Singing

"Vocalist" redirects here. For specific roles, see Lead vocalist and Backing vocalist.
"Songstress" redirects here. For the album, see The Songstress.
"Sings", "Vocals", and "Singer" redirect here. For other uses, see Sings (disambiguation), Vocals (disambiguation), and Singer (disambiguation).

Singing is the act of producing musical sounds with the voice, and augments regular speech by the use of sustained tonality, rhythm, and a variety of vocal techniques. A person who sings is called a **singer** or **vocalist**. Singers perform music (arias, recitatives, songs, etc.) that can be sung with or without accompaniment by musical instruments. Singing is often done in an ensemble of musicians, such as a choir of singers or a band of instrumentalists. Singers may perform as soloists, or accompanied by anything from a single instrument (as in art song or some jazz styles) up to a symphony orchestra or big band. Different singing styles include art music such as opera and Chinese opera, religious music styles such as gospel, traditional music styles, world music, jazz, blues and popular music styles such as pop and rock.

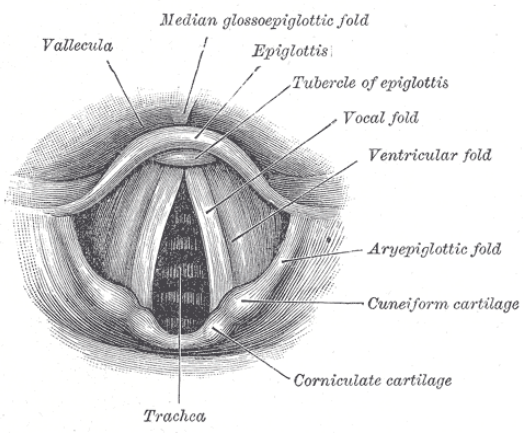
American jazz singer and songwriter Billie Holiday in New York City in 1947

American singer Harry Belafonte in 1954.

Singing can be formal or informal, arranged or improvised. It may be done as a form of religious devotion, as a hobby, as a source of pleasure, comfort, or ritual, as part of music education, or as a profession. Excellence in singing requires time, dedication, instruction, and regular practice. If practice is done on a regular basis then the sounds can become more clear and strong.[1] Professional singers usually build their careers around one specific musical genre, such as classical or rock, although there are singers with crossover success (singing in more than one genre). They typically take voice training provided by voice teachers or vocal coaches throughout their careers.

1 Voices

In its physical aspect, singing has a well-defined technique that depends on the use of the lungs, which act as an air supply, or bellows; on the larynx, which acts as a reed or vibrator; on the chest and head cavities, which have the function of an amplifier, as the tube in a wind instrument; and on the tongue, which together with the palate, teeth, and lips articulate and impose consonants and vowels on the amplified sound. Though these four mechanisms function independently, they are neverthe-



A labeled anatomical diagram of the vocal folds or cords

less coordinated in the establishment of a vocal technique and are made to interact upon one another.[2] During passive breathing, air is inhaled with the diaphragm while exhalation occurs without any effort. Exhalation may be aided by the abdominal, internal intercostal and lower pelvis/pelvic muscles. Inhalation is aided by use of external intercostals, scalenes and sternocleidomastoid muscles. The pitch is altered with the vocal cords. With the lips closed, this is called humming.

The sound of each individual's singing voice is entirely unique not only because of the actual shape and size of an individual's vocal cords but also due to the size and shape of the rest of that person's body. Humans have vocal folds which can loosen, tighten, or change their thickness, and over which breath can be transferred at varying pressures. The shape of the chest and neck, the position of the tongue, and the tightness of otherwise unrelated muscles can be altered. Any one of these actions results in a change in pitch, volume (loudness), timbre, or tone of the sound produced. Sound also resonates within different parts of the body and an individual's size and bone structure can affect the sound produced by an individual.

