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# SINGING TECHNIQUE AND CHAKRAS

– a comparative analysis



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## SINGING TECHNIQUE AND CHAKRAS

In Eastern traditions such as Hinduism, but also in various kinds of western spirituality, especially New Age, there is an idea of seven centres of energy present in the body, traditionally referred to as chakras. The lowest chakra is situated in the pelvis and the highest one just above the head, and the five other chakras at various locations along the spinal column. During singing, there is a high physiological activity starting at the area below the waist, moving upwards towards the vocal cords in the throat and then up towards the head where the breath and the sound waves leave the body.

In this thesis I have made an investigation about how the idea of the chakras and their functions are correlating to bodily activity during singing, both with attention towards individual chakras and to activity in the area of a specific chakra during singing, but also towards the correlation of several chakras. My working hypothesis is that an understanding of chakras and their functions would be beneficial for a performing singer.

I have, during my analysis, found that there are both more obvious correlations present between chakras and singing technique, as well as looser indicia that can be interpreted as correlations.

### KEYWORDS:

Singing technique, chakra

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## SINGING TECHNIQUE AND CHAKRAS

Itäisissä traditiossa, esimerkiksi Hindulaisuudessa, mutta myös erilaisissa länsimaalaisissa uskonnollisissa liikkeissä kuten New Agessa, esiintyy ajatus seitsemästä energiakeskuksesta kehossa. Niitä kutsutaan chakroiksi. Alin chakra sijaitsee lantiossa ja korkein pään yläpuolella, ja viisi muuta chakraa sijaitsevat eri paikoissa pitkin selkärankaa. Laulaessa keho on fysiologisesti aktiivisessa tilassa. Aktiivisuus alkaa lantiosta ja liikkuu ylöspäin kohti äänihuulia ja päätä.

Olen tässä opinnäytetyössä tehnyt tutkimuksen siitä, miten chakrojen toiminnot korreloivat fyysiseen toimintaan laulamisen aikana. Olen tarkastellut sitä miten yksittäinen chakra ja toiminta sen alueella laulamisen aikana kuuluvat yhteen, ja myös miten useiden chakrojen yhteistyö liittyy laulamiseen. Oma työskentelyhypoteesini on ollut, että ymmärrys chakroista ja niiden tehtävistä olisi hyödyllistä laulajalle.

Olen analyysissäni löytänyt sekä selviä korrelaatioita chakrojen ja laulutekniikan välillä, että löyempiä indisioita, jotka voidaan tulkita korrelaatioksi.

ASIASANAT:

Laulutekniikka, chakra

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# SINGING TECHNIQUE AND CHAKRAS - A COMPARATIVE ANALYSIS

## 1 Introduction

Singing technique is to a high extent a physical activity and most books on the subject talk much about the work of muscles and about anatomy. When a singer produces beautiful tones that can touch the hearts of an audience, the abstract thing we here call music is born out of a highly physical activity on the stage. Present is a physical activity that can be scientifically described but also the music that goes beyond measurement and descriptions.

In eastern religious tradition there is a variety of physical meditation techniques that all involve the understanding of chakras. This spiritual tradition is very much incorporated into the body and how human beings as spiritual beings are an entity of spirit and body. Through physical activities or lack of activity the spiritual life of the person meditating is enriched.

When comparing a singer performing on stage and a yoga student meditating there are similarities. Both are involved in a specific physical activity or intentional absence of a specific physical activity. There is also a presence of something that cannot be measured or defined. In the case of the singer there is music and in the case of a person meditating there is a spiritual reality involved. You can of course do a scientific research on both prayer and music but there is something transcendental present in both scenarios that goes beyond measurement.

In this thesis I intend to compare two culturally and traditionally very different paradigms (western singing technique and the eastern chakra tradition) with focus on anatomy and see to what degree they correlate and in which areas the correlations can be found. The question I intend to investigate is whether there is a possibility that by studying and understanding chakras and finding correlations between the chakra tradition and the one of singing technique, these correlations can contribute to a better understanding of singing and perhaps even help the singer to become a better performer.

I intend to use literary sources in this thesis and as method I will mainly use a comparative analysis. During certain parts of this thesis, when quoting what the authors have written about their topics, a descriptive method will be used. My working hypothesis is that the study of chakras will contribute to the understanding on the physiology of singing

technique. The main focus will be on anatomy and the more philosophical questions about music and spirituality will be referred to only when needed to understand the physiology of singing or chakras better.

I will mainly use two books that deal with singing technique. I have chosen a more traditional one that mainly addresses Bel Canto technique, i.e. *Bel Canto - Principles and Practices* by Cornelius L. Reid (1950). To bring more depth into the analysis, the book *Complete Vocal Technique* (2008) by Cathrine Sadolin will also be used as a complement.

Since singing technique is a very broad subject, the analysis will be limited to deal with mostly anatomical and physiological aspects with a main focus on breathing and support technique. By this restriction I hope to find the best approach to the analysis since eastern techniques that involves chakra mysticism very often incorporate diaphragmatic breathing.

