Healing Singing

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Healing singing is a special form of collective singing that is increasingly employed in clinics and hospitals as a therapy-supporting measure. Once a week, people meet to sing special songs together under the direction of a music therapist. Depending on interest, between twenty and ninety people will take part in the singing, which is offered to everyone who wishes to participate. Each singing session takes about ninety minutes. Participants begin by warming up, which involves making facial expressions and doing body exercises while using the voice. Next, participants alternate between singing familiar songs and learning new ones. At the end of the session, the group sings a parting song, which gives everyone the chance to achieve inner closure.

The songs are characterised by their simple melodies and powerful, expressive lyrics that deal with life issues such as self-acceptance, faith in one's abilities, and the development of one's personality. All of the songs are sung without the use of sheet music and are accompanied by gestures and dance steps that involve turning towards a partner or forming a circle, so that collective dance movements complement the collective singing. A guitar and percussion instruments accompany the singing. Each song is repeated several times so that every participant can join in, even if he/she has not heard the song before.

A distinctive feature of the healing singing group is that all of the participants are viewed as equals regardless of their status as patient, clinic staff member, former patient or local resident. It is a great boost for the current patients to shift their focus away from their illnesses and need for therapy and toward their healthy aspects and existing abilities. The experience of being equal members of the group both encourages and inspires them, and this new energy in turn has a positive influence on the healing process.

The present paper addresses this special technique in terms of whether participation in the group generates a sense of communion and social resonance that is capable of influencing the physical state of the participants, as reflected in measurable changes

¹ See Singende-Krankenhäuser.de.

in brain activity. Patients suffering from psychological illnesses would experience this resonance as a marked therapeutic effect (Gretsch, 2011). From a neurobiological perspective, active mirror neurons are required in order for resonance to develop between people (Bauer, 2006). Through this resonance, interpersonal relationships can develop and grow stronger, which then produces positive emotional experiences within the group. Participating in social activities together, more broadly speaking, plays an important role in activating the motivation and reward systems in the human brain, but emotional experience is also functionally relevant to genes (Bauer, 2008). Accordingly, the activation of the genes that are responsible for the mirror neurons and the reward system is directly linked to the positive resonance experiences between a person and their fellow human beings (McGowan et al., 2009).

The findings of the studies consulted for the present text make it possible to propose the following hypothesis:

The social resonance and bond that result from the music and dance movements in healing singing activate not only the mirror neurons but also the motivation and reward systems. Singing in combination with movement promotes coherence in the body. The involvement of the emotional centres creates a feeling of happiness and joy, and the experience of the group interaction leads to new neural connections. The more often the positive experience of belonging and being appreciated is repeated, the greater the chance that the functioning of the genes responsible for motivation and reward will change and exhibit stronger activity. (Gretsch, 2011, pp. 23ff)

This study is carried out using a grounded theory methodology. Its data sources are eight interviews with healing singing participants that are analysed and evaluated. These responses confirm that the resonance of a positive relationship and the feeling of communion that ensues can promote learning processes and result in behavioural changes.

Theoretical Part: Neurobiology

Social recognition and the experience of receiving positive attention within a group stimulate our motivation systems. The resultant release of dopamine and the body's own opioids elicits feelings of euphoria in our emotional centres and increase our vitality and enjoyment of life. In addition, positive interactions of all sorts promote the synthesis of the hormone oxytocin, which contributes significantly to the development

and maintenance of stable relationships through the cultivation of our social memory (Bauer, 2008). Oxytocin ensures that these experiences (singing and dancing, for example), in combination with their associated good feelings, are stored in the body's emotional centres (Insel & Fernald, 2004). If this process is repeated with the same group of people, a close bond and sense of trust result.

Moreover, positive relationship experiences stimulate the mirror neuron network. These nerve cells become active when one person observes another person's activities or particular emotional state (Bauer, 2006), and this activity constitutes a neurobiological resonance event. Mirror neurons play a major role in our empathetic perception of other people by producing an inner simulation of what we see and experience. This resonance process occurs spontaneously (Bauer, 2006). Every learning process that leads to a change in a person's outlook, and thus in his/her behaviour, depends on a successful reflection. Mirror neurons are actively involved in all intra- and interpersonal learning processes, including the learning of a sense of self, the ability to communicate and our overall social competence. Only through a reciprocal reflection does the process of seeing and being seen take place. When people 'tune in' to one another, that is, they begin to resonate (ibid.). The network of the mirror neurons and motivation systems is 'hardwired' at birth, though it is necessary to activate both of them (Bauer, 2006, 2008). In the absence of activation, our functionality is impaired, and our ability to form attachments and trust in the viability of our relationships remains limited. More broadly speaking, our ability to enjoy life is unable to unfold to its full potential, and our sense of self-worth, ability to communicate and sense of empathy are unable to develop to an adequate degree.