Singers can also learn to project sound in certain ways so that it resonates better within their vocal tract. This is known as vocal resonation. Another major influence on vocal sound and production is the function of the larynx which people can manipulate in different ways to produce different sounds. These different kinds of laryngeal function are described as different kinds of vocal registers.[3] The primary method for singers to accomplish this is through the use of the Singer's Formant; which has been shown to match particularly well to the most sensitive part of the ear's frequency range.[4][5]

It has also been shown that a more powerful voice may be achieved with a fatter and fluid-like vocal fold mucosa.[6][7] The more pliable the mucosa, the more efficient the transfer of energy from the airflow to the vocal folds.[8]

1.1 Vocal registration

Main article: Vocal registration

Vocal registration refers to the system of vocal registers within the voice. A register in the voice is a particular series of tones, produced in the same vibratory pattern of the vocal folds, and possessing the same quality. Registers originate in laryngeal function. They occur because the vocal folds are capable of producing several different vibratory patterns.[9] Each of these vibratory patterns appears within a particular range of pitches and produces certain characteristic sounds.[10] The occurrence of registers has also been attributed to effects of the acoustic interaction between the vocal fold oscillation and the vocal tract.[11] The term "register" can be somewhat confusing as it encompasses several aspects of the voice. The term register can be used to refer to any of the following:[12]

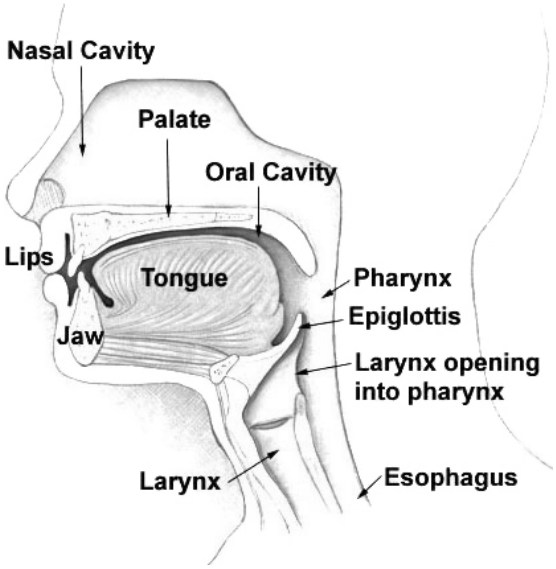
- A particular part of the vocal range such as the upper, middle, or lower registers.
- A resonance area such as chest voice or head voice.
- A phonatory process (phonation is the process of producing vocal sound by the vibration of the vocal folds that is in turn modified by the resonance of the vocal tract)
- A certain vocal timbre or vocal "color"
- A region of the voice which is defined or delimited by vocal breaks.

In linguistics, a **register language** is a language which combines tone and vowel phonation into a single phonological system. Within speech pathology the term vocal register has three constituent elements: a certain vibratory pattern of the vocal folds, a certain series of pitches, and a certain type of sound. Speech pathologists identify four vocal registers based on the physiology of laryngeal function: the vocal fry register, the modal register, the falsetto register, and the whistle register. This view is also adopted by many vocal pedagogues.[12]

1.2 Vocal resonation

Main article: Vocal resonation

Vocal resonation is the process by which the basic product of phonation is enhanced in timbre and/or intensity by the air-filled cavities through which it passes on its way to the outside air. Various terms related to the resonation process include amplification, enrichment, enlargement, improvement, intensification, and prolongation, although in strictly scientific usage acoustic authorities would question most of them. The main point to be drawn from these terms by a singer or speaker is that the end result of resonation is, or should be, to make a better sound.[12] There



are seven areas that may be listed as possible vocal resonators. In sequence from the lowest within the body to the highest, these areas are the chest, the tracheal tree, the larynx itself, the pharynx, the oral cavity, the nasal cavity, and the sinuses.[13]

1.3 Chest voice and head voice

Main articles: Chest voice and Head voice

Chest voice and *head voice* are terms used within vocal music. The use of these terms varies widely within vocal pedagogical circles and there is currently no one consistent opinion among vocal music professionals in regards to these terms. Chest voice can be used in relation to a particular part of the vocal range or type of vocal register; a vocal resonance area; or a specific vocal timbre.[12] Head voice can be used in relation to a particular part of the vocal range or type of vocal register or a vocal resonance area.[12]

