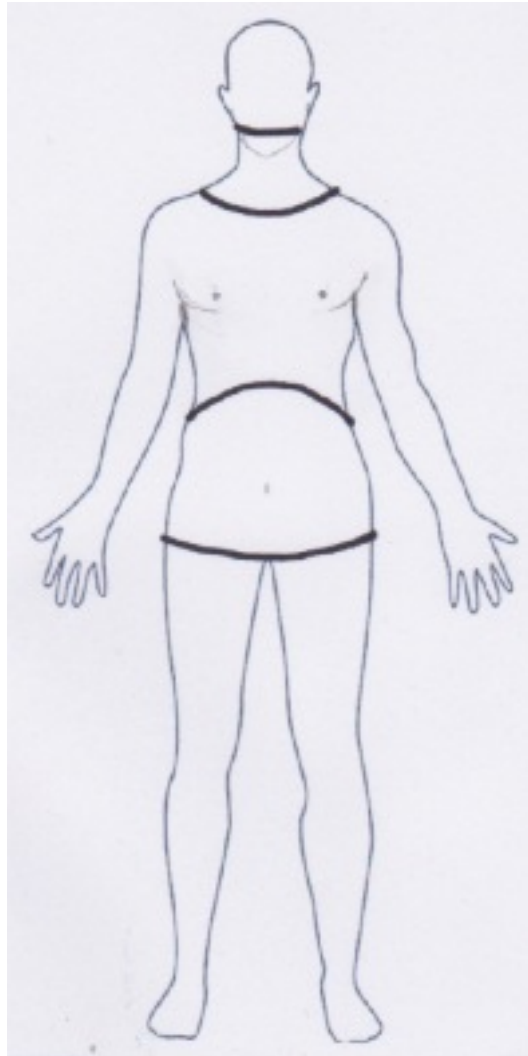


Craniosacral Therapy and Singing

How can craniosacral therapy be relevant in helping singers free up their voices and overcome physical obstructions to make them better performers?



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Craniosacral Therapy and Singing.....	1
How can craniosacral therapy be relevant in helping singers free up their voices and overcome physical obstructions to make them better performers?	1
Craniosacral Therapy and Singing	2
1. Introduction	3
My motivation	3
Description of the research process	4
2. Craniosacral Therapy (CST)	5
What is Craniosacral Therapy?	5
How does CST work?	5
Restrictions as a reaction to trauma.....	5
Releasing Restrictions	6
Treatment.....	6
Who practises CST?.....	7
Who can benefit from CST?	7
History of CST	7
Criticism of CST.....	8
3. A singer's body	8
No body is perfect!.....	9
What is the ideal singing body?	9
Which parts of the body are particularly important for singing?	10
What are the most common physical problems and tensions that make performing as a singer difficult?	14
In which cases could a CST session be helpful with these physical problems?	16
The three main points of attention CST can help singers with	16
How can CST help singers overcome their restrictions and physical tensions?	16
How does CST help singers become better performers?.....	18
4. My own journey with CST	19
What did teachers, experts, colleagues notice about my singing and my artistic performance?.....	19
How did I feel as a singer on stage?	20
What were my specific physical issues that made singing difficult?	20
Treatment of my physical issues.....	20
What effects did CST have on my body and how has this influenced my singing?....	23
Where am I now with my singing and as a performing artist and where would I like to go from here?.....	25
5. Conclusions	25
6. Appendix	28
List of sources.....	28
Interview transcriptions.....	28
Questionnaire	44

1. Introduction

Artistic expression requires a functioning instrument, a medium through which expression is transported from the artist to the public. For a singer the body is the instrument with which he expresses himself/ herself. The music passes through his/her mind and body, carried by the breath that moves through his/her vocal chords and vibrates in the resonance space in and outside of the body. In order to produce a free sound and to make the voice function healthily, the body must be in balance to serve as an instrument.

Through trauma at birth or later in life some of the bodily structures can be blocked and using the instrument can be difficult. The body can compensate and usually still sing, but in a lot of singers one can observe so called 'bad habits' - meaning things a singer does unconsciously while singing that are meant to compensate but that actually interfere with singing. The technical education we get from our singing teacher helps to deal with those habits and establish a good use of voice and body, but sometimes a singer can become frustrated if the body does not respond in the way he/she wants.

Then it could be helpful to look directly at the physical obstructions that could have been caused by trauma and try to release them.

My motivation

As a singing student at the Royal Conservatory of Den Haag I have followed my wish to become an artist and to be expressive on stage. I have always been drawn to music because of its power to touch people very deeply and express things, that words fail to explain. I soon realised that becoming/being an artist is a journey, that might develop for an important part during my studies at the conservatory but that most likely will continue for the rest of my life. I find it an incredible privilege to be able to be busy with something of lifelong relevance and something that doesn't lose its appeal over time.

The first step on this journey was clear for me: to develop my instrument of expression: my voice. I want to be able to use my voice as my tool for expression and storytelling. A good vocal technique is the fundament of the art of the singer and is one of my goals on the artistic journey.

During my studies I had some difficulties and that lead to frustration. When working on my voice, I found it sometimes difficult to do what my teachers asked me to do. I felt my technical progress was somewhat arduous and slow. Instead of being free to express I saw myself struggling on stage: with my posture, my breath, my sound, my articulation and my growing stage anxiety.

With singing lessons, experience and practice a lot of these things got better. There were some issues though that continued to be difficult for me.

For example: I could not release my jaw when singing and I saw that my breathing was very asymmetrical to one side of the body. This affected my articulation and my ability to sing long notes.

A few years ago I started working on my body because I felt that I wanted to become freer in my singing (Alexander Technique, Osteopathy, Yoga).

Then in 2012 a brief encounter with Craniosacral Therapy during a session with Ami Shamir (osteopath, Alexander Technique teacher and body therapist) made me curious about its effects for singing. I immediately felt an important change in my jaw and neck, which improved my freedom to perform on stage.

I would like to understand why this approach helped me so much. Further I would like to investigate if this therapy form might also help other singers become aware of their obstacles and maybe help to release them in order for singers to become freer performers on stage.

I believe that Craniosacral Therapy addresses some issues that are very relevant to singing and that it can be, as it is for me, an aid on the journey of becoming an artist and a singer. I can imagine becoming a craniosacral therapist myself in the future and help vocal artists with their bodies, voices and artistic expression.

Description of the research process

My research process included a series of different tools for research. I gained my information from **Literature**¹ by authors such as John E. Upledger, Michael J. Shea, Michael Kern and by publications of different associations that deal with Craniosacral Therapy such as Cranio Suisse, IABT, BCTA etc.

By reading I have gained knowledge about what Craniosacral Therapy is, how it works and with which health conditions it is used. I have read many interesting case studies that describe amazing results in a wide variety of cases that left me surprised and even more curious about this therapy form.

I also conducted several **interviews**² with my *singing teachers* Gerda v. Zelm and Rita Dams, my *osteopath* and coach Ami Shamir and the singer and *craniosacral therapist* Stefanie Hoffmann who is based in Hamburg.

Through the interviews with my singing teachers I have gained information about their view on my development as a singer over the years of my studies. I wanted to know what they thought my issues were and get an overview of my progress and the things that I should still look at in the future. I also gained information concerning issues and obstacles that a lot of singers have in common and what - in the opinion of vocal teachers - are points of attention in a singer's body. The interview with Ami Shamir gave me an overview of the whole period of treatments I have received in 4 years with him and the development my body has undergone. He still had all the notes about the physical issues we had worked on in treatment sessions and could even give me some understanding about the causes of the physical obstacles I encountered in my singing.

With my **questionnaire**³ that I handed out among singers at school I gained information about the singer's awareness of their bodies and the difficulties they might have come across during their singing studies. I tried to isolate particular parts of a singer's body as especially crucial and fragile. This questionnaire gave me material to write about the ideal singer's body and it was interesting to see how singers deal with their difficulties.

Lastly, I used **my own experience** as an example. I looked back over my study years and the problems I have/had with my body and performing as a singer. I have kept notes about all my treatments with a craniosacral therapist in Switzerland (Liliane Fehlmann), with a craniosacral therapist in Hamburg (Stefanie Hoffmann) and body therapist in The Hague (Ami Shamir). I wanted to understand some of the causes and connections of my difficulties and decide in which direction I would like to continue my progress. I tried to see which aspects of my development were influenced by craniosacral therapy and how what has helped me could help other singers as well. I made plans for the future and think about becoming a craniosacral therapist myself and combining it with my knowledge about singing in teaching and become a specialist in this field.

¹ See list of literature and links in the appendix on page 27

² find the transcriptions of the interviews in the appendix on page 28

³ find the questions in the appendix on page 43

2. Craniosacral Therapy⁴ (CST)

What is Craniosacral Therapy?

Craniosacral Therapy is an alternative treatment method that works with the **craniosacral system**: a physiological system in the body that includes bone structures, cerebrospinal fluid, meningeal membranes and connective tissues of the head (*lat. **cranium***), the spine and the **sacrum**. So basically it concerns primarily all the structures of and around the nervous system (brain and spinal cord) and structures that protect the nervous system from shocks and connect it to other structures.

Craniosacral Therapy, also named CST is a manual technique where the therapist puts his/her hands gently on the patient's body for diagnosis and treatment. The therapist palpates (*examines by touch*) very subtle movements and rhythms in the body of the patient to find out where obstructions limit the movement while the patient is lying or sitting on the treatment table.

How does CST work?

The rhythm the therapist is observing is called **craniosacral motion** or wave. The osteopath writing first about this motion and the cranial field of osteopathy Willam Garner Sutherland (1873- 1954) called it 'Primary Respiratory System' or 'The Breath of Life' or 'The Tide'.

The craniosacral motion is the rhythmic flowing of the *cerebrospinal fluid*⁵ in the craniosacral system. It occurs at about 6 to 12 cycles per minute and is not influenced by pulse or the rhythm of the breath. Because all the structures of the body are connected by tissues and membranes (*body fascia*⁶), this movement is passed on throughout the bodily structures. It is most easily palpated close to the bones of the head, sacrum and coccyx (tailbone) because they attach directly to the membranes which contain the cerebrospinal fluid. But the craniosacral motion can be felt at any place of the body by an experienced practitioner. Because it flows at a very stable rate, it is a useful diagnostic tool. The therapist can locate a problem by palpating the rhythm that directs him or her to the places where the movement cannot pass without restriction.

Restrictions as a reaction to trauma

The restrictions are caused by the body's reaction to trauma: contraction. When trauma occurs, the body cushions the impact by contracting. The tension, unless released, stays stored somewhere in the body and influences the functioning of the organs, tissues and bones around it. The restrictions usually occur in the connective tissue or *fascia* (see footnote 2) due to

⁴ Craniosacral Therapy, John E. Upledger & Jon D. Vredevoogd, 1983, Eastland Press, Inc.

⁵ *cerebrospinal fluid* is a fluid that is filtered out of the blood at the *choroid plexus* (a place in the brain) and released into the *ventricular system*: a continuous space between the *meninges* (membranes that prevent rubbing of the brain and spinal cord against the bones of the skull and the spine),- where it provides cushioning and „floating“ of the brain and spinal cord and protects them from bumping into the bones when jolted or hit.

⁶ *body fasciae* are a flexible layers of tissue that envelop all structures of the body: muscles, bones, blood vessels, organs etc. They function as both separating and connecting, transmitting movement, providing sliding and gliding of structures against each other and suspending organs in their places.

inflammation, internal and external scar tissue from injury or after surgery, asymmetry of bone or muscle structure after a trauma caused by injury or birth process. The craniosacral movement is then still present in these areas but fighting against a barrier. These barriers can be either rigid (*for example bones jammed together*) or elastic (*abnormal membrane tension that allows movement but increased energy is needed for it to pass through*).

Releasing Restrictions

The therapist locates the restricted areas and can then give very gentle impulses - not invasive manipulations - to help the release of the restriction and assist the self-regulation and restoration of the flexibility of the body.

CST is therefore not actively moving or manipulating structures, like for example the realignment of vertebrae that is done by osteopaths or chiropractors, but is more gently supporting the body's inner self-regulating system by restoring mobility and helping the craniosacral movement to pass freely.

During studies of craniosacral therapy therapists first learn to observe the body without interference: *"Your purpose has been to study and learn from the body in its natural resting, yet dynamic state. You have learned that the practiced touch of the examiner (perhaps better named the "discoverer") should offer only security to the subject. There should be no threat to which the subject's body might respond by guarding, either consciously or unconsciously."*⁷ Therapists just observe the motion in the body and learn to analyse it concerning symmetry, range of motion and energy. Like learning to palpate and analyse a pulse, craniosacral therapists learn to observe the craniosacral motion and note particularities and/or restrictions.