The literary sources dealing with eastern religion and chakra mysticism will be *Hands of Light - A Guide to Healing Through the Human Energy Field* (1987) by Barbara Ann Brennan and various articles from *Encyclopedia of Religion*. Besides these two books other sources will be used briefly. A motivation to why I have chosen these books will be found in the beginning of chapter 3. The focus within the limits of the chakra tradition will be on the teaching about how chakras interact and correlate to each other on a more general level and the focus will not be on individual meditation or prayer techniques.

Chapter 2 and 3 will consist of an introduction to the two traditions based on the literary sources. In chapter 4 the analysis will be found together with a short theoretical defence of why an analysis of this sort is important and reliable. In chapter 5 I will sum up the conclusions, and moreover give some personal reflections concerning the analysis.

## **2 Singing technique**

In this chapter I will rapport what Sadolin and Reid writes about singing technique during singing, starting with Sadolin. Sadolin has invented a terminology concerning singing technique that can be used by all singers despite their musical style. In this analysis Reid represent a more traditional viewpoint on singing technique where Bel Canto is considered an ideal way of singing. In his book, Reid's focus is not mainly on anatomy but a lot more about the ideas and ideals of Bel Canto singing. Sadolin on the other hand keeps a more pragmatcal approach towards singing and she writes much about muscular activity in the production of different sounds. Because of their somewhat different points of view on tone production the two books complement each other and will contribute to the analysis. Apart from these two books an article by Ritva Eerola (2012) will be used briefly but only in the analysis in chapter 5.

In this chapter I will use a descriptive method when reporting the several authors' viewpoints. The chapter will end with a short comparative analysis between Reid and Sadolin. I will start by referring to Sadolin, simply because she's a representative for a tradition of research with a strong focus on physiology while Reid's approach is slightly different. The goal is to give a brief picture of the physiological phenomenon that is often referred to by singers as support.

Sadolin is the founder of a singing tradition called Complete Vocal Technique. One of the fundaments in her research, as she writes in the introductory chapter, is that all the sounds a singer can produce and wishes to make are of equal value and importance; there is no clear ideal of how the voice should sound like in Bel Canto singing. Sound production in all music styles like blues, rock and ethnic styles are incorporated in her book together with classical Bel Canto. Her research is based on a long tradition, beginning with the old Italian masters, but she also tries to find singing theory and vocabulary to satisfy new needs being raised in new contexts where the traditional Bel Canto ideal cannot be used. (Sadolin 2008, 6-8.)

### **2.1 Breathing technique and support according to Sadolin**

Sadolin says that a singer can breathe in many ways, but that the most natural way for a singer is the diaphragmatic way, although there are no definitive answers to which way is the ideal one. (Sadolin 2008, 23-25.) The diaphragmatic breathing happens when, during

inhalation, the diaphragm<sup>1</sup> is tightened and therefore the lowest part of the ribs are expanded and a bulge occurs at the solar plexus. The abdomen also bulges slightly. After inhalation the diaphragm relaxes and releases air, causing the bulge in solar plexus to disappear and the abdomen around the navel to flatten. (Sadolin 2008, 24.)

While singing one needs to control the breath, which in singing technique usually is referred to as support. With correct support it is easier to produce longer notes and greater volume and use the voice in a more multilateral way. (Sadolin 2008, 27.) The term support refers to the process where the singer controls the exhalation of air, making the exhalation slower, not just letting the diaphragm relax and release the air quickly. This control, called support, requires physical strength and body control. Support for speaking and singing is a conscious extension of the natural support used in everyday life. Sadolin describes support as a sensation more of holding the breath than exhaling air. (Sadolin 2008, 27-28.)

There are a variety of muscles used in support. When the diaphragm is tightened and lowered the lungs are filled with air, and when supporting one's aim is to keep the diaphragm lowered and the air in and only release as much as needed. Controlling exhalation means controlling the diaphragm. To do this the singer needs to keep the lower ribs pushed outwards, and various muscles will help the ribs stay in this position. When trying to keep the rib cage expanded, the abdomen has to move inwards, and when pulling the abdomen inwards four abdominal muscles are being used. First of these are the *rectus abdominis* muscles, being the outermost of the muscle groups used and positioned between the lower ribs and the pubic bone, often referred to as the "six pack". Behind these there are two sets of *oblique* (diagonal) muscles on both sides of the abdomen. The outermost layer is referred to as the external oblique muscles, and are connected to both the hipbone and the ribs. Under these are the internal oblique muscles that stretch between the pubic bone and the ribs, and under all this there is the *transversus abdominis* muscle that runs across the whole of the abdomen. (Sadolin 2008, 28-29.)

Besides the abdominal muscles, other muscles are also involved in the process of keeping the ribs pressed outwards. The large muscles in the back, the *latissimus dorsi*, stretched from under the arms to the hip socket, help keeping the ribs expanded in the back. A set of muscles named *quadratus lumborum* are found in the loin, and when tightened they assist the abdominal muscles in their work. When tightened the *quadratus lumborum* tilt the pelvis forward and make the back curve. When these muscles are tightened together with the abdominal muscles, a battle between them occurs, since the abdominal muscles strive to

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<sup>1</sup> The diaphragm is a large muscle, shaped like a parachute, situated under the lungs and attached to the spinal cord, the breastbone (sternum) and all the lower ribs. When tightening the diaphragm, it moves downwards a few centimetres during normal breathing and up to 12 centimetres during heavy breathing, causing a vacuum in the lungs that helps you to suck in air (Sadolin 2008, 22-23).



straighten the back. This battle is an important part of the support, and it is of great importance that the two forces working against each other are well balanced. (Sadolin 2008, 29.)