1.3.1 History and development

The first recorded mention of the terms chest voice and head voice was around the 13th century, when it was distinguished from the "throat voice" (pectoris, guttoris, capitis—at this time it is likely that head voice referred to the falsetto register) by the writers Johannes de Garlandia and Jerome of Moravia.[14] The terms were later adopted within bel canto, the Italian opera singing method, where chest voice was identified as the lowest and head voice the highest of three vocal registers: the chest, passagio and head registers.[15] This approach is still taught by some vocal pedagogists today. Another current popular approach that is based on the bel canto model is to divide both men and women's voices into three registers. Men's voices are divided into "chest register", "head register", and "falsetto register" and woman's voices into "chest register", "middle register", and "head register". Such pedagogists teach that the head register is a vocal technique used in singing to describe the resonance felt in the singer's head.[16]

However, as knowledge of physiology has increased over the past two hundred years, so has the understanding of the physical process of singing and vocal production. As a result, many vocal pedagogists, such as Ralph Appelman at Indiana University and William Vennard at the University of Southern California, have redefined or even abandoned the use of the terms chest voice and head voice.[15] In particular, the use of the terms *chest register* and *head register* have become controversial since vocal registration is more commonly seen today as a product of laryngeal function that is unrelated to the physiology of the chest, lungs, and head. For this reason, many vocal pedagogists argue that it is meaningless to speak of registers being produced in the chest or head. They argue that the vibratory sensations which are felt in these areas are resonance phenomena and should be described in terms related to vocal resonance, not to registers. These vocal pedagogists prefer the terms *chest voice* and *head voice* over the term register. This view believes that the problems which people identify as register problems are really problems of resonance adjustment. This view is also in alignment with the views of other academic fields that study vocal registration including: speech pathology, phonetics, and linguistics. Although both methods are still in use, current vocal pedagogical practice tends to adopt the newer more scientific view. Also, some vocal pedagogists take ideas from both viewpoints.[12]

The contemporary use of the term chest voice often refers to a specific kind of vocal coloration or vocal timbre. In classical singing, its use is limited entirely to the lower part of the modal register or normal voice. Within other forms of singing, chest voice is often applied throughout the modal register. Chest timbre can add a wonderful array of sounds to a singer's vocal interpretive palette.[17] However, the use of overly strong chest voice in the higher registers in an attempt to hit higher notes in the chest can lead to forcing. Forcing can lead consequently to vocal deterioration.[18]

1.4 Classifying singing voices

Main articles: Voice type and Voice classification in non-classical music

In European classical music and opera, voices are treated like musical instruments. Composers who write vocal music must have an understanding of the skills, talents, and vocal properties of singers. **Voice classification** is the process by which human singing voices are evaluated and are thereby designated into voice types. These qual-

ities include but are not limited to: vocal range, vocal weight, vocal tessitura, vocal timbre, and vocal transition points such as breaks and lifts within the voice. Other considerations are physical characteristics, speech level, scientific testing, and vocal registration.[19] The science behind voice classification developed within European classical music has been slow in adapting to more modern forms of singing. Voice classification is often used within opera to associate possible roles with potential voices. There are currently several different systems in use within classical music including: the German *Fach* system and the choral music system among many others. No system is universally applied or accepted.[15]

However, most classical music systems acknowledge seven different major voice categories. Women are typically divided into three groups: soprano, mezzo-soprano, and contralto. Men are usually divided into four groups: countertenor, tenor, baritone, and bass. When considering voices of pre-pubescent children an eighth term, treble, can be applied. Within each of these major categories there are several sub-categories that identify specific vocal qualities like coloratura facility and vocal weight to differentiate between voices.[12]

It should be noted that within choral music, singers' voices are divided solely on the basis of vocal range. Choral music most commonly divides vocal parts into high and low voices within each sex (SATB, or soprano, alto, tenor, and bass). As a result, the typical choral situation affords many opportunities for misclassification to occur.[12] Since most people have medium voices, they must be assigned to a part that is either too high or too low for them; the mezzo-soprano must sing soprano or alto and the baritone must sing tenor or bass. Either option can present problems for the singer, but for most singers there are fewer dangers in singing too low than in singing too high.[20]

Within contemporary forms of music (sometimes referred to as contemporary commercial music), singers are classified by the style of music they sing, such as jazz, pop, blues, soul, country, folk, and rock styles. There is currently no authoritative voice classification system within non-classical music. Attempts have been made to adopt classical voice type terms to other forms of singing but such attempts have been met with controversy.[21] The development of voice categorizations were made with the understanding that the singer would be using classical vocal technique within a specified range using unamplified (no microphones) vocal production. Since contemporary musicians use different vocal techniques, microphones, and are not forced to fit into a specific vocal role, applying such terms as soprano, tenor, baritone, etc. can be misleading or even inaccurate.[22]

2 Vocal pedagogy

Main article: Vocal pedagogy

Vocal pedagogy is the study of the teaching of singing.

