differently directed. Together, these muscles form a wall which protects the abdomen and supports its various organs in position. They are all attached to ribs or rib cartilages above, and end in ligaments in the pelvic region below.

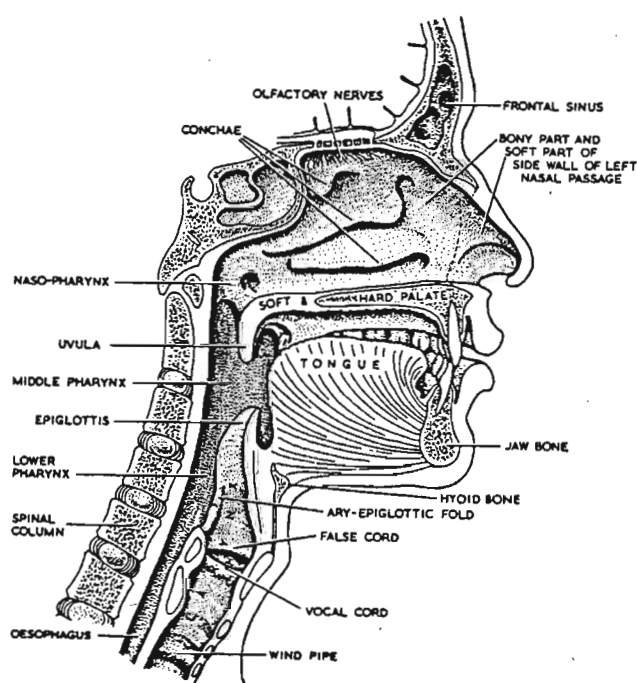
<sup>4</sup>Joseph Klein, *Singing Technique*, (New Jersey: D. van Nostrand Company Inc., 1967; reprint ed., 1968), p. 17.

<sup>5</sup>Arnold Rose, *The Singer and the Voice*, (London: Faber & Faber Ltd., 1962; reprint ed., 1971), p.72.

Vocal sound is formed when air pressure in the lungs overcomes the closing force of the vocal cords, and air is released. When the pressure in the lungs decreases, the vocal folds are sucked together and as the pressure rises again the whole process is repeated. This results in vibration of the exhaled air. The pitch of a note is measured by the number of vibrations per second, and is determined by the air pressure in the lungs and the thickness, tension and length of the vocal cords<sup>1</sup>.

## 1.2 The Laryngeal Mechanism

The human voice is a wind instrument. Its mechanism for sound-production is the larynx or vocal box. Its main resonator is the pharynx. The following diagram views the vocal instrument from the side<sup>2</sup>.



The larynx can be envisaged as part of a tube within the neck, forming a link between the lower air passages (the windpipe and the lungs) and the upper air passages (the pharynx and the nasal passages).

<sup>1</sup>Joseph Klein, *Singing Technique*, (New Jersey: D. van Nostrand Company Inc., 1967; reprint ed., 1968), pp. 35-36.

<sup>2</sup>Lucie Manén, *The Art of Singing*, (London: Faber Music Ltd., 1974), p.20.

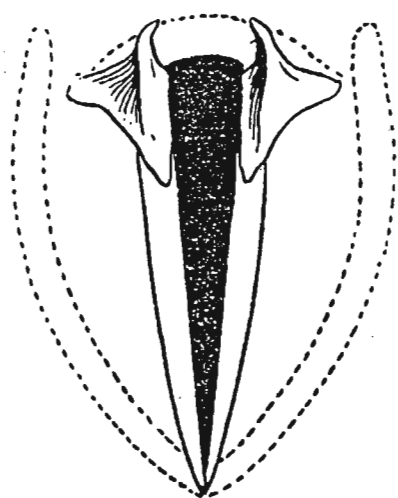
The larynx is connected by a membrane, and various other muscles, to a bone inside the root of the tongue, the hyoid bone. Movements of this bone influence the way in which the larynx functions. The larynx is further attached by muscles upwards to the skull, and downwards to the breastbone. Good voice-production therefore depends on a close interaction between the muscles of the hyoid bone and those of the larynx. A low position of the larynx is required to attain maximum relaxation and responsiveness. If the larynx rises, the throat becomes tight, and the voice begins to sound guttural, hard and cramped. The practice of deep, low breathing accompanied by good diaphragmatic support, and the habitual cultivation of a relaxed throat, should help to maintain the larynx in a low position.

The vocal cords are fibrous ligaments covered by thin mucous membrane stretched across the middle of the larynx, with the ary-epiglottic folds as a lid. The false vocal cords lie above the true vocal cords and also bulge out towards the middle of the tube during singing. Between the true and the false vocal cords there is a small sac, not shown in the diagram, called the ventricle which is filled with air during singing, allowing the true vocal cords to vibrate freely.

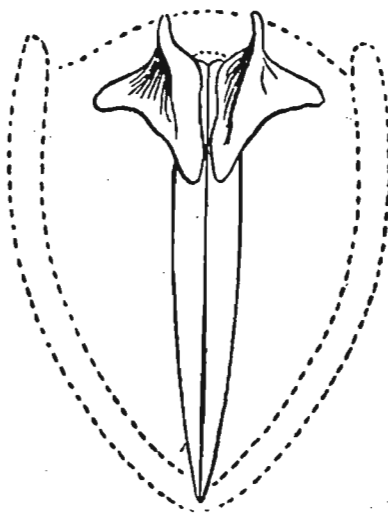
Imagine the vocal cords as being a soft flexible elastic membrane stretched across the upper end of the windpipe, like a diaphragm, but split down the centre to make an opening for the air. In action these vocal cords come together or move apart with an undulating motion that, according to James Lawson<sup>1</sup>, could be likened to two well-trained eels working in perfect harmony.

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<sup>1</sup>James Lawson, *Full-Throated Ease*, (New York: Mills Music, Inc., 1955), p. 19.



Vocal cords in repose

Vocal cords in the production of sound<sup>1</sup>

After taking a breath, the singer mentally pitches the desired sound and closes the vocal cords. The breath, rushing upwards in a strong concentrated column and not finding the air passage open, hits against the closed vocal cords and puts them into vibration, ejecting the air slowly through them.

Vocal cords are capable of changing rapidly in thickness, length and tension, according to the pitch of the note to be sung. They will vibrate throughout their entire length, breadth and thickness during the singing of low notes. As the pitch of the notes ascends, the vocal cords adjust so that only the inner edges vibrate. This change could be compared to the change from a thick to a thin string on the violin. When the highest notes of the voice are produced, the vibrating part of the cords are much reduced in length, which in turn could be described as similar to that of stopping the vibrating part of the violin string<sup>2</sup>.

The fundamental pitch of a voiced sound is based on the number of puffs of air waves per second passing from the vocal cords. If the vocal cords open and close rapidly, the pitch of the tone is high; if

<sup>1</sup>David Slater, *Vocal Physiology and the Teaching of Singing*, (London: Lowe and Brydene Ltd., n.d.), p.18 & 19.

<sup>2</sup>Blanche Marchesi, *The Singer's Catechism and Creed*, (London: J.M. Dent & Sons Ltd., 1932), p. 13.

slowly, the pitch is low. The parts above the vocal cords act as a filter and resonator, helping to select the specific patterns of harmonics that characterize the qualities of the human voice. In order to achieve true pitch, other parts of the vocal assembly must be brought into play. These are the resonating chambers of the pharyngeal and nasal cavities.

### 1.3 The Resonators

On each side and above the vocal cords are cavities that amplify and increase the intensity of the vibrations produced by the vocal cords. The quality and volume of sound produced is dependant upon the shape of the cavities in which it resonates. Three different chambers serve as resonators for the human voice. These are the pharynx, the mouth and the nasal cavities.

The pharynx is a tube which stretches from the rear of the mouth to the entrance of the oesophagus and belongs to the respiratory as well as to the digestive tract<sup>1</sup>. The pharynx is the most important of all the resonating cavities. The back wall of the pharynx is supplied with muscles, by means of which it may be contracted or expanded, thus altering the size and shape of the cavity. The pharynx, on account of the numerous shapes it can assume, contributes to the formation of vowels as well as to the varying shades of tone colour.

The mouth is bounded externally by the lips and cheeks and is roofed in by the palate. Within it lies the teeth and the tongue. The palate is divided into two portions: The hard palate, forming the front portion of the roof of the mouth, and the soft palate which forms the back portion of the roof of the mouth and extends backwards into the cavity of the pharynx. The uvula hangs from the centre of the soft palate. It contains a muscle, by means of which it may be drawn upwards and backwards. Its main duty is to close the nasal passages to prevent a nasal "twang", but not to stop the nasal resonance which is quite a different matter. As a general rule, the soft palate should be raised during singing. The mouth functions best as a resonance chamber when all the muscles, including the tongue, are relaxed and the

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<sup>1</sup>Lucie Manén, *The Art of Singing*, (London: Faber Music Ltd., 1974), p.20.

cavity of the mouth is enlarged, allowing an increased resonance chamber.

The nasal cavities are situated above the hard and soft palates and communicate with the upper part of the pharynx by means of the passages which are situated behind the soft palate. They are of immense value in adding brilliance to the voice.

#### 1.4 The Articulator

The mouth not only functions as a resonator but partly consists of, and contains, the organs of articulation, i.e. the lips, teeth, tongue, soft palate and jaw. Being elastic organs, they can take on numerous shapes in forming the desired vowels and consonants.

Flexibility of these articulating organs is essential in order to reach a high interpretative standard in choral singing<sup>1</sup>.

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<sup>1</sup>Refer to Part 2, p. 76–78 for exercises which should help to develop flexibility in the voice.

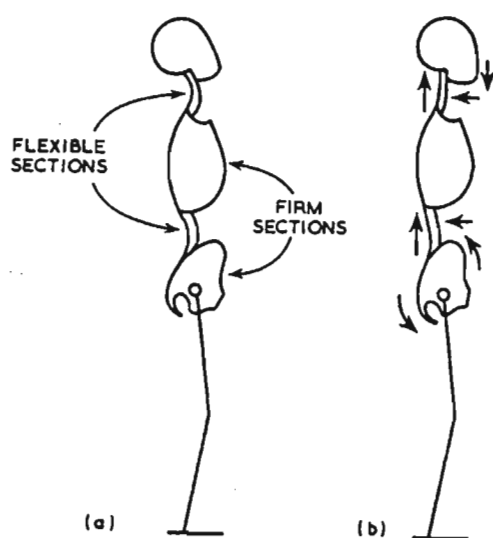


## Chapter 2

### **Voice Production**

#### 2.1 Posture

One of the most important requirements in singing is a correct posture. Correct breathing and a good tone quality depends entirely upon the posture of the body. When choir members are allowed to sing with poor postures, incorrect vocal habits result and are deepened. Breathing can only be free and unimpeded where the adjustment of the spine and pelvis provides the correct posture. In the following diagram figure (a) illustrates the incorrect position of the lower back and the head, while figure (b) illustrates the position of the spine after correct adjustments have been made<sup>1</sup>.



The human body tends to curve at the small of the back. This should be adjusted by pulling the buttocks in to be in line with the spine. As a result the lower abdominal wall draws in slightly. When in a standing position, the singer's feet should be planted approximately 20 centimetres apart, with the one foot slightly in advance of the other. The weight of the body should rest to a great extent on the balls of the feet.

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<sup>1</sup>Ibid., p.15.



When the singers are seated, the correct posture from the waist up will be almost identical with the standing posture. Paul Roe suggests that the singers "sit tall" with the body lifted out of the hips<sup>1</sup>. Both feet should be kept on the floor, and the singers should lean slightly forward in order to maintain adequate breath support. Some of the body weight should be distributed to the lower limbs and the feet. The chest should be held raised without being rigid. The head should rest freely on the end of the spine, so that the muscles of the neck, the throat and the larynx are without tension. The hands should hang loosely at the sides, or be lightly clasped.

The music must be held in such a position that the director may be easily followed without the singers lowering or raising their heads, because deviation in the position of the head is likely to affect the tone quality. Paul Roe<sup>2</sup> illustrates the gravity of poor posture by using the following example: "The body is an instrument. If this personal instrument were a trumpet, what would happen to the tone quality if you took hold of the mouthpiece and bent the neck of the instrument over to a 45° angle?".

## 2.2 Breath Control

The importance of proper and adequate breathing cannot be over-emphasized in choral singing. The conductor should continually emphasize the correct procedure, and be alert at all times to point out incorrect breathing methods. No concept has enjoyed such universal agreement in vocal pedagogy as the importance of breath control. Three distinct methods of breathing exists, and they are:

- (a) Clavicular breathing. The shoulders, the collar bones (clavicles) and the upper part of the chest are raised. This method is generally used for speaking and reaches only superficially to the upper part of the lungs near the collar bone.
- (b) Lateral or Intercostal breathing. In this form of breathing the ribs are raised by the outer intercostal muscles, and in bulging

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<sup>1</sup>Paul Roe, *Choral Music Education*, (Englewood Cliffs: Prentice-Hall, Inc., 1970), p.75.

<sup>2</sup>Ibid., p.73.

outwards they increase the capacity of the chest in a lateral direction. Even though the parts of the lungs which lie between the armpits and waist are reached, this is still not sufficiently deep for singing.

- (c) Diaphragmatic breathing. The diaphragm contracts, and descends upon the organs contained in the abdomen, thus producing a bulging out of the abdominal wall. This method of breathing increases the capacity of the chest from top to bottom<sup>1</sup>.

There seems to be many different views as to the correct method of breathing. Blanche Marchesi and Norris Croker share the view that diaphragmatic breathing is the only true method while David Slater is convinced that a combination of intercostal and diaphragmatic breathing is the correct principle. He reasons that if breath is taken too deeply, it causes excessive distension of the abdomen, making it impossible to obtain a free action of the ribs and proper expansion of the chest<sup>2</sup>.

In singing, only full, deep breathing should be employed, which in itself is a combination of diaphragmatic and intercostal breathing. It also protects the singer's posture and poise. Deep breathing helps to overcome stage fright and the accompanying rapid heartbeat. Anxiety of this kind causes a drawing in of both shoulders and abdomen and results in nervous tension and congested breathing.

Inhalation is brought about by the action of the diaphragm - a wide, saucer-shaped muscle which divides the upper part of the torso from the lower part beneath the ribs. In a state of rest, the diaphragm is curved slightly upwards. During inhalation it flattens and spreads out somewhat, causing the ribs to expand. This permits the outside air to rush into the lungs. The lungs should expand naturally in every direction, in the same way as when a sponge is put into water and swells out on every side<sup>3</sup>. The shoulders should never be raised during

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<sup>1</sup>Adelheid Armhold, *Singing*, (Cape Town: Tafelberg-Uitgewers, 1963), p.26.

<sup>2</sup>David Slater, *Vocal Physiology and the Teaching of Singing*, (London: Lowe and Brydene Ltd., n.d.), p. 31.

<sup>3</sup>Ernest White, *Science and Singing*, (London: J.M. Dent & Sons, Ltd., 1938), p. 124.

inhalation, and should remain relaxed and slightly drawn back and down. This represents an alert, prepared position.

The singer's breath training does not begin with inhalation, but with exhalation. It is the conscious, relaxed but carefully controlled, outgoing breath stream upon which all good singing activity rests. This even flow of outgoing breath should not be constricted at the throat and should be controlled by the abdominal muscles. As previously mentioned<sup>1</sup>, support is provided by the abdominal breathing muscles working in contrasting motion to the diaphragm and intercostal muscles which, in turn, govern inhalation.

Quiet breathing is most important. The Latin proverb, *ars est celare artem*, (the art is to hide art) holds true regards singing as much as any other skill<sup>2</sup>. An expression of wonder, surprise, (imagine smelling a flower), produces an open throat. By imagining that the breath rushes noiselessly into the lungs, the whole singing mechanism assumes the relaxed and open position which is necessary for the moment of sound production.

Many famous singing tutors believe in drawing breath through the nose<sup>3</sup>. Breathing deeply through the nose, however, is too slow a process for singing. A sleeping person inhales through the nose which then acts as a filter to prevent heat, dust or insects penetrating the throat and lungs. During speaking or singing, another method of inhalation becomes necessary, and breathing through the nose alone becomes impossible. The most logic method seems to be borne out of necessity; in order to fill the lungs quickly and efficiently, and not to break the rhythmic continuity of the music, singers have to inhale rapidly through the mouth and nose simultaneously.

Breath training should become an integral part of choral rehearsals. Not only does it stimulate breathing itself, but it also serves to prepare the singer psychologically. As a result of good breathing, the

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<sup>1</sup>Part one, p. 4.

<sup>2</sup>Ibid., p. 124.

<sup>3</sup>Wilhelm Ehmann, *Choral Directing*, (Minneapolis: Augsburg Publishing House, 1968), p.22.

singer will develop his ability to phrase artistically and intelligently<sup>1</sup>.

Simultaneous breathing is one of the essential means toward achieving a vital, corporate unity within the choir. The breath taken at the beginning of a song unifies the choir into an animated, close unit and so helps to ensure precise and correct entries. The director breathes with the choir and accompanies this procedure with an appropriate gesture which leads directly into the first beat of the music. Very often, choirs suffer from "overpressure" of breath. The choir should be requested to exhale on a deep sigh and immediately proceed to use up the residual air by speaking on the syllable "dah, dah, dah". The singers will definitely be able to produce a long string of "dahs".

In choral singing, three different breathing techniques may be used: deep, snatch, and staggered breathing.

- (a) Deep breaths should be taken at the end of well-defined phrases and after half-cadences and whole cadences. If the conductor can induce the singers to breathe deeply after phrase endings, the musical structure will be made clear and the music itself will be full of life and movement.
- (b) At times the singers may have to snatch a breath which is possible through a quick, small movement of the stomach walls just beneath the solar plexus. The posture of the singer remains unchanged.
- (c) Staggered breathing must be applied whenever a phrase is so long that the individual is unable to sing it in one breath. The choir director should decide on the breathing places for the different sections. In their turn, the singers help each other by breathing in such a way that the whole phrase can be sustained without interruption and without any audible inhalation.

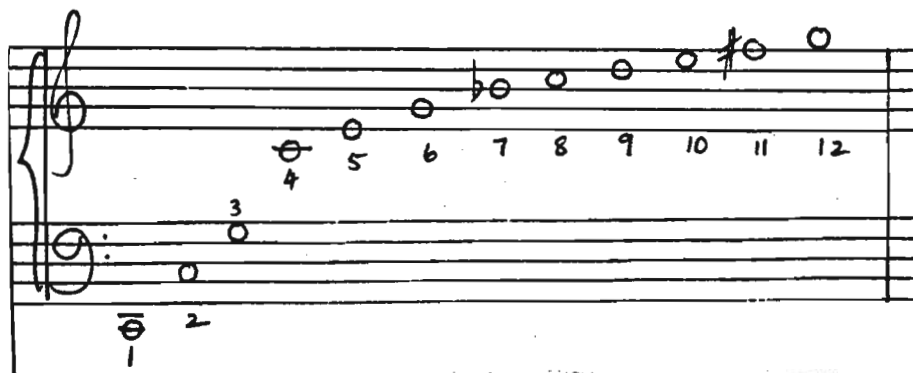
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<sup>1</sup>Part 2, pp. 57-58 contains various breathing exercises.

