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VOCAL PEDAGOGY - REFLECTIONS ON HOW TO TEACH PROPER SPEAKING AND SINGING TO STUDENTS

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SUMMARY. The present study intends to dive into the world of technically appropriate human sound production. Whether it's used in professional speech or singing, understanding the different elements that aid in the correct creation and emission of sound are prerequisites for all who intend to pursue a career that requires speaking or singing for an extended period of time. From the characteristics of sound, to the anatomy of how sound is created, what does technical breathing mean but also what a voice trainer needs to pay attention to in terms of anatomy but also psychology when working with students, the following article presents the steps and methods a vocal coach needs to take into account when taking on a new student.

Keywords: human voice, pedagogy, technical breathing, professional speech, singing, vocal coach, anatomy.

The human voice - The most beautiful instrument that ever was

Stressing the importance of singing in teaching music, Zoltán Kodály wrote in a 1914 article, "A more profound musical knowledge has only ever developed wherever singing has been the foundation. The instrument is the preserve of the privileged few. The human voice, the instrument that is accessible to all, free and nevertheless the most beautiful instrument is the only fertile soil available for a general musical culture that reaches a large

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number of people". [2] As a performing artist, singer and teacher, my thesis - based on existing literature as well as my personal experience - explores the methods necessary to improve the voice of the professional actor-singer, in agreement with the teaching of the great Hungarian composer-educator. Question: what makes the human voice identifiable, unique and recognizable? The fact is that every human being, and every artist, carries in the slightest nuance of his voice the gift inherited from his ancestors - talent, the sum of his life's experiences, the full range of his emotional and personal knowledge, the stamp of his geographical and social origins and the cumulative cultural knowledge - which over time makes his voice an identifiable, recognizable trademark.

The subtleties of sound emission

The source of human sound, the vocal cord, can produce only a barely audible sound by itself, but the resonant cavities of the human body - the solid skeleton - amplify it, imbuing it with timbre and colour. The resonators are located above and below the source of the sound, so our largest resonator below the source is the chest, and the resonant cavities above the source are located in the head. While the pharyngeal and oral cavities change their shape constantly, the nasal, facial, frontal and cranial cavities have a permanent character. The resonance of the head cavity tends to be high-pitched, while the resonance of the chest and thoracic cavities tends to be lower-pitched. Knowing that sound waves propagate over a spherical surface, the sound waves produced by a human sound source also reach all the resonators in the body, causing them to resonate together, so that different resonators at different points on the human sound spectrum produce sounds of different colours, types and intensity, depending on their shape and size.

Sound has three basic properties: volume, pitch and timbre. This study is concerned with the development of the individual and natural pitch. Timbre is closely related to the first two basic properties, so if volume and pitch are used correctly, then timbre is born. The fact is that we hear our own voice - our speech - differently from the audience listening to us,[3] for a physiological reason: unlike the listener, the person who is speaking or singing does not only hear the sound coming to his ears through the air, but also the vibration generated in the larynx and transmitted by the bones to his

[2] Kodály, Zoltán. Éneklő ifjúság. In: Kodály Zoltán. *Visszatekintés (Retrospective I)*. Zeneműkiadó Vállalat, Budapest, 1974, 117.

[3] Fischer, Sándor. *Retorika. A közéleti beszéd gyakorlata (Rhetoric. The Practice of Public Speaking)*. Kossuth Könyvkiadó, 1981, p. 197.

eardrum, where he perceives a combination of sounds that is not the same as the sound perceived from the outside. Therefore, we cannot hear our actual sound and therefore cannot judge it correctly.

There are two ways to judge our actual, realistic voice:

1. we record it and listen to it back - it should be noted, however, that even the best recorder will distort it slightly, but it will still approximate reality.

2. by covering one ear, or by holding a thicker sheet of paper or notebook in front of each ear, parallel to each other and perpendicular to the jaw, as the method of Chris and Carole Beatty, singing teachers,[4] recommends.