The interaction of these groups of muscles in their fight to keep the diaphragm down is what usually is referred to as support (Sadolin 2008, 30). When supporting a note it is of vital need that a singer understands that the support is a continuous and dynamic phenomenon, often felt as a movement. The more support is needed, the heavier muscular resistance there should be. (Sadolin 2008, 33.) When first inhaling, the singer has got what is often called natural support, a term which refers to the diaphragm being stretched, but when starting to releasing the air the diaphragm will strive to relax and release the air and the singer have to add increasingly active support into the tone production to keep the ribs expanded. Towards the end of a long phrase the singer will eventually only use the active support. (Sadolin 2008, 33-34.)

Sadolin points out that singing is a highly physical activity and requires energy. The saying that everything in the body must be relaxed and loose during singing is a myth and more voice problems have arisen from using too little physical energy than from using too much (Sadolin 2008, 39). Since support is mere physical muscular work it is of great importance to learn to economise it. The singer must get to know his own instrument so that the right amount of support will be used for each note in all contexts. (Sadolin 2008, 40-41.) Factors contributing to the amount of support needed are pitch, tone strength and the time elapsed from the last inhalation. Economising the energy so that not too much support is used at the beginning of a phrase or in a comfortable register is of vital importance. A skilled singer must get to know his support values with every note with regard taken to pitch, time factor, volume and vowel, and this knowledge must through intense practice be incorporated into muscle memory. (Sadolin 2008, 41-43.)

The vocal cords, the organ that produces sound, is situated in the larynx in the throat. A human being is able to choose to bring the vocal cords together during exhalation which makes the mucous membranes (the surface) of the vocal cords vibrate and produce sounds. (Sadolin 2008, 44.)

I will not refer much to what Sadolin writes about the anatomy of the larynx here but rather on constrictions and how support technique correlates with laryngeal activity. Sadolin explains that a singer causes the vocal cords to vibrate by the pressure caused by a controlled stream of air. When increasing the airflow the mucus membranes will go into bigger movements and create bigger volume. At a certain point the strength of the air stream will force the membranes apart and if the singer wants to continue singing with this too large air pressure, he will have to bring the cords together by constriction. Constriction

is very harmful to the voice. Therefore it is of vital importance to learn the limit of how fast the air can be exhaled during singing, and this control is always achieved by using support. (Sadolin 2008, 46-47.)

Sadolin points out how the various anatomical parts engaged in tone production correlates and the importance of support. She keeps a pragmatical approach towards tone production and she lists a variety of techniques in her book through which the singer can learn to sense the muscles used in singing technique and master the activity needed from them. (Sadolin 2008, 32-35.)

### **2.3 Breathing technique and support according to Reid**

Reid does not talk very much about breathing anatomy. Instead he keeps a somewhat more philosophical approach towards breathing technique. His viewpoint seems to be that every human being can breathe and therefore also use a correct breathing technique while singing. Reid claims that the singer's energy and attention should not be focused on the breathing but instead on what he calls "constructive channels". (Reid 1950, 146.) He writes that the only thing a student must do when it comes to correct breathing technique is to learn to breathe without rising the shoulders or the upper part of the chest. When doing this, Reid says that it will "automatically cause the diaphragm to do the work for which it was intended by nature". (Reid 1950, 147.) When the singer avoids the shallow kind of breathing that he names clavicular breathing (when the shoulders or the upper part of the chest expands) his neck muscles will relax and the vocal organs are left free to do their work without tensions. The ideal is that the tone is produced with as much freedom as possible and consumes as little effort as possible.

Reid mentions two ways of diaphragmatic breathing techniques; the costal breathing and the intercostal (also called thoracic). In costal breathing the lower part of the ribs are not moved, the chest is passive and the only thing occurring is a slight protrusion of the stomach during inhalation. This way of breathing is normal for a singer as long as he doesn't have to include dramatic passages or very long phrases. When using intercostal breathing the singer uses all the resources of his breathing apparatus with means that the lower ribs are moved outwards when inhaling. (Reid 1950, 149.) When using intercostal breathing the singer needs to create a feeling of expansion around the whole middle part of the body, including the back and the sides. (Reid 1950, 150.)

The human vocal organs are the vocal cords and they are situated inside the Larynx in the throat. By a complex arrangement of muscles the vocal cords may be brought into tension when meeting pressure from the breath. This tension is causing them to vibrate and the

degree of tension is proportionate to the speed of vibration and thereby to the pitch. When singing, the ends of the vocal cords that are separated are drawn together by action of the arytenoid cartilages. When the cords are brought together and held in position against the expiratory pressure, by a tension of the cricoid and arytenoid muscles, the vocal cords are being activated and they start vibrating. The speed of the vibration regulates pitch and the adjustment of the resonance cavities amplifies the tone and form the vowels. (Reid 1950, 127-128.)