Then they learn different techniques (e.g. "still point", "CV-4 technique" etc.) to release the restrictions in a gentle way that are quite different from other manipulative techniques used by doctors and therapists by being always careful not to force anything. *"Approach it (the craniosacral system) as you would a timid child or an animal whose trust you wish to gain."*⁸

When a restriction is released as a therapeutic effect, the tissues soften and the patient feels relaxation and easing of pain. As a consequence mobility is restored.

Treatment

Treatment sessions usually last between 30 and 90 minutes. Results can usually already be felt immediately after one treatment in the form of relaxation, easing of pain, sense of well-being or a different perception of the body. Sometimes reactions can continue also in the days and weeks following a treatment session when the body adapts to the new situation. The treatment is completely pain-free, but certain side effects are normal and may be experienced in the 12- 24 hours after treatment. Side effects can include tiredness, nausea, headaches, dizziness, emotional reactions and very light muscle sores.

The length of treatment varies depending on the seriousness of the problem and can range from one single session to a longer period of regular sessions.

⁷ John E. Upledger, Craniosacral Therapy, Eastland Press Seattle 1983, p. 39

⁸ John E. Upledger, Craniosacral Therapy, Eastland Press Seattle 1983, p. 39

Who practises CST?

CST is practised by doctors, osteopaths, physiotherapists, dentists and other physical therapists often to complement other treatment forms. There are institutes all over the world where training as a CST therapist can be obtained. The studies consisting of several seminars usually take about 3 years depending on the institute and the medical education a therapist already has. Usually previous study and experience in healthcare is required, sometimes the basis of anatomy and physiology can be acquired at the institute itself. There is not ONE single institute, but several slightly different variations. Some are acknowledged by a larger group. (Examples of international institutes that provide standards of professional craniosacral associations: IABT, BCTA/NA, CSTA/UK, Cranio Suisse®, ACSI).

Who can benefit from CST?

CST is mostly used to help both independently and as a complement to other therapeutic approaches and medical treatment in conditions such as:

- pregnancy and childbirth
- stress
- rehabilitation after illness or injury
- sleep disorders
- depression, burn-out
- disorders of the immune system
- menstruation problems
- hyperactivity and learning disorders of children
- chronic pain
- digestive problems
- headaches and migraines
- sinusitis and tinnitus
- orthopaedic problems
- spine and joint injuries
- asthma, allergies and dermatological problems
- psychosomatic health issues
- acute systemic infectious conditions
- acute sprains and strains

History of CST

CST has its roots as a part of osteopathy. Doctor Andrew Taylor Still (1828-1917) developed osteopathy around 1900 as a new medical field that saw the body as a unit of mind, body and spirit, in which all tissues and structures are connected to work together in harmonious motion. He created techniques that allowed him to manipulate bones with his hands and restore health. Doctor William Garner Sutherland (1873-1954) later researched what he called 'osteopathy in the cranial field'. He studied the bones of the skull thoroughly. His thesis was based on his initial idea that the cranial sutures (where the different bones of the head connect) were not fused, but moveable "like the gills of a fish". He introduced what he called

‘the primary respiratory mechanism’, a concept which states that the brain and spinal chord are contracting and expanding rhythmically, the cerebrospinal fluid is fluctuating rhythmically, the dura mater (membrane that surrounds brain and spinal chord) engages in dynamic shifting of tensions, the bones of the skull engage in and allow a certain amount of mobility and the sacrum is moving and is connected via the dura mater with the occiput (bone at the back of the head). During the seventies Doctor John E. Upledger (1932- 2012) developed Sutherlands ideas further and came up with the term ‘craniosacral therapy (CST)’. He was the first practitioner who taught some of the craniosacral therapeutic skills to non-osteopaths which led to a lot of opposition from osteopaths. Upledger researched the impact of trauma on the primary respiratory system and developed a way to deal with traumatic experiences called ‘somato-emotional release’. The research in the field of osteopathy and its different disciplines (visceral, cranial, lymphatic, laryngeal etc.) continues and different branches have developed that all have the same roots in osteopathy.

Criticism of CST

Critics of CST cite the lack of one discernible school of opinion, the lack of mainstream medical approval, the difficulty of obtaining clearly attributable results when mixed with other therapy forms and the lack of regulation which allows anyone to declare themselves a CST therapist. CST has a clearly physical, structural component as a field of osteopathy (cranial field of osteopathy) that works with a more biomechanical approach (fixing the body like repairing a machine) but reaches into more vague territories that are called energetic or even spiritual, which work more with the principle of letting the body heal itself by helping its internal forces unfold. „Nevertheless, one thing is for sure, a good foundation in anatomy, physiology and medical diagnosis is necessary in order to apply craniosacral work with safety and competency. (...) It is an unfortunate fact that in recent years many people have set up in practice with only minimal training.”⁹

This research will not further question or prove the existence of the cranial wave or the efficacy of CST, nor provide any opinions on the psychological aspect of it due to my lack of medical knowledge but will assume that the cranial wave exists and concentrate on the results and benefits found by the authors of the literature this research is based on, my interview partners and my own experience.

3. A singer’s body

“It is impossible to study the voice without looking at the body.”¹⁰

The musical instrument and therefore the playing of all musicians is influenced by everything that happens in the **body**, the **mind** and the **spirit** of the performer. As the human voice is the only musical instrument that lives *inside* the body of the performer it has to be studied as part of the body. For singing, apart from the artistic impulse and expression which happen in the mind and spirit, the following physical actions are necessary:

- Balancing (having the body in alignment)

⁹ Wisdom in the Body, Michael Kern, North Atlantic Books, 2005, p. 10

¹⁰ The Performer’s Voice, Meribeth Bunch Dayme, W.W. Norton&Company, 2005, p. 13

- Breathing
- Supporting (maintaining a steady air pressure)
- Phonating
- Resonating
- Articulating

These physical actions are commanded by the brain and carried out by various muscles¹¹. As singers we learn to feel from the inside what needs to happen in the body to produce sound and articulation, we train and automate certain muscular actions and generally strive for a healthy use of our voice in order to be expressive as an artist. The body responds to the commands our brain gives and we get immediate *acoustic* (how it sounds), *sensory* (how it feels) and *visual* (how it looks in the mirror) feedback on what we do. It takes several years, a whole life, to get to know one's body and voice and for it to develop its full potential. The motivation and drive of a singer is usually an artistic, expressive one, of delivering a work of art, a message or feeling but also the physical sensation of singing, of 'giving voice' and making sound can be a very fulfilling feeling. To choose the path of a professional singer means working with one's own personal and unique instrument on a daily basis.

No body is perfect!

Every body has a history, habits, restrictions and/or maybe wrong ideas about singing technique, so in order to produce sound almost every singer will compensate physically somewhere in the body. Each compensatory movement (for example using accessory, extra muscles) has an effect on the efficient functioning of voice and body.

*"Any tension or distortion in the rib cage, especially the back, will prevent adequate intake of air; tension and/or distortion in the neck will cause pressure on the larynx and pharynx and prevent efficient phonation and regulation of air."*¹²

This is why **body awareness** is such a common and important goal of the training of a singer. In becoming aware of one's habitual and maybe unnecessary efforts, singers learn to re-educate their bodies and let go of some of the disturbing habits.

However I believe, that there are some physical causes to these habits that are difficult or even impossible to eradicate from singing just by awareness and training alone. In the following passages some of these causes are described.

What is the ideal singing body?

The answers to this question are diverse and have been put into words in different ways. Therefore I quote my interview partners and other singing experts below.

*"For me the ideal singing body is a body that is free to deliver the vocal works of art with ease and energy."*¹³

¹¹ Netter's Atlas of Anatomy for Speech, Swallowing and Hearing, Mosby, 2009

¹² The Performer's Voice, Meribeth Bunch Dayme, W.W. Norton&Company, 2005, p. 46

¹³ Gerda van Zelm in the interview, see appendix p. 27

“It should sound in a way that the singer likes, feel nice, loose and it should be a pleasant body feeling.”¹⁴

*“In an easily produced voice, the inspired air passes silently through a spacious, free **throat** and widely separated **vocal folds**, into a **chest** in which the upper part is stable, not rigid, and the **back and lower portions** are flexible enough to permit lateral and posterior expansion of the **ribs**. At the same time, the **abdominal muscles** need to be relaxed enough to allow the downward excursion of the **diaphragm**. During expiration there is a recoil of the **elastic tissues of the lungs and trachea**, balanced and slowed by a combination of maintaining good posture and actively contracting the lower muscles of the abdomen. This action sets up a balance of pressures in the abdomen, in the chest and at the level of the **larynx** that ultimately helps the performer maintain a steady air pressure. When the **head, shoulders, and hips** are aligned, the breathing mechanism performs these actions with minimal energy and without muscular compensation or physical or vocal distortion.”¹⁵*

“For me the body is the palace in which we live our lives. The ideal singing body for me is the body of a person with a healthy mind and positive energy. And it is a person who has a good contact with his own body and mind, who knows his body, who takes responsibility for his palace, his house. Ideally it’s someone with a healthy spine. With a good muscle tonus, not too much tension and not too slack. It is a flexible body and a body with healthy lungs.”¹⁶

From these quotes I would like to point out the following words that appear repeatedly and summon up the criteria for an ideal singing body:

- Ease
- Freedom
- Flexibility

Which parts of the body are particularly important for singing?

As was said earlier, the voice is part of the body, so the body should be seen as a whole. Thus the whole body is important for singing. But still there are some places in the body that are more directly involved with singing than others. Restrictions in these parts of the body can be of particular importance when looking at what might cause the singing to be difficult or the body and voice to be distorted. Here therefore is a list of the most prominent body parts involved with singing:

Head
Throat
Larynx
Tongue
Jaw
Soft palate
Trachea
Neck
Shoulders

¹⁴ Stefanie Hoffmann in the interview, see appendix

¹⁵ The Performer’s Voice, Meribeth Bunch Dayme, W.W. Norton&Company, 2005, p. 35

¹⁶ Rita Dams in the Interview, see appendix

Chest
Lungs
Ribs
Diaphragm
Abdominal muscles
Pelvic floor

When learning about craniosacral therapy and the craniosacral system, I discovered that a lot of these body parts for singing also play a significant role in the craniosacral system. With the following examples I describe some of the singer's body parts from the point of view of a singer and also from a craniosacral viewpoint.

Respiratory Diaphragm

The diaphragm lies horizontally below the ribs and divides the body into the upper body and the abdomen. It is of major importance for breathing and therefore also for sound production for speech and singing. The diaphragm contracts to move down and open the lungs for inhalation and then releases for exhalation.

It is interesting that the diaphragm also plays a major role in the craniosacral system. As mentioned before, all bodily structures are enveloped in what is called the bodily *fascia* (see footnote 6) and those facial planes glide against each other, mostly along the vertical line of the body. For this gliding motion to happen, mobility is necessary. *"Anatomically, there are specific structural divisions which, when hypertonic or imbalanced in their tonicity, act as areas of functional restriction to this natural longitudinal glide of the body's fascial sheets. These structural/ functional divisions are located wherever there is a predominance of connective tissues which are orientated transversely across the body."*¹⁷ Then the book mentions the diaphragm as the most apparent example of a potentially restricting horizontal structure. The diaphragm is also connected (via several structures: traction upon pericardium¹⁸ transmitted through carotid sheath¹⁹) to the base of the skull. *"...patients with chronic diaphragmatic hypertonicity (overly tensed condition) frequently manifest less than optimal craniosacral system mobility."*²⁰ In other words a blocked diaphragm restricts the gliding motion of the fasciae and consequently impairs the craniosacral system and its motion.

The diaphragm has several vertical structures that pass through it and connect upper and lower body: oesophagus (muscular tube where food passes), aorta (major blood vessel), other important blood vessels, vagus nerve (nerve that communicates between organs and brain), phrenic nerves (nerves that communicate sensory information between diaphragm and brain) and splanchnic nerves (nerves that also carry information to and from the organs). So hypertonus (hypertension) of the diaphragm can be caused by problems of the nerves passing through it or inflammation of related abdominal organs. Dysfunctions can also be caused by the consequences of injury, trauma or inflammation that lead to tissue texture changes, sensitivity, rigidity, oedema (swelling), scarring, asymmetry and restriction in movement in structures connected to the diaphragm. (For example: lower six ribs, sternum, xiphoid process (extension of the sternum), upper three lumbar vertebrae (vertebrae between ribcage and pelvis), psoas major muscle (muscle on the side of lumbar vertebrae), quadratus lumborum

¹⁷ John E. Upledger, *Craniosacral Therapy*, Eastland Press Seattle 1983, p. 46

¹⁸ *Bag-like membrane around the heart*

¹⁹ *connective tissue around the bloodvessel system in the neck*

²⁰ John E. Upledger, *Craniosacral Therapy*, Eastland Press Seattle 1983, p. 47

muscle (muscle in the lower back) and/or the fascia surrounding any of these structures.) This is where osteopathy and craniosacral therapy can help.