In both cases, our sound will seem completely foreign to us, but this is the *true timbre* of the sound, because it is the internal vibration that is eliminated or absent when listening to a recording. As a teacher, I find it very important and useful that my students make recordings of our lessons every time, because when they listen back to them, with an 'external ear' - in this case their own - they get to know their own voice and timbre, and also hear the mistakes they have made and need to correct. The corrected exercises, which are recorded and can be listened to many times, are also useful for individual practice at home.

Can the pitch of the singing voice differ from the pitch of the speaking voice?

On the threshold of adulthood, women often seek a higher pitch for their speaking voice, men usually a lower, deeper one, so it is advisable to find as early as possible the pitch of everyday speech, the individual pitch and range of four to five notes that provide the pitch of impassioned everyday speech.[5] The pitch range for comfortable, audible speech is the midrange, the development of which varies from person to person, some people find it easy, others struggle for years, decades, sometimes needing the help of a specialist to find it, if their voice is already impaired.[6]

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[4] Chris Beatty (b.1944) is an eminent singer-songwriter, nephew of composer Samuel Barber, who is considered the world's best vocal coach and teacher. Chris Beatty "vocal coach" with his highly qualified and individual singing experience, focuses on teaching his students of all ages and abilities the correct singing technique, as well as making singing fun. His wife Carole also helps him in this endeavor. See: https://www.vocalcoach.com/about/, accessed on 28.08.2023.

[5] Fischer, Sándor. *A beszéd művészete (The Art of Speech)*. Gondolat, Budapest, 1966, p. 48

[6] Montágh, Imre. *Tiszta beszéd*, *Beszédtechnikai gyakorlatok (Clean Speech, Speech Techniques)*. Múzsák, 1995, p. 12

There are almost as many different timbres as there are people, which can make anyone recognizable and unique. The correct classification of the individual expression of a speaking and singing voice becomes important when it plays a role in the profession of someone - see actor, singer, perhaps teacher, priest or even lawyer. A professional career as an actor or singer requires voice training. During the long teaching-learning process, voice training takes place under the guidance of a teacher and with the use of a piano.

Similarities and differences between the speaking and singing voice

My colleague A.B. is a chirpy-singer, speaking in the fifth octave, her voice here is clear and strong, not really offensive to the ear, just a bit unusual. She has a temperamental nature, whether she is telling a story or asking a question, she always speaks quickly and in a high-pitched voice. Her mother has a similarly high, clear speaking voice, presumably, to prove the hereditary factor, their anatomy is the same, and their tone of voice is influenced by a similar temperament. AB's singing voice is also high-pitched and has a clear, strong sound, and in conclusion her speaking and singing voices are identical, i.e. her mid-range in the high register. My sister has a deeper than usual, strong, ringing, ear-pleasing, robust speaking voice, which has been mezzo since childhood, but as soon as she began to sing, her voice was at its best more than an octave higher, in the coloratura-soprano fach, and she sang even the Queen of the Night from Mozart's The Magic Flute in the high register with the most proper singing technique and the greatest ease. Considering that both the speaking and the singing voice are well trained, powerful, clear, intelligible, pleasing to the ear of the listener, and in the long term does not cause any disorder, discomfort or hoarseness, it can be concluded that the speaking voice and the singing voice are not always in the same register, so it is not our intention to bring both into the same register. Although a study by Sándor Fisher states that "The timbre of a speaking voice, provided it is not distorted, is always an unambiguous indication of the correct type of voice",[7] this statement is contradicted by the example above. In conclusion, there is no general rule for that. It is a serious pedagogic error that my sister was placed in the alto range as a child solely on the basis of her speaking voice, without even listening to her singing voice, and it is fortunate that her voice was not damaged by this incorrect classification.

[7] Fischer, Sándor. *A beszéd művészete (The Art of Speech)*. Gondolat, Budapest, 1966, p. 68