## 2.3 The Vocal Resonance System

The sound of the human voice is very complex and rich in harmonics, for the mouth and various cavities opening into the mouth such as the pharynx, the naso-pharynx and the chest, act as resonators.

A single vowel sound does not exist, because any vibrating body such as the vocal cords, sets up subsidiary vibrations as well. While vibrating along its entire length, the fundamental tone is produced. Almost immediately, its halves set up subsidiary vibrations and, being half the length, vibrate twice as fast, sounding the octave. The thirds vibrate three times as fast, sounding the twelfth. Eventually, we hear something like this:



This relationship of sound is called the harmonic series: the first harmonic is called the fundamental. The remaining notes or harmonics are called upper partials or overtones<sup>1</sup>.

Nasal resonance is an added embellishment which gives a richer sound to the tone resonating in the mouth cavity. Nasal resonance should not be confused with nasal tone, which is caused by a lowered soft palate, thereby shutting the mouth off from the throat. As a result, the tone passes directly through the nose, resulting in an offensive nasal quality. Humming exercises should be practised to develop correct nasal resonance<sup>2</sup>.

<sup>1</sup>Charles Cleall, *Voice Production in Choral Technique*, (London: Novello and Company Ltd., 1970), p. 53.

<sup>2</sup>Part 2, pp. 65-67 contains appropriate exercises.

Tone production is much improved by the addition of head resonance. The effect of head resonance is a brilliance resulting from the strengthening of high harmonics. The singers' entire range should contain head resonance as it's brilliance is an important factor for singing in tune: notes without such brilliance tend to sound flat.

The mouth is a large, spacious cavity, the roof being formed by the high palate. The position and shape of the lips and mouth have the greatest influence upon the timbre of the voice.

The chest is a superb and powerful resonating box, adding great volume to the low tones of the voice. Chest vibration decreases naturally as the voice ascends the scale.

The vocal cords merely produce the sound. The mouth transforms it into tone, which, with proper cavity formation and breath control, resonates in the mouth, chest and cavities of the head. If there happens to be a cavity in the mouth, nose or chest which is "tuned" in to one of the partials produced by the larynx, that particular partial or overtone is reinforced while the other partials, in finding no sympathetic resonator remain relatively insignificant. No tone should be pushed or forced to some particular point. Properly produced tone seems to place itself, provided there is no interference with the resonance mechanism. Therefore, singers should aim for the following:

- (a) Slightly raised cheeks, forming a gently smile so as to open the inner nasal cavities.
- (b) Low-lying relaxed tongue and lower jaw.
- (c) The teeth apart, so that the cavity of the mouth remains sufficiently large.
- (d) A high relaxed soft palate, spreading out towards the sides.
- (e) A relaxed and open throat.
- (f) A foundation of good breath control.



## Chapter 3

### **Control of the Laryngeal Mechanism**

#### **3.1 Pitch**

The fundamental pitch of a voiced sound is determined by the tension of the vocal cords and the pressure of the breath against the vocal cords.

Vocal cords are capable of changing rapidly in thickness, length, and tightness. Within each vocal cord are two sets of muscles which co-operate to produce the proper amount of tension for each desired pitch<sup>1</sup>. However, it is the vocal tract situated above the vocal cords which augments the tone and determines its timbre and quality.

Many singing tutors agree that the mental concept which precedes the sounding of a tone is of the utmost importance. By relaxing mentally, the jaw and tongue will drop automatically and the throat will be open. The mind should then conceive of a clear, vibrant tone at the correct pitch. The attack should be firm and precise, but without force or too much effort<sup>2</sup>.

#### **3.2 Volume**

Any inexperienced singer with a potentially good voice is by no means ready for choral singing which demands loud singing. The development of volume and its control is so intimately associated with the control of tone quality that it is practically impossible to consider one without the other.

It should be pointed out that loud singing is not necessarily beautiful. In fact, many young singers have beautiful voices but lack the

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<sup>1</sup>Joseph Klein, *Singing Technique*, (New Jersey: D. van Nostrand Company Inc., 1967; reprint ed., 1968), p.36.

<sup>2</sup>Ivor Warren, *The Examination Candidate's Handbook on Singing*, (London: A. Hammond & Co., n.d.), p.15.



necessary volume<sup>1</sup>. Untrained voices are often unable to sustain good tone quality with increasing vocal intensity. As soon as the singers acquire a good voice quality, the tutor should aim at building up the singing muscles. Loud, forced singing is an abomination, often resulting in disastrous vocal problems, such as a tremolo<sup>2</sup>. A well-trained, experienced conductor should be able to guide the singers successfully in developing volume without loss of quality.

### 3.3 Dynamics

The voice is unique in its capacity of diminishing the sound of a single note from loud to soft and vice versa. Most beginners support the piano and pianissimo notes by the muscles of the throat instead of the diaphragm. There should be no pressure on the throat and neck muscles at all. A soft tone should be an exact replica of a loud one, involving no change of mechanism. Resonance is the carrying power of the tone, and the softest pianissimo must be just as resonant as a forte tone. Soft tones demand an even greater degree of intensity of the column of breath than loud tones. Demonstrate this by requesting the students to blow on 'ss' or 'ff', first forte, then piano. In forte, one will use dynamic force and consequently more breath, while in blowing piano, less breath will be used but the controlling action of the diaphragm and rib muscles will be strongly felt<sup>3</sup>. The carrying power of the voice depends largely upon the following elements:

- (a) Control of the breath
- (b) Forward placing of the sound
- (c) Full and correct use of the resonators
- (d) Distinct articulation<sup>4</sup>

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<sup>1</sup>Viktor Fuchs, *The Art of Singing and Voice Technique*, (London: Calder and Boyars, Ltd., 1963; reprint ed., 1967), p.106.

<sup>2</sup>Refer to Part 2, p. 97 for exercises.

<sup>3</sup>Adelheid Armhold, *Singing*, (Cape Town: Tafelberg-Uitgewers, 1963), p.52.

<sup>4</sup>David Slater, *Vocal Physiology and the Teaching of Singing*, (London: Lowe and Brydene Ltd., n.d.), p.55.

In order to control a crescendo or diminuendo it is very important that the singer's ear is sufficiently trained in keeping exact vowel form and tone colour fixed in his memory. If not, a crescendo or a forte passage may be mistaken for an increase in dark tone colour and a diminuendo or piano singing with an exaggerated thinning out of the voice<sup>1</sup>. In diminishing the tone, the opening of the throat remains the same. Only the quantity of breath being expelled is diminished by means of the diaphragm muscle. *Messa di Voce* is a technical term applied to the art of swelling or diminishing the tone by imperceptible gradation from the softest attainable piano to full volume, and vice versa<sup>2</sup>. Singers should not start working on *Messa di Voce* unless they are guided by the two guardian angels of the voice - resonance and breath control<sup>3</sup>.

### 3.4 Colour

Light and shade constitute the principal element of expression; and the artist who does not know how to put a variety of colour into his singing will not be able to communicate with his audience. Tone colour and resonance are inseparable. Without good resonance there can be no colour.

Facial expression has an important bearing upon the colour or quality of the voice. For example, it is impossible to produce bright, happy tones with a sombre facial expression, and equally impossible to portray sad emotions with a meaningless smile.

A balanced tone has the correct blend of the fundamental tone and its overtones. A very wide smile may destroy the delicate balance by bringing in too much of the upper partials, while the fundamental remains subdued. A dark tone is the result of the emphasis of the

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<sup>1</sup>Brent Monahan, *The Art of Singing*, (London: The Scarecrow Press, Inc., 1978), p. 165.

<sup>2</sup>Refer to Part 2, pp. 78-79 for appropriate exercises.

<sup>3</sup>Viktor Fuchs, *The Art of Singing and Voice Technique*, (London: Calder and Boyars, Ltd., 1963; reprint ed., 1967), p. 114.

fundamental pitch. It lacks ring and has a tendency to stay locked in the throat<sup>1</sup>

Without dynamic tone colour, singing would be dull and uninteresting. Not only should the words be sung clearly, but each word should also have that required quality of tone to make it expressive. The conductor and his singers should clearly understand the song as a whole, and endeavour to present the listener with a complete picture. By using the appropriate tone colour, a magical atmosphere - without which art is impossible- is created during the performance of a song.

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<sup>1</sup>Warren Angell, *Look up, you Singers!*, (Dallas: Crescendo Publications, Inc., 1978), p.73.

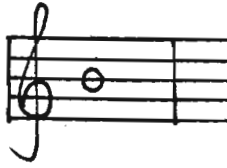
## Chapter 4

### **Voice Ranges and Registers**

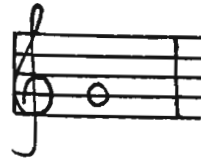
#### **4.1 Voice Ranges**

Adult singers fall into the following main categories, according to the average centre of their voices<sup>1</sup>:

Soprano:



Mezzo-Soprano:



Contralto:



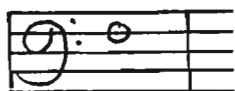
Male Alto:



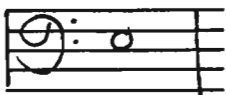
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<sup>1</sup>Charles Cleall, *Voice Production in Choral Technique*, (London: Novello and Company Ltd., 1970), p. 101.

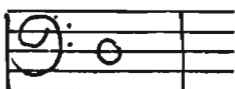
Tenor:



Baritone:

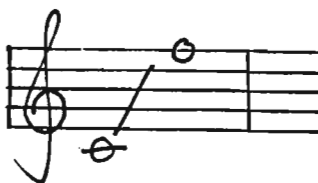


Bass:



Most amateur singers range about a fifth below and above the average centre of their voices, whereas professionals will range from an octave to as much as a twelfth below and above.

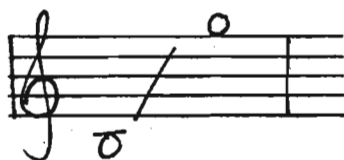
The average compass of young children's voices, about 10 years of age, is approximately<sup>1</sup>:



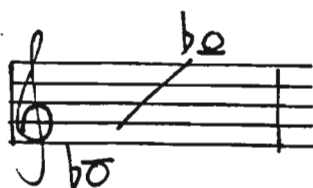

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<sup>1</sup>Reginald Jacques, *Voice Training and Conducting in Schools*, (London: Oxford University Press), p.40.

As their voices mature, with proper training, the voice range may gradually expand until the sopranos will sing quite comfortably within a range of:



Boys with good voices, given careful training, should develop a compass of:



Their voices are extremely flexible, and possess a much more extensive head register than girls.

The only way to cultivate beautiful tone in children's voices is to demand soft singing at all times. The obvious advantages are:

- (a) The voice will not be forced during soft singing, and there will be no risk of strain or fatigue.
- (b) A good tone will immediately be produced, especially in the head register.
- (c) Intonation will more often be accurate.
- (d) The registers will blend easily and naturally.

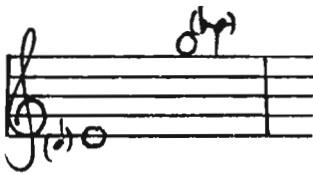
The part of the voice lying between:



should be trained first, as these are the notes on which children naturally use correct voice-production.

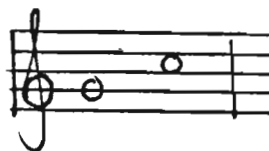
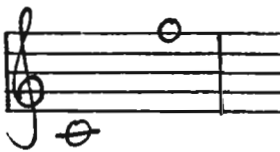
The following descriptions are applicable to the average high school choir. For each voice group, the compass is shown on the left and the tessitura on the right.

First soprano



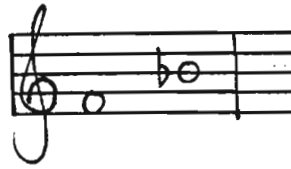
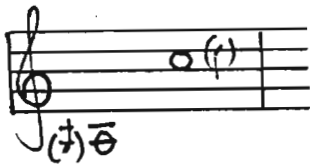
Typically, the first soprano produces a light, flutelike, lyrical sound.

Second or mezzo-soprano

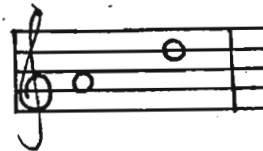
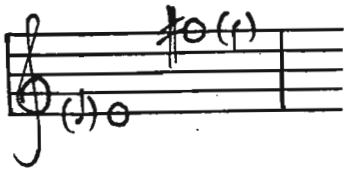


The mezzo-soprano has a fuller, more dramatic quality than the first soprano.

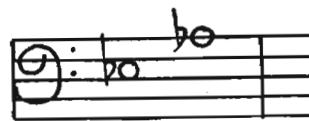
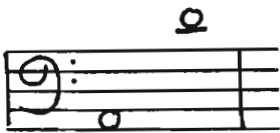


Alto or contralto

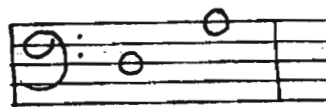
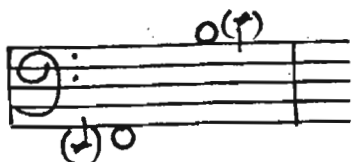
The contralto sounds full, rich and sonorous, especially in the lower range. A true alto voice is rare at the high school age, and may initially be breathy in quality.

Tenor

Characteristically, the tenor has a pure, delicate and sweet tone. While the voice sounds light in its lower range, it sounds brilliant on the higher notes where it sings comfortably. Tenors rarely mature at high school age.

Baritone

The baritone's voice is broad and rich in quality. This quality can be sustained comfortably into the tenor range.

Bass

The bass has a heavy, dark deep quality, especially in the middle and lower ranges of the voice.

4.2 Voice Registers

The distinctive character assumed by the voice, according to the particular action of the vocal organs and specific cavity employed as its "resonance chamber" constitutes what is commonly called "register"<sup>1</sup>.

Until Garcia<sup>2</sup> invented the laryngoscope<sup>3</sup> in 1865, all great singing teachers claimed that there were only two registers, the chest and the head. At the time of his invention, even Garcia himself believed there to be only two registers. Only at a later stage of his teaching career did he break away from the traditional view, and assert that there were three registers, chest, middle and head.

As to the idea of "one register" for the whole voice, there is no better explanation than the old Italian saying, "One register is not a starting-point, but a goal". To assert that there are no registers, is unfortunate because the blending of the registers or the smoothing out of the voice where one register passes over into another is one of the greatest problems which the teacher of voice-production has to solve. The subject of register blending is complicated because many

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<sup>1</sup>Many contradictory views are held by experts regarding this issue. One good reason for not recognising the registers, is that when they are discussed there inevitably follow references to "breaks" in the voice. This may influence the singer towards becoming self-conscious and nervous about registers and may even result in transforming a slight break in the voice to something very obtrusive.

<sup>2</sup>Manuel Garcia (1805-1906), invented the laryngoscope and was also a fine singing teacher, numbering Jenny Lind among his pupils. He was professor of singing at the Royal Academy of Music in London from 1848-1895.

<sup>3</sup>A mirror apparatus for examining the larynx.

people suppose, for example, that the vocal registers are synonymous with the different kinds of voices, and speak of the alto, soprano, bass or tenor register as if register stood for quality, which it does not.

Dr. Paul J. Moses<sup>1</sup>, a most competent medical and vocal specialist of the Stanford University School of Medicine, writes of registers:

"The functioning of registers may be seen with the stroboscope, during mirror laryngoscopy. In singing from the highest possible tone down to the lowest, the untrained singer passes a sequence of tones of a certain character. He reaches a 'node', or switching point, from which he continues with a sequence of tones of a different character. Then he reaches another 'node' and switches to the lowest third of the range. The trained singer does not reveal these 'nodes', since he has learned to unify the head, middle and chest register."

A singer who does not understand how registers function will sooner or later have trouble in equalizing his low, middle and high notes. Registers cover each other so that several notes can be sung in both, and there should be no obvious change in going from one to the other.

The term "break" is generally used to indicate the point at which a new register suddenly appears. Whereas the most marked break in the female voice is in its lowest range, the break of the male voice is to be located in its highest range. The majority of writers on the technique of singing advise, for the reasons listed below, that the blending of registers may be achieved by strengthening the upper registers and carrying them downwards.

- (a) It is easier to change from an upper register into a lower than from a lower into an upper.
- (b) There is less risk of straining the registers.

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<sup>1</sup>Paul Moses, *The Voice of Neuroses*, (New York: Grune and Stratten, 1954), p.92.

- (c) If exercises are practised from below, there is a strong tendency to force a register upwards beyond its proper limits, thus weakening the lower notes of the next register, and greatly increasing the difficulty of a smooth junction.

The incorrect use of the resonating cavities is fatal to the successful blending of the registers. If the resonance rises with the voice, abrupt changes of timbre will be avoided. When descending from an upper register, as much as possible of the resonance of that particular register should be introduced into the upper notes of the register below.

### 4.3 Falsetto

Falsetto occurs when a male singer sings soft notes in the highest regions above his natural range. The usual definitions are, "a false or artificial voice" or, "that part of a man's voice which lies above his natural voice". It was probably first applied to singers in liturgical music in the Roman Church, which did not admit any female singers. The soprano parts were normally sung by boys. During the 16th Century, the polyphonic a capella style had reached such complexity that it was difficult for boys to master it during the relatively short period at their disposal (from about eight to thirteen years of age). Tenors took over the higher parts by singing falsetto, and they were known as *tenori falsetti* or simply *falsetti*. Later they were replaced by *castrati*, i.e. singers whose voices did not break as the result of a surgical operation<sup>1</sup>.

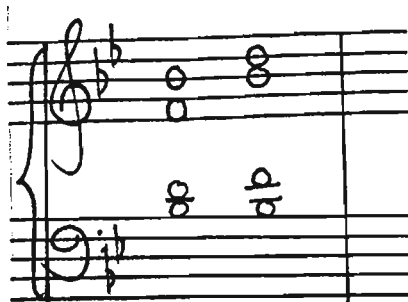
During normal singing, the vocal cords vibrate as a whole, whilst in falsetto only the edges vibrate, hence the resulting thin, reedy tone. It also demands the smallest possible column of air. A falsetto note can never be developed into a chest or head note, nor can it be developed to sing very loud. A head note on the other hand, can be sung by singers of both sexes and is performed with partial or complete vibration of the skull and its cavities. A piano or pianissimo note that can be developed to forte is a typical head-note and not a

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<sup>1</sup>For as long as the Church required the musical services of these singers, the matter was never disclosed, and the Church allegedly denied knowledge about the disfigurement of the boys. Poor and greedy parents were seduced by the wealth that famous *castrati* could amass.

falsetto. Skilled singers minimize the break between pianissimo head-tones and falsetto by colouring the notes before and after the falsetto notes.