Reid is very critical towards what other scholars write about breathing technique. He writes that the usual definition of breathing technique would be something like: "the rate of the escaping breath is checked and regulated in order to facilitate the negotiation of long musical phrases". (Reid 1950, 150.) Reid's opinion seems to be that this rhetoric is of no use neither for the singing student nor for the teacher. In his opinion the rate of breath expulsion is impossible because every produced tone, depending upon its pitch and intensity, requires a specific amount of energy, supplied by the amount of air compressed into the diaphragm. The breath pressure should therefore not be controlled. Reid's opinion is that the only legitimate attempt to regulate the breath should be the attempt of saving the breath. (Reid 1950, 151.) If I understand Reid correctly he means that only by saving the breath and holding back energy you can find the freedom in tone production that he describes as an ideal.

Surprisingly enough Reid almost never mentions any specific muscular activity or anatomical data in the chapter in his book that mentions breathing. The word support is hardly used at all. The only references found are about diaphragmatic breathing and saving the breath, although he doesn't explain these phenomena anatomically at all. His approach to breathing technique seems to be a more philosophical kind than a practical. Reid throughout his book always talks of Bel Canto as a "natural" and "free" way of singing. He writes that Bel Canto singing is impossible without vocal freedom, and that when a sung tone is truly beautiful it is because a harmony exists between "the aesthetic principles and the laws of nature by which the operation of the vocal mechanism is governed". (Reid 1950, 19.) Because singing is a physical activity, the singer must of course learn to obtain control over all the complex muscular activity involved in tone production, but according to Reid this is achieved through indirect methods of approach.

My interpretation is that Reid stands for an opinion where breath control hardly is achieved or strengthened through anatomical knowledge of how support technique works. Instead he writes that a singer gets a good breath control through practicing the Bel Canto ideal of registration and vowel purity. (Reid 1950, 153.) This is quite opposite to Sadolin's viewpoint since she accentuates knowledge about anatomical functions. Reid also talks about the Bel Canto traditions as an ideal of how the voice should sound like. Sadolin

explicitly mentions that she does not consider one way of singing better than another one. Instead she writes that every sound produced by the human body can through right technique be produced in a healthy way. (Sadolin 2008, 9.)

There are clearly a few discrepancies between Sadolin and Reid as mentioned above. Besides this my conclusion is that they are talking about the same things but from slightly different perspectives. With these slightly different viewpoints considered, these two sources will provide a broad and good ground for the analysis in chapter 5.

### 3 Chakras

In this chapter I will explain what the chakras are using different literary sources. To receive a more academic and historical view upon the understanding of the chakras I will be using an article from the *Encyclopedia of Religion*. Besides of these sources I will use the book *Hands of Light - A Guide to Healing Through the Human Energy Field* (1987) by Barbara Ann Brennan. The reason for choosing this book is that it is written within a postmodern western spiritual tradition sometimes referred to as New Age. I will not discuss the phenomenon of New Age or the problems of an academic discourse around it here more than necessary to explain my choice of literary source. Brennan's book is written within the limits of a western cultural subculture where originally eastern traditions were used. The main target group are westerners and not eastern yogis, however, and therefore it works well in this analysis since Bel Canto singing is also a western phenomenon. The book is also written as a popular science workbook and not as an academic book. Therefore, in this analysis, it is quite well matched with especially Sadolin's book that is also more of a workbook than an academic writing. In the same way as Reid is a complement to Sadolin in chapter 2, the *Encyclopedia of Religion* is a complement to Brennan in this chapter. Since chakra is a foreign word (originally in Sanskrit), different transcriptions of the word appear in the sources. I've chosen to spell the word "chakra".

#### 3.1 A historical and cultural background on the chakras

The ancient Sanskrit word chakra literally means a circle, wheel or discus. The term plays an important role in both Hindu and Buddhist traditions. It may refer to various forms of yogic practices, but the most common use of the term refers to the spiritual energy centres that are believed to lie within the human subtle body. In eastern traditions the subtle body is the immaterial aspect of any living being, lying somewhere between its physical form and its divine, eternal essence. The subtle body is composed out of a complex network of arteries (sanskrit: *nadis*), knots (*granthis*) and energy centres (*chakras*). The chakras are linked only roughly to the arteries and organs of the physical body. They are imagined, not only as wheels, but as lotus blossoms with various numbers of petals and in some traditions also as ponds connected by a network of rivers. (Padoux 1987 & Urban 2005, 1348.)

The most well-known list of chakras today is the sixfold system, which identifies six energy centres located along the spinal cord from the base to the height of the eyebrows, and with a seventh supreme chakra, the crown, at the top of the head. This list is not the only one or the oldest, and the historical origin of the chakras as inner centres of subtle energy is not clear. The earliest historical source is the eight-century Buddhist text *Hevajra Tantra* which identifies four chakras. The classic group of six chakras emerged slowly and not until the ninth or tenth century can an identifiable system of six energy centres be found. Some yogic traditions have added other chakras, some listing as many as twelve.