The fact that she has never taken a single minute of voice training and yet sings perfectly can also be explained by the fact that she is an oboe player by profession, and thus has full command and use of deep breathing, i.e. diaphragmatic breathing, which is identical in every respect to the breathing technique used in singing. During our student years, she as an oboe student and I as a university student studying singing, we repeatedly compared our breathing and voice training techniques, which were later scientifically explained in a doctoral thesis written by Tamás Altorjay, a vocal coach, in 2013. It should be noted that the shaping of the mouth and cheek cavity for blowing the reed is also very similar to the singer's voice production and vocal emission, but the difference comes after deep breathing, because while: 'Wind players concentrate the airflow and air pressure on the lip, they blow the air there, since the resonator cavity is located outside their body, inside the instrument. The singer must concentrate the air pressure on the pitch, and then not blow into the extension tube, but rather circulate the vibrating air so that its cavities act as resonators to amplify the partials of the 'primary sound' produced in the larynx. If the singer "blows his voice", too much air is expelled through the vocal fold, the sound becomes "light, muffled, airy".[8] It follows that, above all, it is proper breathing that is crucial, working in conjunction with the vocal organs, to the correct cultivation of the individual's speaking and singing voice.

Teaching practices that lead to correct sound production

Technical breathing

Breathing is an innate unconditional reflex, designed to maintain our physiological functions, controlled by the respiratory centers in our brain. This physiological vocal breathing adapts to our speech through prolonged practice, which also creates a conditioned reflex. Inhaling is thus carried out at the rhythm and volume of air required by the rhythm of our speech. However, in the case of professional speaking or singing - singers, actors, teachers, priests - the aim is to achieve a correct, robust, strong, audible quality of voice, which requires the acquisition of technical breathing techniques developed for this purpose. "Technical breathing is a form of speech breathing developed through conscious practice which, taking into account individual ability, is capable of high performance without overtaxing

[8] Altorjay, Tamás. *Klasszikus énekesi hangképzés empirikus kutatása, az orr és melléküregei bekapcsolhatóságának vizsgálatára (Empirical research on classical vocal training on the engagement of the nose and the paranasal sinuses).* PhD thesis, Szeged, 2018, p. 21

the body and can thus form the basis of the most versatile and complex technical solutions in the art of speech" (F.S., 1966, 23).[9]

Awareness is manifested in two factors. The first is the deliberate directing of the inflowing air column into the lower part of the lungs, which causes the diaphragm to descend and the organs in the abdominal cavity bulge slightly forward.

The second is to let in a predetermined amount of air, adapted to the length, dynamics and structure of the intended text or melody.

Given the fact that in many cases, over many years, incorrectly trained breathing mechanisms have been created which do not lead to high performance, the solution to eliminate these is learning to breathe correctly, which is of great importance both from a health and quality standpoint. This is breathing based on deep breathing, or diaphragmatic breathing, which is achieved through the unified action of the abdominal muscles and diaphragm. Its development and continuous, patient, thorough practice are the prerequisites for artistic speech and singing. The result is a volitional control of the speed and direction of the breath, which is manifested in the formation of the voice, the development of the quality of artistic speech and the creation of an educated, cultured singing style. The correct flow of air is crucial in creating the basic characteristics of the voice: pitch, volume, timbre and, last but not least, length.

For the continuous practice of technical breathing, the triple unit of inhalation, retained air, exhalation, followed by inhalation, then hissing airflow, and finally the imposition exercises on the m, n sounds after inhalation were the basic task. The exercises described above continue to serve as the basis for warm-up exercises after several years of vocal training.

"If we base sound training on regularly balanced breathing, we will develop an individual sound profile for each person, an individual timbre that corresponds to their individual constitution. Correctly structured voicing and tone construction enable the artist to express the whole range of human emotions and feelings with his voice, from the most subtle mood changes to the deepest dramatic tension" (A.I., 1996, 17).[10]

As a result of technical breathing, when cultivating artistic speech and singing, there are some changes compared to everyday speech:

- when inhaling, more and larger volumes of air flow into the lungs
- the lungs are expanded more forcefully by the intercostal and thoracic muscles

[9] Fischer, Sándor. *A beszéd művészete (The Art of Speech)*, Gondolat, Budapest, 1966.

[10] Adorján, Ilona. *Hangképzés, énektanítás. Feljegyzések hatvan év pedagógiai munkássága során (Voice training, voice teaching. Notes on sixty years of pedagogical work),* Eötvös József Könyvkiadó, Budapest, 1996.