The use of falsetto-singing in choral work is of extreme value. The natural male voice in its high tessitura could very easily dominate the female parts and especially in a final chord such as:



where the F above middle C is initially sung by altos, followed by the tenors which could make it sound pinched or forced. In these cases, falsetto-singing seems to be the logical solution<sup>1</sup>.

#### 4.4 Changing Voices

There is a hurdle that all boys meet – the voice change. Boys' voices change drastically, often suddenly and usually with strange, unexpected quirks as they drop as much as two octaves in pitch. Boys then have to learn to sing in a new idiom. The tenor and bass lines are different from anything the boys have had before. There are new harmonic and contrapuntal voice lines, and new clefs.

Extensive voice-tests were undertaken by Frederick Swanson for his Ph.D. dissertation: *Voice Mutation in the Adolescent Male*. He revealed very startling cases where voices dropped in pitch suddenly as much as two octaves, sometimes within the span of six weeks. Of these, some boys also retains a functional treble voice, while others, for a time, could only sing a few deep bass tones and nothing else. Some boys also sang in the low bass and high treble with an area of silence in between, where no sound at all could be produced<sup>2</sup>. Only

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<sup>1</sup>Philip McLachlan, *Klasonderrig in Musiek*, (Goodwood: Nasou Beperk, 1978), p.133.

<sup>2</sup>Frederick Swanson, "Changing Voices: Don't leave out the boys", *Music Educators Journal* (January 1984), p.47.

rarely did boys appear who moved down gradually. Swanson also discovered that some boys produced tones an octave below the standard bass clef, also known as the "pulse register" or "Russian bass". These boys are often labeled as deficient singers, but when developed and used properly, they can add an effective depth and richness to any choir.

It is very important for the choral director to be able to recognize the change when it occurs, so that care and attention can be directed towards producing the voice correctly. Some of the symptoms of the changing period are:

- (a) The speaking voice becomes husky and lacks control.
- (b) The speaking voice begins to get heavier in tone and a celestial brilliancy is noticeable during singing.
- (c) The higher notes may disappear or become difficult to sing while the lower notes improve in quality.
- (d) He may experience difficulties in finding the proper pitch and often the following signs are prevalent: raised eyebrows, a wrinkled brow and a pained or "goose-neck" look.

Boys are sometimes taught to use a chest tone for their lower notes before the changing period, as an alternative to using the medium register which may sound weak in comparison to their strong chest tones. The aim in teaching singing is to lay the foundation for a beautiful and resonant voice in adult life. The effort required to force power onto the lower notes of the voice before the change, may easily cause a completely ruined voice. By developing the use of the medium register for low notes, a bridge is established by means of which their voices can gradually pass without difficulty into tenor, baritone, or bass.

It is also of vital importance to use the voice gently during the time of change. The voice will naturally develop in power and improve in

quality if attention is directed to correct breathing and the use of the correct resonance chambers<sup>1</sup>.

An adolescent boy should be encouraged to report immediately when he first encounters difficulty in voice-production. From that time on, there should be a constant individual testing and reclassification of the boy's voice until it has settled permanently. Enthusiasm, method, patience and indomitable perseverance on the part of the director is essential.

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<sup>1</sup>W. Norman Mellalieu, *The Boy's Changing Voice*, (London: Oxford University Press, 1966), p.11.



## Chapter 5

### **Intonation**

The subject of intonation is laden with psychological overtones in which the egos of individual choir members are involved. For example, a conductor may point to faulty intonation with a statement such as, "you are singing flat". The singer could easily take offence, and interpret this comment as being synonymous with the criticism that he was not singing musically. The conductor should not create anxieties for his singers in any way, but rather try to pin-point the specific cause of the problem and then try to correct it.

Conductors often use the expression, "listen to each other" in an attempt to achieve good intonation. This injunction does not make any sense. Should the singers who are singing in tune listen to those who are singing out of tune or vice versa? How will the singers know to which group they belong at that particular moment? Choirs tend to go flat in perfect harmony anyway, therefore one must assume that they are in fact acutely aware of each other. It is the conductor's task to listen to what he is hearing; in other words, to recognize and analyze the cause of a pitch problem and to provide a solution to overcome it. It is very often better to say nothing until the exact cause of the problem is apparent<sup>1</sup>.

#### 5.1 The relationship between correctly-produced tone and intonation

Accurate pitch and intonation is dependant upon correct vocal production. The pitch of the tone is determined by the tension of the vocal cords and the pressure of the breath against the vocal cords. If the pressure or breath support is inadequate, the laryngeal muscles will function incorrectly in their effort to obtain the correct pitch. This places strain and fatigue on the voice. It also results in muscular interference of the jaw, lips, and the root of the tongue. There will be an absence of well-placed resonance.

The intonation will also suffer if vowels and consonants are badly produced. A too open mouth position in the low register often spoils

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<sup>1</sup>Walter Ehret, *The Choral Conductor's Handbook*, (New York: Edward B. Marks Music Corporation, 1959), p.19.

the tone. Likewise, in the high register a fixed, tense jaw influences the overtones and the tone does not ring true.

## 5.2 Weak Aural Perception

F.C. Field Hyde<sup>1</sup> writes: "Ear training in singing may be defined as the process of becoming proficient and skillful in recognizing, retaining or reproducing vocal tones by means of practice in experiencing their auditory sensations. In other words, it is the means of receiving and retaining mental impressions of vocal tones and tonal relations through the medium of the sense of hearing". According to him, the difference in most cases between singers and those who have no voice is really a defect of ear on the part of the latter. They are naturally unable to imitate sounds, that is, reproduce gradations of pitch which they either do not hear at all, or only imperfectly.

Music is a listener's art because every movement of the body and excitement of the imagination in reaction to the music is determined and qualified by how and what one hears. Many singers are deficient in aural imagination of musical sounds through lack of training<sup>2</sup>.

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<sup>1</sup>F.C. Field Hyde, *The Singing Class Teacher*, (London: Joseph Williams Ltd., 1914), p.147.

<sup>2</sup>Part 2, pp. 86-90 contains useful exercises designed to train the choral singer's ear.

## Chapter 6

### Diction

Good tone quality and correct diction is essential to effective interpretation. Pronunciation, enunciation and articulation all form an integral part of diction.

Pronunciation is the way in which the words are sung, and in particular, the way in which the vowel and consonant sounds are uttered, as well as the correct accentuation of the words and phrases. "Sing as you speak" is a very debatable statement. The habits and speech mannerisms of individuals vary greatly and consequently an analysis of words sung by a choir will reveal a wide variety of similar, yet distinctly different pronunciation of each vocal sound.

Enunciation is the way in which the sound is uttered regarding the clarity and distinctness of the various vowels and consonants employed. The central thought of the music can only be conveyed to the audience when the choir's enunciation is good.

Articulation refers to the articulating organs, the tongue, lips, teeth, palate and lower jaw, which form and alter the channels necessary to project the various vocal sounds in order to achieve clear communication.

There are three basic and distinctly different styles of choral diction, namely legato, staccato and marcato.

Legato phrases should be thought of as long, soaring and descending musical lines. The explosive consonants should be diminished in order to blend smoothly with the vocal sounds. This effect can be achieved by attaching the final consonant to the next word or syllable. As well as maintaining a good legato line, it also ensures absolute precision and unification in articulation. For example, "For un-to us a child is born" is actually sung, "Fo-run to us a child is born". Exceptions to this rule occurs as a result of the diction being unintelligible, for example, "We three Kings of Orient/are". The diagonal line indicates where the sounds should be separated. Overly exaggerated articulation should be avoided as it often results in a disturbance of the legato flow. By raising the intensity of the singing consonants L, M, N, NG and R, the vowels and consonants will blend

together and follow each other in an even flow of tone, for example, "All the night", not "All/the/night"<sup>1</sup>.

In staccato singing, the lips should be without tension and flexible in order to exaggerate any lip movements because good staccato diction depends upon distinct and precise articulation of the consonants. The words should be detached from each other, almost as if there were quick rests between each note. Care should be taken that the words and vowels are formed closer to the front of the mouth, as sounds formed in the back of the throat will become difficult to articulate in a short, detached style<sup>2</sup>.

Marcato diction requires that each note is accentuated while the musical rhythm needs to be emphasized as well. Correct muscular action of the abdominal muscles is necessary in this case<sup>3</sup>.

Some choral compositions may require contrasting treatment as regards the *style* of diction while other compositions may only need one specific type of singing. The conductor should always prepare himself thoroughly by carefully analyzing the text and the music, with particular attention to the diction requirements.

## 6.1 Vowels and their Pronunciation

Vowels are utilized for sustaining the singing tone and should ideally be uniformly produced by all members of the group. If not, the quality and uniformity of the choir tone<sup>4</sup> will be disturbed. The choral director may approach vowel production in the following ways<sup>5</sup>:

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<sup>1</sup>Robert L. Garretson, *Conducting Choral Music*, (Massachusetts: Allyn and Bacon, Inc., 1970), pp.93-94.

<sup>2</sup>Refer to Part 2, p. 99 (iii) and (iv) for exercises to improve staccato singing.

<sup>3</sup>Refer to Part 1, p. 4 for a discussion on the function of the abdominal muscles.

<sup>4</sup>Refer to Part 1, pp. 50-52 for a discussion on uniformity of choir tone.

<sup>5</sup>Wilhelm Ehmann, *Choral Directing*, (Minneapolis: Augsburg Publishing House, 1968), p.49.

- (a) The director can describe the purely mechanistic movements of the lips, teeth, tongue and adjustment of mouth spaces in order to produce the required vowel sounds.
- (b) The director can approach the improvement of the vowel sound in terms of what the musical ear demands regarding purity, intensity and tone colour, for example, a *bright* "ah" as against a more *covered* "ah".
- (c) The director may also illustrate the natural characteristic of each vowel by relating it to an experience intimately associated with the required sound, for example, "ah" is related to a sense of happiness and well-being, "oh" to a feeling of surprise or excited wonder and "ee" to a feeling of horror.

Using his discretion, the director will integrate and use all three approaches, and emphasize one approach or the other in accordance with the age level, maturity, and ability of the choir.

Choral singing may become meaningless unless the choral director insists on the following aspects regarding diction:

- (a) The singing should be natural, devoid of any affected accents and mannerisms, except when the music specifically requires certain foreign accents.
- (b) Every syllable, word and phrase must be distinct in order to produce intelligible diction.
- (c) The natural accentuation of syllables should be preserved, therefore every syllable will not have equal strength. Carelessly translated songs often result in an imbalance between word and metrical accent.
- (d) The text becomes more meaningful and results in good communication with the listener by stressing and colouring the key words within each phrase.

In order to achieve the above aims, the choral director should always give attention to the correct forming of vowels and consonants, as well as maximum synchronization of the sound elements involved.

Vowels will not be well-shaped unless the tongue lies completely relaxed except for the actual muscles necessary for the position and movement desired. Each vowel or syllable should have its specific sound characteristic isolated, for example:

Glo- ry    to    God  
aw    ih    oo    ah

The vowel position must be held for its full rhythmic value, before moving decisively onto the next vowel mould. The mouth is shaped and prepared for the vowel, not for the consonant<sup>1</sup>. Certain vowel sounds may be modified to improve the tone quality, especially on high notes, or long, impressive runs. They should, however, never be altered into an unrecognizable form. Avoid a shock of the glottis when singing a word beginning with a vowel<sup>2</sup>. Ending on a vowel sound also requires specific treatment in order to avoid a "click" or forced tone. The breath control should be regulated, while the throat, jaw and tongue remain relaxed. Should this become an obstacle, the singers could end by leaving the mouth open and inhaling sharply<sup>3</sup>.

In order to achieve uniform tone production and tonal blend, the choral director must be aware of the precise differences between vowel sounds. All the primary vowels (ah, eh, ee, oh, oo) should regularly be used in vocalization<sup>4</sup>. The various vowels are determined by the relative size and shape of the mouth and throat cavities, specifically by the position of the jaw, tongue and lips. On the following page are photographs illustrating the position of the mouth, tongue and lips in the formation of the primary vowels.

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<sup>1</sup>Walter Ehret, *The Choral Conductor's Handbook*, (New York: Edward B. Marks Music Corporation, 1959), p.37.

<sup>2</sup>Refer to Part 2, p. 94 for a definition of, and cure for, shock of the glottis.

<sup>3</sup>Paul Roe, *Choral Music Education*, (Englewood Cliffs: Prentice-Hall, Inc., 1970), p. 93.

<sup>4</sup>Refer to Part 2, pp. 71-73 for appropriate exercises.

Ah



Eh



Ee



Oh



Oo



The following vowel chart illustrates the variety of vowel sounds that occur in choral singing, and includes a description of the production of the various sounds<sup>1</sup>:

A as in Father: Jaw dropped and mouth open. Tongue lies easily at the bottom of the mouth, the tip in light contact with the lower front teeth. The arch of the mouth is high and broad. Avoid singing AH in the back of the mouth for it can become a throaty AW sound<sup>2</sup>.

A as in Add: Usually too nasal. Modify by practising the broad AH as in Father, and work back until a fuller A, as in Ask, is heard.

A as in Paw: Keep the vowel forward. Excellent for developing fullness of voice and darkness of colour.

A as in Fate: Usually sounds edgy. Should be treated as a diphthong combination. Sustain it on the EH, as in Pet, and vanish on an EE, as in Me, or on IH, as in Hit.

E as in He: Tends to be a harsh sound. Aim for a dark sound. The lips can be rounded as if singing OO, as in Moon, then superimpose the EE, as in He, on this mould. The result should be equivalent to the French "u" or the German umlaut, "ü". Avoid tension in the jaw or clenching of the teeth. When properly focused and resonated, EE is excellent for acquiring ring and vitality as well as for brightening "thick" voices.

E as in End: Tends to be strident. Mellow the vowel by practising a combination of OO-EH sounds.

I as in Hit: Colour this vowel with a bit of EE, as in Me, for added depth and richness. Keep the lips well rounded, so that a sound of greater depth is produced.

O as Vote: The tongue lies easily in the bottom of the mouth, with the tip touching lightly against the lower front teeth. This is a diphthong

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<sup>1</sup>Robert L. Garretson, *Conducting Choral Music*, (Massachusetts: Allyn and Bacon, Inc., 1970), p.84.

<sup>2</sup>Refer to Part 2, p. 82 for exercises designed to cure a throaty AH sound.



combination, sustaining on OH and vanishing on OO. Keep a bit of the AH colour when singing OH. Set the AH mold and adjust lips to pronounce OH.

O as in Cot: Take care not to pronounce it too brightly, for example, "cawt".

O as in Lord: Should have an "awe" sound.

OO as in Soon: Lips well rounded, with a cavernous feeling inside the mouth. If the vowel sound throaty, form it on an O, as in Note, slowly changing to OO, as in Soon. Preceding OO, as in Soon, with an EE, as in Me, will also help to take some of the throatiness away.

UH as in Up: Tongue lies flat, jaw relaxed. Watch out for curling of the tongue and tightening of the base of the tongue. Use AH, as in Father, as the basic vowel mold, modifying it into UH. Practice this exercise with as little shift from AH as possible.

## 6.2 Diphthongs

A diphthong may be defined as a compound vowel, or a syllable in which the sound changes from one vowel to another<sup>1</sup>. In singing a single vowel, the articulating organs are held in a fixed position, whereas in a diphthong, the articulating organs change position, thereby altering the vowel sound. In these cases, only one of the vowels can be fundamental. The secondary or vanishing vowel should be treated as a consonant and executed very crisply and precisely. Anticipation towards the secondary vowels will destroy the blend and vowel uniformity<sup>2</sup>. Therefore, the choral director is advised to decide on a definite beat whereupon the secondary vowel is to be sung. Prior to any singing, the director should analyze and explain the different elements of a diphthong to the singers, simultaneously ensuring that

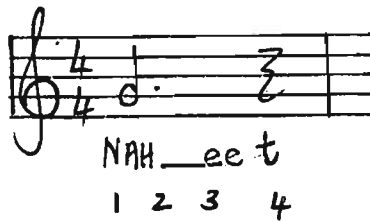
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<sup>1</sup>According to Webster's dictionary, the word diphthong is derived from the Greek word, diphthongus, di-, meaning two and -phtongus, voice or sound.

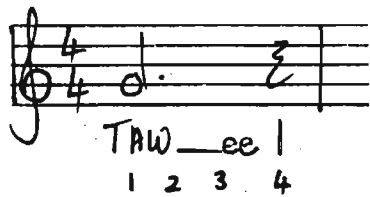
<sup>2</sup>Walter Ehret, *The Choral Conductor's Handbook*, (New York: Edward B. Marks Music Corporation, 1959), p.45.

the correct element is accentuated. The following examples illustrate the correct pronunciation of the various diphthongs<sup>1</sup>:

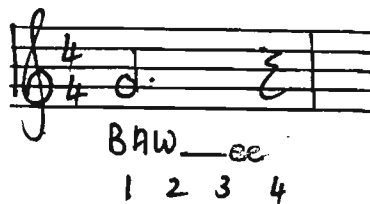
I as in Night: Consists of the fundamental Ah, as in Father, which is sustained for almost the entire length of the tone, with EE, as in Me, sounded just before the tone is ended, for example:



OI as in Toil: Consists of a fundamental AW, as in Awe, sustained and a vanish on EE, as in Me, or IH, as in Pit, for example:



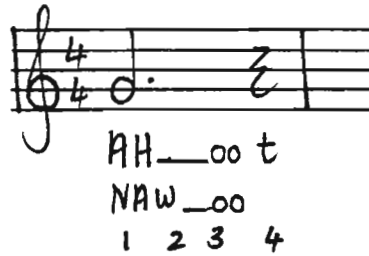
OY as in Boy: Consists of a fundamental AW, as in Awe, and a vanish on EE as in Me, or IH, as in Pit, for example:



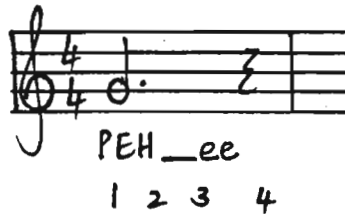

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<sup>1</sup>Ibid., p. 46.