Ercole de' Roberti: Concert, c. 1490

The art and science of vocal pedagogy has a long history that began in Ancient Greece and continues to develop and change today. Professions that practice the art and science of vocal pedagogy include vocal coaches, choral directors, vocal music educators, opera directors, and other teachers of singing.

Vocal pedagogy concepts are a part of developing proper vocal technique. Typical areas of study include the following:[23][24]

- Anatomy and physiology as it relates to the physical process of singing
  - Vocal health and voice disorders related to singing
  - Breathing and air support for singing
  - Phonation
  - Vocal resonation or Voice projection
  - Vocal registration: a particular series of tones, produced in the same vibratory pattern of the vocal folds, and possessing the same quality, which originate in laryngeal function, because each of these vibratory patterns appears within a particular range of pitches and produces certain characteristic sounds.
  - Voice classification

- Vocal styles: for classical singers, this includes styles ranging from Lieder to opera; for pop singers, styles can include "belted out" a blues ballads; for jazz singers, styles can include Swing ballads and scatting.
    - Techniques used in styles such as sostenuto and legato, range extension, tone quality, vibrato, and coloratura

2.1 Vocal technique

Real-time MRI of a vocal tract while singing.

Singing when done with proper vocal technique is an integrated and coordinated act that effectively coordinates the physical processes of singing. There are four physical processes involved in producing vocal sound: respiration, phonation, resonation, and articulation. These processes occur in the following sequence:

1. Breath is taken
2. Sound is initiated in the larynx
3. The vocal resonators receive the sound and influence it
4. The articulators shape the sound into recognizable units

Although these four processes are often considered separately when studied, in actual practice they merge into one coordinated function. With an effective singer or speaker, one should rarely be reminded of the process involved as their mind and body are so coordinated that one only perceives the resulting unified function. Many vocal problems result from a lack of coordination within this process.[22]

Since singing is a coordinated act, it is difficult to discuss any of the individual technical areas and processes without relating them to the others. For example, phonation only comes into perspective when it is connected with respiration; the articulators affect resonance; the resonators affect the vocal folds; the vocal folds affect breath control; and so forth. Vocal problems are often a result of a breakdown in one part of this coordinated process which causes voice teachers to frequently focus in intensively on one area of the process with their student until that issue is resolved. However, some areas of the art of singing are so much the result of coordinated functions that it is hard to discuss them under a traditional heading like phonation, resonation, articulation, or respiration.

Once the voice student has become aware of the physical processes that make up the act of singing and of how those processes function, the student begins the task of trying to coordinate them. Inevitably, students and teachers will become more concerned with one area of the technique than another. The various processes may progress at different rates, with a resulting imbalance or lack of coordination. The areas of vocal technique which seem to depend most strongly on the student's ability to coordinate various functions are:[12]

1. Extending the vocal range to its maximum potential
2. Developing consistent vocal production with a consistent tone quality
3. Developing flexibility and agility
4. Achieving a balanced vibrato

2.1.1 Developing the singing voice

Singing is a skill that requires highly developed muscle reflexes. Singing does not require much muscle strength but it does require a high degree of muscle coordination. Individuals can develop their voices further through the careful and systematic practice of both songs and vocal exercises. Vocal exercises have several purposes, including[12] warming up the voice; extending the vocal range; "lining up" the voice horizontally and vertically; and acquiring vocal techniques such as legato, staccato, control of dynamics, rapid figurations, learning to sing wide intervals comfortably, singing trills, singing melismas and correcting vocal faults.