The sixfold system is, however, the most common one and therefore the system that will be used in my analysis. The names and locations of the chakras are as follows:

1. The *muladhara*, located between the anus and the genitals.
2. The *svadhisthana*, at the root of the genitals.
3. The *manipura*, at the navel.
4. The *anathata*, at the heart.
5. The *vishuddha*, at the throat.
6. The *ajna*, between the eyebrows.

Above these lies a seventh and ultimate chakra, the *sahasrara*, imagined as the divine seat of the god lord Shiva. All the chakras are in contact with each other through a complex network of correspondences, and they are also identified with specific colours, shapes, elements, cosmic principles and deity. (Padoux 1987 & Urban 2005, 1348-1349.) Benjamin Walker, for instance, mentions that the third chakra in Hindu tradition governs the bodily sensations sleep and thirst, the emotional aspects shame and fear. Its element is fire and it is also strongly linked with breath. (Walker 1995, 219.)

The aim of all yoga practice is to awaken the divine creative energy that in these traditions are believed to lie within every human body. This energy is imagined as a serpent, *kundalini*, which represents the presence of divine power, *sakti*, inside each of us. When the energy is awakened through for instance meditation, it can be made to rise up along the spinal cord, penetrating the six chakras and thereby awakening the various powers associated with each one. When the energy reaches the seventh chakra above the head, the yogi experiences a union of the divine male and female principles within his or her own body. The chakras do not exist as physically measurable entities, but are nevertheless

believed to correspond to psychological states and consciousness, and if they are malfunctioning, they are considered to lead to a variety of mental and physical problems.

Today the chakras and the techniques to awaken them are not only found in esoteric Tantric traditions but are widely spread throughout many Indian yogic practices. These have made their way into the West and are common in much of New Age and other alternative forms of spirituality. (Padoux 1987 & Urban 2005, 1348-1349.)

### **3.2 A contemporary western viewpoint on chakras**

According to Brennan the body consist of several layers of energy and each of these layers are linked to a specific chakra. There are seven major chakras, 21 minor chakras, lesser chakras and acupuncture points. (Brennan 1987, 43-44.) In this thesis I will limit the analysis to the seven major ones. The body consists of seven auric layers of energy and the chakras are centres where energy flows between the layers. A specific chakra is therefore consisting of seven chakras located in the same place. (Brennan 1987, 48.) The chakras also consist of pairs. For instance, the fourth heart chakra is an energy centra that opens both to the back and the front. The frontal part of the chakra is related to a person's feelings and the rear part to the person's will. (Brennan 1987, 44-45.) In this paper I will treat each chakra as an entity although Brennan divides them into several parts. I will now shortly list the functions of each chakra according to Brennan to give an overall brief understanding of her viewpoint on chakras. A more deep analysis of them is found in chapter 5.

The first and lowest chakra is related to physical energy and life force. When the life force is functioning in this chakra the person has a powerful will to live. The second chakra is connected to the quality of love for the opposite sex and to the quality of a persons sexual energy. Brennan also writes that when the lowest chakras are in balance it will create a strong physical potency in a person. He will have a presence of power and vitality, of being present here and now and with a strong will to live. (Brennan 1987, 72.)

The third chakra, located in solar plexus<sup>2</sup>, is associated with knowing one's unique place in the universe. Brennan describes it as a mental chakra but to a high degree linked to an individual's emotional life. This chakra is the centre where mental understanding of emotions puts them into a framework of understanding and order and with one's intention towards physical health. When this chakra is functioning well, the person will have a deep and fulfilling emotional life and he has got a strong intent to keep healthy. (Brennan 1987, 75.)

The heart chakra is the centre of love. Through it we feel connected to all life, and the better this centre functions, the more we are capable of loving ourselves, other people and all creatures on earth. When this chakra is open within a person, he is able to see the whole individual in his fellow man. It is also the centre of the will, how we act in the world and go after what we want. (Brennan 1987, 76-77.)

The throat chakra is associated with taking responsibility for one's personal needs. It is connected to nourishment and receiving what life gives. When this chakra is functioning a person can receive with respect whatever is coming to him. It is also connected with a person's sense of self within the society, with his profession and with a person's task in life. The fear of failure is located within this centre, and the fear of revealing one's true self. (Brennan 1987, 77-78.)

The chakra located at the forehead is linked with the ability of visualising and understanding mental concepts and the concept of reality and the universe and one's place in the world. If the centre is in some way blocked the person will have confused mental concepts. This centre is also associated with the implementation of creative ideas. If the centre is balanced and open one's ideas are naturally followed with the right concrete action to cause them to materialise in the physical world. (Brennan 1978, 78.)

The seventh chakra, the crown centre is related to a person's spirituality and the integration of one's whole being. If this chakra is not open the person will not have a

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<sup>2</sup> The Encyclopedia of Religion states that the third chakra is located around the navel, but Brennan states that it is at solar plexus, i.e. slightly higher. This small discrepancy is easily explained since The Encyclopedia of Religion reports the historical, eastern viewpoint and Brennan's book is written in a postmodern western context.



connection to his spirituality, but if it is open and free the person's spirituality will be unique and personal. (Brennan 1987, 79.)