“... abnormal hypertonus of the diaphragm is a common secondary finding in a vast number of conditions. Frequently, after the primary condition is cleared, the diaphragm autonomously maintains and continues the asymmetrical tension patterns and abnormal hypertonus created within it. The dysfunctioning diaphragm then interferes not only with proper breathing activity but also with craniosacral system function and freedom of fascial mobility.”²¹

This means that a restricted diaphragm (which can occur thus as a consequence of many different conditions) sometimes still continues to malfunction after a primary cause has been cured which then has negative effects on breathing and general health. For a singer it is clear that a restricted diaphragm, that cannot properly perform the whole range of motion of inhalation and/or exhalation will have negative influence on singing. It will influence the length of a breath and thus for example make it harder to sustain long notes. The technique that craniosacral therapy offers to release a restricted diaphragm is quite simple but can have a big effect.

Pelvic and urogenital diaphragms

These two very connected structures in the lower part of the pelvis (**pelvic floor**) are not directly involved with breathing but are said to play an important role none the less for singing. *“...allow yourself to feel your breathing deep in your pelvic floor. This is an area that many people hold tightly; for a good in-breath, it needs to be released.”²²* The pelvic floor supports the pelvic organs above the genitals. The anal canal, vagina and urinal canal pass through it. These diaphragms have great influence on the mobility of the sacrum and again on the gliding mobility of the vertical fasciae, thus on the craniosacral system.

Neck and Throat

In the neck area are the most obviously vital parts for singing: the **larynx, vocal folds and the pharynx**. The anatomy of this area is highly complex. Numerous muscles pass through here, also all the nerve, blood and lymph channels pass from the head to the rest of the body through here. There are the bony structures of the cervical vertebrae of the spine in the back and the hyoid bone in front. There is the cartilage (cricoid, thyroid and arytenoid cartilage) that forms the larynx. The larynx acts as the buzzer which produces the sound. The vocal folds are open when breathing and they close when phonating, they vibrate by the exhaled air and create the sound. In order to make different pitches the vocal folds get lengthened (higher pitches) and shortened (lower pitches), for this to happen the larynx tilts forwards for the lengthening. The pharynx acts as the resonator which amplifies and shapes the sound. In this area we also find the connection with important parts of the mouth and head: soft palate and tongue which play an important part in articulation of vowels and consonants.

²¹ John E. Upledger, Craniosacral Therapy, Eastland Press Seattle 1983, p. 48

²² The Performer's Voice, Meribeth Bunch Dayme, W.W. Norton&Company, 2005, p. 42

As well as being crucial in the breathing and phonating process, the area of the larynx and pharynx has functions related to the digestive system: swallowing food. This function closes the throat in order to protect the lungs from food or other particles.

All these functions are tended to by various muscles. The complexity of anatomy is obvious and the number of connections between muscle and muscle, muscle and bone and cartilage is therefore incredibly high.

For classical singing the air passage should be wide and open. For the vocal folds to vibrate freely, the larynx to tilt smoothly to make the pitches and for the pharynx to be open to resonate, the neck and throat should be free of restriction or hypertension. The larynx should stay in a low position. The singer cannot command single muscles, but can feel how slight adjustments in position and tension of neck, throat, tongue, jaw etc. all immediately affect tone quality and the ease with which the singer can produce sound, pitches and words. Singers usually learn to feel and hear from the inside which actions are necessary and healthy, often by using imagination and metaphors rather than by knowing detailed anatomy. This is far more effective for a singer and avoids the danger of becoming too concerned with these complex structures.

*“The ultimate quality of any sound is the result of the combination of the shape of the pharynx (throat), general vocal and whole- body coordination, and a vivid imagination. Physically, for optimal resonance, a singer or speaker will have a throat that is flexible and able to respond to the performer’s intentions, a lifted soft palate, a flexible ready tongue and a jaw that hangs nicely in place.”*²³

However, if restrictions are present, sometimes imagination and posture changes do not suffice to reach easy and effective sound production.

In the craniosacral system the neck and throat are also crucial. The area is according to Dr. John Upledger, besides the diaphragms an area of ‘*potential transverse restriction*’. Because in this area many blood and lymph channels enter the thorax from the head, it is called the ‘*thoracic inlet*’ or the ‘*cervico- thoracic junction*’. Even the slightest tissue changes or hypertension can have a big impact on the mobility of the craniosacral system by hindering the passage of fluids. The numerous muscles and connective tissues are enveloped once again in continuous sheets of fasciae that have several layers and need to be able to glide against each other longitudinally. The muscle and fascia tissues connect also to numerous bones such as the shoulders, the cervical vertebrae, the jaw and the skull. This is the place where head and upper body meet. Some sheets of tissue are continuous all the way from skull to coccyx. (tailbone)

*“The complexity of anatomy through the thoracic inlet can be quite literally mind- boggling to anyone other than a devout anatomist. Suffice is to say that the potential for reduction of fluid flow, restriction of fascial mobility and osseous somatic dysfunction (misalignment or restricted mobility of bones) or restricted motion at the thoracic inlet is immense (....) It must be made as freely mobile as possible in order to allow for maximum efficiency of the craniosacral system.”*²⁴

²³ The Performer’s Voice, Meribeth Bunch Dayme, W.W. Norton&Company, 2005, p. 70

²⁴ John E. Upledger, Craniosacral Therapy, Eastland Press Seattle 1983, p. 54

Head

The head of a singer offers resonance space behind the nose and sinuses. The pharynx could be described as a flexible sleeve of muscles that are attached to the skull, the mandible (jaw), the hyoid bone and the larynx. It has openings into the mouth, nose and throat that offer an air passage. These are the oral, nasal and laryngeal pharynges. The head also hosts the mouth with lips, tongue and soft palate which are responsible for articulation. In singing lessons there is a lot of work dedicated to sound quality, vowel equalization and articulation. The singer learns to use his lips, tongue and soft palate in order to create the sound he/ she wants. The soft palate for example has to rise to direct the air into the pharynges and it is also stretched laterally by a set of muscles to help balance the air pressure to the inner ear.

“If the lower connections of the palate are tense - for example the tongue - it is nearly impossible for the palate to achieve enough elevation. This can create problems such as too much nasality or a garbled sound.”²⁵

The bones that stabilize the muscles used for articulation are the *temporal bone* (above and behind the ear), *sphenoid bone* (behind eyes above jaw), *maxilla* (upper jaw) and *palatine bones* (hard palate), the *mandible* (lower jaw) and the *hyoid bone* (ring bone above larynx). To form words the jaw has to be able to open and close without restriction. The muscles that move the jaw are very strong (chewing muscles) and tend to overwork or clench. The muscles of the lips are very subtle and are attached to the skin and muscles, rather than bones. They have an influence on the sound, when tight they dampen the sound, when too broad they sharpen the sound and when too much forward they pull the sound away from the resonance space in the oral pharynx. The tongue is a big muscle that attaches to many bones. It is largely responsible for pronouncing vowels and consonants.

What are the most common physical problems and tensions that make performing as a singer difficult?

In her book *The Performer's Voice*, Meribeth Bunch Dayme lists a number of habits that a lot of singers have that affect the quality of the voice:

- Overly active facial muscles, especially mouth and lips
- Staring, unseeing eyes
- The position and action of the mandible (jaw)
- Rigidity of the tongue
- Pulling the back of the tongue downward inhibits the ability of the soft palate to move upward
- Excessive tongue tension, which causes the larynx to be pulled upward, closes off the oral pharynx and also prevents the flexibility needed for rolled r's and quick movements needed for rapid speech and singing
- Pulling the tongue downward, in a misguided attempt to make more space, pulls the pharynx forward, the palate down and the larynx up.
- Over-opening or jamming the jaw downward making it impossible for the tongue to articulate with the teeth and palate

²⁵ *The Performer's Voice*, Meribeth Bunch Dayme, W.W. Norton&Company, 2005, p. 77

Singing teacher at the Royal Conservatory in Den Haag, Gerda van Zelm gave the following answer when asked what physical problems she sees with a lot of her students:

“There are a lot of people who don’t really stand well on their feet and on their legs. I see many pelvic regions that are not active enough and many upper torsos that are not up and open enough. I see many stiff shoulders and necks and I see many articulators (lips, tongue, jaw, soft palate) that are used either too weakly or too strongly. In general men tend to be even a bit more ‘in their head’ than women. Although we are all very much in the head, men generally know their bodies even less and tend to be ‘uppish’ in their body. Women are a bit more connected already just because of their monthly cycles.”²⁶

In a questionnaire singers of the conservatory in Den Haag have named the following problems repeatedly:

- Tensed and/or low tongue
- Tension in the throat
- Stiff belly
- Tension of the jaw
- Tense shoulders
- Moving a lot/uncontrollably
- Back pain
- Collapsed chest
- Weak breath
- Pain in knees and thighs

“A lot of singers have a problem of being ‘too much up’. They think of the throat, the jaw, the articulation, respiratory diaphragm etc. but they forget the pelvic diaphragm that is maybe sometimes more important for singing, because it is also a component of support for inhalation and exhalation. And the pelvic diaphragm is working completely together with the respiratory diaphragm, when one is blocked from obesity, genital problems, old operations/scar tissue there, then the pelvic diaphragm is hardly following the respiratory diaphragm in exhalation. Then the singer doesn’t have enough support for the long sentence, and then he is lifting the shoulders and compressing the upper part of the body to squeeze for more support and more air. And for sure it is a vicious cycle in which slowly slowly he neglects the sleepy part in his body and it becomes even more sleepy. For sure it contains also emotional things, when we think of neglected pelvic floor/pelvic diaphragm.”²⁷

Some of physical problems seem to be a topic in singing lessons over long periods of time. It takes time to become aware of a habit and to learn to undo it. Body awareness is a very important component in this process. Many teachers recommend their students to do some sport to get to know their bodies better. A lot of students named yoga, Alexander Technique as valuable additions in helping them with their problems in addition to singing lessons. Some have said that it can be frustrating sometimes, to keep having the same technical issues over a long period of time.

²⁶ Gerda van Zelm, Interview 2013, see appendix

²⁷ Ami Shamir, Interview 2013, see appendix

In which cases could a CST session be helpful with these physical problems?

Stefanie Hoffmann, a singer and craniosacral therapist working in Hamburg as a singing teacher recommends her singing students to do a CST session:

“When over longer periods a diaphragm, again and again, every lesson, is fixed. The diaphragm is often a place with stored up emotion. I sometimes make attempts to balance it a bit during the lesson, but often then emotions are released so that the student cannot sing anymore. That is when I prefer to do a real treatment: with things that cannot just quickly be solved in the lesson, where I need longer, where people have the chance to get into the background of these tensions and why they cannot let go.

I don’t feel that everyone HAS to do CST. Some people are fine with a functional voice training. But sometimes when I have people who have trouble to feel their bodies, or certain parts of their body, CST can help a lot. (...) Or like I said, if some things don’t work, for example he/she CANNOT let go of the lower jaw, then I suggest a session.”²⁸

So CST first of all can help singers come into contact with their bodies. Secondly it can be used to find where restrictions are that cause a certain “bad habit” which is hard to undo. Thirdly it can release restrictions and thereby help the body to function organically as it should.

The three main points of attention CST can help singers with

From the information I have gained from literature, interviews, a questionnaire and my own experience, I have narrowed down the following three singer’s topics I believe can be positively influenced by CST:

- BREATH
- RESONANCE AND PHONATION
- ARTICULATION

How can CST help singers overcome their restrictions and physical tensions?

BREATH

As was described in the previous chapter, craniosacral therapy addresses to a great extent the transverse structures in the body, for example the diaphragm and the pelvic floor and helps to release tension there. A free diaphragm is a much better condition to start singing with.

Releasing the diaphragm

The diaphragm is released with the patient lying supine (lying down on the back) and one hand of the therapist on the 12th thoracic and the upper 3 lumbar vertebrae in the back as a

²⁸ Stefanie Hoffmann, Interview Juli 2013, see appendix

supporting hand and the other hand on the epigastrium (stomach area under ribs) and the xiphoid process (little body process under sternum) in the front of the body. The therapist applies very light pressure from above until he/she can feel a motion (cranial wave) within. The therapist then goes with the movement in any direction it goes and the craniosacral method will cause the tissues to soften and relax.²⁹

For deep inhalation and abdominal muscles that are free to support the breath for singing, a free pelvic floor is also necessary.