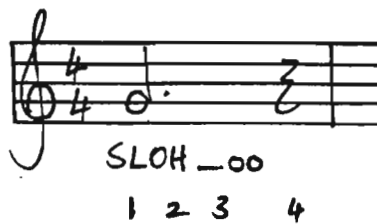
OU as in Out, or OW as in Now: Consists of a fundamental AH, as in Father, and a vanish on OO, as in Moon, for example:



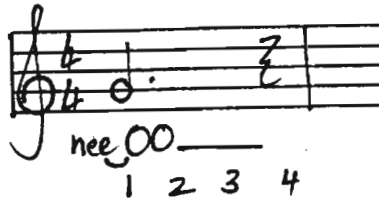
A as in Pay: Consists of a fundamental EH, as in Pet, and a vanish on EE as in Me, or IH, as in Pit, for example:



OH as in Slow: Consists of a fundamental OH, as in Go, and a vanish on OO, as in Moon, for example:

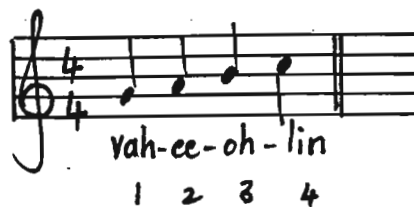


E as in New: Here the vanish precedes the fundamental and consists of a vanish on EE, as in Me, and a fundamental on OO, as in Moon, for example:



### 6.3 Triphthongs

Triphthongs are three contiguous vowels in one syllable. Each of these vowels must be pronounced clearly and separately, despite the fact that they are linked very smoothly together. The musical accent must conform to the phonetic stress. The accentuated vowel gets the longest part of the note under which it stands. Triphthongs are formed by vowel combinations such as: aio,iei, uai, uia and uoi. An example would be the word "violin".



### 6.4 Consonants

The beauty of the voice and the expression of emotion is heard in the vowel sounds. Clear enunciation of the consonants, however, is essential to the intelligibility of the sung words.

In contrast with vowels which are formed with an open mouth, consonants result from an obstruction of the cavity of the mouth at one point or another, interrupting the vocal tone altogether or altering it to a hum or a buzz. Great care should be exercised so as to prevent the consonants from interfering with the proper resonance of the

vowels or interrupting the flow of the tone in such a way as to destroy the vocal line. On the other hand, to ignore the distinctive consonantal qualities is to ignore a fundamental aspect of the expression of language. Consonants are no less important in interpretation than vowels. It is the consonants, above all other qualities, which set the human voice apart and makes it unique amongst musical instruments.

Consonants must be executed clearly, consuming as little time in their execution as possible. The exceptions are voiced sounds, such as L, M, N, which should be lingered upon briefly. All muscular activity involved in producing consonants must be greatly exaggerated, especially when singing in large venues. Muscular activity that is adequate for conversation is certainly not adequate for singing. Great care should be taken that this action is not exaggerated to the point where the muscles would become tired and stiff.

Consonants are generally classified into two types; voiced and voiceless sounds<sup>1</sup>. Voiceless consonants are: k, p, t, f, h, s and sh, whereas the voiced consonants include: b, d, v, z, zh, l, g, j, w, r, y, m, n and ng. The consonant th is voiced in some words and voiceless in others. Voiceless consonants imply that the vocal cords are silent, in other words, there is no perceptible movement of the vocal cords. In producing voiced consonants the vocal cords are drawn together, set into vibration, and the consonant is voiced as a result. These two types may be even further classified according to the nature of the obstruction or articulation:

- (a) Plosive consonants, where the obstruction is complete and the outflow of breath is completely blocked for an instant so that it explodes when released. These consonants may be further subdivided into:
  - (i) Voiceless plosives, where there is an audible puff of breath following the consonant, for example: p, t and k.
  - (ii) Voiced plosives where the passage of the mouth is completely blocked, but there is no explosion when they are

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<sup>1</sup>Robert L. Garretson, *Conducting Choral Music*, (Massachusetts: Allyn and Bacon, Inc., 1970), pp.89-93.

released. These consonants can be voiced very briefly, or may be devoiced completely. They are b, d, and the hard g.

- (b) Affricate consonants: These are similar to the plosives except that the explosion is followed by a slow audible release. They are ch, as in church, or j, as in judge.
- (c) Fricative consonants, where there is no complete obstruction, but only a constriction that results in audible friction. These consonants may also be subdivided as follows:
  - (i) Voiceless fricatives: h, th as in thousand, s, sh and f.
  - (ii) Voiced fricatives: th as in thou, z, j as in pleasure, v, and the English r.
- (d) Nasal consonants, where the mouth is completely obstructed and the nasal passage is open: m, n and ng as in sing.
- (e) Rolled consonants, where there is rapid intermittent contact as in the Scottish and Afrikaans r, the Spanish rr, and the Italian r.
- (f) Lateral consonants, where the obstruction is along the middle of the mouth with one or both sides free: l, the Spanish ll, and the Italian gl are all examples of lateral consonants.

The following guide-lines indicate the correct manner in which consonants should be formed<sup>1</sup>.

B as in Bee: Formed by an explosive parting of the lips. Do not use as much breath, nor explode as vigorously as when singing a P.

C as in Face: A soft "s" sound. Guard against anticipating or sustaining the hiss.

D as in God: The tip of the tongue is placed in light contact against the gum ridge and sharply snapped from this position. Do not press the front of the tongue against the place where the teeth and gum meets.

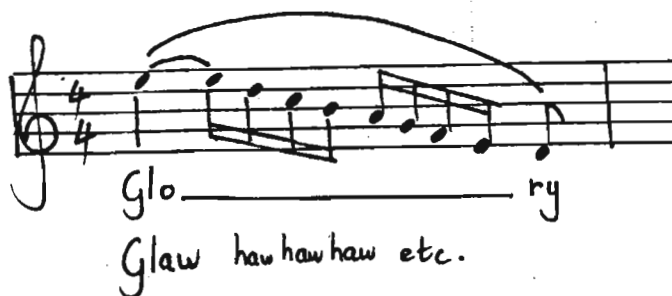
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<sup>1</sup>Wilhelm Ehmann, *Choral Directing*, (Minneapolis: Augsburg Publishing House, 1968), p.59.

F as in Fad: Formed by sharply snapping the lower lip from under the upper teeth.

G as in Flag: A guttural sound. Always sing lightly so as to prevent fatigue of the throat muscles.

H as in Hard: An aspirate. Useful when singing florid passages. The insertion of an H between each note serves to detach the notes, giving them definition, and eliminating the tendency to slur carelessly, for example:



Watch out for unnecessary loss of breath while singing an H. This aspirate also often causes difficulty when combined with other consonants. For example, the word "when" is often pronounced as "wehn" rather than "hwehn".

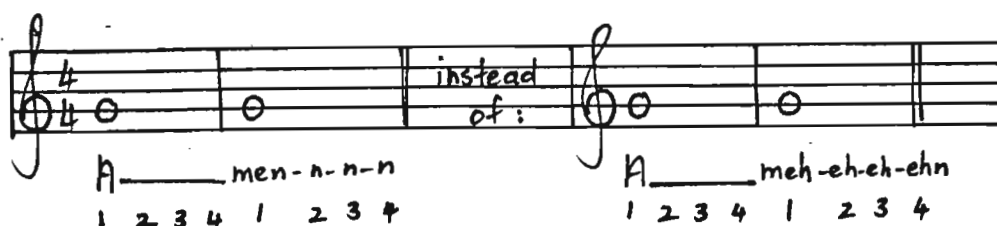
K as in Klan: Refer to G as in Flag.

L as in Lord: The tip of the tongue should be lightly pressed against the upper teeth ridge. Use only the smallest edge of the tongue tip to avoid heaviness. The L is a voiced consonant and may be sustained in order to be heard, although not as prolonged as when singing a vowel. Do not anticipate a final L, as the main vowel will be destroyed when the tongue moves forward towards the roof of the mouth. The tongue must remain in a low, relaxed state until the very last moment before sounding the L.

M and N: Excellent consonants for sustaining legato style. In order to secure a resonant M or N, sing the vowel OH while gradually closing the lips and teeth around this vowel, thereby producing a full,

resonant hum. The lips should always be held loose and relaxed, while touching lightly.

These two voiced consonants should be sung on the pitch of the vowel, and always "sounded" just long enough to be truly effective. The word Amen needs special attention, as many choral directors display bad taste by falling into the following trap:



NG as in Sing: This sound is excellent for developing forward resonance. The above remarks for M and N apply here as well.

P as in Pop: Pronounce vigorously with the lips. Jaw as relaxed as possible.

R as in Rod: Guard against pronouncing this sound in the throat. Over-rolling the R is as bad as under-articulating it. When an R appears at the beginning of a word, it may be strongly rolled. When the R appears before another consonant, as in "start" for example, the R must be pronounced very quickly. A final R should never be rolled. Singers must be made aware of the rhythmic duration of the R, and should sustain the vowel preceding the R, adding the R only briefly upon the release of the syllable. For example, "ever" should be sung as "eh-vuh-r" and "bury" should be sung as "beh-ree" not as "behr-ee".

S as in Sons: This is a sibilant and should never be sustained. Hold the vowel and touch the S at the very last moment. When S occurs between syllables, pronounce it with the second syllable. For example, "lasting" should be sung as "la-sting", not as "las-ting". When two S's appear together, one of them should be eliminated, for example, "this seat" becomes "thi-seat". Some directors have found it helpful to assign the singing of S's only to a particular group while the remainder of the group sings only the vowel sound. It could also be helpful to minimize the S sound by changing it to a shorter Z sound, as



in "slumberz not". Another solution would be to concentrate on the development of the rhythmic accuracy of the choir.

T as in Tip: Touch only the tip of the tongue to the gum ridge. Take care that T does not become D, especially in the middle of a word, "water", for instance, becoming "wader". Watch out for sound substitutes such as "meetchew", instead of "meet/you".

TH as in Earth: Do not prolong the TH sound. The correct method is sharp action of the tongue with very little loss of air.

V as in Vine: Sounded by forming a small slip with the lips, the upper front teeth lightly touching the lower lip.

W as in With: When sounding this consonant at the start of a word, it can help to precede the W with a quick OO, as in Moon. In this way "Wonderful" would be sung as "ooWonderful".

WH as in What: All word containing WH, sound a H initially. For example, "What" becomes "Hwaht" and not "Waht".

Y as in Yes: This is an excellent consonant for loosening the jaw.<sup>1</sup> The sound actually begins with an EE formation as a result of a humped tongue which permits only a little space in the front of the mouth.

Z as in Zoo: Teeth close together, but not touching. Tongue remains relaxed with the tip almost touching the gum of the upper front teeth.

CH as in Church: The sides of the tongue are placed firmly against the upper side teeth, the tip of the tongue touching the upper gum, while a vigorous puff of breath is quickly blown through the mouth.

SH as in She: The tip of the tongue strives backwards and downwards while the middle moves to the roof of the mouth. The upper front teeth close over the lower bottom teeth until they are almost touching. The lips are slightly pouted.

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<sup>1</sup>Refer to warming-up exercises, Part 2, pp 62-64.

Once the principles of good diction are taught in English, it should not be too difficult to apply most of them to other languages and the choral director will find that he is able to teach and rehearse a choir in a language that he may not be able to speak fluently.

## Chapter 7

### **Blending and Uniformity of Choir Tone**

The mark of a good choir is its precision. Through precision a choir achieves uniform and simultaneous attacks and releases. The resulting choral blend is perceived by the listener as a clear enunciation of consonants which click together on a stream of natural articulation. Rhythmic values should be given full, precise attention, to be modified only for legitimate reasons such as vocal phrasing. A precise rhythmic "heartbeat" should permeate each work<sup>1</sup>.

Complete blend is only possible when the following elements are present<sup>2</sup>:

- Accuracy of pitch
- Uniform diction
- Uniform dynamic level
- Uniform tone colour
- Rhythmic unity

It is the conductor's task to bring each member of his choir into conformity with his idea of what good tone is. Homogeneity is the watchword - without it choral singing would be ineffective and unimpressive.

Before any vocal line can be blended into the ensemble it should be a thoroughly blended unit in itself. Once the same rhythmic drive, pitch, quality and tone colour is achieved within each section, the voice groups may merge with each other to form a unified whole. Each singer should be able to hear all the other parts and should try to produce a sound identical to what he hears.

Very often, the individual tonal characteristics must be sublimated to obtain a more muted group tone quality<sup>3</sup>. It is advisable to start with a

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<sup>1</sup>John Morgan and Bill Burrows, "Sharpen your Edge on Choral Competition", *Music Educators Journal* (April 1981), p. 46.

<sup>2</sup>Walter Ehret, *The Choral Conductor's Handbook*, (New York: Edward B. Marks Music Corporation, 1959), p. 34.

<sup>3</sup>John Morgan and Bill Burrows, "Sharpen your Edge on Choral Competition", *Music Educators Journal* (April 1981), p. 46.

soft tone and gradually add more tone. Individual bad qualities, such as a harsh tone, will stand out. Singers, who have these problems, should be cautioned to listen carefully to those around them and adjust their production to blend with the more round and full voices of their neighbours.

Care should be taken that the heavy, dark voices do not dominate the light, lyric voices during crescendos in the music, while the light voices should not sing diminuendos too softly. The high treble and tenor parts are very prominent, mainly because of their quality. If the melody lies with one of the low voice groups, the intensity level of the accompanying voices should be brought down. Solo voices tend to dominate and they should be surrounded by light voices in order for them to try to match the dynamic level of the surrounding voices. Heavier voices should be placed at the back for the following reasons<sup>1</sup>:

- (a) They will listen more carefully in order to keep themselves in balance with the group.
- (b) They will be absorbed by the voices of the singers in front of them, thus resulting in a more equalized vocal output.

"Travellers" can be used very successfully to balance voice parts and to colour certain desirable effects. "Travellers" are selected members who can shift to another voice part when necessary. For example, certain tenors may sing with the altos to obtain greater depth, or some altos may sing the soprano part for added richness<sup>2</sup>.

A uniform vowel sound is an essential factor in achieving a homogeneous choir tone. Each vowel sound is characterized by harmonics of a particular frequency and intensity, peculiar to that vowel. However, the form of an individual's mouth and throat determines the exact nature of the vowel sound produced. Consequently, in any choir, vowels are pronounced somewhat differently by each singer. In addition to physiological differences, the interpretation of vowel sounds depends upon an individual's

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<sup>1</sup>Walter Ehret, *The Choral Conductor's Handbook*, (New York: Edward B. Marks Music Corporation, 1959), pp.34-35.

<sup>2</sup>Ibid., p.35.

cultural background. In countries with strong regional and class accents, or countries with a large immigrant population, or countries with diverse ethnic groupings, there can be pronounced differences in vowel production between individual choral members. Variations in vowel sound create acoustical disturbances which can detrimentally influence the overall tone. This is because the prominent overtones differ in frequency and the consequent interference disturbs the tonal blend. The conductor should form a clear mental picture of the placing and sound of the different vowels. He should also be able to demonstrate the difference between the desired and undesired tones to the singers.

Correct and meticulous care of pronunciation helps to further the realization of the desired group-tone. Single words should be analyzed to make the choir members aware of all the elements involved. To achieve complete synchronization, a certain note value can be given to every element within a particular word<sup>1</sup>, for example:



"springing" becomes "spr-ng-i-ng"

The unanimity of diction is as important as unanimity of pitch. There is no more valid reason for accepting several different vowels or vowel modifications than there is for accepting slightly different pitches from the group.

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<sup>1</sup>Philip McLachlan, *Klasonderrig in Musiek*, (Goodwood: Nasou Beperk, 1978), p.131.

## Chapter 8

### **Style and Interpretation in Singing**

Style is the character of a period or a school and may embrace all the songs of a single composer, while interpretation only applies to one song at a time and is the disclosure of an individuality<sup>1</sup>.

Stylistic flair, which differentiates one choir from another, implies a certain consistency between the group's manner of performance and the intentions of the composer as a representative of his historical style-period. In order to discover the true style of a work, the published score as well as an original edition should be studied. Listening to recordings of other choirs performing the work may also be of help. An historical knowledge of the social and cultural structure of the world in which the composer lived and worked is important if an accurate stylistic representation is to be achieved<sup>2</sup>. For example:

- (a) Folk songs of all countries, from those of the dancing knights and noblewomen of medieval courts to the popular guitar-accompanied "folk-singing" of today, should be sung in a seemingly non-professional manner, never sloppy, but just freely and causally. The impression should be given of the layman singing for fun and love.

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<sup>1</sup>There are also various styles of technique which implies the physical application of the voice to the expression of the meaning of the song. There are, roughly speaking, three styles:

- (a) Bel canto, in which beauty of sound and pure singing are the first consideration, and words are only the medium for conveying them in their most intelligible and sympathetic form to the audience. Every song may be assumed to require bel canto technique unless it specifically demands one of the other styles.
- (b) Declamation, in which dramatic expression is of paramount importance, and the voice and its colours are used as the most dramatic means for that expression. Declamatory singing should always be beautiful, although strength, rhythm, incisiveness and dramatic illustration should be the singer's main concern.
- (c) Diction, in which the words come first, and the music is only the medium of expressing them most effectively. The songs belonging to this style are generally quick in tempo, and do not convey any deep emotion, except in an ecstatic form. They are, as a rule, happy, humorous or lively.

<sup>2</sup>John Morgan and Bill Burrows, "Sharpen your Edge on Choral Competition", *Music Educators Journal* (April 1981), p.46.

- (b) Any chorale-like Bach songs should be sung with simplicity because they were never meant to be "performed" in front of an audience.
- (c) The bergerettes of eighteenth-century France must be done with an almost visual image of the pre-revolutionary French aristocrats, all dressed up as shepherds and shepherdesses. One should try to understand their artificiality and stiltedness, while still able to evoke the freshness and charm of the rococo pastorales.
- (d) Schubert's regular parties of friends were the true forum for his songs. They were not created with concert halls in mind.

Choral directors are currently keen to include avant-garde choral compositions in their programmes. These compositions may include techniques such as improvisation, chance occurrences, indeterminacy or aleatoric events. An experimental rehearsal of avant-garde choral works conducted by James May in 1974, during which 1,500 singers from central and western Pennsylvania, U.S.A., took part, evoked very positive and even enthusiastic reaction. Comments were made such as, "a freedom never before experienced in singing". The new challenges and demands made on the singers who participated were also met with approval. Many students were positively intrigued and attracted by the style. In order to help the choir overcome their reluctance and uncertainty about "doing it right", the following exercises were suggested:

- (a) Choose a well-known song and request each singer to follow his own tempo. The final note is held until everybody completes the song.
- (b) Repeat the song, but this time each singer creates his own rhythmic patterns while retaining the original melody.
- (c) Have the group retain the rhythmic pattern of the selected song, but ask them to create a new melody<sup>1</sup>.