Vocal pedagogists instruct their students to exercise their voices in an intelligent manner. Singers should be thinking constantly about the kind of sound they are making and the kind of sensations they are feeling while they are singing.[22]

Learning to sing is an activity that benefits from the involvement of an instructor. A singer does not hear the same sounds inside his head that others hear outside. Therefore, having a wise guide who can tell a student what kinds of sounds he or she is producing guides a singer to understand which of the internal sounds correspond to the desired sounds required by the style of singing the student aims to re-create.

Extending vocal range An important goal of vocal development is to learn to sing to the natural limits[25] of one's vocal range without any obvious or distracting changes of quality or technique. Vocal pedagogists teach that a singer can only achieve this goal when all of the physical processes involved in singing (such as laryngeal action, breath support, resonance adjustment, and articulatory movement) are effectively working together. Most vocal pedagogists believe in coordinating these processes by (1) establishing good vocal habits in the most comfortable tessitura of the voice, and then (2) slowly expanding the range.[3]

There are three factors that significantly affect the ability to sing higher or lower:

1. The *energy* factor – "energy" has several connotations. It refers to the total response of the body to the making of sound; to a dynamic relationship between the breathing-in muscles and the breathing-out muscles known as the breath support mechanism; to the amount of breath pressure delivered to the vocal folds and their resistance to that pressure; and to the dynamic level of the sound.
2. The *space* factor – "space" refers to the size of the inside of the mouth and the position of the palate and larynx. Generally speaking, a singer's mouth should be opened wider the higher he or she sings. The internal space or position of the soft palate and larynx can be widened by relaxing the throat. Vocal pedagogists describe this as feeling like the "beginning of a yawn".
3. The *depth* factor – "depth" has two connotations. It refers to the actual physical sensations of depth in the body and vocal mechanism, and to mental concepts of depth that are related to tone quality.

McKinney says, "These three factors can be expressed in three basic rules: (1) As you sing higher, you must use more energy; as you sing lower, you must use less. (2) As you sing higher, you must use more space; as you sing lower, you must use less. (3) As you sing higher, you must use more depth; as you sing lower, you must use less."[12]

Posture The singing process functions best when certain physical conditions of the body are put in place. The ability to move air in and out of the body freely and to obtain the needed quantity of air can be seriously affected by the posture of the various parts of the breathing mechanism. A sunken chest position will limit the capacity of the lungs, and a tense abdominal wall will inhibit the downward travel of the diaphragm. Good posture allows the breathing mechanism to fulfill its basic function efficiently without any undue expenditure of energy. Good posture also makes it easier to initiate phonation and to tune the resonators as proper alignment prevents unnecessary tension in the body. Vocal pedagogists have also noted that when singers assume good posture it often provides them with a greater sense of self-assurance and poise while performing. Audiences also tend to respond better to singers with good posture. Habitual good posture also ultimately improves the overall health of the body by enabling better blood circulation and preventing fatigue and stress on the body.[3]

There are eight components of the ideal singing posture:

1. Feet slightly apart
2. Legs straight but knees slightly bent
3. Hips facing straight forward
4. Spine aligned
5. Abdomen flat
6. Chest comfortably forward
7. Shoulders down and back
8. Head facing straight forward

Breathing and breath support Natural breathing has three stages: a breathing-in period, a breathing out period, and a resting or recovery period; these stages are not usually consciously controlled. Within singing there are four stages of breathing: a breathing-in period (inhalation); a setting up controls period (suspension); a controlled exhalation period (phonation); and a recovery period.

These stages must be under conscious control by the singer until they become conditioned reflexes. Many singers abandon conscious controls before their reflexes are fully conditioned which ultimately leads to chronic vocal problems.[26]

Vibrato Vibrato is a technique in which a sustained note wavers very quickly and consistently between a higher and a lower pitch, giving the note a slight quaver. Vibrato is the pulse or wave in a sustained tone. Vibrato occurs naturally, and is the result of proper breath support and a relaxed vocal apparatus.[27] Some singers use vibrato as a means of expression. Many successful artists can sing a deep, rich vibrato.

3 Vocal music

Main article: Vocal music

Vocal music is music performed by one or more singers, which are typically called songs, and which may be performed with or without instrumental accompaniment, in which singing provides the main focus of the piece. Vocal music is probably the oldest form of music, since it

does not require any instrument or equipment besides the voice. All musical cultures have some form of vocal music and there are many long standing singing traditions throughout the world's cultures.