Releasing the pelvic floor

The pelvic diaphragms are released with the patient lying supine and one hand of the therapist on the sacrum in the back of the patient and the other hand on top of the pubis.³⁰

RESONANCE AND PHONATION

The head and neck is where the vocal chords are vibrating, pitches are made, the sound is amplified, vowels are formed and where air is vibrating in different spaces. In the previous chapter I described some of the complex structures that are intertwined and connected to each other to make the production of sound possible. I have mentioned how hypertension in this area can have an important influence on the sound, and singers can experience themselves, how a slight adjustment of posture already can make a big difference in sound and timbre. If there is hypertension due to a restriction caused by trauma, birth or inflammation, it can be difficult to make these structures work efficiently. CST offers possible relief of these tensions and a freer use of the neck and head area and an easier sound production may be achieved.

Releasing the thoracic inlet/ neck

There is a technique to release the neck which includes side bending and the release of tensions for which the therapist puts one hand under the neck and one on the clavicle of the supine patient.³¹

ARTICULATION

The flexibility of the jaw, soft palate and tongue is essential to articulation in both speech and singing. To release tensions in any area that has structures connected to the mouth/ jaw region is therefore highly beneficial. CST offers the possibility of freeing the cranial base area which will have an immediate impact on a stiff jaw for example.

Releasing the cranial base

There is a technique to release the head and disengage the atlas (highest vertebrae of the spine, connects head with spine) from the crane. The therapist puts both hands under the

²⁹ John E. Upledger, *Craniosacral Therapy*, Eastland Press Seattle 1983, p. 49

³⁰ John E. Upledger, *Craniosacral Therapy*, Eastland Press Seattle 1983, p. 53

³¹ John E. Upledger, *Craniosacral Therapy*, Eastland Press Seattle 1983, p. 55

patient's neck (head above palms, fingers in contact with the occiput) and the weight of the head is enough force between the therapist's hand and the head of the patient.³²

How does CST help singers become better performers?

The question first might be: what does a good performer need?

A performer is on a stage and is communicating with an audience. A story is told, a message brought across, an atmosphere is created, an emotion conveyed and the performer needs energy to do this job. The energy is transmitted through a channel that includes the body, the face, the eyes, the voice and any instrument that is used. The performer needs skills to control his instrument, he needs imagination, courage, trust in his abilities and the curiosity to experiment.

“Performing with ease requires physical comfort, acute awareness, a vivid imagination, and personal enjoyment.” (Meribeth Bunch Dame)

When sitting in an audience, you see if a performer is at ease or not. You are either moved, interested, disgusted, enchanted etc. by the story, the song, the art itself or your focus can be disturbed by you seeing the struggling performer busy with himself.

As singers and performers we know how it feels to be struggling with ourselves on stage. We have experienced how nerves, tension and negative thinking can hinder our desired freedom of expression.

There are many things helping us on our way to become “good” performers. A lot of time and effort is dedicated to forming our skills and our imagination and live experience helps the performer to become stronger and have more personal enjoyment.

CST can help a performer with finding more physical comfort. Stefanie Hoffmann, a singer and craniosacral therapist from Hamburg described it like this in an interview:

“CST heightens the contact to the body and through the body to the self. (...) Every trauma that is hidden somewhere in the body means a restriction, on all levels. I don't believe that you can resolve all trauma in the sense that it won't be there anymore, because things that happened to us will not “unhappen” through a process, but they won't bind so much energy anymore once we have gone through them again consciously. Something was hidden because at the time when it happened, it was too hard to deal with on all levels. However, when you go through it again as a grown-up, it frees some energies that you can use for other things, for example to sing or to express yourself.”³³

So according to Stefanie Hoffmann energy is required to compensate restrictions caused by trauma. Sometimes this energy is visible for the audience in the form of a physical struggle, involuntary movements and distortion of the face. Sometimes this struggle is not visible from the outside, but is nonetheless tiring for the performer.

In my experience as a listener and as a singer a performance is most enjoyable if the focus is totally on the content of the performance, the art itself and when I have the feeling that the energy flows naturally between artist and audience. Then as a listener I can be engaged emotionally, intellectually or even spiritually and as a performer I can give, be courageous and let go of worries about technique, doubts and struggling in general.

³² John E. Upledger, Craniosacral Therapy, Eastland Press Seattle 1983, p. 59

³³ Interview with Stefanie Hoffmann, see appendix

The 'letting go' requires practice, trust and courage. I believe that when our body can function organically and without obstacles with the help of CST, the performer's confidence will grow and the process of letting go benefits from that.

4. My own journey with CST

What did teachers, experts, colleagues notice about my singing and my artistic performance?

"I noticed that singing was obviously not easy for you to do. I saw that there were good musical ideas but that they didn't come across, because the body was obstructed. I felt your intentions, but at the same time I saw the struggle you had to get them out through your singing." (Gerda van Zelm)

"In the first audition, your neck was so crooked that I thought: Her larynx can never hang free." (Rita Dams)

Breath

- Breath was short, it was hard to feed the sound
- Exhalation was difficult
- Hard to sustain long notes

Sound

- Small sound, did not carry well
- Dynamics could not go louder than mf
- Trouble moving through the passaggio (transition between different registers of the voice)
- On vowels the sound fell backwards

Articulation

- Difficult in general
- Text was leaning on lower jaw
- Stiff

Artistic Expression

- Will to express was visible
- Musical ideas didn't come across
- Physical struggle distracted from the music
- Stage anxiety got worse

How did I feel as a singer on stage?

When singing as a soloist, so for example with piano, orchestra or an instrumental ensemble I often felt completely blocked. The stage anxiety, also called 'nerves', amplified my bodily issues. I felt I couldn't take a good breath at all. I felt I was singing only with the upper part of my body and that the sound that came out was not free. It was a struggle for me to pronounce the text and keep the musical phrase going. I felt my belly tense and even hurt at the end of phrases. I had to gasp for air. For the higher notes my throat closed and I had to push to get them out. The sound then was thin and without brilliance.

When singing in ensemble I often got pain in my jaw from tension. After a day of rehearsals I was vocally tired while I felt that I hadn't used my breath support correctly. I often sang only with head voice in higher ranges.

What were my specific physical issues that made singing difficult?

I noticed myself that it was not easy for me to sing. Posture was difficult for me, because what looked straight from the outside (mirror, audience) didn't feel straight on the inside. I could see that one leg was shorter and that I was breathing asymmetrically because of this. I had a lot of tension in my jaw and also tongue. My head went always to one side and my jaw moved forward when I was singing. I could not correct it and I struggled in singing lessons.

Here is a summary of my physical issues discovered in singing lessons, osteopathy sessions and craniosacral therapy sessions:

1. **Head:** tilted to one side, off-centre, temporal bone internal rotation, ears stiff and pulled inside
2. **Neck:** shortened, pushed forward, c2 side bending to the left, rotation right
3. **Jaw:** stiff, unable to relax
4. **Chest:** collapsed, closed rib cage, sternum very stiff, in inhalation position
5. **Diaphragm:** moving unequally, right side stiff
6. **Pelvis:** twisted, (to the left forward) uneven hips, left ilium (largest bone of pelvis) forward, sacrum rotation to right, pelvic floor restricted
7. **Legs:** right leg shorter than the left, fibula (outer leg bone) left restricted

Treatment of my physical issues

In 2008 Rita Dams recommended physical therapy and I went to the osteopath **Doctor H. Westhovens** and he found many irregularities in my body. In front of the mirror I could see for myself when he held a stick in front of my middle line:

- My head was not in line with the middle line of the chest
- My head was tilted slightly to one side
- My shoulders were not symmetrical
- My pelvis was twisted, which made it appear that one leg was shorter
- I had many vertebrae in my neck and back that were out of alignment

After showing me, Dr. Westhovens then proceeded to correct these things, bringing the bones back into position. There were many cracks. Afterwards I felt completely different and very

strange at first. I was very tired and couldn't concentrate for several days. I felt good, but I had to return every few weeks/months and each time some of the changes had gone back to how they had been before the treatment.

Ami Shamir, an osteopath and body therapist working regularly at the Royal Conservatory in Den Haag, has kept all the notes from my sessions with him over the past years since February 2008. He has been working on many issues over this period both in private sessions (hour-long osteopathic treatments) as well as in singing workshops together with Rita Dams, Gerda van Zelm and Jan Willem Nelleke. At the beginning of each treatment he looks at the body and sees what is unbalanced and then works with different techniques such as direct osteopathic manipulation, cracks, craniosacral therapy and visceral therapy which are all part of osteopathic treatment. At the end of each session he checks the body again and sees if there was enough change.

He had treated my pelvis, ilium (bone in pelvis) that was often rotated or stiff. He treated the ribs and abdominal muscles which were stiff. He had put vertebrae back into place, especially in my neck. After treatment I always immediately felt a change, but my singing still wasn't easy, especially when I didn't receive treatment for a while.

The **turning point** in the treatments came on the 21st of November 2010:

Ami Shamir saw the scar on my lower back that I got from an accident when I was three years old: I fell backwards through a bench, got stuck and scraped my whole back. He asked about my birth and found out that I had a very difficult birth in which I got stuck and had to be delivered with *vacuum extraction*³⁴. This had caused problems in my neck and made a twist in my spine. The vacuum extraction also applied a lot of pressure and stress on the soft and mobile skull bones and the membranes of the head. This led to a narrowing condition called internal rotation of the temporal and the parietal bone. The internal rotation restricted the jaw, which osteopaths and CST therapists see as four bones (mandible left/right and maxilla left/right). This restriction in many cases hinders tooth growth and can lead to TMJ (joint between head and jaw) problems. I told Ami Shamir about the migraines I had during my childhood. He checked the temporal bone which was indeed rotated internally and the left pelvis was forward too. He massaged the scar on my back. After the massage the neck was freer and the left buttocks as well. The pelvis was not forward anymore. He then did a craniosacral treatment while I was lying on the side. When he saw the big response, he realised that the dura mater (membrane around the spinal canal) must be involved. This was a discovery for him too, that by treating my spinal cord with CST, many of my structural issues spontaneously reacted and started to release. At that time he had studied osteopathy for five years.

Immediately after that session I could sing with much less interference of the jaw and I immediately managed to sing with more breath support. My chest felt open and I felt a great freedom when singing.

The work with Ami then took a new direction. After this first big release, he continued to work with CST on my spine and head. For the first time I felt that the changes had stayed and that my singing was benefitting directly from the physical work I had done.

A second turning point came when he worked with me in March 2012.

³⁴ method of assisted delivery from the birth canal by placing a cup on the baby's head, creating a suction and pulling it out

Again my pelvis and diaphragm were restricted and my whole body was bending to the right. I felt unbalanced and had pain in my lower back.

We talked about my teeth and the extensive braces (orthodontic tooth device) I had during puberty to correct them. He said that my tooth position had to do with the pressure I had sustained at my birth which was applying force in a forward direction on my jaw and teeth. When braces are put in the mouth that will apply force in the opposite direction, the pressure has to go somewhere else. He calls this 'putting trauma on trauma'. This can cause symptoms for example in the neck or headaches. (I had strong headaches at least twice a month as long as I can remember)

In osteopathy there is a theory about the relationship between the inner organs and the teeth. Teeth and organs are connected via the body fasciae, which means that a disorder or stress in an organ is reflected in the weakening of a certain tooth. For example the canine (third tooth to left/right from the middle of the upper jaw) is connected to the liver and stress on those teeth can be reflected in the liver and vice versa. The liver is anyway an important organ in osteopathy and CST because it is the first organ of the embryo that gets blood and it plays an important role in the embryological development.

Ami Shamir worked with craniosacral therapy on my liver (which is sewn to large parts of the diaphragm) and abdomen and it relaxed everything, I could stand up much more straight and sing much better once again. The released liver allowed my diaphragm to perform the whole cycle of inhalation and exhalation and that gave me immediately more capability to support my sound.

Ami Shamir used CST techniques to release tensions in my pelvic floor, diaphragm, my temporal bone, my sternum, my sacrum, ovaries and more. After these treatments, I could almost always see a direct influence on my singing. I had more space to breathe, thanks to a free diaphragm and open chest. I could support more because of a free pelvic floor. My jaw suddenly could release and my face generally stayed much more calm when singing. This helped my articulation. I also felt that I needed less effort to stay standing on both feet without leaning on one side.