Style is always surrounded by "pitfalls" and 'enemies', of which the most deadly are: cheap effect, over-elaboration of detail, and self-consciousness. Pauses are often made for cheap effect, while they may in

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<sup>1</sup>James D. May, "Independence and Creativity in the Choir", *Music Educators Journal* (March 1976), pp.55-57.

fact be the result of undeveloped breath control. The correct use of the pause should enhance dramatic effect, arrest the attention of the audience and stimulate magnetism<sup>1</sup>.

The rhythm of a song must be sound. The singers must "push" on note by note, word by word, phrase by phrase, until the very end. Whenever a long phrase happens to have no pause for a breath, the time-value must be taken from the note that has just been left, not the note that is approached. The breath must be taken in a fraction of a second, and the one note must be left and the other attacked without altering the texture or the straight line of the phrase<sup>2</sup>. Rests are not pauses, for the song marches on while the singer sings mentally through them. On the other hand, pauses on rests are meant for a definite purpose: to enhance silence. Long phrasing is the essence of good singing. It is also a matter of courage and will-power. It does not require abnormal breath, because in many cases abnormal inhalation is a positive hindrance to phrasing resulting from the extra muscular exertion required to control exhalation. Rubato is another word for elasticity of phrasing and its strength lies not in the taking away but in the giving back. The three great weapons of style are thus: elasticity of phrasing, prolongation of note-values, and the ad libitum handling of the rest or pause.

Self-consciousness is the great enemy of art. The true artist does not think of the audience's reactions to himself, but forgets himself in the act of concentrating upon the vocal and artistic demands made by the composer. The quality that reaches and endears a performer most strongly to his public is sincerity<sup>3</sup>. The audience will sense immediately when the artist possesses the virtue of humility, and whether he feels himself only as the vehicle for the expression of the composer's ideas<sup>4</sup>.

The word "interpret" means, "explain", or "bring out the meaning of". Thus, if the words of a song are regarded as a poem, the singer explains to his

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<sup>1</sup> Harry P. Greene, *Interpretation in Song*, (London: MacMillan and Company Ltd., 1966), p.4.

<sup>2</sup> Ibid., p.62.

<sup>3</sup> Adelheid Armhold, *Singing*, (Cape Town: Tafelberg-Uitgewers, 1963), p.61.

<sup>4</sup> Judith Litante, *A Natural Approach to Singing*, (London: Oxford University Press, 1962), p.90.



audience the contents of the poem by way of his singing. True interpretation comes from within. Only when the singer fully comprehends the contents of the poem is he able to tell the story in such a way that the audience is compelled to listen.

Interpretation, therefore, is the act which breathes life into the composer's work. All composers expect from the performer to add something of his own personality to the music. However, the performer's integrity and artistic conscience should restrain him from augmenting or distorting the composer's original intentions. The singer must be able to strike and maintain a balance between well-projected tone and well-articulated words. Only then can he strive to capture the musical mood of the song, in addition to details such as gradation of tone, rhythmical patterns and variation of tempo. Interpretation is the highest branch of the singer's art. It is the end to which he has worked and upon reaching it, he begins to live and enjoy his singing<sup>1</sup>.

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<sup>1</sup>Harry P. Greene, *Interpretation in Song*, (London: MacMillan and Company Ltd., 1966), p.4.

## **PART TWO**

### **Chapter 9**

#### **The Use of Daily Exercises for Choral Voice Building**

##### **9.1 Breathing**

Bad methods of breathing cause many vocal "ills", such as tremolo, noisy breathing, etc. Ordinary everyday breathing does not fully inflate the lungs. Correct inhalation and exhalation can only be attained by constant, steady, and patient practice. Avoid practising in a stuffy room and take care not to wear garments that are too tight around the waist as they interfere with rib expansion. Make sure that the body posture is correct, and don't practise too soon after meals as the diaphragm can not act properly when the stomach is enlarged with food. Spasmodic, intermittent practising is of no use whatever. Perseverance over a long period is the only way to ensure success. The majority of choral singers have poor chest expansion at the front and sides of the waist. The following exercises are recommended:

- (a) Lie flat on the back with the head slightly raised. Place one hand on the front of the body at the waist-line and the other at the side. Breathe naturally in and out quietly through the nose. Observe the simultaneous expansion at the two places. Practise for a few minutes until the sensation of using the mechanism in this way is thoroughly grasped.
- (b) Stand against a wall with heels, shoulder blades and the back of the head touching it. Try to obtain the same result as before. Do not take too much breath at first. Practise until certain of the ability to control the mechanism of inhalation.
- (c) Shut the mouth with the lips lightly touching, and inhale through the nose and mouth slowly, silently and steadily. Place the hands lightly beneath the lower ribs, and feel the walls of the chest and the abdomen expand. Exhale suddenly and completely, through the mouth.

- (d) Inhale as in exercise (c). Hold the breath for one second. Without letting the inhaled air escape, try to re-inhale a second time. Exhale immediately. Initially, this exercise will seem difficult, but should eventually greatly increase the air-containing capacities of the lungs.
- (e) Practise inhaling quickly by gradually working at the speed until a quick, light, silent breath can be taken. This exercise must not be done with a jerk or a gasp, and the shoulders must remain very still.
- (f) Inhale slowly, then purse the lips as though about to whistle and let the breath escape slowly, steadily and noiselessly. Counteract the tendency to collapse during exhalation by holding the lower part of the chest and the abdomen well pushed out. Exhale with a steady, unforced, inward and upward pressure of the lower part of the abdomen. The upper part of the chest must never be allowed to cave in, even when the ribs return very slowly to their normal position.
- (g) Repeat the previous exercise, exhaling through an open mouth as in singing. The breath must escape noiselessly, without wavering.
- (h) Inhale quickly, hold the breath for two seconds, and exhale very gradually while supporting the lower ribs and the abdomen from collapsing even more strongly than before.
- (i) As soon as all the foregoing exercises can be performed successfully, the singer may try exhaling while vocalizing on different vowels. Always sing *mesa voce*, in the middle range of the voice. The notes must be steady, with no apparent quivering or breath trembling present.
- (j) Practise as in the previous exercise, but gently swell and then diminish the tone. This exercise will also serve as an introduction to the valuable *mesa di voce*.

## 9.2 The Tongue

Because the tongue is such a complicated structure, it has often been termed the "unruly" member of the human body. The secret lies in developing the ability to move the tongue (rapidly or slowly) at will, while keeping the jaw perfectly relaxed and motionless.

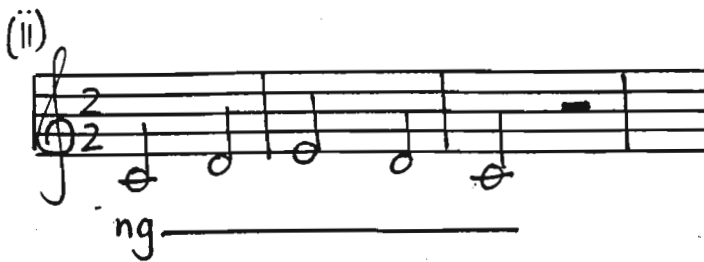
The following exercises should be practised in front of a mirror at least three times per day. Make sure that the lower jaw remains motionless and does not protrude, and that the muscles of the throat do not become stiff.

- (a) Open the mouth wide. Push the tongue out as far as possible and draw it back quickly. Repeat six times without stopping.
- (b) Open the mouth wide. Protrude the tongue as far as possible and move it to and fro, so that it touches both corners of the mouth. Repeat six times without stopping.
- (c) Curl the tongue upwards and backwards as far as possible, so that the tip touches the soft palate. Hold it there for two seconds then return it quickly to its normal position. Repeat this six times without stopping.

The following exercises should induce a suppleness of the soft palate and tongue:

- (a) Drop the jaw loosely, with the tip of the tongue touching the inner side of the lower front teeth. Inhale a short breath through the nose and exhale through the mouth, whispering alternately without voice the syllable "haa" and "ngah". The soft palate and back of the tongue will meet and separate.
- (b) Say "yah - yah - yah . . ." in unison with a relaxed jaw.

- (c) Aim for total freedom of the throat muscles and the root of the tongue while singing as follows<sup>1,2</sup>:



- (b) Slide up and down on a "r", rolled with the tip of the tongue. Firm breath support makes this exercise possible<sup>3</sup>.



### 9.3 Relaxation of the Body

Good singing has the appearance of being effortless. Unfortunately, singing does not become easy by accident. It takes analysis, thought and effort. It also takes hard work, intelligently directed.

<sup>1</sup>Exercises (i): Adelheid Armhold, *Singing*, (Cape Town: Tafelberg-Uitgewers, 1963), p. 71.

<sup>2</sup>Exercise (ii): Wilhelm Ehmann and Frauke Haasemann, *Voice Building for Choirs*, (London: Barenreiter Verlag, 1982), p.30.

<sup>3</sup>Ibid.

A correct emission of the voice is always accompanied by freedom of the face and body. The eyes, especially, reveal a lot as a good tone will always be accompanied by a soft and relaxed expression in the eyes.

- (a) Devote at least ten to fifteen minutes daily lying on the back in a completely horizontal position. Try to empty the mind of all thoughts, then slowly will a feeling of relaxation over every part of the body until it reaches a point of complete slackness. The gradual releasing of tensions should bring about a sensation of extreme relief.
- (b) Stand erect, drop the head forward, then roll the head in slow circles while keeping as relaxed as possible .
- (c) Move the shoulders up and down in slow circling movements.
- (d) The following exercises are recommended for loosening the jaw:
  - (i) Whisper without voice the syllables: "Fah", "Thaw", "Mah" and "Wah". Raise the jaw while pronouncing the consonants and drop it loosely downwards for the vowel.
  - (ii) Simply drop the jaw as if one is falling asleep.
- (e) Physical activities should be encouraged because they produce the flexibility and relaxation needed for singing. Suggested forms of exercise are: swimming, jogging, ball games and stretching exercises. Through these forms of exercise and relaxation, body awareness is heightened, preparing the way for body-mind co-ordination.

## Chapter 10

### **Voice Building**

#### 10.1 Voice Warming Exercises

The singer, like an athlete, has to go through a "warming-up" process prior to putting forth his best efforts. The muscles should be gradually limbered up into a state of readiness and full efficiency for what lies ahead. It is the author's experience that "warming-up" should form an integral part of any rehearsal. It is recommended strongly that choral conductors should lead his choir members through the following "warming-up" sequence:

- (a) Stand up, assuming a good posture. Make sure that the head, neck, shoulders, arms, throat and jaw is relaxed.
- (b) Inhale and exhale several times, until the breathing mechanism comes under conscious control.
- (c) Gradually ascend and descend in semitones while singing the following exercises<sup>1,2,3</sup>. Choose a tempo which is comfortable for the choir.

(i)



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<sup>1</sup>Exercises (i) to (v): Philip McLachlan, *Klasonderrig in Musiek*, (Goodwood: Nasou Beperk, 1978), pp.127-128.

<sup>2</sup>Exercises (vi) to (viii): Viktor Fuchs, *The Art of Singing and Voice Technique*, (London: Calder and Boyars, Ltd., 1963; reprint ed. 1967), p.117.

<sup>3</sup>Exercise (ix): James Lawson, *Full Throated Ease*, (New York: Mills Music, Inc., 1955), p.62.

(ii)

muu muu — non non — whe whe — claw claw — etc.

(iii)

wha wha — wha muu muu muu — muu

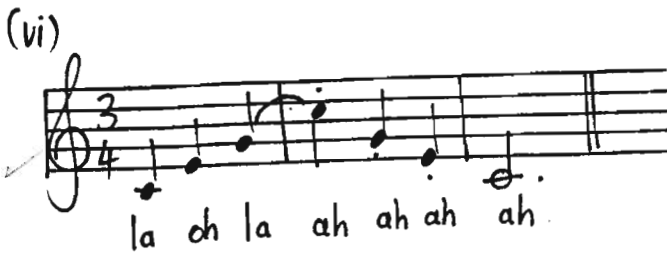
(iv)

yo—ong-e yo-ong-e yo-ong-e yo-ong-e yo—nge

(v)

ha\_ha ha ha ha \_\_\_\_\_ ha  
haw haw haw haw \_\_\_\_\_ haw  
hee hee hee hee \_\_\_\_\_ hee





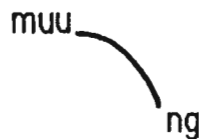
## 10.2 Resonance

Good resonance is the key to good tone. In order to develop this technique, a choir should devote about five minutes of each practice session to strengthen resonance. Begin all resonance exercises by singing piano and aim to develop a feeling of emergence of sound from

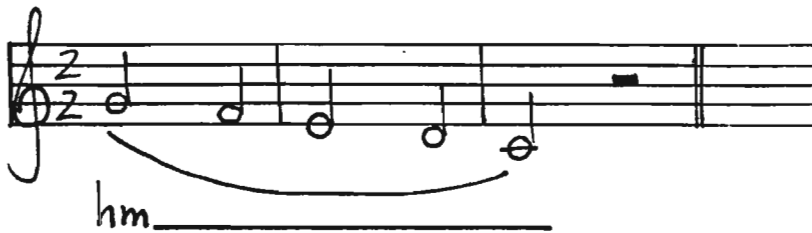
within the body. The facial muscles must be very relaxed. Useful exercises to encourage good resonance are the following:

- (a) Relax the jaw and rest the lips gently on each other as if they were thick. Allow as much room in the mouth as possible by parting the teeth slightly. To encourage forward placement of the sound, shape the mouth slightly in a fishmouth form. Place the hands in front of the mouth and hum into them. Glide from the vowel sound to a sustained consonant:

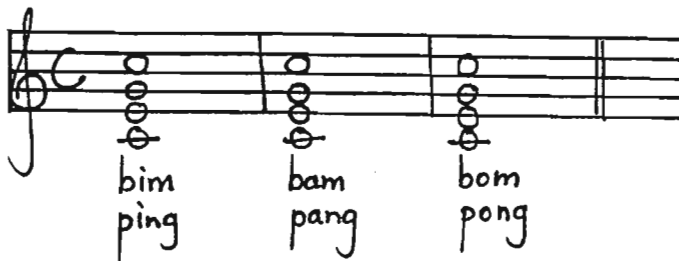
muu  
ng



Advance to fixed pitches, for example<sup>1</sup>:



- (b) Resonance exercises are very successful when applied to a chord. The chords should be transposed by conjunct interval steps<sup>2</sup>.



<sup>1</sup>Wilhelm Ehmann and Frauke Haasemann, *Voice Building for Choirs*, (London: Bärenreiter Verlag, 1982), p.33.

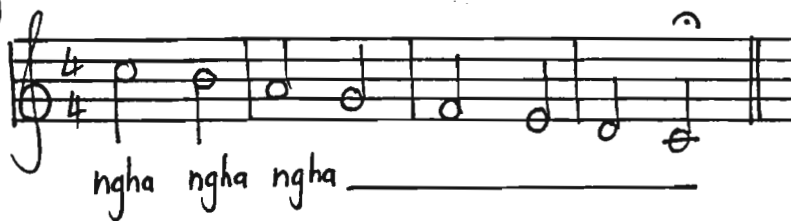
<sup>2</sup>Ibid., p. 34.

- (c) Sing the following exercises while gradually ascending and descending in semitones<sup>1,2</sup>:

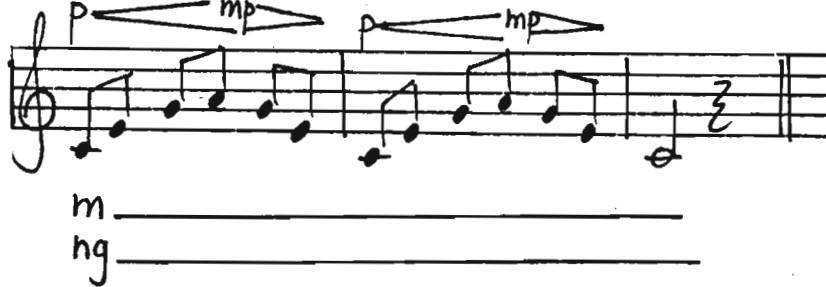
(i)



(ii)



(iii)



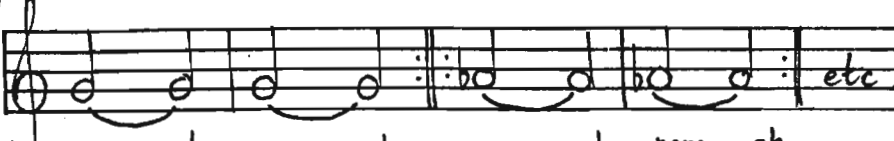
(iv)



<sup>1</sup>Exercises (i), (vi) and (vii): Ibid., p.34.

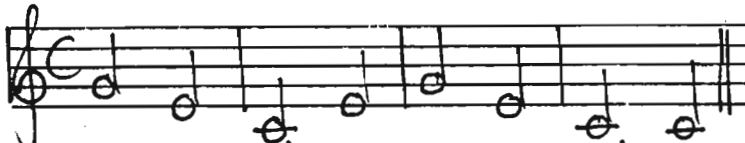
<sup>2</sup>Exercises (ii) to (v): Norris Croker, *Handbook for Singers*, (London: Augener, Ltd., n.d.), pp. 29, 116-117.

(v)



mm-ah, mm-ah mm-ah, mm-ah  
 mm-eh, mm-eh mm-eh, mm-eh  
 mm-ee, mm-ee mm-ee, mm-ee  
 mm-oh, mm-oh mm-oh, mm-oh  
 mm-oo, mm-oo mm-oo, mm-oo

(vi)



mam-ma mi-a mam-ma mi-a  
 much more mo-hey much more mo-hey

(vii)



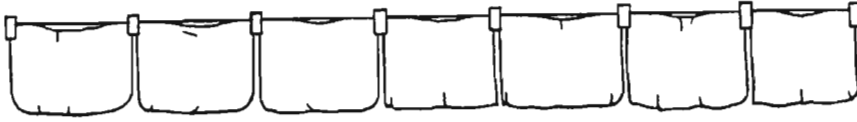
mi-na mi-na mi-na  
 ascend in semitones

### 10.3 Clear Articulation

The correct application of words to notes requires a lot of patient care. Vowels open the throat, consonants close it. So we have to learn to articulate consonants in such a way as not to impede the flow of the sound, as a beautiful tone is the foundation of good singing. That is why the Italian language, with its pure vowels and lightly articulated consonants, serves the purpose of freeing the throat and developing flexibility of the tongue and lips admirably.