## 4 Comparison between singing technique and chakras

### 4.1 Combining two different paradigms

In the previous chapters I have described the two paradigms of singing technique and chakra tradition. In this chapter I will compare these two.

A very important question is of course how you can compare two such different traditions, since the differences are remarkable. The perhaps most striking difference is that muscular activity during singing is something easily measurable. One can for instance put a hand on a singer's body and sense the activity of a certain muscle or film with a small camera how the vocal cords are vibrating. Chakras, on the other hand, are not easily examined. There is no conventional technical way of defining what a chakra is and how its activity can be examined. How, then, can a piece of neutral ground be established where we as scientists can include both paradigms and find a method that allows examination of both traditions? Scholars have studied religion and spiritual experiences for a long time and there is an established and conventional academic discourse which studies chakras and similar concepts. The problem, however, is that the approach towards chakras and towards singing technique must be different due to the objective measurability of what goes on in the human body during singing and during activities linked to a chakra tradition.

Brennan's book contains two chapters where she discusses these questions. Her conclusion is that one can, scientifically, assume that the invisible energy field within the human body can be an objective reality from a biological and physical point of view. (Brennan 1987, 34-35.) Her arguments for this position are rooted in physical theories and experiments that in different ways show that the laws of nature we count on in science today are imperfect. They can show us a part of the reality, but not the whole reality. Brennan uses an example where an assumption that light is particle explains some of light's physical qualifications. In the same context she mentions that according to another theory light is a wave. Brennan writes that light must be viewed as both particle and wave if we are to understand it. She mentions that there is no comprehensive theory that alone fully succeeds in explaining light as a physical phenomenon. Instead we have to choose what she calls a complementarity view where we view the reality through an idea of both/and. (Brennan 1987, 24.) I quote this example of an argument of hers to show that she

claims that there is a scientific reliable way of talking about the body as a complex energy field in the way she does.

## **4.2 Similarities between the chakra tradition and the physiology of singing technique**

### **4.2.1 Similarities between an individual chakra and the physiology of singing in that area of the body**

The singing starts in the lower parts of the body. According to an article by Ritva Eerola (2012) it starts from the legs and the areas in the abdomen and back situated under the waist line. The latter is the location of the lowest chakras. The first chakra is associated with the life force, and when the chakra is open and functioning it gives an energy flow of physical potency up the spine throughout the body. (Brennan 1987, 72.) This correlates well with what Eerola writes about the will power in singing starting from the lower part of the body and bouncing up like on a trampoline towards the ribs. The function of this area is the same in both traditions. The second chakra is associated with life force together with the first one, but also with sexuality (Brennan 1987, 73). I have found no reference in the literature that singing would be an extension of sexual energy or anything to that effect. The thought is interesting, though. From a psychological and specifically Freudian viewpoint, where the human sexuality is seen as the driving force in almost any action, I am convinced that one could find similarities.

The third chakra is located at the height of the diaphragm and should therefore be of central importance in singing if my hypothesis is correct. This chakra is according to Brennan the root of the emotional life but also a mental chakra. The mental understanding of emotions puts them into a framework of order. A person with this chakra in balance will experience a deep and fulfilling emotional life. (Brennan 1987, 75.)

Eerola writes here that singing is extended speech and should always be gained through focusing on the text and not on the sound. Emotional excitement activates the muscles and gives them the right sensibility. (Eerola 2012.) Brennan's reference to the link between emotions and thoughts correlates to what Reid mentions as a mental concept of singing. Singing always starts with a mental picture of the sound the singer wishes to produce. The muscular system in breathing and sound production responds entirely to the mental

concept of the singer, according to Reid. (Reid 1950, 54.) Sadolin accentuates the diaphragm and its activity during singing, but because of her somewhat pragmatic focus on anatomy there are few references in her book towards emotions or mental concepts linked to the diaphragm. There is a statement that it is a helpful tool to relate the feeling of support to an image in the mind that it is easy to recognise. One's personal images and feelings are the most effective way of establishing the feeling of support. (Sadolin 2008, 35.) The activity in the area of the diaphragm is described both in the chakra literature and in the singing literature, and there are similarities between the two.

The fourth chakra is the heart chakra. According to Brennan it is linked to our capacity to love and with our connectedness with all life. Another thing central for this chakra is the individual will, and from this centre also comes one's actions in the physical world. (Brennan 1987, 76.) I haven't found many correlations to this area of the body in Reid or Sadolin. Reid writes that the chest remains relaxed during breathing in order to make the diaphragm work properly (Reid 1950, 150), but he never mentions any of the things Brennan links to the fourth chakra. Sadolin puts great effort in the importance of keeping the ribcage expanded through control of the diaphragm and its assisting muscles (Sadolin 2008, 28). None of these references show any obvious correlation with the function of the chakra according to Brennan. The only similarity I find is that Eerola writes, in a context of singing through expressions, that singing should always be "heart centered" and that the mouth is merely a "phonetic sensitive shaper" (Eerola 2012). This could be interpreted as a sign that the functions Brennan assigns to the heart chakra is of vital importance in the interpretation of an emotional song.