Music which employs singing but does not feature it prominently is generally considered as instrumental music. For example, some blues rock songs may have a short, simple call-and-response chorus, but the emphasis in the song is on the instrumental melodies and improvisation. Vocal music typically features sung words called lyrics, although there are notable examples of vocal music that are performed using non-linguistic syllables or noises, sometimes as musical onomatopoeia. A short piece of vocal music with lyrics is broadly termed a song, although in classical music, terms such as aria are typically used.

3.1 Genres of vocal music

Rock singer Ian Gillan performing live with Deep Purple in Hoyos del Espino in 2013.

Main article: Music genre

Vocal music is written in many different forms and styles which are often labeled within a particular genre of music. These genres include: Art music, Popular music, Traditional music, regional and national music, and fusions of those genres. Within these larger genres are many subgenres. For example, popular music would encompass blues, jazz, country music, easy listening, hip hop, rock music, and several other genres. There may also be a subgenre within a subgenre such as vocalese and scat singing in jazz.

The MadHatters are a group of singers who perform arrangements of popular music with only their voices

A trio of female Swedish opera singers performing at the Berwald Hall in 2016.

3.1.1 Popular and traditional music

In many modern pop musical groups, a lead singer performs the primary vocals or melody of a song, as opposed to a backing singer who sings backup vocals or the harmony of a song. Backing vocalists sing some, but usually not all, parts of the song often singing only in a song's refrain or humming in the background. An exception is five-part gospel a cappella music, where the lead is the highest of the five voices and sings a descant, and not the melody. Some artists may sing both the lead and backing vocals on audio recordings by overlapping recorded vocal tracks.

Popular music includes a range of vocal styles. Hip-hop uses rapping, the rhythmic delivery of rhymes in a rhythmic speech over a beat or without accompaniment. Some types of rapping consist mostly or entirely of speech and chanting, like the Jamaican "toasting". In some types of rapping, the performers may interpolate short sung or half-sung passages. Blues singing is based on the use of

the blue notes–notes sung at a slightly lower pitch than that of the major scale for expressive purposes. In heavy metal and hardcore punk subgenres, vocal styles can include techniques such as screams, shouts, and unusual sounds such as the "death growl".

One difference between live performances in the popular and Classical genres is that whereas Classical performers often sing without amplification in small- to mid-size halls, in popular music, a microphone and PA system (amplifier and speakers) are used in almost all performance venues, even a small coffee house. The use of the microphone has had several impacts on popular music. For one, it facilitated the development of intimate, expressive singing styles such as "crooning" which would not have enough projection and volume if done without a microphone. As well, pop singers who use microphones can do a range of other vocal styles that would not project without amplification, such as making whispering sounds, humming, and mixing half-sung and sung tones. As well, some performers use the microphone's response patterns to create effects, such as bringing the mic very close to the mouth to get an enhanced bass response, or, in the case of hip-hop beatboxers, doing plosive "p" and "b" sounds into the mic to create percussive effects. It n the 2000s, controversy arose over the widespread use of electronic Auto-Tune pitch correction devices with recorded and live popular music vocals. Controversy has also arisen due to cases where pop singers have been found to be lip-syncing to a pre-recorded recording of their vocal performance or, in the case of the controversial act Milli Vanilli, lip-syncing to tracks recorded by other uncredited singers.

While some bands use backup singers who only sing when they are onstage, it is common for backup singers in popular music to have other roles. In many rock and metal bands, the musicians doing backup vocals also play instruments, such as rhythm guitar, electric bass, or drums. In Latin or Afro-Cuban groups, backup singers may play percussion instruments or shakers while singing. In some pop and hip-hop groups and in musical theater, the backup singers may be required to perform elaborately choreographed dance routines while they sing through headset microphones.

Maria Callas during her final tour in Amsterdam in 1973

4 Careers

The salaries and working conditions for vocalists vary a great deal. While jobs in other music fields such as music education tend to be based on full-time, salaried positions, singing jobs tend to be based on contracts for individual shows or performances, or for a sequence of shows (e.g., a two-week series of performances of an opera or musical theater show).