- when exhaling, the lungs do a much more active job
- the sound is directed towards the resonators in a more concentrated form, resulting in a much more powerful, front-ringing sound

The front ringing sound is produced at the front of the oral cavity, with a small degree of resonance with the nasal cavity.

Correctly formed sound in the epiglottis, including the articulation of the oral cavity and tongue, is the key to the forward sound, of which a loose articulation of the jaw is an essential part.

What should the "singing coach" look out for?

A poorly trained voice requires much more air. In this case, it is important to make sure that the poorly trained voice may not have a physiological or other medical cause. This kind of voice training may also have a psychological cause, which can mostly be traced back to childhood, or it may be the result of repression of some psychological trauma. In this case, long and patient work on both sides, mutual trust, are necessary to find the right solution.

The learning process can be made more difficult if we hear our own voice as correct even when it is wrong and perceive the new voice, which is intended to improve, as wrong even when it is correct. That is why, when starting to learn, two basic factors should be emphasized: we do not want to hear what we have already heard, but the new, the improved voice, and we should take the very first and simplest exercises for such improvement with the utmost rigor.[11] Finding the middle range is made easier by simple exercises in which we move from speaking to singing and vice versa. To this end, pentatonic hymns of a sacred nature are very useful, practiced alternately in singing and in the spoken version. It is also useful to alternate between the spoken and sung forms of the songs to be learnt, which will enable the student to apply the speaking voice they have found to singing and vice versa. In addition to finding the middle voice range, it is also important to produce a more resonant, pleasing, rich and full sound.

Can imagination and temperament help in sound production?

Sound shaping is easier for the visually inclined, but anyone can and should easily master a method that requires a little imagination, i.e. the ability to visualise the sound and its point of emission, the external projection of the

[11] Fischer, Sándor. *Retorika. A közéleti beszéd gyakorlata (Rhetoric. The Practice of Public Speaking)*. Kossuth Könyvkiadó, 1981, p. 98.

inner and upper focus, and the whole phrase. To understand singing on the same plane, with the same pitch, I usually give my students an example of sparrows sitting next to each other on a light wire, i.e. depending on whether we are singing a rising or falling melody, we should not mentally step up or down, but try to imagine the notes on the same level, “on the same floor”. In fact, an introverted person speaks more slowly, quietly, with longer pauses, while an extrovert speaks faster, louder, more confidently, which is fine as long as his speech remains intelligible, and his thoughts are at the same pace as his speech. But if we impose the characteristics of one on the other - introvert on extrovert and vice versa - we get an artificial, distorted impression, which cannot lead to good results. These qualities need improvement, especially in the case of the actor-singer, but also in the case of the teacher, the clergyman, the lawyer since the pace of speech can be fully remedied by appropriate rhythmic exercises.

Can the voice be broken?

As we go through several octaves of singing or speaking practice, the timbre of our voice changes at a certain point, the place of this change is called a break in pitch, and the sound that is made here is called a changing note, or *passaggio* in Italian. It is characterized by the fact that this sound has already lost space in the lower resonator center, but does not yet resonate in the upper resonators, and is therefore lacking in color and power. To study this phenomenon, the literature has developed the concept of a register, which is a series of successive tones, each member of which is produced by the same laryngeal mechanism and each tone occurring in succession has the same timbre.[12] One of the main tasks of singing masters and voice coaches is to equalize these registers.

Solutions

When the changing note is in the first half of the octave, or one or two notes below it, they should be practiced with loose laryngeal function and a dropped stance, so that the shift between the two registers is subtle, almost imperceptible. Avoid at all costs any harsh sound or amplification, since by its very nature it is colorless and powerless, and the aim is therefore to make the changes imperceptible to the audience.

[12] Fischer, Sándor. *A beszéd művészete (The Art of Speech)*, Gondolat, Budapest, 1966, p. 70.

When the voice has to be shifted to the second half of the octave, I have found the following method to be useful: the musical section written in the higher register, in the second half of the octave, after the text has been successfully practiced at the front, is first practiced in the first half of the octave, one octave lower than the written one, and then sung at the original, upper pitch. The point of this method is that the student should not want to sing in a different position or in a different place in terms of position and timbre but should imagine the notes as if they were in the same plane, i.e., as if they were "in the same place" as if they were speaking naturally. This is one way to even out the sound, to smooth out the breaks given by register changes.