Mirror neurons and motivation systems are activated via genes, and research has shown that genes are activated in turn by external signals, which vary in their impact (Bauer, 2008). Interpersonal experiences affect the genes that determine our spiritual state. If a person receives attention, acknowledgment, and recognition, the genes responsible for the neural network 'motivation cascade' are activated, as well as those responsible for the stimulation of the mirror neurons (Weaver et al., 2004). Gene activity research has established that genes are chemically marked by methyl groups, and if a gene is strongly methylated, it remains (or even becomes) inactive. Yet the process of methylation is reversible, and genes are not fixed in this regard; they react sensitively to social stimuli by changing their activity according to a person's experiences (McGowan et al., 2009). Both the mirror neurons, which are responsible for understanding and empathy, and the reward systems, which are responsible for motivation and the enjoyment of life, are activated by positive interpersonal encounters.

Findings in neurobiology and genetic research confirm the four basic needs formulated by Stucki and Grawe (2007): attachment (positive encounter), self-esteem

elevation (recognition and acceptance), displeasure avoidance and pleasure (active reward systems) and orientation and control (understanding and self-determination). In Stucki and Grawe's view, the cause of psychological illness is an inconsistency-derived tension that persists over a long period despite the efforts of the affected person to reduce it, and that results from the fact that one or more of these basic needs is not satisfied. All basic needs are satisfied, on the other hand, in a successful relationship, and healing singing produces exactly that requisite social resonance within the group. The collective 'tuning in' activates the mirror neurons, giving rise to a socially resonant space in which participants can develop a sense of security, belonging and communion. This positive interpersonal encounter activates the reward systems, which elicits a sense of euphoria and enjoyment of life. As a result, the aforementioned basic human needs are satisfied.

A Life with Music

Healing singing has a basis in childhood: the communal singing of songs can form a link in the early stages of a parent-child relationship. When parents sing with and for their children, they give them affection and create an atmosphere of care and attentiveness (Bossinger, 2006). Healing singing does the same and often causes particularly deep emotional reactions in people who have not experienced parental singing as children themselves. One aspect of these reactions is a longing to be shielded and to belong, which is something they have never had and can now experience (Baer, 2006; Bissegger, 2005).

Songs promote emotional expression and can also have an emotionally stabilising effect in unfamiliar or unpleasant situations. They are linked to a context of interaction and thus promote the initiation and maintenance of relationships (Wanke-Greiner, 2005). The emotional state of participants singing together in a group is apparent in the collective tone of their voices (Feuerstein, 2006), but this emotional state is also possible to change through music. Music that has associations with a highly emotional situation is particularly well-suited to realising a targeted change of mood (Spitzer, 2009). Healing singing exploits this quality by associating the group's sense of protection and great joy with the songs they share. The participants then invoke this emotional mood in their daily lives as well. Related changes of mood from healing singing can be ascertained in three areas: more positivity (less stress), greater alertness (less torpid) and elevated presence (less lonely and uninvolved) (Sloboda, 1999).

Music can invoke emotional and physical reactions even without associations. Certain musical phrases can cause goosebumps, make people smile, or bring them to tears (Spitzer, 2009). Readings of brain activity when one is listening to 'goosebump music' show that the reward system is activated and that regions associated with fear and unpleasant experiences are suppressed (Blood & Zatorre, 2001).

Positive emotional involvement is a decisive component in the durability of learning processes. Early experiences and perceptions lead to specific synapse connections within the neural networks that communicate with one another (Hüther in Bossinger & Eckle, 2008). These canalisations are particularly stable if the emotional centres are involved during an experience. They are incorporated into the emotional memory and can only be changed if the emotional centres are activated by a new experience in a comparable situation (ibid.) Canalisations that arise from oppressive experiences are extremely difficult to change. They determine the inner perceptions and expectations upon which people act in their environments, and their reactions to interpersonal encounters as well (ibid.) A cycle of experiences then arises that deepens the existing canalisation, reflecting the 'experience-dependent plasticity of neural connections' (ibid. p. 113).

Music supports relearning processes, because in most people it leads to a positive stimulation of the emotional centres. If modified behaviours are then linked to the positive emotional effect of music, long-lasting learning processes can result. The newly established activation patterns in the brain can be successively stabilised so that old patterns are overwritten and the person gains access to alternatives to his previously learned behaviour (Hüther, 2008).