Practise initially on the vowel syllables only, until they blend perfectly without cessation of sound. When maximum freedom of the throat has been attained during the changing vowel process, the con-

sonants can be added. They must be sung as fast, light, and distinct as possible, helped by the lips and tongue, while the jaw drops loosely. They should be like the clothes-pins that secure the sheets of vowel sounds on the line, yet separate one from the other<sup>1</sup>:



### Exercises on articulation and pronunciation of vowels.

- (a) Inhale, drop the jaw, and let the tongue assume the position for "ah". Whisper on one continuous outflowing breath the syllables "ah-ee ya-ee-ya". Make sure to glide from one vowel into the other. The tip of the tongue should remain in contact with the lower front teeth, and the back part of the tongue in a low position. The action of the tongue must be loose and supple.
- (b) In the same way, whisper the vowel "ah" in conjunction with each of the following vowels<sup>2</sup>:

*Bright vowels:*

ee as in him -	ah ee ya ee ya
e as in men -	ah e ya e y
ai as in main -	ah ai ya ai ya
a as in man -	ah a ah ah ah
e as in her -	ah e ah e ah
uh as in up -	ah uh ah uh ah

*Dark vowels:*

o as in on -	ah o ah o ah
aw as in saw -	ah aw ah aw ah
oh as in go -	ah oh ah oh ah
oo as in boo-	ah oo ah oo ah
oo as in soon -	ah oo ah oo ah

<sup>1</sup>James Lawson, *Full Throated Ease*, (New York: Mills Music, Inc., 1955), p.43.

<sup>2</sup>George Dodds, *Voice Placing and Training Exercises*, (London: Oxford University Press, 1927), p. 34.

As soon as these vowels can be whispered correctly and with facility, they should be sung on notes lying in the middle part of the voice. The jaw should hang loosely to avoid stiffness.

- (c) Whisper the following consonants, combined with vowels, very clearly and crisply<sup>1</sup>:

Lah lay lee lo loo  
 Dah day dee doh doo  
 May may mee mo moo  
 Vah vay vee vo voo  
 Quiet quaint quest quit quote  
 Rah ray ree ro roo  
 Nah nay nee no noo  
 Bah bay bee bo boo  
 Thah they thee tho thoo  
 Cries craze freeze throws bruise

- (d) Double consonants can be practised by using the following list of words<sup>2</sup>:

Up past  
 If felt  
 His zeal  
 Good day  
 Each chap  
 Will Live  
 Dumb brute  
 I've vowed  
 With thee  
 Take care  
 Large jar  
 In next  
 Some more  
 Eyes smile  
 Don't tell

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<sup>1</sup>Ibid., p. 34.

<sup>2</sup>Ibid., p. 35.

Big game  
Push sharp  
Purest star

(e) Practise the following for clear enunciation<sup>1</sup>:

In next	In ecstasy
A nymph	An imp
Attend	At end
Offend	Off end
Askew	Ask you
A nice house	An ice house
The cuckoo sings	The cook who sings

(f) Say the following tongue-twisters as quickly as possible<sup>2</sup>:

"She sells sea-shells on the sea-shore. The shells she sells on the sea-shore are sea-shells, I'm sure."

"Around the rough and rugged road the ragged rascal ran their rural races."

"Never knit knowingly knotted knubs of knitted nothing."

"If Peter Piper picked a peck of pickled peppers, how many peppers did Peter Piper pick?"

"The bleak breeze blightens the bright blossoms."

"Flesh of freshly fried flying fish."

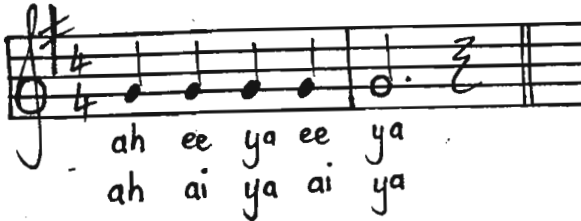
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<sup>1</sup>Ibid., p. 35.

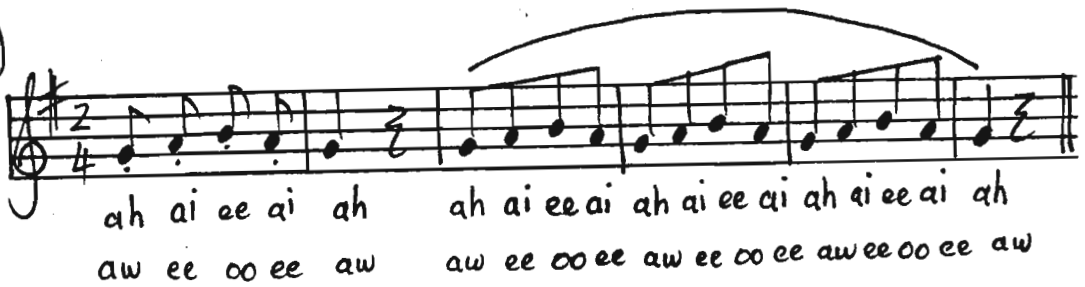
<sup>2</sup>Adelheid Armhold, *Singing*, (Cape Town: Tafelberg-Uitgewers, 1963), p. 76.

- (g) Sing the following suitable vocal exercises while ascending and descending in semitones<sup>1,2,3</sup>:

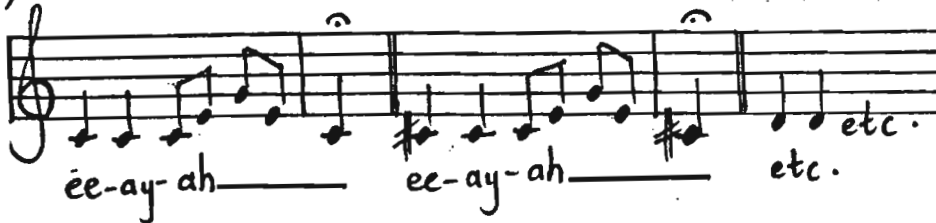
(i)



(ii)



(iii)



<sup>1</sup>Exercises (i) to (iii): Ivor Warren, *The Examination Candidate's Handbook on Singing*, (London: A. Hammond & Co., n.d.), pp. 17-18.

<sup>2</sup>Exercise (iv): Adelheid Armhold, *Singing*, (Cape Town: Tafelberg-Uitgewers, 1963), p. 75.

<sup>3</sup>Exercises (v) to (vii): George Dodds, *Voice Placing and Training Exercises*, (London: Oxford University Press, 1927), p. 34.



(iv)



(v)



(vi)



(vii)



(viii)



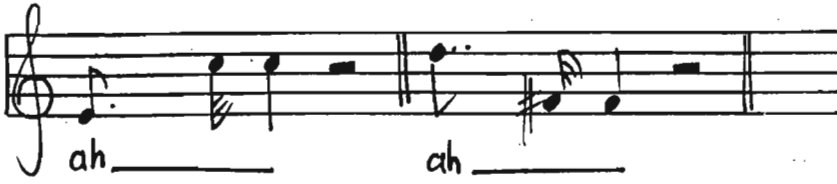
#### 10.4 Legato Singing and Slurring

Legato singing implies that there is no cessation of tone between a note and its successor. In this way, the whole phrase is bound together (unless specially marked to the contrary) in one continual stream of tone. In this method of singing, the singer has the opportunity to display good phrasing, and fill the music with a volume of beautiful sound.

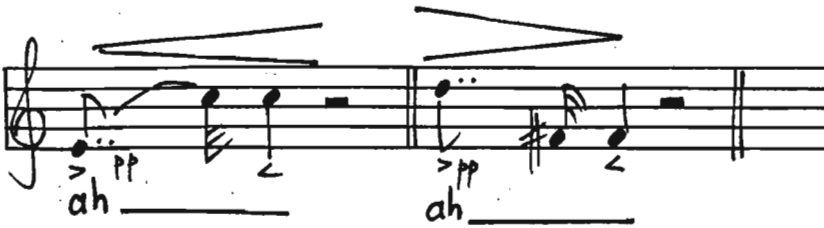
To slur is to carry the voice, either quickly or slowly, from one note to another. It is an ornament that should only be occasionally employed for special effects, as its frequent use leads to a sickly sentimentality or even scooping. The intervening notes are only heard indistinctly and should not sound as if the voice sings a scale, but rather be compared to a violinist sliding his finger up or down the string. The general rules regarding slurring are:

- (a) The slur must occur in the time of the note slurred from, not of that slurred to.
- (b) When ascending, a slur is usually done with a slight crescendo; when descending, with a slight diminuendo.
- (c) The slur should never be used several times in succession or between two notes of short duration.
- (d) The slur should be very seldom used when the interval is small.

In order to acquire the correct management of the slur, interval singing should be practised without any slur, but slightly anticipating the second note<sup>1</sup>:



As soon as this can be done correctly, practice the slur ascending and descending from one note to the next. Start slowly, and gradually increase the speed of the slur. Always slightly anticipate the note slurred to, as in the above example. In order to do this properly, a diminuendo should be made on the first note, the slur itself should be sung very softly, with a crescendo starting as soon as the second note is reached<sup>2</sup>:



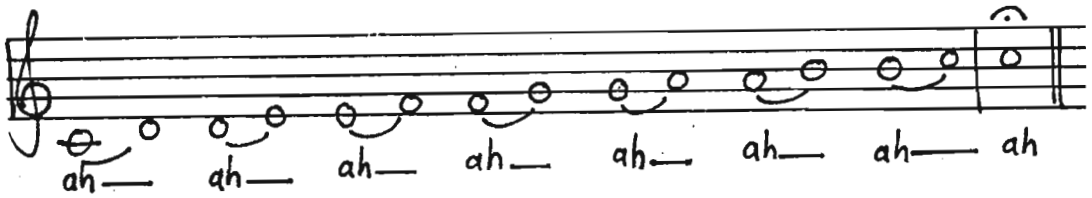
A slur becomes a serious fault when it is constantly used. Try to correct this by practising legato singing. The main differences between slurring and legato singing is:

- (a) The intervening notes in a slur are heard while legato is a very rapid slur where no intervening notes are heard.
- (b) The time of the note slurred from is robbed of some of its value while in legato singing no time is taken from any note.

<sup>1</sup>Ibid., p. 90.

<sup>2</sup>Ibid., p. 90.

In order to acquire legato, practising should be as for the slur, but without anticipating the second note. The following exercise<sup>1</sup> should be sung as smoothly as possible:



### 10.5 Flexibility and Agility

These two terms are often confused as having the same meaning. They actually imply two very different accomplishments.

Flexibility means the ability to graduate the power of tone from *pp* to *ff*, as well as illustrate and heighten the atmosphere of the song by adding the proper tone colour. Agility means the ability of the voice to move easily and rapidly from one note to another, whatever the interval or speed may be. An agile voice is a freely produced one, with complete absence of strain and tension. The difference between the two is that flexibility is mainly a matter of aesthetic taste, while agility is a mechanical process.

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<sup>1</sup>Judith Litante, *A Natural Approach to Singing*, (London: Oxford University Press, 1962), p. 44.

The following exercises<sup>1,2,3,4</sup> are all very useful for improving agility. Generally, these exercises are also of considerable help in extending the range of the voice. As the pitch rises the lower jaw should be totally relaxed, and should drop sufficiently to allow for the appropriate mouth opening. A rapid increase in power towards the higher notes should be avoided.



<sup>1</sup>Exercises (i) and (ii): Ivor Warren, *The Examination Candidate's Handbook on Singing*, (London: A. Hammond & Co., n.d.), pp. 18–19.

<sup>2</sup>Exercises (iii) to (v): Adelheid Armhold, *Singing*, (Cape Town: Tafelberg-Uitgewers, 1963), p. 71.

<sup>3</sup>Exercise (vi): Judith Litante, *A Natural Approach to Singing*, (London: Oxford University Press, 1962), p. 47.

<sup>4</sup>Exercise (vii): Mathilde Marchesi, *Vocal Method*, (London: Enoch & Sons, n.d.), p. 34.

(iii)



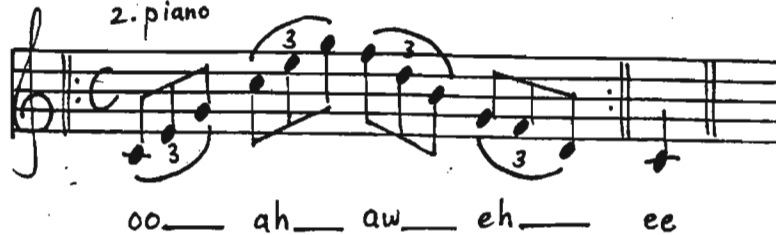
(iv)

1. forte  
2. piano

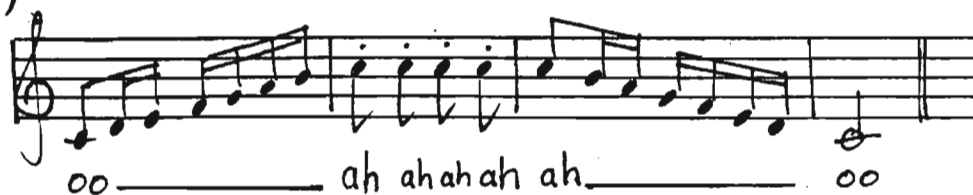


(v)

1. forte  
2. piano



(vi)





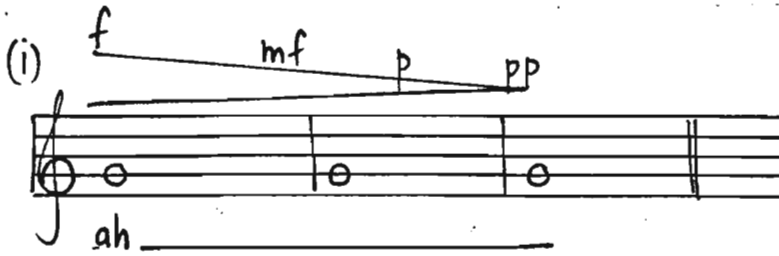
Messa di Voce is a gradual crescendo from the softest to loudest tone, followed by a gradual diminuendo back to the power of initial tone. It requires absolute calm and relaxation. Visualize a firm, open "ah" at the back of the throat and sing the swell by mentally willing the tone to swell and fade. The upper part of the chest must be held out firmly and the control of the abdominal muscles must be even more strenuously exerted than in ordinary singing. The control of the breath is the secret of success in this ornament.

The following exercises<sup>1</sup> are recommended for developing "messa di voce":

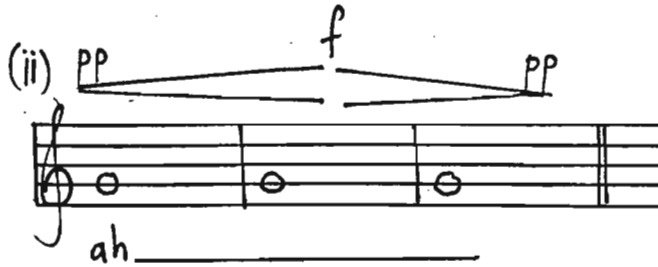
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<sup>1</sup>Ivor Warren, *The Examination Candidate's Handbook on Singing*, (London: A. Hammond & Co., n.d.), p. 19.

- (a) Attack firmly and gradually diminish the tone by decreasing the breath pressure. Try to maintain the same quality of tone to the end.



- (b) Attack softly, gradually swell out and decrease the tone gradually again.



## 10.6 Covering and Colouring Tone

Covering and colouring often get confused because opinions amongst performers and teachers vary greatly. Covering and colouring are both ways of refining tone.



Covering is a technical device which helps to give greater intensity and beauty to the transitional notes, which are:



in sopranos and tenors, and



in baritones and basses.

Physiologically, covering is a quality that a singer gets when his larynx rests in a low position. This position creates another whole resonance tract that gives the vowel the typical "dark" or covered tone. During an ascending scale, a singer must modify the vowel imperceptibly or the vocal line will be distorted. This slight vowel alteration is known as covering the tone.

One could say that each voice has its own individual colouring. For example, there are various voices with a definite silvery quality. This individual colouring in an interpretative sense, is an effect produced by means of the emotions of the singer. This emotion must never be of such a nature as to destroy the singing. Like an actor, the singer should feel and participate, but there must be a degree of controlled detachment. There are also two purely technical means of colouring the voice. Firstly, the "singer's smile" may be used to brighten the tone. Secondly, the singer may deliberately increase the extent of nasal resonance which serves to enhance the "warmth" of the tone.

## Chapter 11

### **Voice Training Dealing with Specific Technical Problems**

#### **11.1 Forced Tone**

Undue tension will cause muscles to tremble. We can compare it with lifting weights beyond our strength where our muscles tend to tremble after they are relieved of the weight. So is it with the vocal muscles as well, which will develop a tremolo from forcing. Pushing, shouting, coughing and screaming are all enemies of the vocal cords. Singing depends entirely on two tiny membranes, which once overstrained, like two rubber bands, can never regain their former elasticity. High notes especially, need more muscular support. If the breath is not prepared in time, the note will be sung with force. The following exercises are designed to cure the problem:

- (a) General relaxation exercises<sup>1</sup>. Calm, relaxed (but concentrated) practice will restore the ability to sustain vowels without quivering.
- (b) The cure for vocal nodules is to stop talking and singing completely. If the growth is very big, only an operation can help. The operation is difficult and dangerous, as the slightest injury to one of the chords may permanently damage it.

#### **11.2 Frontal Tone**

The tone may be described as cold, colourless, monotonous and unimpressive. It is caused in two ways:

- (a) By tightening and stiffening the muscles of the throat, especially when attacking high notes.
- (b) By projecting the tone too far forward, so that it escapes before it is amplified by the action of the resonance activities.

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<sup>1</sup>Refer to exercises in part 2, p. 61.

When the muscles of the throat start to tighten and harden, sing the phrase again, and try to keep the muscles of the throat supple and relaxed by exercising sheer will power. Humming the phrase should also help. Test the relaxation of the throat by turning the head slowly from left to right while singing the note or phrase on which the stiffening of the muscles occur. The improvement in tone should be heard at once.

### 11.3 Guttural or Throaty Tone

This is caused by the root of the tongue being stiffened or raised, and pushed backward simultaneously until it almost touches the pharynx. The breath then has to be violently forced past this obstacle resulting in great strain on the windpipe. The following exercises are designed to cure the problem:

- (a) Exercise will power to keep the root of the tongue relaxed and flat in the mouth while sounding the vowel, or vowels, which cause a throaty tone.
- (b) While sounding the vowel Ee as in peep (the vowel on which a guttural sound is the least likely to occur), try to keep the back of the tongue from rising<sup>1</sup>.



- (c) If the tongue is still obstinate, refer to part two, p. 59 for further exercises.

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<sup>1</sup>Walter Ehret, *The Choral Conductor's Handbook*, (New York: Edward B. Marks Music Corporation, 1959), p. 38.

#### 11.4 Husky Tone

This is either due to:

- (a) a bad cold; in which case one should rest until the cold is over.
- (b) an over-strained voice. This is a frequent problem and is a symptom of incorrect vocal production. The voice should be rested for a few weeks. The choral director should then impress upon the singer the correct techniques of voice projection as discussed in this part of the thesis.

