Singing for self-healing, health and wellbeing

By Jane W. Davidson

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Outside of Western practices, group singing is an important social and cultural force. Emergent studies in the area of music therapy and music and health demonstrate that group singing can promote feelings of health and wellbeing. Studies provide evidence of the physiological, cognitive and emotional benefits of group singing for an improved quality of life. Considering the potential for young and old across the lifespan, it is proposed that group singing should be encouraged for all people, without placing demands on music reading skills.

Context

In a music psychology study investigating the key emotional experiences associated with music, Sloboda (1991) noted that members of his own choir reported significant physiological reactions such as shivers down the spine, goose bumps, even tears. Though these were responses to listening to music, it is to be noted that overall the interviewees reported Bach's Mass in B minor to have the most profound effect on them, and this was a piece they had all recently performed. The idea that group participation leads to stronger emotional experiences is gaining currency in music psychology. For instance, Bailey (2005) investigated 121 members of three different types of choirs considering the effects of (1) group singing, (2) isolated listening and (3) social listening. Participation in the group singing was found to be more beneficial than either isolated or social listening on 73% of the items. These items included: (a) improves concentration, (b) is an exhilarating experience, (c) gives me a kind of high, and (d) improves my mood. Isolated listening was considered most beneficial on the remaining 27% of items including: (a) helps to suppress emotions, (b) helps to reduce stress, and (c) makes me feel mentally rejuvenated. These results indicate that group singing promotes heightened arousal on a variety of behavioural dimensions, and that listening is better for resting/recuperation.

Research and everyday practice using music also shows that in Western culture we listen to music to regulate our mood (e.g., driving to work we pass the time, or we listen to a 'relaxing' CD in the bathtub - see DeNora, 2000) Indeed, in Western culture we are exposed to a whole raft of commercial enterprises based around the music we 'use' in everyday life, but these are almost exclusively in the domain of music consumption for listeners: eg, music suitable to stimulate certain moods in order to buy specific brands of clothing; music to improve our IQ; music for spiritual healing. At best, many of these more commercial enterprises base their products on folk/popular psychology rather than controlled scientific outcome. But, if the participatory activity of singing - especially group singing - as indicated in Bailey's systematic research, can have both measurable and positive behavioural impact, it is surely an activity we should encourage. The current paper presents the idea that singing is of significance for us all.

Pursuing the details of Bailey's work a little more, it is important to note that in the perceptions of choral participants from Australia, Brazil, Canada, Hong Kong and Iceland (n = 224) the holistic health effects of group singing were compared with listening to music, watching television and each participant's activity of choice. Cognitive, emotional, spiritual, social and physical effects assessed the holistic benefits. The results indicated that group singing was regarded as being significantly more beneficial than the other activity categories. Even when the activity of choice was a physical activity, the participants believed that group singing was more holistically beneficial.

In addition to the compelling results above, Bailey and Davidson (2001, 2002, 2003) emphasized the crucial importance of group singing participation for homeless men. They discovered that singing in a group created a potential for social bonding between the choristers, but more importantly, a social distance seemed to be created from which these otherwise marginalized individuals could begin to develop a relationship with the public and demonstrate that they were much more than their appearance might suggest. Generally, opportunities around performance seemed to promote feelings of pride for social contribution and personal recognition. The recent Australian TV series The Choir of Hard Knocks (ABC TV 2007) provides further, though popular evidence for the social significance of the participatory activity for choristers.

Thus far, we have considered group singing only from the Western tradition. Looking more broadly at music making across human cultures, the social communion of singing with its interaction offering inclusive opportunities can be found in a direct and recognisable way. For example, Blacking (1967, 1971, 1973, 1974, 1977, 1985, 1987, 1988, 1989) who lived with the Venda people of South Africa, wrote enthusiastically about the significance of human musical communication as observed in the singing and the accompanying dancing activities he was able to experience. By investigating a culture different to his own, Blacking was able to reflect upon the fact that musical activity was used not only as a means of emotional regulation, but for educating individuals towards cultural practice and for forging social relationships. His promotion of the concept of 'human musicality' being a crucial feature of being human provides support for the notion that singing activity is not only a natural, but also an essential expressive medium for us all.