Dance is closely tied to music. It is usually the rhythm of music that evokes the desire within us to move our bodies. The general receptivity of the human body to rhythm is based on the fact that we ourselves produce a number of rhythms and possess the ability to oscillate in time with external rhythms (Spitzer, 2009). Chronobiology and chronomedicine examine how synchronisation processes in the body can be initiated and promoted. One study examined the effect of dance movements on the participants of a folk dance group (Kapteiner & Zhang, 2008), and its measurements of bodily resonance fields showed that these fields were in a chaotic state before the dance session, whereas afterwards they were synchronised and coherent. One can assume that the folk-like dances and gestural movements in healing singing have a comparable synchronising effect on the resonance fields in the bodies of the participants.

Group Psychotherapy

One of the decisive factors for success in the therapeutic process within a given group is each participant's reflection on his/her own emotional reaction to his/her interaction with other participants (Yalom, 1996/2007). A supportive and trust-building group atmosphere contributes significantly to our willingness to examine our own emotional state and to correct the reactions and behaviours we demonstrate. Yalom has formulated four basic assumptions regarding the causes and effective treatment of psychological illness (Yalom, 1996, in Tschuschke, 2003):

- 1. Psychopathology has an interpersonal genesis; that is, the patient's problems are a result of a failed relationship (see also Bauer 2006, 2008; this means that the mirror neurons and motivation systems are not sufficiently active and that there is a lack of dopamine and oxytocin).
- 2. Interpersonal learning makes change, and thus a re-learning process, possible (see also Hüther 2008; this is to say that neuronal connections change with the involvement of the emotional centres).
- 3. As a social microcosm, the group promotes the acting out of typical behaviour patterns so that social difficulties, disappointments and frustration emerge and can be worked on.
- 4. A corrective emotional experience awakens the motivation to change interpersonal concepts (see also Bauer 2006, 2008; Hüther 2008; this means that the social interaction in the group activates the mirror neurons and motivation systems, causing dopamine and oxytocin levels to rise with the involvement of the emotional centres and establishing the requirements for the successful change in behaviour).

Accordingly, the dynamic that arises within a group is optimally suited to the initiation of learning and transformation processes. In order to establish such a constructive working atmosphere, the group requires an active, competent leader who is able to support and promote the group-dynamic energy of the participants. Furthermore, this leader should radiate an air of credible authority so as to make the best use of the participants' readiness to identify and bond with a benevolent person who gives them a sense of security (Tschuschke, 2003; Stucki & Grawe, 2007).

The therapeutic relationship that emerges between participants and leader has a considerable influence on the former's cooperativeness, and therefore on the viability of the therapy. At first, patients are often fearful and anxious because they do not know how they will be treated in the session. They may complain of a pressure to perform

because they cannot ascertain what is expected of them. Above all, however, they bear the ballast of troubling and painful relationship experiences that overburden their interpersonal resources for making further contacts.

In group psychotherapy, of course, therapist and patient sign a contract before treatment commences. This forms the basis of the therapy and covers the general group rules, the goals of the therapy, the tasks and responsibilities of the patient, and the specific role of the therapist (Tschuschke, 2003). In the early stages of group work, it is important to build up a group culture that promotes interaction. This culture should facilitate the free and sincere expression of feelings, encourage active participation and mutual self-help, promote a non-judgemental, accepting attitude and support unrestrained self-revelation, as well as the desire to understand oneself and others and to embrace change in oneself (Yalom, 1996/2007). It is the leader's responsibility to establish and maintain the group culture by communicating information clearly and by acting as a role model. When the group has begun its work, the therapist must pay attention so that problems are updated in the 'here and now'.

A group with this kind of working atmosphere will develop a strong sense of cohesion that can have a therapeutic effect. As social resonance and communion within the group become stronger, its sense of cohesion grows as well, and with it the mutual support that arrives via interpersonal learning processes that depend upon respect for, and acceptance of, individual idiosyncrasies.

Methods

An analysis of healing singing must encompass how the special atmosphere in the group develops and the extent to which its effects on the participants with psychological illnesses have a therapeutic quality. In order to explore the function (and therapeutic dimension) of healing singing in the context of the social resonance and communion within the group of participants, I joined a healing singing group for a duration of four weeks. Wolfgang Bossinger introduced me to the participants, and I presented my project and invited them to be part of it. I collected data by means of targeted sampling and a focussed interview centred upon narration-generating questions (Flick, 2007). The categorisation and analysis of the data was thematically

² Wolfgang Bossinger is a certified music therapist and is active in clinical psychiatry. He has been dedicated to researching the healing potential of music and singing for nearly thirty years. He established healing singing after being inspired by reports about the Homeless Choir in Montreal, Canada (Bossinger, 2006).

focussed and oriented content-wise on the basis of grounded theory (Flick, 2007; Potter & Hepburn, 2005). The data sources were eight interviews with healing singing participants suffering psychological illnesses, from which three narratives were selected for the present text. All interviewee names have been changed. The interviews were conducted in March 2010.