#### 11.5 Inability to Sing Softly

The basic problem may be too much muscular pressure on the voice. Too much breath is taken too often, causing the vocal mechanism to be in a state of tension. The following exercises are designed to cure the problem:

- (a) The mind, not the throat, must propel the voice, especially in soft singing. A soft tone is an exact replica of a loud one, but with less intensity of sound. It involves no change of mechanism. The position and colour must remain the same, while the throat remains utterly passive. Experiment with a phrase spoken loudly, then softly, and try to reproduce the same natural responses when singing. There is an old Italian saying, "Seek for quality. Quantity will come".
- (b) Sighing and yawning will relax the singer as well. Breath should be taken conservatively and care should be taken that the singing remains at a relaxed dynamic level.
- (c) Songs with echoes can be sung or the conductor can play or sing a phrase loudly and ask the choir to sing it back as an echo.

#### 11.6 Loss of Voice and Fatigue

Hoarseness or total loss of the voice does not always imply a state of infection, but are often due to fatigue or severe emotional stress. The larynx reacts to stress just as many other parts of the body do.

Emotional problems tighten the vocal cords, and this may, in turn, cause the volume and pitch of the sound waves to change. Total loss of voice may even be the result of a perfectly normal larynx paralysed by acute anxiety.

A sore throat is the most important alarm signal in the body, and the singer should be excused from all practises or performances and sent home. A singer should also refrain from singing, talking and laughing too loudly when he is ill. When such risks are taken, the results can be very costly, or even devastating. The reason the singer damages his voice is that, in order to compensate for the effects of the sore throat, he begins to use incorrect vocal techniques.

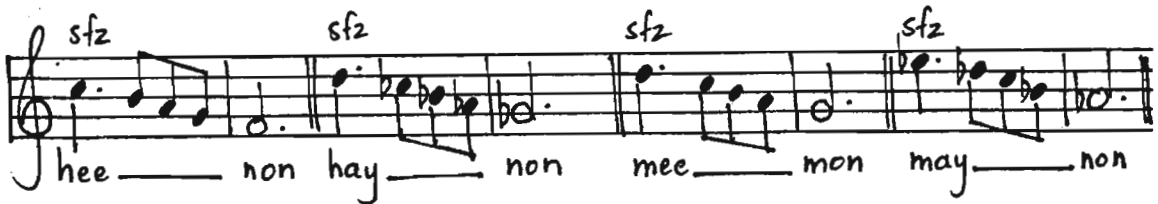
The vocal cords should be examined by a specialist to check that nothing is physically wrong. The only real remedy is to rest the voice for as long as the condition requires.

### 11.7 Nasal Tone

When the soft palate and tongue drops too low, the exit of tone through the mouth is partially shut off. Should the sound stay locked in the nose, worsened by a small mouth space, the tone is decidedly nasal. It must be pointed out that nasal tone and nasal resonance are two totally different effects. The raising of the soft palate will not interfere with the proper use of the nasal cavities for resonance. Practise the following exercises in front of a mirror:

- (a) Open the mouth well and make sure that the root of the tongue is lying flat in the mouth. Draw in a deep breath through the nose, then half-way through, inhale forcibly through the mouth. While inhaling through the nose the soft palate is low, but when the method of inhaling is changed to a forcible inspiration through the mouth, the soft palate flies upwards. Sing the vowel tones on the notes which are nasal, taking great care that the soft palate never drops to a very low position.

- (b) Try to expand and contract the pharynx. Draw the uvula backwards and upwards. These feats may seem difficult initially, but the control gained will be invaluable. The following exercise may help to alleviate the problem<sup>1</sup>:



### 11.8 Palatal Tone

This problem occurs mainly in the higher range of the voice, and is characterized by a throttled, nasal tone. It is caused in two ways:

- By curving the centre of the tongue upwards, resulting in the tone striking the soft palate instead of the hard palate.
- By the pharynx being insufficiently expanded which robs the tone of its proper vibration.

The following exercises are designed to cure the problem:

- It will be noticed that in sounding the Ee vowel the tongue arches upwards just behind the tip. Practise the tongue exercises<sup>2</sup>.
- Hum the intervals of an ascending scale. Open the mouth to sound the vowel-tone Ah, as in "lark", as soon as the faulty tone is reached. Do not breathe again and keep the pharynx expanded throughout the exercise.

<sup>1</sup>Dante J. Smit, "Sekondere Kooronderrig", (M. Mus. thesis, College of Music, University of Cape Town, 1983), p. 41.

<sup>2</sup>Refer to exercises in part 2, p. 59.

### 11.9 Poor Intonation

The single most important cause of poor intonation is lack of discipline amongst the choir members in following the rules regarding correct body posture and breathing methods<sup>1</sup>.

The following are other reasons for poor intonation. Appropriate suggestions to correct the problems are given:

- (a) Not enough extra effort is put into an ascending scale or interval, resulting in a flat tone. Likewise, the exaggerated relaxation which occurs when singing a descending interval also results in a flat tone. The cure seems to be to think of "large" intervals when the music ascends and exactly the opposite during descending passages. Roe<sup>2</sup> suggests the following mental picture, "Approach ascending intervals like walking upstairs in total darkness, and descending intervals like walking downstairs in the dark".
- (b) When singers have to sing high notes on difficult vowels, voice strain and faulty intonation may result. Singers should be asked to open their mouths as wide and relaxed as possible. The result will be an altered vowel sound which is quite acceptable to the ear.
- (c) One or more of the voice groups may have to sustain a note for several measures. As soon as they run out of breath a flattening of the tone occurs. It may help to stagger the breathing of that particular voice group or to insert crescendos and diminuendos corresponding to the natural rise and fall of the music. It may also help to mentally pitch the note repeatedly on each beat of the bar. The intensity level should always be kept up by feeling the "drive" and "follow through" while holding the long notes. Likewise, this "forward movement" must be kept in mind when

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<sup>1</sup>Refer to breathing exercises in part 2, pp. 57-58.

<sup>2</sup>Paul F. Roe, *Choral Music Education*, (Englewood Cliffs: Prentice-Hall, Inc., 1970), p. 120.

singing slow tempi. The tone must be kept supported, vibrant and alive throughout its duration.

- (d) Numerous repetitions of an a capella selection may tend to become progressively flatter. To snap the choir out of the "worn musical groove" and sharpen the concentration, the pitch should be raised by a semitone. If the tessitura of one or more of the voice groups centres around an uncomfortable area of the voice, the music may be transposed a semitone up or down, as required, to ease the strain. The conductor should take care not to group two numbers in the same key, or related keys, together in a programme, because tonal deafness may occur when no key relief is provided<sup>1</sup>.
- (e) Singers often use strained chest tones when singing low notes. The head register should be mixed with the low chest tones which should result in an improved quality of sound.
- (f) Excessive tension and strain on the vocal cords result in a sharpening of the pitch. When the strain is caused by a particular passage being too high, a modification of the vowel sounds may be helpful. Singers should realize that forcing the power, range and registers of their voice is self-defeating. A conductor using tense arm muscles will also cause singers to strain and "push" their vocal chords. Instead, a "hushing up" gesture from the choir director can be of assistance.
- (g) Conductors can be the cause of bad intonation by their insecure cueing. For example, an insecure cue to the sopranos may result in their being inadequate prepared to take a sufficient breath to last through a long phrase. The conductor should memorize the music and practice the appropriate conducting movements for important cues in front of a mirror.
- (h) A lack of tact and sensitivity on the choral director's part can cause anxiety amongst the choir members. An anxious singer can

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<sup>1</sup>Imogen Holst, *Conducting a Choir*, (London: Oxford University Press, 1973), p. 4.



not breathe properly, and a singer with inadequate breath control can not sing in tune<sup>1</sup>.

- (i) Physical and mental fatigue, particularly during examination periods and before a competition or big production, should be expected. The conductor should follow a well organized and efficient rehearsal programme with specific weekly objectives in order to remove the necessity for strenuous, last minute, extra rehearsals.

The conductor should introduce variety to enliven the rehearsals. For example he may beat erratically or have the choir stand and stretch, sing the number staccato-style on the words or do a few deep-breathing exercises.

- (j) Excessive heat, humidity or poor ventilation has a depressive effect on singers. Instead of feeling perky and vital, they feel emotionally, physically and vocally drained, which soon leads to flat singing. The director must then use extra vitality in his direction, make sure the singers breathe deeply and that their posture is correct.
- (k) Sliding, scooping or approaching notes from below, and even anticipating the pitch of the next note before the actual beat on which it is to be sung can be eliminated by insistence of a mental and physical approach from above. Movement from note to note must be made with "square" corners. Another device is to practice the voice parts staccato or marcato.
- (l) Soft passages are often sung flat because most singers lack the mental and physical intensity to give the tone enough vibrancy. The singers should sing their tones loudly and immediately repeat it softly while retaining their identical mental and physical sensations. Extra support is needed to correct flat and breathy soft singing.

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<sup>1</sup>Ibid., p. 5.

- (m) There is a tendency, when singing repeated notes, to progressively drop the pitch. The choir should be told to think of each note as being higher than the one preceding it. McLachlan<sup>1</sup> suggests that a repeated note be approached from above, almost as if an acciaccatura is added:



- (n) A poor time of the day for rehearsals, especially early mornings, is inadvisable. The voices are not yet "warmed up" and this may easily lead to poor intonation and may even induce strain on the voice. It is advisable to follow a systematic rehearsal plan and warm up the vocal apparatus, with carefully planned exercises.
- (o) Poor acoustics on stage which prevent members of the group from hearing each other, may easily lead to distress, especially when polyphonic music is performed. Too much echo in the venue, caused by badly positioned reflective surfaces, such as windows and hard walls, will cause a sharpening of the pitch. Conductors should compensate in overly-live rooms by avoiding tempi which are too fast. Conversely, the deadening effect caused by excessive absorption of sound by large audiences, and such things as curtains and rugs, will tend to cause a drop in pitch. This tendency can be countered by choosing a slightly faster tempo.
- (p) Any accidental calls for an even greater change of pitch than the sharp or flat would represent in the key signature. The voice must, therefore, pitch higher for the sharp sign and lower for the flat sign than would normally seem natural in the original key. The choir members will easily sing sharp if they do not deliberately pitch a tone lower when a flattened accidental occurs, especially the third of a minor chord and the diminished

<sup>1</sup> Philip McLachlan, *Klassonderrig in Musiek*, (Goodwood: Nasou Beperk, 1978), p. 142.

seventh of any chord. Conversely, singers tend to sing flat if the third of any major chord is not pitched high enough; if the leading note of a scale is pitched very high; if the sixth is not slightly raised; and if the major second is not sung as a big step<sup>1</sup>.

### 11.10 Register Disorders

When there is a very sudden change of quality in passing from one so-called register to another, it is known as a "break". It is often caused by carrying a lower register too high (very often, the chest register in female voices) which results in a sudden violent change in the mechanism of production. The aim should be a complete unity of colour, which would require an undeviating vowel. Think of linking one tone to the other like an indissoluble chain<sup>2</sup>.



At each point of amalgamation there are several notes that can be sung in either one of two registers. As a result registers overlap. Except for special effects, the higher rather than the lower register must be used. There are two reasons for this choice of register. Firstly, if the lower register is selected, the tone will sound harsh, or "open" as it is properly known. Secondly, strain on the vocal cords is avoided.

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<sup>1</sup>For an interesting account of the evolution of the scale, refer to Paul Roe, *Choral Music Education*, (Englewood-Cliffs: Prentice-Hall, Inc., 1970), pp.117-119.

<sup>2</sup>Judith Litante, *A Natural Approach to Singing*, (London: Oxford University Press, 1962), p. 38.

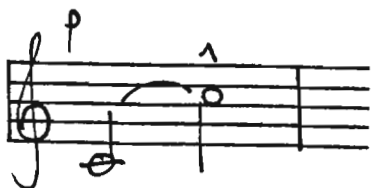
The following exercises<sup>1</sup> are designed to assist the singer to amalgamate his low and middle registers:

- (a) Sing a descending scale of 5 notes, commencing well up in the middle register. Transpose the scale a semitone lower each time until the voice is carried well below the point of amalgamation.



Sing with a full soft tone, forcing neither the power nor the breath. Ensure that the quality of the starting note is good and try to maintain the quality, power and tone, as well as the purity of the initial vowel sound throughout the exercise. Avoid any alteration of the position of the larynx, and all the other movable parts inside the mouth. Make full use of the resonating cavities. Do not attempt the second exercise until this scale can be sung with no alteration in the quality from the first to the last tone.

- (b) Sing an interval of an octave:



Start on a note in the low register, using the vowel tone as if to sing in a higher register. Carry the voice upwards to the octave above, striking the higher note decisively, but not too loudly. Place the fingers lightly on the larynx to ensure that it does not rise. The two notes should sound alike in quality. If the higher

<sup>1</sup>Norris Croker, *Handbook for Singers*, (London: Augener, Ltd., n.d.), p. 29.

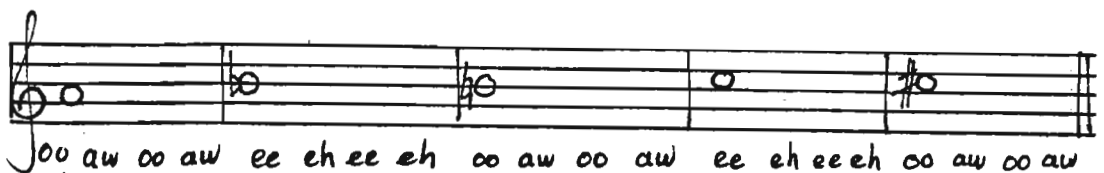
tone sounds too open, the wrong register is being used. The sensation to be felt should be as though the higher note were dropped down from above, not approached from below.

- (c) This is a combination of the two previous exercises. Sing an interval of an octave followed by a descending scale of five notes. Transpose the exercise down by a semitone each time and sing it in one breath.

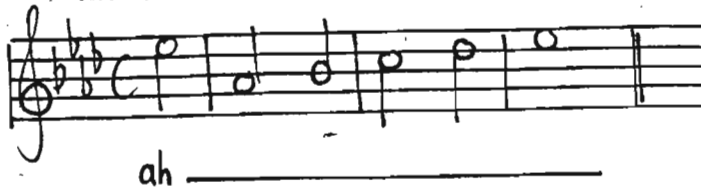


In order to amalgamate the middle and high registers the following exercises are prescribed:

- (a) Sing an ascending scale of five semitones and ensure that the quality of the starting note is good. The whole exercise must be sung with a soft, round tone and the larynx must be kept low. Aim to make the quality of the two registers sound as much alike as possible. No force must be used, so that the quality and power may develop naturally. If the voice is carried too high, thereby forcing the compass, the voice will be ruined.



- (b) In this exercise, start on a note well above the point of amalgamation. Transpose the starting point a semitone lower each time. Keep the directions of the previous exercise in mind.



Finally, to equalize all three registers the singer can use this exercise:

Start a scale on the lowest note in the compass, and sing slowly upwards to the octave above, and descend slowly again. Transpose the exercise a semitone higher at each repetition. Maintain the breath pressure equally throughout the exercise and sing the high notes by altering the tension of the vocal cords and adjusting the voice according to the various registers in use. The same strength of tone must be maintained from the first to the last note. The larynx must be kept low, the pharynx expanded, and full use must be made of the resonating cavities. It must be remembered that increased power is only gained by increased force of breath emission and even greater use being made of the resonating cavities. Support very well, especially during mezzo-forte and forte singing.

If any notes in the high register are badly produced, hum a scale up to that note, and without breathing again, open the mouth and sing on the given vowel-tone. Take care that the vibrations are not felt in the bridge of the nose itself, as the tone will then be nasal.

The muscles of the throat must not stiffen at all during the practising of these exercises, or the tone will suffer. Check this by placing the fingers very lightly on the throat between the larynx and the jaw, and hum the exercises immediately if the muscles are found to stiffen in the slightest.

### 11.11 Shock of the Glottis

Shock of the glottis is liable to occur when a vowel is sung after a period of silence. Should the singer force his vocal cords into vibrating immediately the larynx is opened to allow the breath to pass, an ugly tone results. This brutal or explosive attack on the vocal cords results in poor resonance. It can be avoided by allowing the breath to start flowing before the inception of the sound.

In preparing to sing, the mind conceives of the tone to be uttered, which, in turn induces a reflex action of the muscles and nerves. They regulate the necessary amount of breath to be taken as well as the correct tension and vibration of the vocal cords. By mentally singing a "h" before the initial vowel, the correct contact between the vocal cords and the flow of breath is ensured.

### 11.12 Shrill Tone

High notes are often shrill and harsh because of the following reasons:

- (a) The position of the mouth and jaw remains fixed throughout the range.
- (b) Notes lying in the high register may induce the feeling of climbing up a dangerous ladder. This incorrect conception causes the larynx to rise with the result that the singer clings desperately to the resonances behind the nose where there is not nearly enough room to amplify these notes.
- (c) There is not enough breath support<sup>1</sup>.

The correct position for high notes is a relaxed jaw, with the mouth opening twice as wide as for vowels on lower notes. This position causes the larynx to drop considerably taking the root of the tongue with it. The higher the note, the wider the cheeks stretch sideways. A so-called "high" note is merely a sound produced with a smaller

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<sup>1</sup>Refer to breathing exercises in part 2, pp. 57-58.

opening between the chords. This results in more tension and consequently a faster vibration of the cords. It is important to remember that sound still originates in a low place, deep in the throat. High notes find their resonance along the back of the head as well as sympathetic resonances in the top part of the chest.

For problems (a) and (b) above use previous exercises<sup>1</sup> on the "oo" and "ah" vowels. Ascend chromatically while opening the resonators to the sound. Relax the tongue and jaw.

For problem (c) use the breathing exercises.

### 11.13 Tone-Deafness or Monotism

The characteristic of a tone-deaf person is a relative deficiency in tonal memory and pitch discrimination. He either sings out of tune persistently, or growls (drones) on one note or a few notes only. Monotism in most young people appears to be a form of retarded musical development, or a lack of the appropriate conditioning of reflexes. As a rule these people do not reveal any significant deficiency in rhythmic memory.

While some children develop the ability to remember the "essential" ingredients of the tune in detail at a very early age, others do not achieve it even by the age of eleven or twelve years. A few people never achieve it at all. These are the children and adults referred to as monotones. According to an experimental study in tone-deafness by D. Fry<sup>2</sup> during 1948 in England, he found that 5 per cent of the population are likely to be tone deaf. Symptoms of this condition include:

(a) A limited range.

(b) Poor vocal quality.

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<sup>1</sup>Refer to the exercises prescribed for the amalgamation of middle and high registers in part 2, pp. 92-93.

<sup>2</sup>D. Fry, "Tone Deafness", in *Monotones*, ed. Arnold Bently (London: Novello & Company Ltd., 1968), p. 19.