Examination of Indigenous Australian culture further demonstrates the strength of the link between music, the human voice, the human body, symbolic function, expression, communication and social collaboration. As the oldest living culture, surviving relatively unchanged for over 40,000 years, virtually all aspects of human behaviour are shown to have an intrinsic link with music: eating, hunting, lovemaking, birth, marriage and death are all collaborative music-filled activities. More specifically, songs include many kinds of vocalisations ranging from growling, grunting, and shrieking to bitonal syllabic chanting (c.f., Oxford Companion to the Body, entry on music and the body, written by Davidson in 2001). The music demonstrates how human communication has evolved from survival function through to the engagement in singing for artistic pleasure. With this evidence, we can argue a case that singing is an essential human activity. But, living the contemporary Western experience, most readers will realise that speaking relative to the Venda experience and the Indigenous nomadic bush peoples of Australia, most Westerners have a very limited exposure to singing or any other musical participation.

Opportunities for most Westerners to participate in singing activities might include: natural mother-infant interactions, pre-school, primary or secondary school activity, being with friends in groups and organisations, attending some ceremonies and significant public events, or receiving a specialised training either privately or through an extra-curricular school programme. The last category is of course usually the consequence of a family interest in learning or a very vigorous school or community programme. Even with this sort of family or community support, we know that fewer than 5% Westerners who do begin music learning experiences actually persist to competence – see McPherson & Davidson, 2006. The reality is, of course, that rigorous and lengthy training is required to develop the musical skills required to play with fluency Western classical musical instruments. For example, to play concert violin to a professional standard, approximately 10,000 hours of amassed practice by the age of 21 years of age is required (see Ericsson, 1996; Ericsson, Krampe, & Tesch-Römer, 1993). This is too daunting for most, especially if the music-making is not to be the main focus of the person's life. Given the highly compartmentalised lifestyles Westerners lead, most give up their efforts completely when competence is so hard to achieve. Though singing can involve a rigorous training and technique, group singing does not require lengthy solitary practice,

and whilst many amateur ensembles need members to be able to read music and hold harmony lines, there are equally many singing groups which require enthusiasm not formal musical skills. It is to this latter instance where I see the most potential for the engagement of many as such groups provide each individual participant with an opportunity for group music-making.

It may seem fanciful to those with hectic and compartmentalised lives to conceive of setting aside time to engage in group singing everyday, but given the scientific and cultural evidence, it would be an ideal situation for self-expression, mood regulation, feelings of being in a better holistic state of positive health and wellbeing as well as social connectedness. The following review provides further evidence to support group-singing experiences.

Singing and early life experience

Researchers are increasingly able to argue that musical capacities and behaviours in humans appear to have evolved as abstractions of essential biological function. For example, observing neonate behaviour and development, Trevarthen (2001/2002) shows that complex social life emanates from activities like turn taking in vocalisations (motherese) experienced firstly through nurturance (mother-infant interactions around feeding), and on through rhythmical play leading to turn-taking and more and more complex forms of social awareness and collaboration. He argues that this 'intrinsic motivic pulse' is a proto-musical behaviour. This explanation can account for the ubiquity of music as across human cultures.

Trevarthen's work permits us to theorise that musical behaviours permit a strong base for the construction of selfhood. For example, Trevarthen demonstrates how infants articulate the process of feeding by using their hands to conduct (in terms of musical timing and phrasing) and the vocalisation in their motherese interactions. These behaviours demonstrate sympathy and awareness and sharing with the mother. From these signals (present in all infants, from premature babies as well as congentially blind newborns), it is not hard to imagine how our adult complex repertoire of non-verbal gestures and vocal interactions for subtle social discourse emerge. There is a naturalness to how the voice is used in these pro-musical behaviours, which illustrate the human communicative urge. These ideas are fully supported in other infancy studies by Ayers (1973) and Dissanayake (2000) who underscore that these types of communication enable the infant to engage in practices which allow an emergent sense of self to develop: a sense of 'me' in relationship. They are also seen as the pre-cursors so crucial to language development. A reference to the Greek concept of human behaviour of musiké – in which the expressive signals of the whole person are implied – have been incorporated into such understanding of musicality.