Ami Shamir also uses visceral osteopathy, which is another component of osteopathy that works with the inner organs and also other therapy forms. He sees CST as part of osteopathy and uses it a lot with singers' problems. He also uses the mental aspect of singing a lot and helps the singer to direct the body with the mind. However, for me CST has made a difference and has been a support on this journey which of course consists of different aspects.

With craniosacral therapist **Liliane Fehlmann** I had some sessions after I had first heard about CST from Ami Shamir.

Here I give a description of my first CST session with her:

Liliane Fehlmann asked me about my birth. My mother was present and could tell about it: Everything seemed fine but at a certain point the birth process got stuck and couldn't go on. Because of the danger of me suffocating they then pulled me out with vacuum extraction. My mother experienced this as very violent and uncomfortable. I came out blue and with a deformed skull. Till this day I can feel a little dent on the right top of my skull. Mrs Fehlmann showed us on a model how the vacuum extraction is done. The round suction cap is put mostly to one side of the skull. Through the pulling and the twist there is a lot of pressure on the skull, the neck and the whole spine of the baby.

My mother told us about my many cramps when 3 months old, I cried a lot (stomach cramps) and later I had some very severe migraines. When I was around 4 years old I squeezed

through our garden bench, bent over and my whole back was open. I had this same accident twice, with two weeks in between.

I asked Mrs Fehlmann if she could talk aloud during the therapy session about what she was feeling, so that I could follow the process consciously. I lay on the table. She told me that the therapy always starts at the feet. She would gently lay her hands around my ankles and then wait. Our nervous systems should come in contact. After a while I didn't feel anymore so clearly where the border was between her hand and my leg, so a kind of melting took place. She explained that each touch stimulates, agitates the nervous system and after a while it will calm down and accept the contact and that was when the process could begin. She told me that she was "Listening with her hands" to what was going on inside my body. She then came to the head and gently again placed her hands on different spots. She asked me how firm (3 levels) I liked the touch and I chose the firmest one.

At one moment I felt a flowing stream of energy upwards to the right out of my head, a tingling sensation. Then, without me telling her what I felt, she said that she felt it too. Suddenly it was as if this upward channel became wider and sank down to the middle of my head. She gave the same feedback. Realising that she could actually feel from the outside what I felt inside, I found quite remarkable. She had released some tension in my skull.

A few days later, as I was telling a friend about it I touched the side of my head unconsciously and to my surprise I noticed that the dent in my head had diminished drastically. I was very surprised and curious that even bones could move with just a soft therapy form like this.

I have since had several treatments with her. She explained to me that she is concentrating on the *biodynamic*³⁵ approach of CST, which does not only include addressing structural issues of the body but is also about perceiving feelings, images, emotions and spiritual processes. Often therapists make a progression from the most structural medicine, via osteopathy towards the more intuitive, not the other way around. Although I cannot completely grasp or analyse what exactly happens in those sessions, which is why it is not further mentioned in this research, I still got a sense of how deep and broad this subject is and it has certainly awoken my curiosity further.

I also did two courses of Alexander Technique with **Fiona Tree** at school which were very helpful because they sharpened my awareness of my body. I still felt strongly that what felt "straight" from the inside, was in fact "crooked" from the outside and realised that habits are very strong as they feel natural to us and are not easy to undo. I realised that I did a lot of additional compensating movements that were not beneficial for my singing. I still do some of the exercises of Alexander Technique and find them very helpful as a warm-up for my body.

What effects did CST have on my body and how has this influenced my singing?

In my case CST has definitely given me a big change and released some restrictions that I had had all my life. With pure structural osteopathy they kept coming back, I think because they were not addressed at the core. In the singing lessons I struggled, because I tried to undo my "bad habits" but didn't manage to. Alexander Technique also was not enough for me, because I felt I could not get to the cause of my problems and therefore also couldn't yet profit enough from the inputs I got in those lessons. With CST the biggest relief and most lasting result was

³⁵ form of CST influenced by Franklin Sills

achieved. I am also convinced that CST supports the whole process I am in with my body. Once some of the trauma caused for example by the vacuum delivery that had put a lot of stress on my spine and neck had been released on the craniosacral level, the structural level of bones also stayed in a better position, my muscles relaxed and I had more freedom to use them in the way my singing teachers and alexander coach tried to teach me.

Ami Shamir said that “a dysfunction always stands on several legs”, meaning that there are different angles to work on a problem and that sometimes one approach is not enough, because the dysfunction has several causes or is caused by a chain reaction. I feel that CST has given me an angle that was most useful with my specific issues.

My whole posture is more balanced. I have the feeling that I don't have to struggle and fight anymore to stay upright and sing. My body feels more grounded and powerful, yet less tensed, especially in the belly area I discovered a new softness. My breath has become easier and more symmetrical. My jaw and tongue respond much better and can move more freely. I feel that I can sing a phrase the way I imagine it, with support, line and more sound.

Breath

- Longer, can sustain long notes and long phrases
- Can move with more ease

Sound

- Freer
- Can move through the passaggio
- More colours
- Richer
- More volume
- Carries better

Articulation

- Is easier
- More flexible
- Vowels don't get stuck in my throat
- Words don't obstruct the musical line

Artistic Expression

- Intentions come across
- Can show different characters
- More powerful on stage

Of course I cannot say that all of these changes are directly connected to CST. They are results of a total of different influences I had over the last years: singing lessons, practice, life

experience and the physical therapy and CST that I have done. But I am convinced that it is thanks to CST that some of my long-term tensions could be released and the technical and artistic progress was made easier.

Where am I now with my singing and as a performing artist and where would I like to go from here?

I am very thankful for this journey. I have gained more knowledge and control of my instrument. This has given me confidence and contributes to the joy I have when performing. It gave me a kind of *peace* with my body. I feel that I have more trust in it and its abilities. It is a very pleasant feeling to be standing on stage with trust and a calm body. I would like to build this trust further. I still need to be conscious of my neck and jaw and make sure I don't 'reach for sounds' with my mouth in order for my articulation to be free of the jaw. While still developing the technique and taking care of my instrument, I would like to be even freer in my musical interpretations and to let myself be guided by the artist in me and dare to follow my artistic intuition.

When singing as a soloist, I feel that the new peace with my body has given me space to play more with the music. It allows me to be more in the moment and while still feeling my nerves, I feel that I am no longer afraid of losing total control of my instrument. I don't have to hide or be sorry to be on stage, I can share the joy of making music.

When singing in ensemble, the technical progress I have made has also given me more tools. I feel less tired after a day of rehearsals and more able to sing with good breath support.

5. Conclusions

Looking back

This research has given me confirmation that CST can be a valuable help for singers, because of its capacity to give more space to the respiratory, phonating, resonating and articulatory systems in the body. I have understood the link between restricted transverse structures (e.g. diaphragm) and the craniosacral system, and what a difference a release of these restrictions can have on a singer's body. CST has effective techniques to on one hand support the process of **becoming more aware** of one's body, which has great benefit for a singer's development, and on the other hand helping a singer who feels stuck or frustrated in his technical progress **detect and release physical obstruction**. I have come to understand why CST has made a big difference for me and my specific issues of which some go back to the day I was born. (e.g. effects of vacuum extraction) CST works as a part of osteopathy and integrates well with other aspects of a singer's physical training, such as Alexander Technique, Yoga and functional singing lessons.

After this research I don't suggest that all singers should do CST, but I definitely would like to contribute to its reputation among singing teachers and students as a valuable support in cases of a singer:

- who wants to become more aware of the body
- who has pain during or after singing
- who has over a long period of time trouble with certain physical/technical aspects of singing (e.g. tensed jaw, tongue/difficult articulation)
- who feels he/she has not enough breath, breath support
- who becomes overwhelmed emotionally in combination with breathing/singing
- who has undergone surgery
- who has had an accident
- with recurring ear infections
- with frequent headaches
- who has had orthodontic treatment, tooth correction (braces)

During the period of my research I have started to use my hands. I wanted to try to 'listen with my hands', to become familiar with the technique that CST therapists use for diagnose and treatment. To develop the sensitivity of my hands I have first started feeling my own pulse and visualizing it as a graph. I then started to feel other people's pulses and compare them. I put my hands on people's bodies and waited until the border between my hands and the person's body became less clear and a kind of 'melting' took place. I felt the pulse and the breathing movements. After a while I started to perceive also a kind of 'floating' sensation, like slowly moving liquid – I had the image of one of those lava lamps of the sixties – and just tried to feel without analysis or judgement. I felt the craniosacral wave, not as distinct and regular as a breathing motion, but as a gentle broadening and narrowing of the tissues beneath my hands. Usually I would start holding just above the ankles, as I have experienced it in treatment sessions and then try other hand positions, e.g. under the sacrum, on the head or on the neck. The good thing is, that even without training or medical knowledge, the touch would relax the person and their breath would become deeper and calmer, almost like in a meditative state. These sessions also had a calming effect on myself and I felt how thoughts faded and I came more into the moment. With some positions I felt that my hand was glued to the person's body, attracted like a magnet and although this is all very new to me and sounds so vague when described, I started to feel more and more movement and perceived the body in a new way: more soft, like a big bag of water, with bones and structures in it, but all connected and all very much alive and moving.

Looking forward

This research has given me answers to my questions, but most of all it has awoken more curiosity in me. I feel that the more I understand about CST, the more I want to know. There is on one hand the structural knowledge about the human singing body which includes anatomy and CST techniques, which I am well aware - even more than before - will take me a lot more time and study to understand fully. What fascinates me about the anatomical knowledge is realising that the body has so many connections and functional interrelationship between its structures. For example: Why has the treatment of the liver (which Ami Shamir does frequently on singers) relevant impact on a singer's breath support/articulation? I know now that the liver is sewn to a big part of the diaphragm and that it is connected with the canine teeth (upper jaw, third teeth left/right from the middle). Its treatment can therefore be relevant for easier breathing and articulation of a singer. What an amazing discovery! It is these connections, that I have not yet managed to grasp fully, because of my lack of medical knowledge. At this point they appear to be almost magical, because I don't understand them,

but nonetheless I have felt the impact of treatment on myself and read about them. Osteopathy has studied these connections and has answers to my further questions. And CST has a gentle way of using those interrelationships in the body for diagnosis and treatment.

There is on the other hand the self-experience that I have made. Although I cannot at all manipulate or treat specific conditions as therapists can, I got a taste of how a connection with a person's body can be made through palpation and how many things my hands can perceive if given the time and unprejudiced attention. I would like to further train this awareness and sensitivity of my hands and learn through these experiments as well as through literature and study. I can imagine, at a later point in life, studying osteopathy/craniosacral therapy and specialising on the singing body. I believe that CST is of great benefit for singers or other vocal artists and that there also is a market for this combination: singing – craniosacral therapy. With this path I hope to help vocal artists overcome some of their physical obstacles and contribute to happy, conscious and healthy singing careers.

6. Appendix

List of sources

Literature

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- “The Performer’s Voice”, Meribeth Bunch Dayme, W. W. Norton & Company, 2005
- “Netter’s Atlas of Anatomy for Speech, Swallowing and Hearing”, David H. McFarland, Mosby, 2009

Weblinks

International standards of professional craniosacral associations:

IABT: www.biodynamic-craniosacral.org

BCTA/NA: www.craniosacraltherapy.org

CSTA/UK: www.craniosacral.co.uk

Cranio Suisse®: www.craniosuisse.ch/fr/

ACSI: www.acsicraniosacrale.it/site01/index.php

Interview transcriptions

Gerda van Zelm

Interview with Gerda van Zelm

Den Haag, September 2013

1. What is for you the “ideal singing body”, the ideal instrument?

For me the ideal singing body is a body that is free to deliver the vocal works of art with ease and energy - this actually applies also for life in general and for all the things we use our bodies for (sport, or even just walking).

2. What were your first observations you made about my body when you met me?

I noticed that singing was obviously not easy for you to do. I saw that there were good musical ideas but that they didn’t come across, because the body was obstructed. I felt your intentions, but at the same time I saw the struggle you had to get them out though your singing.

3. Identify the physical obstacles that you noticed when I was singing

1 There was a shortening of the neck and for that reason you had difficulty with articulation. Your text was leaning a lot on your lower jaw.

2 Your body had a twist and moved off the centre to one side when you were singing.

3 You used almost only on the front of your body. The inside and the back of your body were not very much in the picture.

In general I felt that you were keen to do the teachers advice but that your own connection with your body and your own feeling for what you needed was not yet so well developed. That was a reason why you didn't progress so fast.

4. What influence did these physical obstacles have on the different aspects of my singing? (breath, sound, articulation, artistic expression)

The breath was rather short; it was hard for the breath to feed the sound.