- (c) Difficulty when using the head voice.
- (d) Lack of confidence in the ability to sing.
- (e) Lack of attention, resulting in slowness when learning a song.
- (f) Aloofness or even hostility towards music, which occurs even more amongst boys.
- (g) Poor musical memory.

If a cure is possible then a psychological approach to the problem should be followed.

- (a) Persuade the child that he can sing.
- (b) Patience, encouragement and imaginative exercises on an individual basis may help eventually. Exercises should initially be based on tune- and pitch discrimination. Thereafter short and concentrated tonal and rhythmic memory tests should be introduced with attention paid to correct vocal production. Music with a familiar tune especially, will encourage the central nervous system to carry out responses eagerly.

#### 11.14 Tremolo (Wobble) and Vibrato

Many singers are not aware of the essential differences between a vibrato and a tremolo. Tremolo is a rapid succession of departure from the true note and returning to it again, so that it becomes difficult to determine what note the singer is trying to sound. A quivering tongue and jaw, as well as a shaky larynx, normally accompany this fault. Bad tremolo may ruin a voice. Possible causes of a tremolo are:

- (a) Using an incorrect breathing method, resulting in an uncontrolled diaphragm.
- (b) Forcing the high notes.
- (c) Undue extension of the registers.

- (d) Overstraining of the voice, either by practising for too long periods at a time, or by trying to force the power of the voice.
- (e) Nervous tension.
- (f) Unsteady tongue and jaw muscles, pulling the larynx against the hyoid bone so that it cannot function freely.
- (g) General fatigue.
- (h) Old age.

Following are some suggestions to cure the problem:

- (a) Refer to breathing exercises, part two, pp. 57-58, and practise the prescribed exercises diligently.
- (b) Refer to register disorders, part two, pp. 90-93, for advice on proper placement of registers.
- (c) Singers should not practise for more than thirty consecutive minutes without time allowed for resting the voice. If directions from the instructor are clear, and the brain is used as well as the voice, a lot will be achieved in that time.
- (d) Refer to exercises for intrusion of the tongue, part two, p. 59, in order to control the tongue.
- (e) Avoid loud singing, and never force the voice.
- (f) Practise singing sustained tones, sung softly and with perfect evenness.
- (g) Often a good rest may help.

Tremolo must not be confused with vibrato. Vibrato does not entail any departure from the sounding note, and, when used correctly, can be one of the greatest assets of the artistic singer. It is an evidence of quality, and a most important feature of all correct and beautiful

singing. It is a characteristic that is evident to the educated listener as a definite sign of a healthy, trained voice.

The necessary control comes from the diaphragm. Inexperienced singers often find it difficult to control the diaphragm. They could practise by raising both arms, bending the elbows to the side of the body, palms towards the face, and the fingers slightly curved. Tense the wrist and hand, and shake them four times to the beat while vocalizing. This movement shakes the breath instead of varying the pitch of the voice. It should not take very long for the diaphragm to learn the art of vibration unaided by the wrist movement.

### 11.15 Undeveloped Vocal Range

If problems are experienced at the higher end of the vocal range then the singers should be asked to avoid thinking of the high notes as they are approached, because any sense of fear produces rigidity. Rather the singers should concentrate on keeping the throat well open and on retaining the same poise throughout the scale. High notes then become as easy to sing as low ones. To work against the "fear-principle", ask the singers to bend their knees slightly when singing high notes. Each of the following exercises<sup>1,2,3</sup> should be sung in an even tone without increase in pressure from beginning to end.

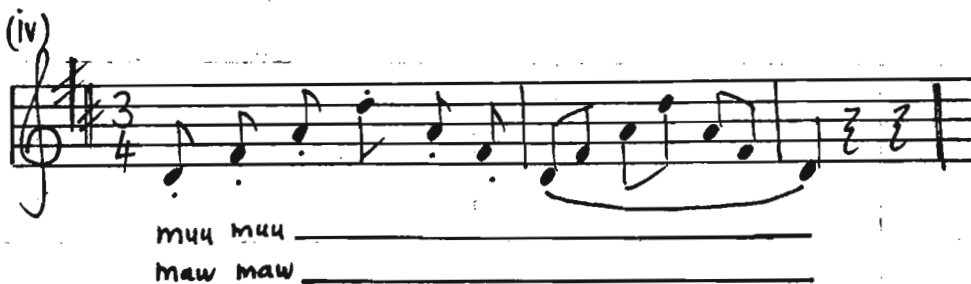
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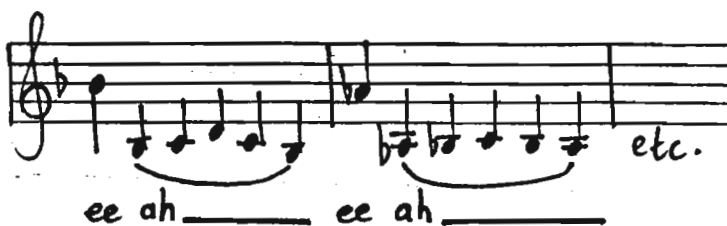
<sup>1</sup>Exercise (i): Ivor Warren, *The Examination Candidate's Handbook on Singing*, (London: A. Hammond & Co., n.d.), p. 16.

<sup>2</sup>Exercise (ii): Judith Litante, *A Natural Approach to Singing*, (London: Oxford University Press, 1962), p. 44.

<sup>3</sup>Exercises (iii) and (iv): Wilhelm Ehmann and Frauke Haasemann, *Voice Building for Choirs*, (London: Bärenreiter Verlag, 1982), p. 44.



The lower notes of the altos and basses are often weak. The following exercise is designed to improve and strengthen this part of the range. The facial muscles and jaw should be relaxed.



It may happen that during the development of low tones, the singer's high tones do not respond with the usual ease. This is only temporary and should cause little concern. Once the vocal membranes are fully

developed and the throat has become free then the top notes will return with added beauty and brilliance.

### 11.16 Veiled Tone

A voice is described as being veiled when it sounds muffled, and is not thoroughly clear in quality. This is quite different from a husky tone with which it is often confused. Huskiness is usually due to phlegm collecting on the vocal cords which distorts the sound. Veiled tone is due to a growth on the vocal cords, which produces the muffled tone. The causes are:

- (a) Bad voice production.
- (b) Overworked voice.
- (c) Disease

Certain exercises prescribed for other problems may be of use here:

- (a) Blending of registers, part two, pp. 90-93.
- (b) Staccato exercises, part two, p. 99 (iii) and (iv).
- (c) Breathing exercises, part two, pp. 57-58.

If there is no improvement, the voice should be rested totally and a specialist should be consulted.

### 11.17 Weak Aural Perception

Many singers are deficient in aural imagination of musical sounds through lack of training. Following are some useful exercises<sup>1</sup> designed to train the choral singer's ear:

- (a) Conduct the choir as it silently sings a familiar song. However, at some predetermined place in the song, the particular note or

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<sup>1</sup>Wilhelm Ehmann, *Choral Directing*, (Minneapolis: Augsburg Publishing House, 1968), pp. 65-77.

phrase must be sung aloud. The song is then silently resumed, and the process repeated. This promotes concentration and makes the aural imagination alive and alert. Every singer must hear the pitch mentally before singing it. This is one of the most important skills to cultivate for accomplished musicianship. There can be no true sight-reading of music without this skill<sup>1</sup>.

- (b) Rehearse without accompaniment whenever possible to improve mental hearing. Continuous use of the piano will hide intonation problems and singers will become aurally dependant on the instrument. A capella singing will:
  - reveal mistakes that the piano covered,
  - create better blend and balance in the group because the singers will be listening to each other instead of adjusting to the piano,
  - force the choir to watch the director more carefully.
- (c) The singing of ascending and descending scale passages is especially beneficial to those singers who are not good at sight reading. The eye will be trained concurrently with the ear as the singer notes the chain of ascending and descending tones and promptly responds to it. Various aids can serve to illustrate this process, e.g. hand gestures, the use of a small ladder or singing by numbers which represent the various degrees of the scale.
- (d) Bass singers in particular must learn to sing descending intervals with confidence and accuracy because these intervals support the whole harmonic structure of a song. A useful method is to sing and identify the first two notes of a well-known song. Descending intervals can be practised by singing the ascending intervals in reverse.
- (e) Melodic dictation trains the ear to grasp the melodic contour and the sequence of notes and helps to strengthen the musical

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<sup>1</sup>Norman W. Mellalieu, *The Boy's Changing Voice*, (London: Oxford University Press, 1966), p. 31.

memory. It is important to play or sing the tune in its entirety before the students attempt to reproduce it.

- (f) Canon singing trains the ear both melodically and harmonically because the singer listens to the harmony as well as the melody. It also helps the singer to become more self-reliant.
- (g) The building up of chords contributes to better blending and tuning of voices. Each section of the choir is given a note to remember, and after a few moments they are required to sing in harmony together. Another exercise stemming from this one would be to let the singers choose any note of a chord after the root of the chord is given. A more difficult, but extremely beneficial, aural exercise is to sound for example, the pitch **A** and the singers have to try and find **F<sup>#</sup>** and **D** to complete the triad. The pitch **A** is then given again and the choir is asked to find **C** and **F**.

#### 11.18 White Tone

This may be described as a voice without resonance, undirected or unplaced. In singing high notes, male singers often press their chins forcibly on to their necks. This amounts to terrific pressure on the back of the tongue, combined with a sympathetic lifting of the soft palate. These voices have some chest resonance, but little head resonance, and the colour and quality of the voice is "grey", devoid of any ring.

In order to improve the tone, the singer should concentrate on two factors. A foundation of good breath control should be developed and the resonators<sup>1</sup> should be fully used.

#### 11.19 Woolly (Breathy) Tone

The vocal cords are insufficiently approximated which results in an imperfect closure of the glottis. Only a portion of the breath is used to make the vocal cords vibrate, the rest passes through freely. This

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<sup>1</sup>Refer to the exercises prescribed in part 2, pp. 65-67.

leakage of unvocalized breath, often heard at the commencement of a tone, can be distinctly heard and sounds breathy. Very often this choral tone does not project. Other reasons for this poor tone may be:

- (a) There is inadequate support of the tone.
- (b) The tone is not focused, because the resonators are not fully used.

Following are some suggestions to cure this problem:

- (a) Emphasis should be placed on breath support and control. For example, inhale deeply and exhale on the sound "ff" of the word "piff" for as long as possible.
- (b) Staccato exercises are a good remedy. Sing staccato on "ah" from the tonic to the dominant and back. Gradually ascend and descend in semitones.



- (c) Humming exercises<sup>1</sup> may also help.

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<sup>1</sup>Refer to resonance exercises in part 2, pp. 65-67.



## PART THREE

### Chapter 12

#### **Experience with Five Selected Choirs**

During 1986, five choirs in the Durban area were studied. In four of the cases, an evaluation of their choral vocal production was undertaken, and my recommendations were discussed with the respective choral directors. In the last case, I took over the training of the choir for a period of five weeks.

A cassette tape accompanies this thesis. On side A are recordings made of the first four choirs studied. Side B is devoted to the fifth choir for which I was temporarily the choral director. Using these recordings, it will be demonstrated how choral tone can be improved by the application of prescribed technical exercises included in this mini-thesis.

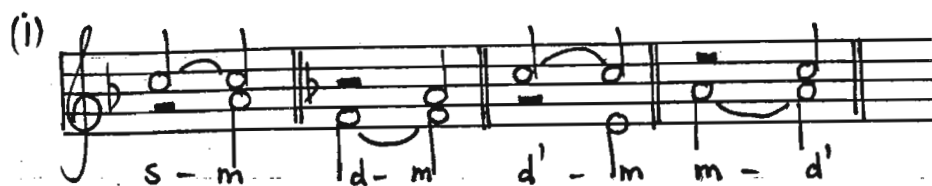
#### 12.1 Choir 1 : Junior Primary Girls Choir

The first choir visited was a junior primary girls choir, and they sang<sup>1</sup> an Italian folk song called "Santa Lucia". My recommendations were the following:

- (a) The articulation was poor. Every consonant should be fractionally anticipated so as to avoid the heavy, "dragged-out" sound which occur as a result of sluggish consonants.
- (b) Attention should be given to the vowel production, especially the ah as in "father".
- (c) Their intonation suffered as a result of long, uninteresting phrases. Careful planning and insertion of dynamics would probably lead to a more musical interpretation of the song. Consequently, the added excitement to the phrasing would lead to better intonation. Part-singing exercises should be done on a regular basis. The following exercises, to be sung on solfa, were prescribed to improve their intonation:

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<sup>1</sup>Cassette tape: Side A, counter 6-65.



## 12.2 Choir 2: Junior Boys Choir

The junior boys choir sang<sup>1</sup> two of their usual voice-warming exercises and the song: "Angel Tidings", arranged by John Rutter. My recommendations were as follows:

- (a) As a result of carefully chosen and regular voice-building exercises, the choir experienced no apparent problems with incorrect vowel production. The dipthong, "today", was incorrectly produced by the altos, and the correct pronunciation was explained and demonstrated. Their consonants however, were not sufficiently clear. The exercises which appear in part two, pp. 67-73 were suggested.
- (b) The contrast in agility between the altos and sopranos was disturbing. The alto-line should work on expanding their voice

<sup>1</sup>Cassette tape: Side A, counter 69-91.

range and practise the singing of fast-moving phrases. The exercises as prescribed for flexibility and agility in part two, pp. 76-78 were suggested.

### 12.3 Choir 3 : Mixed High School Choir

The third choir, a mixed high school choir, sang<sup>1</sup> the well-known "Gaudeamus Igitur", arranged for SATB choir. My recommendations were as follows:

- (a) The part singing was almost non-existent because the sopranos overpowered the rest of the group. Initially, the alto part should be taught to both the sopranos and altos. Thereafter, only one third of this combined group should be selected to sing the melody line - preferably singers with clear, strong voices who can sing with confidence in their upper registers. The tenors and basses should have individual practice sessions because they lacked confidence in the pitching of their notes.
- (b) Generally, the song did not impress because it lacked vigour and youthful enthusiasm. The conductor was advised to approach the interpretation by initially giving attention to the rhythmic "push" and "climax" of each phrase. Thereafter, correct pronunciation and clear articulation of vowels and consonants should receive attention.
- (c) The choral tone did not project well as a result of undeveloped resonance. Exercises in part two, pp. 65-67 were prescribed to remedy this defect.

### 12.4 Choir 4 : Mixed Adult Choir

The last choir on side A was a mixed adult choir who sang<sup>2</sup> "Carol of the Bells" by M. Leontovich, arranged by Peter Wilhousky. My criticism was as follows:

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<sup>1</sup>Cassette tape: Side A, counter 131-157.

<sup>2</sup>Cassette tape: Side A, counter 160-189.

- (a) It would be quite possible for this group to attain absolute precision as regards uniform vowel production as well as precise and clearly articulated consonants. Exercises appearing in part two, pp.67-73 were recommended to the conductor.
- (b) Their natural musicianship as regards interpretation and phrasing could be further enhanced by more careful control of the gradation of tone. In order to achieve this, the choir should regularly practise breath control and resonance exercises.
- (c) A complete choral blend is within the reach of this group but the following problems occurred occasionally and would have to be corrected:
  - Inaccurate pitch
  - diction not uniform
  - dynamic level not uniform
  - tone colour not uniform
  - occasional rhythmic inaccuracies

## 12.5 Choir 5: Senior Girls Choir

I directed a senior girls choir for a period of five weeks. There were two practice sessions per week, each lasting half-an-hour. This gave me the opportunity to design and execute a regular voice-building programme specific to this particular choir's needs. The appendix contains a table which lists in chronological order the exercises which the choir was required to sing. The table also documents the objective of each of the prescribed exercises.

"The Handsome Butcher", arranged for SSA by M. Selber, was recorded four times<sup>1</sup> in order to illustrate the development of the choir in the following aspects:

- Articulation
- Interpretation
- Blend and uniformity of choral tone

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<sup>1</sup>Cassette tape: Side B, counter 310-375.

- Balance between the different voice parts
- Flexibility and agility

Due to unfortunate circumstances, the final recording was made during a school assembly at 7.30 am. The choir did not have sufficient voice-warming time, which resulted in constant poor intonation. However, a highly successful performance of the song took place during a subsequent choral festival.

The observed improvement in the overall choral tone indicates that this choir did benefit from these regular, intensive voice-building exercises. The members of the choir also found the exercises stimulating and worthwhile.

## 12.6 Conclusion

I believe that the efforts of the choral director and his choir, who work together according to the principles of correct voice production, will be rewarded by the satisfaction of knowing that they are striving to reach the highest standards of choral excellence. I hope that this thesis will serve as a useful guide in assisting choral directors towards this goal, and thereby uplift the quality of choral singing in South Africa.

DATE	TAPE COUNTER SIDE B	EXERCISES	OBJECTIVES
12 Aug	3 - 20	Part 2, p.63 (ii)	Uniform vowels
	21 - 43	Part 2, p.63 (iii)	Uniform vowels and voice-warming
14 Aug	45 - 73	Part 2, p.63 (iii)	Flexibility and agility
20 Aug	75 - 89	Part 2, p.63 (iv)	Relaxation of facial muscles, tongue and jaw
	90 - 105	Part 2, p. 71 (iii)	Clear vowel pronunciation
	107 - 111	Part 2, p. 103 (b)	To develop diaphragm action
	113 - 123	Part 2, p. 103 (b)	To strengthen diaphragm
	124 - 128	Part 2, p. 103 (a)	To develop and control exhalation
	130 - 145	Part 2, p. 64 (vi)	Clear articulation, strengthen diaphragm and develop vocal range
	147 - 151	Part 2, p. 59 (b)	Relaxation of the jaw, uvula and tongue
	152 - 162	Part 2, p. 99	To develop and extend alto's chest register
	164 - 170	Part 2, p. 67 (vii)	To develop resonance and uniformity of "ah" vowel sound
4 Sept	172 - 193	Part 2, p. 63 (iv)	Relaxation of jaw and extension of vocal range
	194 - 208	Part 2, p. 63 (v)	Flexibility and agility; uniformity of tone
	210 - 217	Part 2, p. 99	To develop and extend alto's chest register
	218 - 250	Part 2, p. 67 (vii)	To develop resonance and uniformity of "ah" vowel sound

DATE	TAPE COUNTER SIDE B	EXERCISES	OBJECTIVES
8 Sept	251 - 262	Part 2, p. 73 (viii)	To improve consonants and develop resonance
	263 - 280	Part 2, p. 72 (v)	To improve consonants
	282 - 289	Part 2, p. 70 (f)	Clear enunciation
	291 - 308	Part 2, p. 64 (vi)	Clear articulation, strengthen diaphragm and develop vocal range

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