Church choir soloists can make from $30 to $500 per performance (all figures in US dollars). Performers in a community choral group can earn from $200–$3,000 yearly; members of a professional concert choral group can make $80 and up per performance. Singers who perform on radio or TV shows can make $75 and up per show on a local station and $125 and up per national network show (e.g., CBS or NBC). Jazz or pop singers who perform with dance bands or nightclub show groups can make $225 and up per week. Professional opera chorus singers can make from $350–$750 per week. Opera soloists, for which the number of job openings is very limited, can make from $350 to $20,000 per performance for the most elite performers. Classical concert soloists, for which the number of job openings is very limited, have approximate earnings of $350 per performance and up.[28]

Aspiring singers and vocalists must have musical skill, an excellent voice, the ability to work with people, and a sense of showmanship and drama. Additionally, singers need to have the ambition and drive to continually study and improve,[28] because the process of studying singing does not end after an initial diploma or degree is finished-even decades after finishing their initial training, professional singers continue to seek out vocal coaching to hone their skills, extend their range, and learn new styles. As well, aspiring singers need to gain specialized skills in the vocal techniques used to interpret songs, learn about the vocal literature from their chosen style of music, and gain skills in choral music techniques, sight singing and memorizing songs, and basic skills at the piano, to aid in learning new songs and in ear training or vocal exercises. In Classical singing and in some other genres, a knowledge of foreign languages such as French, Italian, German, or other languages, is needed. Prior to college or university training, aspiring singers should learn to read music, study basic piano, and gain experience with singing, both in choirs and in solo settings.

College or university degrees are "not always required but the equivalent training is usually necessary".[28] Post-secondary training in singing is available for both Classical and non-Classical singers. In the Classical stream, singing can be studied at conservatories and university music programs; credentials that are available range from

diplomas and bachelor's degrees to master's degrees and the Doctor of Musical Arts. In popular and jazz styles, college and university degrees are also available, though there are fewer programs.

Once aspiring vocalists have completed their professional training, they must then take steps to market themselves to buyers of vocal talent, by doing auditions in front of an opera director, choirmaster, music theatre director or conductor. Depending on the style of vocal music that a person has trained in, the "talent buyers" that they seek out may be record company A&R representatives, opera or musical theater directors, choir directors, nightclub managers, or concert promoters. In addition preparing a resume or CV listing their training and performance experience, singers typically prepare a promotional kit that includes professionally taken photographs (head shots); a CD or DVD with excerpts of vocal performances; and copies of reviews from music critics or journalists. Some singers hire an agent or manager to help them to seek out engagements and other performance opportunities; the agent or manager is often paid by receiving a percentage of the fees that the singer gets from performing onstage.

5 Singing competitions

In recent years, the talent of singing has become competitive. Currently, there are several television shows that showcase these talents. *American Idol* was one of the prominent of these shows. Debuted in 2002, it was one of the first singing competition shows. Contestants audition in front of a panel of judges to see if they can move on to the next round in Hollywood, from then, the competition begins. The field of contestants is narrowed down week by week until a winner is chosen. In order to move on to the next round, the contestants fate is determined by public vote. *The Voice* is another well known singing competition program. Similar to *American Idol*, the contestants audition in front of a panel of judges, however, the judges chairs are faced towards the audience during the performance. If the coaches are interested in the artist, they will press their button signifying they want to coach them. Once the auditions conclude, coaches have their team of artists and the competition begins. Coaches then mentor their artists and they compete to find the best singer. Other well known singing competitions include *The X Factor*, *America's Got Talent*, *Rising Star*, and *The Sing-Off*.