The fifth chakra is located in the throat. Brennan writes that this chakra is associated with taking responsibility for one's needs and with respect to receiving whatever comes towards oneself. It is also associated with a person's sense of self within a given context, usually with profession or peers. If this centre is not in balance it is often linked to bad self-esteem. Fear of failure is also located here. (Brennan 1987, 77.)

The throat is, of course, the location of the larynx and the vocal cords. Reid writes that the constrictor muscles in the throat must be relaxed during singing. By bringing these muscles into tension the tone will become both painful to listen to and uncomfortable to produce. (Reid 1950, 51.) Reid's solution to how a singer can overcome this unwanted constriction is that he must not focus on his mistakes and on the specific muscular activity,

because that will only make the problems worse. Instead the muscles must be forgotten and the focus must be on vowel quality. When the muscle activity is forgotten the natural tone will become free. (Reid 1950, 52.) This can be interpreted as a correlation to what Brennan writes about how the fear of failure is located in the throat chakra.

Sadolin puts even more effort on the avoiding of constriction in the throat. In order for the vocal cords to be able to stretch during singing, and unwanted constriction is often a reason that a singer is not able to hit the high notes. By correct technique a singer can "cheat" the constrictor muscles into not constricting when singing technically difficult and physically demanding material. Traditionally, this is referred to as keeping an "open throat", even though it is not physically possible to open the throat but only to avoid constricting it. (Sadolin 2008, 48-49.) Sadolin writes that the singer must learn to locate the feeling of the open throat and to hold on to it during singing, and she lists various images one can use as a help to finding it (Sadolin 2008, 49). This way of getting in control over the constrictors and by various techniques and mental images relaxing them can also be interpreted as a correlation to what Brennan writes about the throat chakra and responsibility to whatever comes towards you. By learning correct technique you take responsibility over your own voice and you are able to produce also technically and physically demanding sounds and are able to meet the challenges of a demanding piece of music.

The forehead chakra is associated with understanding mental concepts and also implementation of one's creative ideas (Brennan 1987, 78). Both Reid and Sadolin accentuates the importance of correct mental understanding of what singing is. As mentioned earlier, Reid says that singing starts with a mental picture of the sound. The talented singer is a person who is able to control his voice primarily through correct thinking and secondarily through correct practise. (Reid 1950, 54-56.) Any problems occurring when singing are psychological, not physical (Reid 1950, 47). Eerola expresses more or less the very same thing (Eerola 2012). Sadolin mentions several times that factual knowledge about one's voice and sound production is of high importance (Sadolin 2008, 43, 49). Singers and vocal teachers tend to relate to support as physical sensations and images, and here Sadolin emphasises that these are always subjective feelings and that the individual singer always has to understand his own way of feeling and relating to support and only regard these images as educational tools. She points out that mental images used by singing teachers are very subjective and do not necessarily have any connection with factual anatomy. Therefore mental images should be used only as

educational tools and she talks much about the importance of knowing the anatomical facts and learning to control the right muscles. (Sadolin 2008, 32-35.)

Reid also writes that the breathing occurring in singing is natural and instinctively used and any conscious operation and formation of unnatural breathing habits should be avoided (Reid 1950, 154). This can be interpreted as opposite to what Sadolin writes, but is nevertheless a statement about mental concepts in singing, although this might suggest that the forehead chakra shouldn't be involved too much in singing.

Otherwise there is a clear correlation between the mental functions of the sixth chakra and the mental functions required in singing, although sound is not physiologically produced in the area of the forehead. Eerola briefly mentions what among singers is usually referred to as mask sound. By lifting the soft palate during singing, vibrations will arouse in the upper part of the face. (Eerola 2012.) Otherwise the forehead has no influence on sound production, and the function of mask resonance is also not linked to mental concepts.

#### **4.2.2. Similarities between the interactions of several chakras and the physiological activity in the same areas during singing**

During singing you do not use explicitly one part of the instrument, but the whole body from the lower abdominal muscles and upwards. In this part of the analysis I will look at how the chakras cooperate with each other and if there are any connotations between how different parts of the body work together during singing.

Padoux and Urban state that the aim of a yogi during meditation or other techniques is to awaken the energy that lies within the body. In the shape of a snake this energy will rise along the spinal cord penetrating all the chakras and setting free all the various powers associated with each chakra, finally coming to the seventh chakra above the head. (Padoux and Urban 2005, 1348-1389.) During a spiritual exercise all the chakras are active. The same thing is true about singing where all the bodily functions in the areas of the chakras are active when producing sound.

According to Brennan the lowest chakra can work as an energy pump, helping a flow of energy to rise along the spine, creating a strong will to live and a fullness of vital energy (Brennan 1987, 72). This is to a high extent similar to what Eerola mentions when she

writes that the will power in singing starts there and bounces up like on a trampoline towards the ribcage (Eerola 2012). There is an understanding present in both traditions about a flow of energy starting from where the first chakra is located and then moving upwards through the body. Sadolin mentions something she names incorrect support. In such a case the muscles in the abdomen work as they should, except that the area below the navel bulges outwards, as if one is going to the lavatory. This will result in the energy being focused downwards instead of upwards and it will lead to constrictions in the throat. For female singers it can lead to prolapsed uterus, and, especially among wind instrument players, hernias can be developed. Incorrect support creates an unpleasant pressure on the bowels. (Sadolin 2008, 36.) One could interpret this as if the lowest part of the support, in the area of the lowest chakras, is not working properly and sending the energy outwards or downwards instead of upwards, it causes trouble not only in the lower parts of the abdomen, but also in the throat when singing.