The sound itself, though it could be pretty, was rather small and did not carry so well. You had problems to sing though the *passaggio*³⁶.

The articulation was stiff. It seemed difficult and with a lot of effort.

This whole package gave you not as much freedom in *artistic expression* as you would have liked to have.

5. What was your approach to help me to improve?

The mental aspect: I wanted you to become the owner of your singing, you did what the teacher asked but did not make it your own. I tried to challenge you to find and feel what would be better for you.

The Technical line: We worked on head posture, neck, and jaw. We did a lot on a different, higher and lighter articulation. We worked on seeing the body as a total, standing on two legs, thinking more in three dimensions and being more open.

6. What changes did you notice over the past 4 years in my posture and body?

You are more with your body and in it, it's more your body. You live in your body. Your body is much more straight, you find grounding much easier. You don't move to one side anymore when you sing. You know your body much better; you know how to play it - use it as an instrument. The position of your head and neck are much better, the jaw is much more loose. Articulation is flexible and your breathing has become so much better.

7. How did these changes influence my breath, sound, articulation and artistic performance?

The breath is longer, it can be taken and released easier.

The sound is much freer, you can now sing also through the *passaggio*, you have more colours, richer sound apart from being louder as well.

³⁶ a term used to describe a certain pitch range (passage) between a singer's chest and head register

The articulation has become much more flexible, the words can come out with more ease. Your inner musical line is running better, so the phrasing is more flexible.

The artistic expression is much more free, your intentions and expressive intentions come out in a much better way. You can express how you feel the music should be expressed.

8. What issues (physical and artistic) do you think I could/should improve and focus my attention upon over this next year?

You should keep on working on not reaching for sounds, physically. Imagine that you start singing low, even when the sound is high. When you learn new pieces you still have to work to have the articulation free from the jaw, you can do that work yourself now. Artistically, I think it is now a matter of making kilometres, learning the repertoire you want to sing and having confidence that it works for you. The things that you are doing, you have to continue them and by repeating them, they will become easier for you and some of this work never stops. Every new piece challenges you again.

9. What problems with their bodies/tensions do a lot of students have?

Generally I can say that there are two big groups of students: One group of students has too high tension; they often sit too high in their body. And the other group has too little tension; they are heavy and lean on the sound. And some students have in some parts of their bodies too much and in other parts of their bodies too little tension. Another problem is that voice students think that their body creates the music, so they make all the time distracting movements, which are actually obstructing the free delivery of the music. They often do those movements in the pulse of the music. In general we human beings, we don't know our body so well. We have little knowledge of how the body is meant to function and how it is organized. I find the work of Ami Shamir (Osteopath, Body Therapist) or Fiona Tree (Alexander Technique Teacher) very important. We have little knowledge about our body and are often totally subjective. The singer IS his instrument, so a singer usually notices the consequences of a blocked body earlier. Even though I think it is important for anybody to know the body and use it in a proper way.

To name some common difficulties I start from the bottom up: There are a lot of people who don't really stand well on their feet and on their legs. I see many pelvic regions that are not active enough and many upper torsos that are not up and open enough. I see many stiff shoulders and necks and I see many articulators (lips, tongue, jaw, soft palate) that are used either too weak or too strong. In general men tend to be even a bit more in their head than women. Although we are all very much in the head, men generally know their bodies even less and tend to be uppish in their body. Women are a bit more connected already just because of their monthly cycles.

10. What do you recommend students to do, to help them with their instrument, apart from the singing lessons at school? (Might be different things according to the sort of problem a student has)

Rita Dams once told me that she recommends voice students generally to do two different things with their body: one softer thing and one more energizing thing. A softer thing could be Yoga, Alexander Technique, and Meditation. A more energizing thing could be any kind of sport that is harmless for singers. I recommend in addition healthy lifestyle, - no smoking. I think it is important for the students to learn how to study and how to divide their energy.

In the lesson I also consciously work on the body with some students, to let them come home in their body or let them discover what sort of body they need to sing.

11. Did you yourself also have particular difficulties with aspects of your technique that were related to your physical condition during your studies?

Yes, though I did a lot of sport, I did not know my body so well. I had a lot of tension. I was singing from childhood on, so I built up many bad habits, which were very well trained in over time. I had a lot of pressure on my jaw, on my tongue and so on my larynx. I was often rather collapsed in the upper body.

12. How did you overcome these difficulties?

It was a mixture of good advice from voice teachers but also at a point I started looking for answers myself. I started reading books and started trying things differently. I did for instance an alexander course with Nelly, which gave me a lot of insight. I was also reading the book of Alexander. I was observing other singers a lot, so see how they were dealing with their body. I talked a lot about singing with colleagues, singers as well as teachers. The most important thing that I learned over the years was that learning to sing is not learning to do a number of movements that create singing but actually it is to uncover the inner wisdom that the body actually has about how to sing. As a voice teacher you need a lot of knowledge about how things work. But the thing is that you don't need to put all this knowledge into the student, but rather use it to let the student discover his instrument himself. Use the knowledge to encourage him to learn about the laws of the body and how to use it. People that are talented for singing have this singing ability and when they have voice lessons, they may think that they have to learn a lot of new things. What they have to actually do is to find their own singing in their body. They have to uncover the ability, train it and make it available. Learning to know the things that are there, not so much learning new things. Often students just have to "unlearn" a lot of things. I try to work with what is there and looking at how to use it.

13. Have you had experience with Cranio Sacral Therapy yourself? Have students of yours made experiences and did you observe effects of these treatments?

No, I don't have experience with it. I have never heard from it until you told me about it.

Rita Dams

Interview with Rita Dams
Den Haag, January 2014

1. What is for you the "ideal singing body", the ideal instrument?

For me the body is the palace in which we live in our lives. The ideal singing body for me is the body of a person with a healthy mind and positive energy. And it is someone who has a good contact with his own body and mind, who knows his body, who takes responsibility for his palace, his house. Ideally it's someone with a healthy spine. With a good muscle tonus, not too much tension not too slack. It is a flexible body and a body with healthy lungs.

2. What were your first observations you made about my body when you met me?

3. Identify the physical obstacles that you noticed when I was singing (one answer for two questions)

My very first observation was that there was nothing special. I saw a normal beautiful woman, a normal healthy body. Very soon during the teaching work I then saw that your *neck and spine relation* was not good. There was an *unevenness in the hips* and one leg seemed to be longer than the other. There were always *issues with the jaw*. For me in general the *spine* was out of balance. I think that you tried very hard to compensate it and that made it not better. It stiffened up another part. It was too complicated for me to handle it. The *sternum was collapsed* and the *back was not open enough*. There was a lot of *stiffness*. In the first audition, your *neck* was so crooked that I thought: "*Her larynx can never hang free*". The *neck was pushed forward* with tension. When you took a breath there was a strange *twist to the side of your hip*.

4. What influence did these physical obstacles have on the different aspects of my singing? (breath, sound, articulation, artistic expression)

Of course it has a lot of influence, because there is a big problem. *Breath* flow was inhibited, because of it. Speaking of *sound*, it was almost impossible for you to move through your passaggio. You could hardly get to the natural high voice. The *artistic expression* was blocked by the technical problems. Articulation was far from easy, because of tongue issues. You could not let go air. It involved all of the singing system. We discovered that there is also a low voice, but then you could not get up into the high register anymore. Then we started to go from over the passaggio. Then some humming exercise worked but on a vowel it (the sound) still fell backwards. When the body was blocked, the sound went away. It was difficult to come to more than mezzo forte. The sound itself I always found beautiful. The quality of the voice I found always beautiful.

5. What was your approach to help me to improve?

I tried to make you aware of the body. And to make clear that we, I and you, needed help of physical therapists. I knew with what I knew and my experience of teaching, if you meet someone with good brains, good energy and good will who tries to do it and it still doesn't work, there must be something fixed. If you would have been a weak person, you could not have handled it. I liked the instrument, remember like a Stradivarius and thought: "if she can get rid of the obstruction then I believe there is a good musician in her". I do believe that she can find a good professional place. I felt there was always a progress going on, I could not give up.

I sent you to Westhovens (osteopath) and recommended working with Ami.

6. What changes did you notice over the past 4 years in my posture and body?

You could stand up more open, without being so stiff. The jaw issues I saw gradually disappearing more and more. Legs and hips are more equal. The relation of neck and the spine is better, there is more tall neck and tall spine. I see an open but soft front side.

7. How did these changes influence my breath, sound, articulation and artistic expression?

Positively, certainly for breath and sound. For sure also for the articulation. Indirectly it has also a big influence on the artistic direction. I think though that artistic direction and articulation have also a mental aspect, you cannot blame everything on the body. The mind is even the best conductor.

8. What issues (physical and artistic) do you think I could/should improve and focus my attention upon over this next year?

I would like you to take more artistic responsibility. To keep on checking the jaw and neck relation. Mentally, I think you have to work on different aspects of your personality. So that you are not as an artist just one person, but several aspects: “how frech (*german for cheeky/bold*), how soloistic do I dare to be?” And I know you have a lot of possibility there, because you showed it already. And I think you could have so much more satisfaction if you take your own responsibility, both vocally and artistically. Let yourself be guided by the artist, the rest will then follow.

9. What problems with their bodies/ tensions do a lot of students have?

Stiff legs and knees

Tall people collapse, small people make themselves taller

Not an open back, no open chest

Stiff shoulders

Jaw issues

Natural tension of diaphragm, the consciousness of a simple breathing apparatus is difficult, mainly because we don't see it, but also because it is connected to emotion. I try to not fix something if it is not broken, but sometimes you do break something.

10. What do you recommend students to do, to help them with their instrument, apart from the singing lessons at school? (Might be different things according to the sort of problem a student has)

In general I recommend something soft that works on inner balance and something high impact to make the heart and lungs work, to give energy and stamina, especially for young bodies. To move the body is immensely important.

Logopedics

Haptonomie

Meditation

Yoga

Alexander technique

Feldenkrais

Osteopathy

Dancing

Swimming

Walking

Running

Sport in general

Osteopathy I only recommend to people who I feel have problems that I cannot deal with. Ami is a different case, he is a kind of horse-whisperer for human beings. Osteopathy I would recommend to people who have real physical issues, pain. Sometimes you meet people with basically a healthy body, but there is no muscle tonus, no connection, no awareness, not any real awareness. They don't live in their bodies. I recommend then for instance the yoga class.

In the yoga classes I am sometimes shocked how stiff those young bodies are. If people have a stiff personality I recommend salsa.

In general it's important that people do something they like. To work with the body makes you realise how much you can achieve, how much you can overcome.

11. Did you yourself also have particular difficulties with aspects of your technique that were related to your physical condition during your studies?

My knees, the cartilage bone is through. Four years ago the orthopaedic doctor asked me, can you tell me what you can do? He was surprised what I still can do. I was a bit depressed, it hurts so much the right knee. Then I just thought, I am not letting this knee be operated on, because an artificial knee doesn't hold for very long. For the second knee, the surgery is very complicated. I will go as long as possible with these knees. I accept it. I always feel it, it always hurts. Just accept it, it is a challenge. If I meditate well I don't feel it.

I was during the time of my studies not so aware of it. I was always intrigued by physical activities. I was not so aware as I am now. I was never really commented on about my body. Nobody mentioned it.

If you are not aware of the problem, there is no problem. But if you are aware of the problem but don't do anything with it, you have two problems.

If you have to make a choice, how do I feel about something. If people don't know what they feel, then often people don't have a feeling for the body.

I had one remark as a student: I should sit still for 10 minutes on a chair. But it was not explained why. I didn't understand. Now I understand meditation but then I didn't understand why I had to sit still.

I wasn't helped with the problems I had. Once someone presented me in a masterclass as a "perfect example of how a singer should be breathing" but I had no idea what I was doing. When I started thinking about it, it got difficult. I had a thing in my neck, to relax my larynx to go through the passaggio was difficult for me. They only said: "stand straight."

12. How did you overcome these difficulties?

I was anyway always interested in the body, I did yoga, Alexander Technique, aerobics, haptonomie, logopaedie, feldenkrais, salsa. I wanted to understand.

13. Have you had experience with Cranio Sacral Therapy yourself? Have students of yours made experiences and did you observe effects of these treatments?

Ami. And the osteopath Dr. Albersen here in Den Haag helped me, but he is not as good as Ami. Sometimes after a treatment of Ami I heard the most free sound ever in a student. As if all the channels were open. Is it something mental, physical or a combination? But I hear it

every workshop, that really physically something changes. Ami also uses that mental aspect, going for the power of a person, then mental and physical come together.

With Cranio I find it difficult to know who is a good therapist.