Associated evidence arguing a case for the importance of vocalisation as a tool for social communion and the development of self –for confidence, emotional expression is found in Malloch's (1999/2000) study of motherese. He was able to observe motherese interactions for women with bi-polar disorder experiencing both depressed and hypermanic states and compare these with a control group. He discovered that in the case of the ill mothers, the motherese was not musically timed: the depressed mothers were lethargic; the hyper manic mothers were extremely excited and agitated. At either extreme, infants became distressed when they were not responded to with paced musical phrases with space for response. There was evidence that the infants did not feel 'understood' or interacted with. Indeed, the infants were found to initiate vocal play (pro-singing behaviour) and wait for a response of either mirroring or extemporisation behaviour, but these responses did not come where the mothers were ill. Though a lack of timed interactive motherese does not seem to have long-term effects on infants, in the short term, the disturbance to the normal vocalisations upset the development of happy and socially interactive babies.

Toddler observations demonstrate that reciprocated or synchronous imitations of vocal and gestural behaviours as well as pitch, intensity and melodic contour (Papousek & Papousek, 1981) occur spontaneously and appear to be crucial for social sharing with all. Additionally, recent research examining pre-schooler's collaborative play demonstrates that that the youngsters share vocalised and bodily reactions and experiences, and there is a sympathetic mirroring of types of bodily reactions and responses which are directly connected to the experience of emotion: the enharmonic key changes in tonal music are often associated with 'shivers down the spine' or 'goose bumps', reflecting psychological states such as excitement, joy sadness etc. (Sloboda, 1991, and Sloboda, O'Neill, & Ivaldi, 2001)). Crucially, the singing/playing that exists is purposeful and intentioned intended? to be communicative and emotionally charged for biological purpose (Bannan, 2003).

So, it seems that from the earliest evidence of human perception and cognition, our responses are rooted in vocalised sensation and an imperative and driven social communication. This is expressed usually by sharing in collaborative goals, and it is a clear means through which the social communication is experienced. Motherese is arguably the most fundamental form of 'singing' activity. Though only based in a dyad, it is the root for sharing and social interaction.

We know from the research of Trevarthen and colleagues that motherese is not only significant for the infant, but it is a positive way for caregivers to share emotional and social experiences and so bond with the infant. In all human cultures, motherese and toddler imaginative sing-play is found. Indeed, it seems that in the case of the infant and the toddler, singing-types of activity (motherese/imaginative song) provide a forum for the individual to develop a sense of self in relation to others, and this of course is a potent force for future social life. With such ideas in mind, it is not difficult to understand how and why group singing in a range of groups (adults and children) has been found to have emotional and wellbeing effects.

Singing for quality of life across the lifespan

Linking to the infancy research explored above, Ruud (1997, 1998) writes compellingly about how musical opportunities in Western culture can be crucial for social empowerment, and most specifically for the formation of an identity. He gives examples of how children make their initial step towards selfhood in their peer group imaginative musical play. The development of a specific peer group taste serves as a way of endorsing group identity, as is often shown in relation to musical listening and participation amongst teenagers, with their musical culture representing a separate social world from that of the adult.

Ruud goes on to highlight that music facilitates navigation between a private and public self, whether it is being used for self-regulation reasons (perhaps changing mood) or the presentation of self to a group (e.g., performance). Also, it can be used to reflect internal space – listening to music in the bedroom, or relaxing making music (usually pop and rock) with friends. It can also helps young people to learn to create 'in' and 'out' social groups (Tarrant, North & Hargreaves, 2002), that is, those with whom to associate and those to avoid.

In the case of singing only, there is sufficient evidence present to show that it can give many opportunities for social empowerment (the homeless men discussed earlier). But, more especially, Faulkner and Davidson (2005, 2006) have shown how singing can form crucial links in the following ways: generational exchange (as a grandfather sings to his granddaughter), communion with nature (singing in spaces and places), testing out of identity (singing in competitions like 'higher', 'longer' etc.)