6 Health benefits

Scientific studies suggest that singing can have positive effects on people's health. A preliminary study based on self-reported data from a survey of students participating in choral singing found perceived benefits including increased lung capacity, improved mood, stress reduction, as well as perceived social and spiritual benefits.[29] However, one much older study of lung capacity compared those with professional vocal training to those without, and failed to back up the claims of increased lung capacity.[30] Singing may positively influence the immune system through the reduction of stress. One study found that both singing and listening to choral music reduces the level of stress hormones and increases immune function.[31] A multinational collaboration to study the connection between singing and health was established in 2009, called *Advancing Interdisciplinary Research in Singing* (AIRS).[32]

6.1 Singing and the brain

John Daniel Scott, among others, have cited that "people who sing are more likely to be happy." This is because "singing elevates the levels of neurotransmitters which are associated with pleasure and well being." Humans have a long prehistory of music, especially singing; before written language, stories were passed down through song, because song is often more memorable. There is also evidence that music or singing may have evolved in humans before language. Levitin, in his *This is Your Brain on Music*, argues that "music may be the activity that prepared our pre-human ancestors for speech communication" and that "singing. . . might have helped our species to refine motor skills, paving the way for the development of the exquisitely fine muscle control required for vocal . . . speech" (260).[33] On the other hand, he cites Pinker, who "argued that language is an adaptation and music is its spandrel . . . an evolutionary accident piggybacking on language" (248).[33]

6.2 Singing and language

Much research has been done recently on the link between music and language, especially singing. It is becoming increasingly clear that these two processes are very much alike, and yet also different. Levitin describes how, beginning with the eardrum, sound waves are translated into pitch, or a tonotopic map, and then shortly thereafter "speech and music probably diverge into separate processing circuits" (130).[33] There is evidence that neural circuits used for music and language may start out in infants undifferentiated. There are several areas of the brain that are used for both language and music. For example, Brodmann Area 47. Levitin recounts how in certain studies, "listening to music and attending its syntactic features," similar to the syntactic processes in language, activated this part of the brain. In addition, "musical syntax . . . has been localized to . . . areas adjacent to and overlapping with those regions that process speech syntax, such as Broca's area" and "the regions involved in musical semantics . . . appear to be [localized] near Wernicke's area." Both Broca's area and Wernicke's area are important steps in language processing and production.

Singing has been shown to help stroke victims recover speech. According to neurologist Gottfried Schlaug there is a corresponding area to that of speech, which resides in the left hemisphere, on the right side of the brain.[34] This is casually known as the "singing center." By teaching stroke victims to sing their words, this can help train this area of the brain for speech. In support of this theory, Levitin asserts that "regional specificity," such as that for speech, "may be temporary, as the processing centers for important mental functions actually move to other regions after trauma or brain damage."[33] Thus in the right hemisphere of the brain, the "singing center" may be retrained to help produce speech.[35]

7 Accents and singing

The speaking dialect or accent of a person may differ greatly from the general singing accent that a person uses while singing. When people sing, they generally use the accent or neutral accent that is used in the style of music they are singing in, rather than a regional accent or dialect; the style of music and the popular center/region of the style has more influence on the singing accent of a person than where they come from. For example, in the English language, British singers of rock or popular music often sing in an American accent or neutral accent instead of an English accent.[36][37]

8 Singing in certain species

Scholars agree that singing is strongly present in many different species.[38][39] Wide dispersal of singing behavior among very different animal species, like birds, gibbons, whales, and many others strongly suggests that singing appeared independently in different species. Currently there are about 5400 species of animals that are known to sing. At least some singing species demonstrate the ability to learn their songs, to improvise and even to compose new melodies.[40] In some animal species singing is a group activity (see, for example, singing in gibbon families.[41])

9 See also

9.1 Art music

- A cappella
- Aria
- Bel canto
- Chanson
- Chiaroscuro (music)
- Child singer
- Choral music
- Fach
- Group singing
- Opera
- Overtone singing
- Recitative
- Singer-songwriter
- Sprechgesang
- Throat singing
- Voice pedagogy
- Voice projection
- Voice type
- Yodeling
- Winsingad

9.2 Other music

- Beat boxing
- Belt (music)
- Death growl
- Humming
- Isicathamiya
- Lead vocalist
- Mbube
- Rapping
- Screaming (music)
- Vocoder

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12 External links

Top 10 Most Popular and Richest Singer in the World

- A Brief History of Singing
- Singing and Health: A systematic mapping and review of non-clinical research

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  1. The Yorck Project: *10.000 Meisterwerke der Malerei.* DVD-ROM, 2002. ISBN 3936122202. Distributed by DIRECTMEDIA Publishing GmbH.
  Original artist: Lorenzo Costa
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