Ami Shamir

Interview with Ami Shamir
Den Haag, November 2013

1. What is Craniosacral Therapy?

Cranio Sacral Therapy for me is the rhythm of life. Is the inner beat that exists beyond the inhalation and exhalation. Is the vitality, is the energy flow in other alternative medicine approaches as I understand it. Just what is beautiful in this, is that there is structure for the spirit. Because it is spiritual thing but there is a real structure. There is law, there is structure. And I think like in a piece of Johann Sebastian Bach you get into spirit because there is a fixed structure, very fixed and old structure and you get somewhere even while reading it even without singing. While reading the text you see the beauty, you see the rules, you see the mathematic rhythmic in it, so this is what I feel about Craniosacral it's like to ride on a, when it works, it's really like to ride on a horse, it is beyond our existence, it's something eternal. This is the spirit that goes away, while we die, this is the spirit that goes away. And still it is at the same completely spiritual and at the same time completely practical, rules, structure, anatomy, physiology, medical ratio. This is for me Craniosacral.

2. How did you come in contact with CST?

First I came in contact with osteopathy and then it was part of my school, the craniosacral field in osteopathy.

3. What do you find special about this therapy form?

I think that osteopathy should contain all. It's not that Craniosacral is more important than the technique to manipulate L5, S1 (*lumbar vertebrae Nr. 5/ sacrum*). It is ridiculous to say that this is more important or that this is more important. In a way I feel that Craniosacral is more important because it is the core of the things. But still if we neglect the structure, again we can fall into trap. We cannot think that Craniosacral is the whole picture. Full osteopathic treatment should contain all the osteopathy fields, that deal with the CST, the meninges and the membranes along the spine and it should contain then all the nervous system obstacles that we see, and then it goes to the inner organs, to the visceral organs. Then we must see if there is a change for example L5, S1. And if there is not enough change, we should do also the crack (*adjusting the bones with osteopathic manipulation*). Even though from my experience I see that when the craniosacral parameter and the visceral parameter - when I do it with enough time and with enough depth, it is solving sometimes to 100% structural obstacles. But still I should check it and sometimes we should maybe as in addition do this crack in lumbar spine or thoracic spine. I have to admit that I do it less and less. Because I have less attraction to do it. And I see that the slow treatment like visceral and craniosacral slowly but more surely can solve these structural obstacles even more efficiently. Because when one does the crack and with the liver he didn't finish to do

the whole journey that the liver demands, the vertebra will come back slowly slowly, after a week, after two weeks to its wrong place.

Also, visceral osteopathy and cranial osteopathy in its softest manifestation is more humble. Because it is joining something very intimate, very much deep and inside, and waiting that this will change the out structure. So I am not coming to force the structure to change for better, I just invite the inner organs to change for better, and the outer structure will follow and change for better. As you noticed now with the technique to the liver that made vertebrae number T6, T7, T8, T9, (*thoracic vertebrae*) more mobile.

4. With which conditions can CST help?

Migraines, tinnitus, simple headaches, recurrent ear infections, recurrent sinusitis, deliveries defects or damages, babies' problems - like reflux, problems of sleep, of sucking milk, again recurrent ear infections, weak immune system in general and singer's problems!

5. Which parts of the body are especially important for singing?

At the moment I feel that the motor of everything is the liver, but this is the point in which I am. But it is very important. Because it is so big and heavy on the diaphragm. It's the only organ that is really tied, sewn to the diaphragm, and a big size of it. All the right side and half of the left side maybe. No, let's say just on the right side, it is also on the left side but it is sewn just on the right side. And then we come to the vagus nerve, which is the nerve of singing. It innervates the lungs, actually the second name of it is pneumogastric nerve, so it is also gastric, also pneumo, and it innervates the chord, the vocal box. For sure the relationship between the mandible and the vocal box and the hyoid bone is important. For sure all the interval between chin bone and sternum bone and chest bone, there is a lot to do there, but always with awareness of what is going on in all the body. Very important is the pressure that we have between C1 (*highest cervical vertebra*) and skull. We have the nerve to the tongue nerve nr. 12, the jugular foramen is one of the most important things for a singer, because we have the vagus nerve going out from the brainstem, the tension, we have there also the accessory nerve number 11 that is innervating the trapezius and the sternocleidomastoid. Actually, if one wants to help a singer without any medical knowledge a gentle trapezius and sternocleidomastoid massage will always do good, very gently though. By the way it can help also in stress or mental disorder to relax the trapezius and the sternocleidomastoid. And also a little stretch of skull from C1, if you do this to a friend, like not too much, but in a completely unprofessional way, you find him after half an hour in a different situation. Of course this is a symptomatic approach- because of course it doesn't mean that this is the source of things, but this is involved with blocking the things.

6. What problems do a lot of singers have?

A lot of singers have a problem of being too much up. They forgot that, they think of the throat, the jaw, the articulation, thoracic diaphragm etc. they forget the genital diaphragm that is maybe sometimes more important for singing. Because this is also component of support for inhalation and exhalation. And the genital diaphragm is working completely together with the thoracic diaphragm, when one is blocked from obesity, genital problems, old operations/scar tissue there, then the genital diaphragm

is hardly following the thoracic diaphragm in exhalation, singer doesn't have enough support for the long sentence, and then he is lifting the shoulders and compressing the upper part of the body to squeeze for more support and more air. And for sure it is a vicious cycle in which slowly slowly he neglects the dead part, the comparatively dead part in his body or sleepy part in his body and it becomes even more sleepy. for sure it contains also emotional things, when we think of neglected pelvic floor/genital diaphragm. But the most important thing when I come to work with a singer is not to put my theories on her/him but to check very well about the history of the student and from this history to start examining him and treating him. Not from the theory of how a singer should stand, should breathe or should be in general.

7. How can CST help singers?

In allowing the mechanism to work with less and less obstacle as it should work. If I make together the knowledge how the breathing system is working, how the singing mechanism is working, where is the inhalation for the singing mechanism where is the lymphatic drainage from illnesses in the lungs, in the upper respiratory tracks and so on. When I make all these things together, I watch the history of the singer and then I know where I should concentrate and where I should fix. And I know where I should find a result, if the correction was enough and if the correction really was on the right place. Sometimes I have the idea, from the history of the student that this and this should be fixed and I come to the point of the larynx and I see that there is something that I didn't find, some secrets, and I should further search, what did I miss. Or maybe he is hiding something from me, some medical secret that he is shy to tell me. For example people don't like to tell that they did a face lifting, breast augmentation or reduction as they want or eyebrow lifting or other plastic surgery people are shy to tell. It is crucial for the singing system these so called little aesthetic operations. With the craniosacral I can change the TMJ³⁷-condition, from day and night. From a completely blocked right TMJ joint to make it 90 % free, And this because the thing that is unique for craniosacral, that craniosacral deals with the mandible and with the temporal- and craniosacral deals with it as a moveable component and when you do a physiotherapy for the TMJ joint, then he treats mandible and the muscles around, and with CST you fix the tentorium cerebelli³⁸ and then you are having a freer temporal bone and then by itself the muscles become free you even don't have to touch or massage the muscles. Suddenly it becomes free because the temporal became looser. Which is really still something between pretentious idea and miracle but it happens. Every time I watch it and see that it is really pretentious to move the temporal bone and the occiput bone, but it just happens. And also when..

It is hard to show and to prove. To show with my hands, like to check first the temporal and then check second time the temporal and see the difference. If someone is enemy for these ideas and it puts a threat on his idea, he will not feel. But if he will be quiet and relaxed I can show the change easily. They would not like to see it, but it is easy to show. Like when I with parents, when comes to me a baby or a little boy, I show them, I ask them with the fingers to feel things in the head and then I do something and I ask them to feel again and then they feel the difference. Without any experienced hands. There is a difference with kids but also with adults.

³⁷ Temporomandibular joint, joint between mandible (upper jaw) and temporal bone (skull)

³⁸ sheet of tissue in the brain, extension of the dura mater which separates different parts of the brain

By the way the age of students for singing, this is not yet adult for me. Like I see the changes that can happen with 20- 30 years old young people, there can be big changes, the system is not yet so complicated and “kaput”, like sometimes with people with the age 50 or so on.

Very important thing is the orthodontic devices, are very bad for singers, very very bad. unless it is completely necessary for first, second and third opinion of medical authorities but then one should do it with the aid and support of an osteopath, especially through the correction but even sometimes more importantly after the correction ends. Then the osteopath can bring the skull parameters back to harmony and normalization one by one.

Stefanie Hoffmann

Interview with Stefanie Hoffmann
Hamburg, 30th of July 2013

1) What is Cranio Sacral Therapy?

A method, to help the client feel his/her body. And to palpate unbalances, to find structures that might need some attention. And then giving some help to the body in order for it to find its balance again where imbalance was.

Of course this can be said about other physical therapy forms too, so what is special about Cranio? I always like to tell about the rhythm of the dura which is the starting point of the cranial wave. So the brain and the nervous system are wrapped in a sleeve of membranes that is filled with liquid. This liquid has its own rhythm that is palpable and measurable. So this “wave”, named like this by cranio therapists travels through the body and can normally be felt in every part of the body, more or less strongly. So we use the observation of this wave to find unbalances. And then try with accompaniment of this wave, or by giving impulses to help the client let movement happen again in places where there were restrictions before or to help restoring calm where there was movement that was creating imbalance.

2) What is special with the Milne direction of Cranial work? Maybe in comparison with the Upledger direction?

My main osteopath to whom I go since many years, is formed at the Upledger institute and also teaches there. That is why I know the work through him, but he of course has also done other things and is offering a mixture so I cannot tell exactly what exactly IS the Upledger-direction. What I find special about the Hugh Milne course is that he has again and again pointed out that the techniques are not important, but still we have learnt them. He has stressed that other things are important, like: the intention of the therapist, the sensibility to find out what is important, what is important now, to feel which body part the therapist has to touch and which one the therapist shouldn't touch. He has a protocol of techniques but he welcomes it when we break the protocol if we feel that something else is needed. This feeling of “what is important at the moment”, no schemata but client oriented, listening to one's intuition and forming this intuition, that was part of the education. To educate the awareness and intuition we had some courses. Always to accompany with words, if needed, to see where does it come from? What is happening on a psychological level?

Hugh Milne is Scot, but he lives in the US. He comes a bit from another string of osteopathy.

I have had sessions with other Upledger people, I found them a bit more technical. Maybe my therapist is special because he also does Gestalt, or other things about which I don't know. With the other Upledger people I felt that only the body was treated. I didn't go back anymore. The biggest thing that once happened was: I had whiplash because someone had hit my head against a wall. So I was also psychologically very upset. The therapist was treating me and then I started crying. I had told the therapist that I was shaken and upset and that I had troubles sleeping. When I started crying she took her hands away and said: "Does that happen to you often?" And then she went out. So she could not handle it at all. If you have done your education with Hugh Milne there are lots of people crying, and it is ok to go through these processes. Because when you treat someone sometimes you have to be able to tell if what is happening is your own thing or the thing of the client. Empathy mirror etc. But it is possible that this lady did one little course with Upledger and was otherwise physiotherapist, so I don't know if it is because it's Upledger or was it her as a person who couldn't handle something like that. Many therapists practise a mixture of therapy forms.

3) What is your mix? How did you get to cranio?

I have received treatment myself for many years. I have tried different bodily therapies. Because of health problems. In Salem I did, then I did Lunar-Solar Course with Renate Schulze-Schindler, they did also massage, I liked it, but CST is more structured. For me intuition and these things are more important but still, if I wouldn't have structure, I would swim. There are maybe people who can heal just with imposition of hands and who don't need anything else. But for me a structure helps. It has helped me a lot and I like the combination that body, mind and soul are treated at the same time. Because I had emotional problems that I have treated with physical therapy because with pure conversational therapy I was always so intellectual and talked about it. But with physical therapy I cannot intellectualize so much but I get more directly to my emotions. The osteopath and cranio guy doesn't treat inside the mouth. Then I had sessions with a lady that studied at Hugh Milne sessions and she did a lot in my mouth and that is where I discovered new spaces for singing. That has motivated me to do the training.

Did you do a medical basic course?

You have to prove 20 hours work in a physical therapy form, I could put Lunar- Solar and a massage course as my experience. But anatomy was then part of the training. It was not that easy.

4) You said you started because of problems, but not singer problems then?

Yes and no. Through singing I have noticed, at the Conservatory. My teacher worked on the larynx a lot, I felt that all was very stiff there and also connected to emotions that I couldn't place. So then I did some biodynamics and that brought me to this road of body therapies. The book "Heilkraft der Stimme" I read, so I came to Lunar Solar, that has helped me also a lot.