Factors affecting the voice

Inappropriate voice classification in school years

Just as the stability of a newly built house depends on a good foundation, so too does a good foundation ensure future success in singing, based on four main principles:

1. the mastery of correct breathing
2. learning the resonators and consciously using them
3. well-trained front emission, which is a combination of the previous two
4. free positioning of the airways, the pharynx, to allow the free flow of air.

Training the whole body, building, and maintaining muscle tone is also a prerequisite for future performance on stage, where it is a serious task to physically and mentally perform a two-to-three-hour performance with maximum effort. It is not necessarily the range of the voice that determines the type of voice, but rather the position in which the singer sings most easily and naturally. Identifying pitch can be a problem at school age, especially for boys aged 13 to 14, when their voices start to mutate and change. At this point, they are unable to control their voice, which will involuntarily rise and falter, and they try to deepen it by darkening it, to make it sound more masculine. It is a mistake to think that girls' voices cannot change, that in their case the mutation is also taking place, but in a less audible and obvious way. Sometimes, at the age of transition, girls may speak in a high-pitched, almost shrieking voice, and it is important to warn them about this, because the voice can be changed.

Voice classification by genre can have unforeseen consequences, especially for school choirs. It is often the case that a student is placed in the register where there is a shortage, regardless of the register in which he or she sings most easily and naturally: the soprano is often forced into mezzo or alto, and the baritone is forced into tenor, for several years. The students try to make do, forcing out the most uncomfortable sounds, but over time this results in hoarseness, laryngitis, a breathy, over-stretched voice, to which the throat becomes somewhat accustomed, but which is damaging to the voice. It is very difficult to replace and correct the bad, incorrect reflexes thus formed with new ones that are useful to the individual. The longer one has been singing incorrectly, the longer the process of correction. Choir teachers have the responsibility to select the right voices for their students, as singing in choir, if sung in the right key, has a very positive effect on the student's further artistic and vocal development, developing their hearing, training their voice, breathing, lung capacity, confidence and contributing greatly to the development of their artistic and aesthetic sensibility.

The consequences of singing in a different voice

Identifying your own singing voice correctly is not necessarily a problem at a young age. For professional singers, it is a fundamental error when singing not in one's own voice or timbre, but imitating, trying to mimic the place and tone of another singer's vocal delivery. This is most likely to happen when a singer listens a lot to recordings of other singers, either to learn, to master the material, or because he or she believes, or has been made aware, that his or her tone is not appropriate for the role, and tries to imitate the tone or even the volume of another singer's voice, which is considered by many to be the ideal tone. This may be the case when a lyric singer wants to sing a role with dramatic qualities (or perhaps he is being asked to sing it), or conversely, a dramatic singer is forced to learn a lighter role even though it is not written for his voice. A good example is when a lyric soprano - whose range of roles includes Rosina, Gilda, Norina, Traviata - takes on a dramatic soprano role such as Puccini's Tosca or Leonora in Verdi's Il Trovatore, or Abigail in Verdi's Nabucco, since these roles require a much fuller, dramatic tone and voice than a lyric soprano. Since most of these dramatic roles are mainly written in the middle register, the high notes also require a dramatic tone, while her voice is suited to roles composed in the higher register, requiring a more relaxed, light, coloratura technique.

The secret of great singing: warming up

Whether it's a football match, a swimming tournament or an athletics competition, the moments before the competition are always filled with warm-up exercises. Why should it be any different when preparing singers for the stage, or in pre-show classes for skilled artists? In fact, even school singing, or choir lessons are not without warm-up exercises, it is very important to prepare the vocal cords for singing, because warming up before singing serves the same purpose as warming up before training in any sport. During the warm-up, the muscles of our body and our vocal organs are prepared for work, while the blood supply to the larynx increases and the mobility of the vocal cords increases.

Can we have artistic education without emotional and mental education?