Brennan mentions that the solar plexus chakra may serve as a block between the heart chakra and the lower chakras. If this chakra is blocked, a person might not find the necessary connections between love (heart chakra) and life force and sexuality (associated with the two lowest chakras). (Brennan 1987, 75.) Sadolin mentions a phenomenon she calls hidden incorrect support. A singer using hidden incorrect support constricts the muscles in the area of solar plexus too vigorously without producing any positive results in the voice. The abdominal muscles in the upper part of the belly are becoming tense and locked, leading to a constricted throat. Sadolin also mentions some exercises to release both incorrect support and hidden incorrect support. (Sadolin 2008, 36-37.) Although Brennan doesn't mention a specific link between a blocked heart chakra and malfunctions in the throat chakra, there are obvious correlations between malfunctions in the area of the heart chakra and negative consequences elsewhere in the body.

Benjamin Walker writes about the seventh chakra, situated above the head and outside the body. He writes that it synchronises all colours and encompasses all senses and the bodily organs and their functions. He states that the aim of many yogic techniques and Hindu traditions is to get all the chakras functioning and through that awaken the power of the seventh chakra in order to "reabsorb this nectar, re-vitalise the body and thus live forever". (Walker 1995, 220.) According to Brennan the crown chakra (or the seventh chakra) is related to a person's connection to spirituality and the integration of the whole body and the whole being from a physical, emotional, spiritual and mental point of view.

When the chakra is functioning it gives the individual a state of transcendence that goes beyond the physical world and gives a person a sense of wholeness and purpose to one's existence. (Brennan 1987, 79.)

Eerola states that when a singer's voice is well balanced and functioning it is experienced outside the singer's body, both by the singer himself and by the audience (Eerola 1012). This strongly indicates a correlation with the seventh chakra. When all the chakras are in balance and function, the energy is moving upwards through the body meeting on top of a person's head. In the same way, when singing is done properly without tensions or constrictions in the instrument, the energy moves through the whole body and the voice is experienced as outside the body. Reid writes about vocal freedom that the voice was meant to sound freely flowing without tensions, and to learn to sing is to learn to produce sound in a healthy and unconstrained way (Reid 1950, 19). He uses the word "flowing" and this can also be seen as a correlation.



## 5 Conclusion

My working hypothesis has been that there are connotations between what happens in the body during singing and during spiritual exercises that are rooted in the chakra tradition, and that an understanding of the chakra tradition might be beneficial for a singer.

In my analysis in chapter 5 I have found some clear correlations between the two paradigms and some indications of correlations. In the chakra tradition there is an idea that energy starts in the body from the area of the pelvis moving upwards, for instance during meditation. In the same way the energy starts from the same area in the body during singing and is moving upwards.

In every place where there is an energy centre present, according to the chakra tradition, there is some muscular or other bodily activity occurring in the same area during singing. That activity is in greater or lesser degree linked to the function associated with the chakra. For instance, the chakra in the solar plexus, in the same area as the diaphragm, is considered an emotional chakra. Emotional interpretation of a song during singing is linked to the work of the diaphragm during singing. Both traditions also emphasise the importance of this area in the body as a link between the functions in the lower parts of the belly and the functions higher up in the body that need to be open and working in order to gain freedom in the flow of energy.

The chakra in the throat, where the larynx and the vocal cords are placed, is associated with fear for failure, and one can find correlations to what the writers of the singing technique literature state about constrictions in the throat. The forehead chakra is linked to mental pictures, and all writers agree upon the importance of mental understanding of the sound production while singing.

In the chakra traditions there is an understanding of a seventh chakra above the head, outside the body, where the energy is heading to where it starts from the pelvis, and this seventh chakra or crown chakra is associated with an integration of the whole body, spirituality and transcendence. What happens when the energy flow is unhindered and the seventh chakra is functioning is a bit cryptically described in the literature, but is nevertheless considered a goal of for instance meditation or yogic techniques. In the same way there are no clear and concrete descriptions of how a free voice should sound like

when the flow of energy from the lowest part of the support is unhindered, but it is considered an ideal, and one of the writers states that the voice in that case is experienced as outside the body. There is a clear similarity between the ideal of the energy reaching the seventh chakra and the free and beautiful voice.

I have found that my hypothesis is true. During a spiritual exercise there is a bodily activity present, or at least something going on that is sensed in the body, that is linking the person to a higher spiritual level, and one way of describing it is through chakras. A similar process in the human body occurs when someone is singing, and there are clear connotations between the two traditions investigated in this paper. With these similarities considered, one could, perhaps a bit provocatively, state that singing is a way of praying.

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