Following the transcription (Kuckartz et al., 2007) and an intensive examination of the interviews, the process of open coding began (Amir, 2005). I applied an inductive approach to assemble categories based on the data gained from the interviews. An examination of the categorised phenomena allowed me to determine relationships and links among the dimensions of music, group interaction and introspection. After revisiting the transcripts and the formation and organisation of the categories, I was able to formulate the central categories. I then linked all of the categories and subcategories to the key categories and analysed and checked them for accuracy. The resulting operating levels are presented in fig. 1.

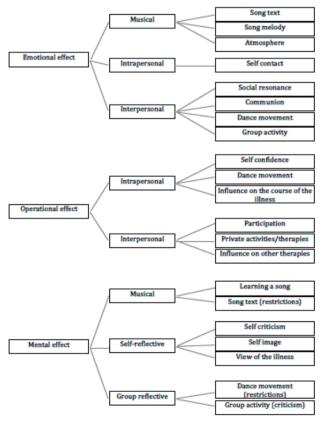


Fig. 1: Operating levels of healing singing in people with psychological illnesses.

Analysis

An analysis of the interviews clearly indicated that the effects observed by the interviewees were relevant on three levels of change: in feelings (the emotional level), actions (the operational level) and thoughts (the mental level). In particular, people pointed to a profound feeling of protection in the group and its positive effect on the mood. They also observed that their growing self-confidence changed the way they behaved and shaped their daily lives. The song lyrics encouraged reflection, promoted self-acceptance and helped participants to develop a positive self-image. These observations all describe experiences that are supported by neurobiological research. That is, the positive stimulation of emotional centres leads to an increased release of neuroplastic transmitters, which are needed for the canalisation processes required for changing one's experiences, thoughts, feelings and actions (Hüther, 2008).

Distinguishing these three operating levels from one another provides the clearest overview. Naturally, however, these levels are related and also affect on one another.

The emotional effect

The emotional effect of healing singing mainly operates through social resonance and the sense of communion with the group (the group experience). The participants react to the music and its associated lyrics (the therapeutic medium) by opening themselves up to contact with one another. In addition, active singing, in tandem with dance movements, promotes self-awareness in the encounter with other group members (the self experience).

During the process of healing singing, the group leader repeatedly reminds participants that everyone should sing in whatever way he/she considers appropriate. The intention at the heart of the shared singing encounter is to establish respect for others and mutual acceptance. Liberated from expectations and constantly encouraged to realise their potential, participants are much more willing to both reveal themselves and approach their peer singers with an open mind.

For example, Michael is in his mid-fifties and suffers from chronic depression. As a teenager, he tried hard to meet his parents' high expectations and graduated from school with good marks; he then attained a Ph.D. and began a successful career as the owner of a company. His private life was likewise modelled according to the wishes of his parents: he got married and built a home for his family. But depression eventually disrupted this seemingly happy and contented life, which in turn led to him developing an alcohol problem and ultimately resulted in his being hospitalised for a period.

At first, the depression was treated with medication and conversational therapy, but his condition did not improve significantly. He then underwent electro-convulsive therapy (ECT), which did not deliver the desired improvement either. However, Michael did respond well to respiratory therapy and music therapy, though he had never made music before. At school, he found singing to be a horrible experience and avoided choir, preferring simply to listen to his favourite music on records (the Beatles, Rolling Stones, and so on). It was only in music therapy that he first began to actively make music and to sing:

You come here to the clinic and basically expect that you're going to be helped. You think that you're going to be given pills and receive consultation. But that didn't help at all. Now I am being treated with respiratory therapy and music therapy. The verbal consultations are now channelled differently.

Since 2007, Michael has regularly participated in healing singing. He is divorced from his former wife and now lives with a new partner, whom he met at healing singing. He has resumed the management of his company and is actively involved in the *Singende Krankenhäuser* as well.

The problem was basically that I formerly had no self-confidence. I considered myself a failure. I used to drink a great deal of alcohol and I felt that I was a bad person. My parents were also part of the reason why I had no self-confidence. They always said the others were better and that I wasn't good enough. That was the root of the problem. We began working on these things in respiratory therapy and music therapy, and that was the key to my recovery.

Healing singing as a music-therapeutic intervention played a significant role in the reorganisation and stabilisation of Michael's daily life. It had its greatest effect on an emotional level. The sense of belonging to the group gave him the courage to show who he really was and also enabled him to break free of entrenched relationship patterns and make self-determined decisions:

I don't take part in the 'lion greeting' and 'grumbling' anymore [two encounter-group exercises designed to loosen up the voice and body]. It's a very good thing that I am able to make the decision for myself, because otherwise the whole thing wouldn't appeal to me very much. If that were the case, I'd always ask myself, 'Shall I go there, or not?' And if I don't go just one time,

then I won't go at all anymore. It's very important to me that I can decide not to take part, and that I can sing wrongly. If I'm feeling courageous, I deliberately sing during the pauses, and I don't care at all.

For Michael, the need to fulfil the expectations of other people, which derives from a fear of being excluded, has given way to a growing sense of self-confidence that thrives within the stable communion of the healing singing group.

Herbert has participated in healing singing for over a year (since 2008). He suffers from chronic depression, which led to his first referral to a clinic in 1999, followed by further stays at regular intervals. During the course of his treatment, he responded very well to body-centred therapies and participated in mantra singing at a clinic. In his early childhood and youth, he enjoyed singing with his siblings. His wife sings in a church choir presently and has tried to persuade him to join too, but church music simply is not his thing. As well as practising healing singing, he also attends the 'night of spiritual songs' events that are offered in various towns. He is a teacher by profession and was introduced to healing singing at a workshop for teachers' health:

So I came along here . . . I am really amazed at the effect the singing has on me—the way it opens me up for contact with other people. The meetings are the day of the week on which all the pressure that builds up just falls away. My problems just seem to disappear. I think that the music here is simply used as a tool to let something enter me . . . When I sing the song 'I wish you profound peace', the song transports this peace into me.³

In healing singing, the focus is not only on the dynamics of the group and the songs but also on the self-perception of the individual. Even as early as their very first singing and body exercises, participants are encouraged to 'feel inside' themselves, observe how they are feeling during the exercise, and register any changes in the perception of their body and mood.

Erika has attended healing singing for one year (since 2009). She had been declared unfit for work for six months due to burnout and is currently undergoing reintegration. She loves her being a primary school teacher and wants to return to full health as soon as possible. She always enjoyed singing and was a long-time member of her local singing circle, though she eventually lost interest in participating in it. She still suffers profoundly from anxiety, combined with avolition and a lack of strength. She

 $^{^3}$ Peace song lyrics: 'I wish you profound peace at the end of your day, that your heart look back in thanks on all your actions and being'.

first heard about healing singing by word-of-mouth and has been a regular participant since that time:

I came here for the singing and I suddenly realised that it was really good for me. Quite simply, my spirits are uplifted. As a result of all my therapies I've become very sensitive, and I suddenly had the feeling that a lot of energy was building up in the room. And it wasn't just in the room: it was something that I could take home with me. Since I've been coming here I feel somehow lighter, and I take more pleasure in life—I have more courage and more lust for life. It's not like that every day—I have the occasional slump now and then—but in general I feel much more happiness and I've also rediscovered a sense of meaning.

Herbert, too, practices self-awareness and describes his coenaesthesis while 'sounding' at the start of healing singing:

I can sense myself in a very profound way. It begins with the exercises, when I feel a tingling everywhere as we do massage tapping. When singing I can feel the notes throughout my body, [and] the way they generate resonance. I feel so at one with myself and I enjoy it immensely. When I feel the notes sounding within me, I sense that I'm doing something that's really good for me. You could describe it as being a bit like having a massage from the inside.

Sometimes he uses the songs to find out why he isn't feeling very good as well:

Quite often you have the feeling that you don't feel all that great, but you don't know what the problem is. Then I listen to something, sing along and name the title in order to find out what I'm responding to at that moment. And then I'm able to determine what's wrong with me. I'm able to observe myself better and as a result perhaps manage things better.

As mentioned earlier, the emotional effects in the interpersonal dimension (the group experience), the musical dimension (the therapeutic medium) and the intrapersonal dimension (the self experience) are all augmented and reinforced by the dance movements that are assigned to the songs. For Erika, the dance movements

accompanying the songs are a decisive factor in her sense of well-being and the communion of the participants:

The movements make the whole thing holistic, I feel. It's not just melody and lyrics; the whole body is involved. And the movements are what bind us together in the dance, when we hold hands or when we turn to face one another.

The positive physical sensation that derives from the harmonisation of one's body rhythms is tied to the self experience of being an esteemed, respected individual in the group, which makes space for an existence without pressure or role expectations. The mutual respect and acceptance shared among the participants lead to an encounter that is free of fear (it is also considered essential that no distinction is made between patients and other participants). In general, this group experience is seen as essential to healing singing. Erika describes her first impressions of the practise:

One thing that fascinated me was the means of dealing with one another. It was completely immaterial whether one was a patient, someone from the outside, or a therapist or whatever. Each of us showed the others complete respect. That was something I really liked.

Herbert also pointed out how therapeutic it is for him simply to be able to feel like part of a group:

When we sing, I feel we are reduced to simply 'people'. In other words, we are no longer 'men', 'women', or 'director' or 'cleaner'—none of that plays a role any longer. It gives me a feeling of happiness when we are able to forget all of the distinctions that we uphold in the world out there, and to really see everyone regardless of what they're wearing or what hairstyle they have and all that ballast that we carry around, consciously or unconsciously.

The relationship experience of social recognition and affection activates the emotional centres in particular. The melodies and lyrics in the healing songs support this process and contribute to a positive response to the stimulation. Herbert calls some of the songs 'contact songs' and describes the effect they have on him and the other singers:

For me, the encounter with other people is very palpable. There are always these contact songs—'I am OK, you are OK, we are OK', or 'I am lovable, you are lovable, we are lovable' . . . Of course, you can keep to yourself . . . But

sometimes I'm more inclined to approach others, I try to make eye contact, and I am really happy that they are so open. That's a really wonderful experience. And one thing I always find really great is when new people come ... who are still very reserved: 'I can't sing anyway, and I won't do it!' But when they actually start, it can be an amazing thing to witness what happens in those ninety minutes.

This emotional stimulation, which is welcomed as something very positive, initiates re-learning processes whereby old activation patterns in the brain based on negative relationship experiences are subdued and new canalisations can arise. The feelings of the participants change and trigger a consequent change in their actions and thoughts.

The mental effect

The mental effect of healing singing develops in two directions. First, learning processes are promoted during the learning of songs, texts and movements; second, self-reflection and reflection on the group's dynamics are initiated.

Healing singing draws on the most fundamental form of learning—imitation and repetition. When a new song is introduced the melody is sung briefly without the text, and the text is spoken without the melody. Following this, the song is immediately sung in its complete form with the allocated dance moves as well. During the repetitions that follow, participants have the opportunity to learn from the group leader and other members until they feel sure of themselves.

People with depressive illnesses are particularly prone to doubting their own mental abilities, so successful learning processes have a positive effect on their self-image. In the case of Herbert and Michael, for example, it was very challenging to coordinate the dance steps together with the singing:

As soon as I have to do this sequence of steps, which are really like dance steps, I'm confronted with the problem that men are supposedly unable to multi-task. When I manage do the step right, I stop singing. Or vice-versa: I sing the song right, and then I crash into people. But now I've internalised many of the songs and the choreography, and I can manage them with ease ... It's basically just a matter of learning them ... I think it's really great. It heightens the holistic aspect within me. The movements are in exactly the same flow as the tones that I sing, and it is a really beautiful enhancement. (Herbert)

The movements are really hard work at first, because I have a coordination problem. Women say they can do a lot of things at the same time and that a man can only do one—though he does it with full concentration. So I sing with concentration, but then I can't dance at the same time. So I tend to neglect the singing. So then the text maybe isn't totally there, and it's more of a melodious humming. Then, when I'm in a certain mood, my brain switches off and I'm able to do it—both at the same time. It's a bit like carnival for me . . . You feel jubilant, and you no longer feel like you have two left feet. Everything happens very easily then . . . This euphoric state is easier to achieve when the movement is there too. (Michael)

In contrast, Erika has a hard time learning the lyrics by heart. Repeated singing has helped her to memorise them, however:

I must admit, learning things by heart is really hard for me, but in the group I am able to sing along at any time. I can suddenly recall the lyrics, and I don't need any paper. By now I can even recall them at home, having been coming for long enough.

The operational effect

The transfer effect from the experience of healing singing in the group impacts the interviewees' motivation, behaviour in daily life and 'self contact'. The songs that are sung often become rooted in the memory and pop up spontaneously during the week in different situations; through them, participants carry along the positive feelings of healing singing and sometimes consciously use them to cope better with emotional stress. So the songs remain with Erika throughout her week:

For a time I had problems dealing with my difficult job situation. Then I began playing a CD [Healing Songs, CD 1] every morning on the way to work, and singing along . . . I arrive at work full of energy, and I don't have to look at everything so negatively right from the beginning.

At home I often listen to a CD. It's kind of background music, not necessarily for singing along. If I have something to do and I realise that I'm feeling anxious and agitated but I want to do it anyway, the music helps me to calm down. Even if I don't sing along myself.

The 'Thank You' song was one that really appealed to me.⁴ After I heard it, I sang it for days on end, and it made me feel really good. It's this totally conscious way of saying thank you and feeling thankful. Not just saying 'thank you' but actually feeling it—that happens here while singing again and again.

For Herbert the effect of the songs is also not limited to one meeting a week:

In my daily life I constantly think of some song or other, and always in a fitting situation. We sing, 'There is always a way, always', for example. I need that [sentiment] sometimes, to help me find a way again. Then I recall the feeling I have here, and I can open up again and then things are okay again. I have the feeling that my body stores these feelings—or my nervous system. When I think of it, I don't even need to sing properly, because the feeling comes back anyway.

He goes on to mention the vitalising effect of healing singing and its interaction with other therapies:

I just think that in all the things where I am lacking, that I improve at things through singing. When I feel weak, I feel stronger; when I feel insecure, I feel more secure through singing. For me it's a source that I am able to draw on. To put it in concrete terms, I'd say that singing opens me up—it opens up my heart. My feelings are able to flow and I think that when I'm like that, I'm more receptive to every other type of therapy.

In Michael's case, the increasing self-awareness and stabilising self-confidence he gained during healing singing actually led him to try a new therapist:

Then, after the insights I gained through respiratory and music therapy, I changed my therapist, because it didn't make sense. It makes you wonder what people study psychology. They are very interesting people. Maybe they just want to look good and are a bit narcissistic, and your role as a patient is to give them a boost. That's not the way it should be.

⁴ Thank you song lyrics: 'I would simply like to say thank you and embrace the whole world, feel like someone reborn. Thank you!'

Furthermore, healing singing has initiated certain other activities in Michael's private life. He has become involved in the 'Singing Hospitals' association and has published articles on healing singing from the perspective of the extremely positive effect it has had on the course of his illness. He emphasises that the lyrics are of great importance to him:

Here [at healing singing] we talk a lot about singing and also about vibrations. It's strange that we talk so little about the lyrics. But the lyrics are important too.

He uses the lyrics to incorporate the group's atmosphere into his personal daily life, which allows him to deal with hard situations in a more relaxed way:

I can transport these songs to other points in time. I don't necessarily sing them then, but I think about them. That has a positive effect on me. When I'm feeling really bad, I sing or I think of the song 'I Am Free'... Then I recall this block and transport it into a different time.

Both Erika and Herbert's regular participation in healing singing demonstrates their strong bond with the group and the great importance it has in their lives.

I'd estimate that I attend 90 percent of the meetings. In the winter I missed a session once because the weather was too bad to drive there. But as a rule I always make sure that I attend the meetings, because it's very important to me. (Herbert)

The Thursday afternoon is a fixed appointment for me, and I only miss it on very rare occasions. It's really important to me, and I cancel everything else for it. (Erika)

Discussion

Healing singing trains participants to become aware of interpersonal encounters on various levels. Participants describe meeting people while singing with them as an unusually intense and positive experience. It appears, then, that the stimulation of the motivation systems, as described by Bauer, does indeed take place, thanks to the shared, unbiased awareness of the people in the group. When the motivation systems

are stimulated, oxytocin level rises, producing a feeling of communion with the group, which is demonstrated by the fact that the participants regularly come to sing.

The positive encounter also activates the mirror neurons, making it possible for the participants to 'tune in' to one another, which leads to social resonance.

Lastly, the positive group experience, over the course of months and years, has a lasting effect on the gene activity of the participants as well. Genes that might once have been strongly methylated become active again, which means that motivation systems and mirror neurons basically begin to work more. The interviewees observed the effects of this biological change in the way they were better able to cope with daily tasks.

The healing songs themselves ensure that the emotional centres are thoroughly engaged, which neutralises previous group experiences, which may have been oppressive and threatening, in favour of free and open encounters while singing together. Neural connections that were reinforced by negative interpersonal experiences are likewise changed, due to the 'experience-dependent plasticity of neural connections', as described by Hüther (2008)—frequent positive experiences such as healing singing sessions make this re-learning process possible. The interviewees gave an impressive accounting of how they selected specific songs and lyrics to create a connection between their daily life and the free and trusting atmosphere of the group, stabilising the new connections still further.

The sense of well-being in the group is intensified by the dance movements. The interviewees describe a so-called peak experience once they have internalised the movements and their bodies can execute them without conscious thought. This state of being is an indication of the harmonisation of the body's resonant fields, as described by Kapteiner and Zhang (2008) in their study on the effects of dance movements on the body.

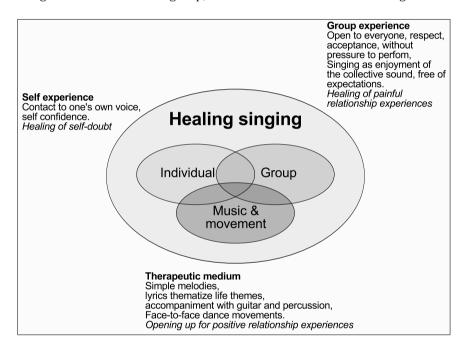
Encountering oneself is also an essential part of healing singing. As is the case with Yalom's (1996/2007) interpersonal group psychotherapy, participants are constantly encouraged to engage in introspection while they are singing. Healing singing, however, eschews the stipulation of therapy goals or any explicit reflection upon one's experiences in the fashion common to group psychotherapy. Nevertheless, participants do observe and reflect on their emotional experiences; they are aware of any significant changes in themselves; and they relate all of this to healing singing. Thus, Erika sees parallels between the rhythm of the songs and the structure of her daily life:

What I just realised today—and this is something that I've not been hitherto aware of to this extent—is that the rhythm of the songs, in which we proceeded step by step, is definitely related to my daily life... I really make

an effort to get a grip on it and to organise my daily life. I think that these rhythmical things in dance and when we clap along are . . . very helpful.

Music, lyrics and dance are all used as therapeutic media and are consequently impulses for new and positive group and self experiences as well.

See fig. 2 for an overview of the interactions between experiences, encounters and resonance during healing singing. The participants may choose among the three areas, or they may try out all of them. The interviewees describe the experiences they had in all of the areas. The high spirits begin when they make their way into the centre and get in contact with the group, with themselves and with the songs and dance.



If resonance arises from an encounter, a feeling of communion can develop

Levels of encounter are:

- → Encounter with other people,
- → Encounter with oneself,
- → Encounter with music and lyrics
- → Encounter with dance movements

Contact arises through resonance. Resonance means that oscillation fields harmonise, their frequencies tune in to one another, comparable to the overtones of a fundamental frequency. The resulting coherence expresses the mutual communion.

Fig 2: Healing Singing

In contrast to group psychotherapy, healing singing gives a lot of responsibility to the patient in terms of participation. Those who have participated for a long time inform others on their ward about it and take over the initiation of a new group member. The potential participant is given the option of taking part in the group on a trial basis and thus comparing his expectations to the actual group experience.

During the first thirty minutes of each session, the leadership team promotes a strong working relationship among the participants, in which the mutual encounters of the warm-up exercises take a central role. The group culture of respect and acceptance that develops over time encourages the participants to express themselves openly within the group. This openness, however, does not manifest itself in the verbal self-revelation that is found in group psychotherapy but in the tone of voice, eye contact, facial expression and shared physical contact of the dance movements.

Whereas verbal self-revelation often leads to a confrontational examination of the patient's problem, in healing singing, the patient experiences the openness within the group as a source of strength, which releases personal resources and reinforces a sense of self-worth. Here the group functions as a therapist and offers a therapeutic relationship supported by the musical action. Singing the songs is an important factor in the process of giving patients a significant degree of responsibility—it focuses not on the patients' symptoms but on their competences. The patients' sense of self-worth is supported insofar as they participate in the group as an equal member rather than as a patient.

In turn, the 'anchor' of the songs, the participants' newfound individual responsibility and their growing self-confidence allow patients to make the transition to daily life that is essential for therapeutic success. This does not require any additional reflection within the group. The deep emotional experience that the interviewees report while healing singing initiates the 'adaptive spiral' described by Yalom (1996/2007), through which an emotional experience becomes a therapeutic one.

Conclusion

This study confirms the hypothesis that healing singing leads to positive emotional experiences in relation to other people through social resonance and a strong shared bond. People who have had negative interpersonal relationship experiences that have led to depression and fear respond favourably to healing singing, because it makes a positive encounter possible. Even if their resonance ability is limited by their illness, they can be reached through music, which allows them to slowly start perceiving the

feeling of togetherness in the group and to oscillate again. Patients suffering from an acute severe depressive episode are the exception.

The group relationship that ensues can be thought of as a therapeutic relationship. It fulfils the basic human needs of attachment, appreciation, understanding and self-determination, which are the prerequisites for a therapeutic process. It also quite noticeably facilitates pleasure, which influences the participant's commitment. Addressing the patients' individual sense of responsibility while focusing on their abilities and potential engages and exploits their resources, so that their growing self-confidence helps them to begin to change their daily lives and relationships. The observed transfer is evidence of successful learning effects and points to how profound the therapeutic effect of healing singing is.

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