The work of an educator in any field is a complex and responsible task because the future of the students is very much in his or her hands. But it is not enough to be an excellent teacher: to educate well-prepared students, you also need to be a well-versed in the art of human behavior and thinking, even more so when you are guiding students who are actors or singers towards a career in the arts. In educating for life on stage, the arts teacher must bear in mind that technical preparation and emotional and mental education are closely linked. It is a fact that in everyday speech, too, a scowl or a raised voice can cause a person's throat to constrict, which can be fatal when singing, because with a constricted throat the vocal cords freeze, and the sound cannot come out of the mouth. So, the task of the teacher-educator is to find the ideal, effective method, in which professional rigour is combined with a desire to help and kindness.

In the words of Pier Francesco Tosi, the teacher *"should be moderately strict, to be respected without being hated. I know that it is not easy to find a middle way between severity and gentleness, but I also know that extremes are harmful, because from excessive severity often comes stubbornness and from excessive indulgence contempt".*[13]

Today, on stages all over the world, artists must have excellent movement skills, in addition to flawless diction, and, depending on the role, they must also be able to sing and dance. A good actor knows no limits, but knows that to get the acclaim he deserves, he must work hard and be at his best every minute of the day, whether it is singing and dancing in prosaic roles or, more recently, as a performer in the popular and audience-friendly

[13] Tosi, Pier. Francesco. *Opinioni de'cantori antichi e moderni.* Bologna, 1723.

musicals. The question is: what can the aspiring actor do to master the art of singing without any musical training or with very little musical knowledge? Well, that is the job of a well-prepared teacher who, drawing on his or her own experience, will work with the student with patience, understanding and perseverance until, through collaboration, the desired results are attained.

Translated from Hungarian by Juliánna Köpeczi

REFERENCES

Adorján, Ilona. *Hangképzés, énektanítás. Feljegyzések hatvan év pedagógiai munkássága során (Voice training, voice teaching. Notes on sixty years of pedagogical work).* Eötvös József Könyvkiadó, Budapest, 1996.

Altorjay, Tamás. *Klasszikus énekesi hangképzés empirikus kutatása, az orr és melléküregei bekapcsolhatóságának vizsgálatára (Empirical research on classical vocal training on the engagement of the nose and the paranasal sinuses).* PhD thesis, Szeged, 2018.

Fischer, Sándor. *Retorika*. *A közéleti beszéd gyakorlata (Rhetoric. The Practice of Public Speaking)*. Kossuth Könyvkiadó, 1981.

Fischer, Sándor. *A beszéd művészete (The Art of Speech)*. Gondolat, Budapest, 1966.

Fodor, Géza. *Zene és színház (Music and Theatre)*. Argumentum Kiadó, 1998.

Jelinek, Gábor. *Út a természetes énekléshez*. A hangképzés módszertana (The Path to Natural Singing. The Methodology of Voice Training). Akkord Kiadó, Budapest, 1991.

Kerényi, Miklós Gábor. *Az éneklés művészete és pedagógiája (The Art and Pedagogy of Singing)*. Zeneműkiadó Vállalat, Budapest, 1959.

Kodály, Zoltán. *Visszatekintés I. (Retrospective I)*. Zeneműkiadó Vállalat, Budapest, 1974.

Montágh, Imre. *Tiszta beszéd*, *Beszédtechnikai gyakorlatok (Clean Speech, Speech Techniques.* Múzsák, 1995.

Online resources

Bagó, Gizella. *Énekes színészek, színész énekesek (Singing actors, acting singers).* https://archiv.szfe.hu/wp-content/uploads/2016/09/bago_gizella_dolgozat.pdf, accessed on June 13, 2023

Tosi, Pier Francesco. *Opinioni de'cantori antichi e moderni.* Bologna, 1723. In. https://imslp.org/wiki/Opinioni_de%E2%80%99_cantori_antichi_e_moderni_(Tosi%2C_Pier_Francesco)

Váradi, Marianna. *A művészi hangképzés kérdései, és néhány példa a magyar operafordítások énekelhetőségének problematikájáról (Questions of artistic voice production and some examples of the problem of singability of Hungarian opera translations).* PhD thesis, Liszt Ferenc Zeneművészeti Egyetem,2008. https://apps.lfze.hu/netfolder/PublicNet/Doktori%20dolgozatok/varadi_marianna/disszertacio.pdf