Importantly, and from a background of music in therapeutic treatment, Aasgaard (1999) has also proposed the use of music as an inherent component of an institutional or non-institutional setting. He argues that in this empowered position, especially through live

performance, music enhances the well being of those inhabiting the space. Aasgaard's own working space is a hospital. Using a mobile music station he is able to ask patients, visitors, doctors, nurses and administrators to contribute towards creating songs in and around the hospital building. His work offers a sense of community and coherence for all, whether long-stay patients, employees, or day visitors. The songs allow for a shared emotion and understanding, as well as an ownership of the space on which the voice is projected.

At a more intimate level, Aldridge (1999) describes how singing to and with a dying friend heightened intimacy and understanding in a situation where words were too painful, too awkward, or inadequate. The singing by-passed all formal verbal exchanges and enabled emotional intimacy through the harmonic structure of the music. Similarly, Magee & Davidson (2004a & 2004b) describe the use of singing activities with individuals in the late-stages of multiple sclerosis to permit the use the songs for reminiscence value, and to monitor the level of muscle control and strength of the vocal mechanism. Again, the singing enabled expression of emotions around loss and grief which patients had otherwise not been able to express. Also, Clift and colleagues (Clift & Hancox 2001; Hancox 2006; Bamford & Clift 2007) have investigated a choral group within a university context as well as developing a network of 'Silver Song Clubs' across the SE of England which are not only becoming increasingly popular, but have also demonstrated positive and stimulated social interaction and increased sense of wellbeing for members (all over 55 years of age). In a related manner, Cohen (2006) has shown that older people who engaged in choral participation for the first time, by contrast to a comparison group who did not sing, had fewer visits to doctors and reported a reduction in the number of over-the-counter medications taken. Relatedly, research with Alzheimer's disease patients has shown improved cognitive activity with moments of insight and coherence when engaged in singing activities (Bannan & Montgomery-Smith, 2006; Prickett & Moore, 1991).

With findings like those explored above, it is evident that there are many possibilities inside the activity of singing and in the associated social context of the activity. Excitingly, contemporary physiological studies have advanced understanding of the effects of group vocal performance through the measurement of levels of cortisol and secretory immunoglobulin A (sIgA). Cortisol is a measure of stress and sIgA is an endocrine defence against infection in the upper respiratory tract. Generally, decreases in levels of cortisol and increases in levels of sIgA and are considered favourable. The cortisol results were variable and inconclusive, however, increased levels of sIgA suggest that active participation in singing may enhance immune system functioning (Beck et al., 2000). So singing has a real and positive physiological benefit.

Concluding comment

With the evidence presented above, a case has been made for the importance of singing across the lifespan. It is important to note that the recent Australian National Review of School Music Education (Pascoe et al., 2005) demanded that an immediate priority should be to improve and sustain the quality and status of music in Australian schools. Part of this priority must be to make sure we encourage singing and maintain and develop this pattern of behaviour across the lifespan. I have not reported research on the beneficial experiences of singing in school, mainly because I have not been involved in this research area (unlike singing for health or singing with people living with various forms of disability). Undoubtedly, for many, singing experiences in school are already good. Indeed, my excellent primary school experiences of singing began my own life-long love of singing. But, as Pascoe and colleagues report, the types and standards of music on offer in school and in general is very variable. There have been recent initiatives to increase opportunities for singing, for example, the Music. Count Us In project of 2007 was a $300,000 Australian Government initiative for schools to learn and perform the song Life is a Song on 30 August. This is a small, but encouraging move. Without doubt, the musical opportunities created and presented in schools have the potential to endorse

the cultural value of musical participation for all, for positive social and physical health and wellbeing.

Singing for holistic health benefit has been recognised the UK for some time (Bannan, 2000), and in March 2007 the current author attended a national meeting entitled Sing for Health at the Sage, Gateshead. In addition, the Department of Education and Science has pledged over 10 million pounds over the course of 2007/2008 to develop a National Singing Programme in the UK, encouraging the use of singing to promote social health and wellbeing for all. I would argue that Australian agencies should also consider such forms of support to initiate and develop opportunities for group singing as extensively as is possible.

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