5) How did CST help you as a singer?

More space in the resonance. The flexibility in the upper jaw. Also more relaxed lower jaw. Probably it is fixed again and needs attention. I can also treat myself a bit but it is not the same as to receive treatment, but it helps. But already to get to know the anatomy was an aha-experience. At the academy of music the anatomy was a lot about the larynx but I don't find that so relevant because we cannot feel so much there anyway. But the palate, hard and soft, is much more aware and the resonance spaces, sinus can be much more consciously worked on. I learned a lot in cranio, how flexible it can be. The connection between neck and jaw, was no

topic at all before. A pity because it was very enriching. I think if I had had that earlier I could have developed differently.

6) What is the ideal singing body for you?

It should sound in a way that the singer likes it, feel nice, loose and it should be a pleasant body feeling.

7) Which body regions are important in the singer's body?

All of them! Well, diaphragm, for sure. Also a place that reacts a lot to emotional imbalances, the breath. Then also the structures around the diaphragm, so if for example my stomach is restricted then it also influences the diaphragm, so also if the duodenum (part of the intestines) is fixed that affects over the fascia. Also the pelvic floor. Like we had in the session. When the wave of the breath cannot travel up, then it's like an expander. What doesn't work down doesn't work up. So the connection between the pelvis and the jaw. All structures that have to do with resonance, upper and lower jaw, tongue, sinuses, larynx. But the whole posture is interesting. Imagine your reins are not moving well in your body, and that makes you stiff in the pelvis, then you don't have a good stand that permits the bounce effect, and worst case your lower jaw gets fixed and then you don't get in to your upper resonance spaces. So it is hard to say- these or these structures. Of course the vocal chords make the sound and the resonance amplify it but it is all connected with each other.

8) So Cranio would go directly to the reins? Through Cranio you would feel that it comes from the reins?

That would be visceral osteopathy. So as cranio you don't learn about the reins. If you are good and have studied with Hugh M maybe you find the reins. So I cannot say, I learned it, so I would go to the rein. If I wouldn't know I would probably start at the pelvis. But maybe not, because you are trained to follow where your hands lead you. Maybe some would work on the jaw because they don't like to be touched at the pelvis. You noticed it goes towards intimate regions, so not everyone likes it. You have to feel and also ask if that is ok for the client. If you work on the pelvic floor you can go even further. For some it is completely ok but for some you notice that nothing happens, you can do long something with your hands but they just wait for you to take them away and in the best case, they say that. Sometimes with the jaw you can get to the pelvis.

9) What are common problems with singers?

Lower jaw-neck

A fixed diaphragm is common, sometimes a fixed ribcage, like too high at the sternum. Main things I see teaching are diaphragm, neck, lower jaw sometimes larynx.

10) In which cases do you recommend CST?

Well, sometimes I incorporate some things in the singing lessons. That I let people feel with their own hands make contact with some parts of their bodies. For Esther it worked quite well today, she didn't get a 'kuppel' (chapel form, image singers use to work with the resonance). And through contact of the thumbs on the suture on the hard pallet she got it opened. But what has worked even better, she touched the muscle that goes from the bony process of the lower jaw to the sphenoid bone, so the one you use when you move the lower jaw forward

and back. Her problem is that she used a lot of wide, broad tension, so couldn't make the 'kuppel', so everything in the high notes sounded too flat and eventually with air and that was very obvious. I said she should open the mouth and then press this muscle quite strongly, and it was very obvious that she could directly make the 'kuppel' much better and get into a higher resonance. That she could through relaxing this muscle and this made that she could open the mouth better.

When over longer periods a diaphragm, again and again, every lesson, is fixed. Diaphragm is often a place with stored up emotion, I sometimes do in the lesson some tries to balance a bit. But often then emotions are released so that you cannot sing anymore. I prefer to do a real treatment: with things that cannot just quickly be solved in the lesson, where I need longer, where people have the chance to get into the background of their tensions and why they cannot let go etc.

11) How can CST help the singers?

I don't feel that everyone HAS to do cranio. Some people are fine with a functional voice training. But sometimes when I have people who have trouble to feel their bodies, or certain parts of their body. If you tell someone who is for example 35 who has never done anything with singing "feel your pallet" then that is really hard for them. And their cranio can help a lot. Because then you are not in the situation that you have to sing, text, melody, rhythm etc., but you lie on the bed and close your eyes and get a few ideas - feel that, do you feel a difference, yawn, do you feel that etc. and that helps for the next lessons, then you say "pallet", oh yes, now I know where that is. For that it can be good. Or like I said, if some things don't work. For example he/she CANNOT let go of the lower jaw. Then I suggest a session.

12) For the success of CST is a good bodily awareness important?

Not necessarily. Many things happen unconsciously, so it is not absolutely necessary. I like to explain things and let the client work with me, I did with you too, some things that are not especially cranio, because for singers it is important to feel their bodies. But if someone comes with a Hexenschuss (lumbago, intense lower back pain), it is also nice if he or she just feels: Ah, something relaxes, but they don't have to feel so exactly. Cranio doesn't always work, there are also resistances. For example men that fall asleep immediately, or they say "yes, now I am more relaxed" and that's it. Especially if some restrictions are connected with traumata, then there are people who don't want or cannot get involved with those things. Maybe because it is too tragic. So you have to respect that. It's just a method. What happens, happens through the client, not the therapist.

13) So the CST therapist is prepared for it, if a trauma comes up, you can do something?

One is never prepared for something like that! We have gotten some courses about that, if would have liked more, so I did an extra trauma seminar. My main tools are what I have experienced myself in sessions and in many many sessions as assistant during the studies. when a process starts it is normal that assistants come and help. Then you can see how other therapists deal with it.

My experience is that clients know unconsciously if the therapist can handle it or not. I have started to treat immediately, directly after the first course. Friends, students etc., very cheaply or for free. In the beginning it never happened that people went into these heavy processes.

My Upledger guy touches more, to me they say, “you touch quite strongly” But if you want to get to certain muscles, you have to use some energy.

Cranio doesn't crack bones? Well, it's not to be generalised. I don't do it, because I haven't really learnt it. But there are some therapists who do it. If sometimes something has to be put straight, I first try with cranio, sometimes things do arrange themselves but sometimes it's not so soft, then I would tell someone to go to an osteopath.

14) Does Cranio also help the artistic performance?

I would say yes, it can. Because it heightens the contact to the body and through the body to the self. We have some techniques for the heart, that don't only treat the heart as an organ but the spiritual meaning of the heart. That is something you wouldn't find with Upledger. You treat the heart with its emotional meaning. Every trauma that is hidden somewhere in the body means a restriction, on all levels. I don't believe that you can resolve all trauma in the sense that it won't be there anymore, because things that happened to us will not “unhappen” through a process but they won't bind so much energy anymore, if we have gone through them again consciously. Something that was hidden because in the moment it happened it was too hard to deal with on all levels. And in that moment where you go through it again as a grown up, it frees some energies that you can use for other things. For example to sing or to express yourself.

15) What does a CST session look like?

Very differently. I have had some session where a therapist was over 90 % just at my feet and has done a lot on my pelvis, through the feet.

16) What do you start with?

Mostly at the feet. But not always. The feet are a good start to make a first contact, because it is not a delicate place, like face or chest. It's a good point to make a diagnosis. I feel where are imbalances. I make an overview. Not the same for every therapist, every session. So I usually make the connection and see what attracts me the most. I keep in my mind what I felt when I was at the feet. For example ilium sacral joint left, thoracic spine, sphenoid or something like that. But sometimes I don't go to the sphenoid because I get held up somewhere else, but I try in one session to go by the points I have noticed in the beginning. It also depends with what wish the client comes. If I know that the client has trouble with the diaphragm I will of course look at the place. No one just does it for fun, so often there are certain problems, a reason. So then it influences what I would do. My main director is my intuition and to where it pulls me. My experience is that it works better than just following the protocol. But with some things I do, for example with migraine there is a certain protocol, where you do a certain number of grips where you drain the chambers of liquid in the head. So I follow this protocol normally.

17) How long does a therapy last?

Different. 5-6 sessions, to deal with a specific problem. But that is just a suggestion. For example Hexenschuss (lumbago, intense lower back pain), it can disappear after one session so they don't need to come back, why would they?

Often the body keeps working over the days after the session. I have mostly my singers, then I see them and see the development so I can relate back to the sessions, that is a special

situation. I have some people that do cranio when they feel they can't sing because they are not well. Or I have people that say I have a certain problem or I want to see what cranio can do and then it crystallises for example stiff pelvic. Like 5 sessions over 2 months then you notice an improvement. And a year later they say, oh I feel something, can you check? So then you do one session. For example.

18) Is it esoteric? It is so vague and between structural therapy and spirituality as some critics claim?

Hmm, like all physical therapy it has a lot to do with trust. So I can understand when people are scared and say "Oh everyone can do what they want".

Well, with Upledger you can only do the training as a physiotherapist, doctor or natural medicine practitioner. With Hugh Milne it's a bit more open. But also Hugh Milne sometimes says to people, before you are working on clients you should first work through your own issues. But there is no guaranty that people don't do it anyway, it is a bit of a grey zone of the law. I find it a difficult subject. There are people who say, you cannot feel these mini movements. There are many that say the wave cannot be felt in other parts of the body, from the outside. The easiest check is that you can treat and then with feedback from the client you notice that you feel the same. So for me it's not a question if it exists. My cousin is surgeon and he always says: "who heals, is right" he is a sceptic but he gives validity that if it works and the Hexenschuss (lumbago) is gone after the session it's good. He says: "I cannot lie that it is working, so it wasn't bad". I find it difficult. The borders to osteopathy are fluid, so for me it is part of osteopathy. So I don't see why osteopathy is believed and accepted and cranio not. What I find important is that everyone who does something like medicine, physical therapy etc. takes responsibility and looks as a patient "what do I need? What is the right thing for me?"

If someone notices, it doesn't feel right, either because of the therapist or the therapy form, he or she should stop. I find the basic attitude to start something like that.

I have been there where orthopaedic doctors were discussing whether to operate or not. In my opinion one should try to avoid operations as long as there are other options. Because it is a big invasion and full anaesthesia is a big thing that has some dangers to it. I think of a lady, no medical findings in the x-ray, physiotherapy didn't help, alone with a child, has to work standing up, asks the doctor if she should operate, no findings/diagnosis, just permanent pain. The doctor recommends operation. Maybe it is right, but I would always try osteopathy first, to see where do the knee pains come from? Like I said, knee can come from problems in the reins, that interests the orthopaedic not at all. He doesn't make the connections. The medicine looks at the part where the problem is. That works but sometimes it doesn't. If osteopathy doesn't help then you can think to operate. But if it is not even taken into account, I find it wrong. When I have treated 5-6 times then I can still say, ok maybe operation. I haven't heard that cranio sacral therapy can harm, it can happen that after a session there is a bit of pain. But that mostly fades. It's an effect like a foot that was asleep, like the blood flows through more than when it was a bit cut off, that hurts a bit in the beginning. Nerves work better and you feel more pain. I take care with things that are really broken, like a fresh operation or a real diagnosis, and would immediately send people to the doctor for x-ray, diagnosis and look at different options. I find it a pity that many academic medicine practitioners don't take alternative treatment seriously and neglect them. One has to see what helps.

Questionnaire

Questionnaire for Singers- Cranio Sacral Therapy

Thank you very much for your time!

I would like to find out what difficulties you as singers face with your bodies and singing technique and how you deal with them. Personally Cranio Sacral Therapy has helped me a lot with my singing technique and I would like to assess if it could help other singers too.

It doesn't matter if you have never heard of Cranio Sacral Therapy. You will discover this exciting field of healing at the latest in my Master Presentation next spring ☺

Male/ Female

Age:

Voice Type:

Teacher:

Study Year:

1. Did you have any operations, accidents, illnesses or injuries in your life? Which and at what age?
2. Do you know something about your own birth? (Difficult labour, caesarean, vacuum extraction etc.)
3. What feedback/critique do you often hear from teachers/committees/colleagues about your posture/singing technique?
4. What concrete aspects of your posture/singing technique are you working on or have you worked on a lot?
5. What (exercise, class, therapy) helps you to improve these aspects and your singing in general?
6. What technical aspects of singing do you find particularly difficult?
7. Where in your body do/did you feel tension (or even pain) while/after singing?
8. Under what circumstances/how often do/did you feel the tension?
9. What do/did you do to overcome this tension? What improvement did you notice? (any kind of massage, therapy or sport, e.g. Alexander Technique)
10. How do your physical obstacles influence your artistic expression?

If it would be ok for you if I contacted you to ask you more about your experience, leave your email address here: