SOUNDING THE SOCIAL: THE SONIC DIMENSION OF COMMUNAL BONDING THROUGH CHORAL PARTICIPATION

SHARONNE K. SPECKER

ABSTRACT

This study seeks to discuss the human relations inherent in creating collective sounds, and takes a sensory-based anthropological approach in examining how group singing participants experience social cohesion. Interviews with ten community choir members and two choir directors in Victoria, British Columbia, Canada revealed a wide range of sonic-specific social observations relating to choral participation. The responses involved sound production and harmony, creation and aesthetics, shared sound as social therapy, sound as collective memory, and sound as an embodied way-of-knowing. The results generated by a sound-based approach indicate the importance of further research of the sensory dynamic of social experience.

INTRODUCTION

Singing communally has long been a cornerstone of social and musical experience. A perfect fusion of the sonic and the collective, it is largely represented in North America and Europe by the choral singing tradition. As of 2003, 23.5 million people participated in choirs in the United States alone, and the activity remains highly popular in Great Britain and many European countries (Judd and Pooley 2014). The small seaside city of Victoria, British Columbia, Canada is no exception to this phenomenon.

What is it about this community of shared song that retains such potency? In the present study I seek to examine the way in which participating in a collective singing experience creates feelings of social cohesion and community among participants. Specifically, I am interested in whether such feelings of interconnectedness are experienced in a manner that is unique to the act of singing and creating sound together. Based on evidence in preceding literature and theory, I suggest that shared singing has sonic, sensory, and physical qualities that are perceived by participants as being influential in feelings of community bonding.

The beneficial attributes of group singing have been extensively studied and discussed, as have the social features of gathering together for a common cause. However, this research has been primarily focused on individual wellbeing, or on the generic benefits of being socially active. The present study is interested in the human relations inherent in creating collective sounds. Interviews with community choir members in Victoria revealed key factors in the sonic and social experience of shared vocal participation, and it is hoped that this research will shed light on the way in which individuals experience social connection through communal sound practices. The research sought to answer the following questions: 1) Do people experience social cohesion in a way that is specific to this musical/choral context? 2) Do choral participants express feelings of social bonding through terminology that reflects a sound-based experience?

A review of current literature reveals a considerable breadth of existing information as well as a need for further exploration on the topic of community music-making. Despite much evidence for participant experiences of social bonding, little attention has been paid to the sensory—specifically sonic or musical—components that may contribute to these experiences. Greater knowledge of these elements can have implications for future community-building initiatives, and may have value for intentional bonding activities in both musical and non-musical contexts. Drawing on research in various musical fields, and adopting an anthropological theoretical base, this study aims to uncover a deeper layer of the collective singing experience.

REVIEW

Extensive research in various fields has addressed the topic of communal singing. Contributions are found across a wide range of disciplines, from psychology, health, and music therapy to sociology, social work, and music education. Further input can be found in the areas of sound studies, identity studies, and anthropology. Though rooted in separate disciplines, the topics and findings have many overlapping qualities tied to the social component of singing together in groups. The shared experience of community, approached as a sense of connection and fellowship among participants, is a recurring theme.

The potential of group singing to generate feelings of community, long suspected, finds a biological base in physiological data collected over recent years. Research indicates that active musical participation raises endorphin levels (Dunbar et al. 2012) and synchronizes brain rhythms between co-participants (Lindenberger et al. 2009), and the act of singing has been shown to increase levels of the "bonding hormone" oxytocin (Grape et al. 2002). This evidence suggests that group singing has strong hormonal and neural foundations that promote heightened experiences of social connection.

Music therapy practices and research have also examined the social consequences of shared music-making, in both physiological and psychological contexts. Patients with neurological conditions were found to benefit from the social support network that arose from sharing a common interest with fellow choir members (Fogg and Talmage 2011), and feelings of interpersonal connectedness were evident among adult choristers who struggled with isolation due to chronic mental illness or disability (Dingle et al. 2012). In their extensive work with a choir of homeless men, Bailey and Davidson (2002, 2003, 2005) acknowledge that shared musical participation may have unique properties that can be conducive to greater wellbeing and interpersonal success, and participant responses included specific references to the choral process, such as the sensation of being fully physically involved in the joint creation of a musical product (Bailey and Davidson 2002). However, the authors choose to separate the musical experience from the social one, categorizing the first under "mental stimulation" and the latter under "group process" (Bailey and Davidson 2003). I propose that greater links may be drawn between musical engagement and social connection.

Silber (2005) proceeds in this direction in her study of a choir in a women's prison in Israel. Coming from a music education perspective, Silber posits that choral singing has unique properties that facilitate social cohesion and interaction through the cooperative activity of multi-part group singing. She suggests that the non-verbal medium (Silber 2005: 253) of group singing has transcendental possibilities, and notes that the specific process of singing together to create musical harmony requires the interpersonal tasks of listening, blending, supporting, and trusting. Trust and cooperation is established as a significant by-product of group singing activities (Anshel and Kipper 1988), and Silber's research confirms these positive social effects, indicating that the musical elements may be specifically responsible for establishing social cohesion. This pioneering study with a marginalized population sets a valuable precedent for further research on the sonic contributions to communal bonding.

It may be that these studies have focused extensively on disadvantaged or marginalized groups due to the critical need for-and clear evidence of-the explicit benefits of choral singing, and its potential function as an indispensable social tool for enhancing quality of life and aiding coping processes. Recently, however, in the wake of such findings, health and psychomusicology journals have also addressed the health and social benefits of choral singing among members of non- (or less-) marginalized populations (Eades and O'Connor 2008, Gick 2011). This is especially prevalent with respect to aging or senior citizens who may be experiencing isolation and depression (Cohen 2006; Cohen et al. 2006; Creech et al. 2013; Greaves et al. 2006; Teater and Baldwin 2014), though the emphasis is largely on the opportunities for interaction, rather than on the creative or musical activity itself. Bailey and Davidson (2005) compared the men's homeless choir with a middle-class choral example, bringing the subject matter closer to this research project. In Judd and Pooley's (2014) recent study of an Australian community choir, participant comments addressing the "sound of the music, the voices, the timbre of the voice, the music" (2014:275) provide support for the premise that the sonic activity and the social experience are linked, yet the connection remains largely undiscussed.

A previous study of the Victoria Gettin' Higher Choir by Kennedy (2009) provides a gateway to the present research. Strong feelings of community and social bonding are noted to be a significant aspect of participation among members, suggesting that this choir is a suitable choice for further research, but the socio-musical component is not addressed in depth. It is from this vantage point that the present study continues onward, seeking to reveal the ways in which people experience community in a specifically choral context. I suggest that the musical and social characteristics evident in Silber's (2005) study of choral effect on social bonding may also find a place in choral organizations aimed at a wider population. To situate the topic within the social sciences, one must turn to the work of anthropologists and sociologists engaged in the human interpretation of music and sound practices. Anthropologist Victor Turner (1969, 1986) suggested that it is possible to feel strong sensations of interpersonal group bonding spontaneously generated by shared experience–a circumstance he terms *communitas*. This concept was echoed in relation to music practices by Edith Turner (2012), and although I have addressed its relevance to the social dimension of community choirs at greater length elsewhere (Specker 2014), it is worth noting here as it indicates an anthropological precedent for addressing intense social bonding in group activities (such as musical participation).

In his seminal article "Making Music Together", Alfred P. Schütz (1951) discusses the process and effect of making music collectively, arguing that shared music making has a special capacity for bringing people together and creating social bonds and connections. Crucial to his approach is his concept of a "mutual tuning-in relationship" that occurs when two or more people share a synchronized musical moment. This is referred to, alternately, as transforming the "I" and the "Thou" into a common notion of "We", drawing on the philosophy of Buber (1923). Schütz's overall concept of being "mutually tuned-in" is significant, and indeed case studies mentioned above seem to support this notion (Judd and Pooley 2014; Silber 2005). Examples may include heightened listening to one another during music-making, collectively and simultaneously creating a musical or sonic product, or simply acknowledging one another's presence during the process of singing or making music together (see Silber 2005). All of these experiences or responses are therefore dependent on the central element of sound-an element lacking in many other group activities.

Schütz suggests that this shared socio-musical experience is not dependent on symbolic forms of communication, but instead constitutes its own distinct means of interaction and understanding. Put differently, we do not understand sound through discrete, abstract entities such as words and language, but on its own sensory terms. This is a view echoed by Steven Feld half a century later (1996, 2003). Feld takes a similar construct–of music, or more generally sound, as non-symbolic communication–but frames it a new discourse. He introduces the term *acoustemology*, a synthesis of "acoustic" and "epistemology" representing an acknowledgement of "sounding as a condition of and for knowing, of sonic presence and awareness as potent shaping forces in how people make sense of experiences" (1996:97). Feld focuses on the primacy of hearing and sound in the everyday life and sense of place of the Kaluli of Papua New Guinea. In so doing, Feld applies an acoustemological approach to the Kaluli sense of place, recognizing sonic sensory perception as a means of interpreting, comprehending, and making sense of one's world.

The approach can also be applied with respect to interpersonal relationships and identity. Kimberley Powell adopts this concept and terminology in a North American context in her study of contemporary North American Taiko drumming groups and the way in which they shape Asian-American identity through practices of creating collective sound. Powell examines shared sonic participation and its potential for contributing to feelings of group cohesion, considering "sound as a dimension of learning and practice, an organizing presence that connects the sonic with the social" (2009:1). She finds that, among the Taiko drummers, the physical experience of making unity, identity, sound together builds a sense of and interconnectedness among group members.

Powell notes that she prefers the term "sound" to the more specialized term "music", as it situates musical practices in their greater environmental context and allows one to better deconstruct "the ways in which social relations are embedded in sonic relations" (2012:102). I would further suggest that using "sound" allows one to also examine the physiological component of the sonic experience, in a way that may be less facilitated by the culturally based concept of music. Powell advocates a multi-sensory approach to sonic ethnographic work, following in the footsteps of Feld, who notes that "(s)ound, hearing, and voice mark a special bodily nexus for sensation and emotion because of their coordination of brain, nervous system, head, ear, chest, muscles, respiration, and breathing" (1996:97).

Feld (1996) approaches sound and voice as a full-body experience that links time, space, sound, physical and emotional components, and worldview. To use his ethnographic example once again, Kaluli ways of interpreting sound consist of "flow" (associated with water) and "lift-up-over sounding" (associated with the sounds of the rainforest as they overlap and travel upwards and outwards). The latter example is expressed through cooperative group singing practices that involve layering of individual vocal lines to create a synchronic sensation "of togetherness, of consistently cohesive part coordination in sonic motion and participatory experience" (1996:101). Interestingly, these results do not depend on unison—as the opposite is desired—but the very act of singing together, in space and time, has the effect of sonic unity and consequent social coherence.

The feeling of embodiment that is characteristic of participatory musical practices is referred to by various scholars as being synonymous with the concept of "flow" elucidated by psychologist Mihaly Csikszentmihalyi (1988, 1990 in Dunbaret al. 2012; Lamont 2012; Turino 2008) (not to be confused with the Kaluli conception of "flow" mentioned above). The experience of "flow" is characterized as involving deep concentration and a pleasurable sense of timelessness, participation in a rewarding activity, and being fully (Csikszentmihalyi engaged in the present moment and Csikszentmihalyi 1988; Csikszentmihalyi 1990). Returning to Feld's (1996) claim that engaging with one's surrounding on a sonic level is in fact a multi-sensory and embodied experience, one can presume that sound has an impact on senses or perceptions on a level beyond simply hearing. This appears to be supported by indications in the literature that choral participants perceive singing together as, for example, requiring that one's "whole body participates" (Bailey and Davidson 2003:26).

The embodied physicality of the vocal, sonic experience is further discussed by Feld in the following terms, creating interplay between the concepts of voicing and hearing: "One hears oneself in the act of voicing, and one resonates the physicality of voicing in acts of hearing. Listening and voicing are in a deep reciprocity, an embodied dialogue of inner and outer sounding and resounding" (Feld 2003: 226). This can be effectively applied to the experience of singing in a choir. Christopher Small (1998), in his book Musicking, sees music not as a singular object but as the product of relations between the sounds and between the performers, and as an activity that participants through the all-encompassing unifies its sonic performance itself. In the above statement Feld raises the possibility of heightened interpersonal connection through collective voicing, and by emphasizing the physicality of the experience in these terms, he addresses yet another prospective dimension of shared musical activity.

The physicality of singing or music-making, and its potential for generating social cohesion, has been addressed by authors besides Feld. Paul Filmer (2003), addressing the potential of coordinated, communal vocal practices as a means of determining and clarifying a collective social identity, discusses the physicality of shared singing in relation to McNeill's (1995) concept of "muscular bonding". The term denotes feelings of solidarity between members of a group resulting from shared physical, rhythmic activities-original employed in relation to drill and dance practices. Filmer (2003) argues that the act of singing together, being itself a physical, rhythmic, muscular activity of a kind, may have a similar effect on the social cohesion of participants. Thomas Turino (2008) broadens and rephrases this concept to "sonic bonding", suggesting that "(t)hrough moving and sounding together in synchrony, people can experience a feeling of oneness with others" (2008:2). The latter concept shares as its root the idea of physical sonic participation put forth by Feld (1996, 2003) and Filmer (2003).

Drawing on the ideas presented above, I approach the topic with the intent of determining whether choral participants express indications of being mutually tuned in to one another through shared music practices. I expect responses to show evidence of an embodied, multisensory experience, and of mutual bonding through the physical experience of singing. I also propose that experiences of singing together will be expressed in ways that are specific to the sonic medium, indicating a unique means of interpersonal bonding.

METHODOLOGY

I conducted interviews with members of two community choirs-the Gettin' Higher Choir (GHC) and the Victoria Good News Choir-in Victoria, British Columbia, Canada. To avoid the influence of compounding factors such as religion, obligation, or professionallevel musical goals, I did not consider church choirs, school choirs, professional choirs, or choirs whose primary goal was the resulting musical product. Rather, I actively sought out choirs that were voluntary, amateur, secular, mixed-voice, and non-auditioned, and chose these two for their emphasis on openness and community.

Approval to undertake this project was provided by the Human Research Ethics Board at the University of Victoria.

Preparations for research occurred under the guidance of Dr. Alexandrine Boudreault-Fournier and Dr. Quentin Mackie of the University of Victoria Department of Anthropology. Observing the strategies of Kennedy (2009), Powell (2012), and Judd and Pooley (2014), the research was approached as a qualitative case study in which participant responses were gathered via semi-structured interviews. The sample obtained was a sample of convenience, as my ability to interact with a choir was dependent on the inclination of the directors, and following my announcement at a rehearsal, only interested and forthcoming choir members took the information and subsequently contacted me to agree to participate in the study.

A total of ten choir members were interviewed for the study, eight from the GHC and two from the Victoria Good News Choir. The two conductors of the GHC, Shivon Robinsong and Denis Donelly, also participated, and their comments provide context and give insight into the choir's potentially influential ideology and approach. However, the primary data is derived from members' responses, as the conductor-participant relationship is not the topic of this paper.

In the manner outlined by Bailey and Davidson (2003), the question period was flexible and adaptable, allowing me to pursue certain topics if they appeared to be of importance to the participant and valid to the study. The interview questions were primarily worded in such a way as to avoid incurring bias in a particular direction, although the conversational nature of the interviews must be kept in mind. The interviews were audio recorded.

Following collection of the data, the relevant portions of the interviews were identified and transcribed verbatim. This research involves the responses that referred specifically to sound or sociomusical experiences, from seven choir members and both directors. The other results contributed towards a parallel study of more generic, transferable, and versatile social components of the choral singing experience, with an emphasis on Turner's concept of *communitas* (Specker 2014).

For purposes of this study I felt that it was beneficial to take a sound-oriented approach, as it is more concrete, physical, and diversely applicable. However, for the purpose of intelligible interview questions and accessible responses, in the discussion of the results the terms "sonic" and "musical" may, when referring to the choral experience, be used interchangeably to accommodate responses of participants. Full quotes have been included where particularly illustrative, but following the recommendation of Bernard (2011), comments of participants were sometimes judiciously edited for clarity. The identifying initials correspond to names where the participant agreed to identity disclosure, and have been altered for those who wished to remain anonymous.

Although participants may express views on the choral experience that are sonic-specific, this does not negate the fact that they may also participate in the choir for other reasons or experience community through different means. This is fully recognized. However, for the purpose of this study, I am interested in examining expressions of community that have a specifically sonic or choral basis, and I feel the relevant comments can be featured in this context.

RESULTS AND DISCUSSION

Shivon Robinsong and Denis Donnelly run the Gettin' Higher Choir as an open, non-judgmental group singing opportunity where participants can experience "the tremendous benefits of singing—how good it feels and how it weaves community together" (Shivon Robinsong, unpublished interview). The potential social benefits were already in mind at the outset, although it was never expected to swell to over 300 members and reach the height of popularity that it enjoys today. Themes emerged of trust-building and connection, and of harmony as both a musical and social concept:

On the surface, we're all learning the song, we're learning the words of the song, we're learning the rhythm, we're learning the melody, we're learning the harmonies, all that—but the subtext of what's going on is, we're all practicing listening to ourselves and to each other at the same time. Which is a wonderful skill for building harmony, like, harmony in the community, harmony in the world. It's the same thing... Harmony only works when people listen to themselves, and to each other, simultaneously (Shivon Robinsong, unpublished interview).

The practice of harmony, and the associated requirements of mutual awareness and interdependence, appeared to be as important in this setting as in the prison choir led by Silber (2005). Shivon also identified the aspects of shared aesthetic creation, cooperation, group support, and of being part of a bigger whole, all represented within a specifically sonic construct, and in a statement reminiscent of Schütz (1951) concluded that the experience "takes us all out of the 'me, me, me, me' into one big 'we'" (Shivon Robinsong, unpublished interview). Denis touched upon the embodied aspect of group singing, as well as the process of being "tuned in":

The breathing, and the making sound, and the working towards a common goal, and a big part of it is...just listening and being really tuned in, and having your voice match the other people's voices, and being able to experience that. So you get the vibrations from them in your body and you pass your vibrations to them, and it all kind of becomes this soup, where the focus isn't on any individual, it's on what happens *with* all the individuals, because it's something no one person can do by themselves (Denis Donnelly, unpublished interview).

Durrant (2005) has indicated that choir leaders are greatly influential upon the tone of the meetings and the identity of the group, which is applicable in this case, but given the scope of this paper the issue will not be addressed further at this time.

In discussing the social role of singing in a choir, participant responses represented two categories. One concerned what I will call the *generic* social aspect of singing in a group–factors that could be equally attributed to other group activities, such as gathering with likeminded people. The other concerned the *specific* social aspect–components or occurrences that seemed to be specific to the musical, sonic, choral experience. Participants also expressed a combination of the two attitudes. As mentioned previously, the first of these categories is addressed elsewhere (Specker 2014), and it is the latter that remains the focus of this study.

The study's premise, at the time of interviews, was that the physicality of group singing, the synchronous, embodied properties of making music together, and the perception and production of multivoiced sound in general would be the factors that most contributed to social cohesion. While these were indeed present in participant responses, they often merged or reflected personal as well as social experiences, and it became evident that there was further social bonding occurring through alternative channels. Feelings of shared personal history and cultural knowledge were cultivated through choices in repertoire, and practices of group singing were also approached as a path to personal and social healing in a shared context. The emergent categories of factors contributing to social connectedness were therefore as follows: a) sound as a way-ofknowing, through multi-sensory, physical, or embodied experiences, b) sound production and harmony, c) creation and aesthetics, d) shared sound as social therapy, and e) sound as collective memory. These categories will each be further explained and discussed below.

Sound as a way-of-knowing

I had drawn theoretical emphasis on the physicality of group singing from the concept of "muscular bonding" (Filmer 2003; McNeill 1995; Turino 2008), the notion that individuals share a feeling of unity and fellowship when engaged in repetitive physical activities together (such as marching or in this case, singing). However, this proved to be a challenging concept to elucidate in an interview setting. Responses by participants C., M., I., and T. suggested that for several participants, the strictly physical dimension of singing is a personal one and not related to social connection. Rather, the social physicality of the choir is addressed in a manner that is more multi-sensory and embodied, with impact felt through mental, emotional, or spiritual channels:

I: I'm singing, and my chest is vibrating, and my body's vibrating, and these sounds are coming in at the same time... (It's) physical, but a very special kind of physical experience to start with... Music is all through you–and that's an emotional experience too, but it's also a spiritual experience–my whole soul.

The participant went on to comment that he found the effect of communal singing to be beyond the capacity of language to describe. Feld's observation that voicing and listening is a two-way, physically embodied sensory activity rings especially true in light of such statements, as does Schütz's (1951) assertion that music–or sound–is a non-symbolic form of communication, and an experience that cannot be conveyed through conventional conduits. The uniquely human physicality of a choir was noted by participants Y. and T., pointing out that the instrument is the body itself. The broad scope of the choral experience, and the combination of physical, spiritual, and emotional components, seemed to invite responses that made reference to a unique way-of-knowing. Interestingly, the concept of "flow" as pertaining to a coordinated, embodied musical experience was also explicitly conveyed.

I: Some kind of thing happens, when you kind of flow, everybody flows together, where you're not individuals any more, you've kind of been melting into some kind of amalgam or something, and then are carried by that–I guess on some level it's an altered state of consciousness that I wouldn't get hiking with a group of people, or even dancing... There's something about doing that with all those other people, and making it flow together, and *them* doing another part, and *we're* doing another part, and *that flows* together.

The statement seems to perfectly exemplify Csikszentmihalyi's (1988, 1990 in Turino 2008) concept, and suggests that singing together with a goal of unity can have a powerful synchronizing effect. In this case, the feeling of cohesion with other members of the choir appears directly contingent on the participation in a shared sonic activity, further indicating an embodied, reciprocal connection between hearing and voicing (Feld 2003) and suggesting that such sonic interconnectedness can result in a potentially transcendental social experience.

Sound production, perception, & harmony

Various responses made explicit mention of sound—whether it involved the production of sound, the perception of sound, or the particular practice and experience of harmony.

S: Feeling open, connected, engaged... Feelings of a nice sound created by the harmony or just the voices

T: I think... there's a(n) enjoyment of making sound.

O: There's something wonderful when you're standing with a group of people and they're all singing the same thing, you know, and it sounds wonderful... it's quite nice sometimes just

to immerse yourself in the sound.

I: I think singing the sound is not only being immersed in the sound but it's also making the sound that is immersed in the sound. I think that creates the emotional experience -I don't think the emotional experience appears before that... The sound creates something that happens.

Comments such as these suggest that sound is a prevalent component of participants' group singing experiences. In some cases the sonic element may be a personal perception, but often the choral sonic experience as a whole is a result of the shared effort and participation of a large number of people, bringing it into the social realm. The communal nature of producing a pleasing choral sound, and the positive feeling it generates, also has ties to aesthetic perceptions. The feelings that I. and O. express, of being fully immersed in the sound, represent a uniquely sonic experience that, in this case, has direct associations with the experience of communal bonding in a group, and relates to voicing and hearing (Feld 2003:226). This brings to mind Turino's (2008) concept of "sonic bonding" which, though deriving from the concept of "muscular bonding", may fit subtly better with a sonic, acoustemological approach, as it privileges the experience of physically making sound together. The comments indicate that some participants do experience social cohesion in a manner concretely linked to the process of creating and experiencing sound simultaneously and collectively.

Participants such as I., T., and Y. also commented on the supportive experience of singing a note at the same time and pitch as other people in the vicinity.

T: Hearing the other voices around you, I think you do feel... like it's not a mental or emotional support, it's actually like a "voice" support.

References to the people "around you" would usually refer to others in the same voice section—sopranos, altos, tenors, or basses. Even when the choir as a whole is singing multi-part harmony, people within their voice section would all be singing the same part. The above comments indicate that there is a sensation of support and solidarity that may be derived from the vocal, sonic basis of singing in synchrony.

Harmony

The concept of harmony, touched upon by past participants of choral studies (Kennedy 2009; Silber 2005), has shown itself to be an extremely potent, widespread, and far- reaching aspect of the social singing experience. So prevalent was the term that comparisons of unison singing with harmony became a cornerstone of the discussions. Defined simply as several different notes (pitches) sung simultaneously to create a pleasing sound—usually a chord—the term is also, as Shivon indicated, used to infer peaceful social coherence.

S: Singing in harmony, there's just no question. The experience, whether it's a round, and parts of the round create the harmony, or whether it's we do a song in unison and then the next verse maybe (is in harmony)—it's just visceral; and the tones and the resonance are maybe the ones that are just like 'oh! I don't know how that works, but oh!'. It feels pretty strong.

Y: When you're singing with other people and singing different notes–I don't know what it is–it sounds neat, and it feels good.

J: [Harmony] adds a huge dimension to the sound...[it] always adds a richness, but...spontaneous harmony can also be a surprise and be fun and, 'oh my goodness, look what we just did, without anything written down.

These quotes, as well as supporting comments by I. and T., capture the key outcomes associated with the idea of harmony. There is a perception of richness associated with sound and vibrancy, an awareness of others, recognition of interdependence, and feelings of pride and accomplishment, all of which appear to contribute to feelings of social cohesion between the participants and their fellow singers.

The term "richness" was, at times, used in a descriptive manner to refer to the overall vocal sound and the aesthetic experience. However, the concept was also evident in the perception of the inherent diversity of the different parts, and recognition of what they can bring to each other. Some cited the latter as a source of connection between the different voice types.

I: Once we get going, get our parts-the sound is so beautiful, and I just like being part of that beautiful sound.

J: Look at the richness in that! That sound...If you just had sopranos it would be just kind of 'up here', but when you get this other bottom, solid (bass and tenor) sound...gorgeous. So, for sure, that's a connection.

This brings us to the second point associated with harmony, namely an increased ability to listen to one another, and an increased musical and potentially social awareness. For some, the awareness came from experiences of listening to one another and learning to blend voices—as noted by Shivon in our conversation. For others, there also appeared to be an experience of heightened emotional awareness. Similar attributes were noted by Silber (2005). There was a component of becoming more conscious and appreciative of other voices, as well as learning how one's part works with others, and seeing the bigger picture. Participants such as T. and S. also indicated being emotionally tuned in through that process.

S: Listening to others–I love that–again, a real supportive element. The basses...when they get it everyone goes 'yay, that's great!'...A resonance harmonally but also emotionally– a feeling that I get, whether it's...catching the eye maybe of someone in my alto section or looking across, you know, when there's a really beautiful chord or something, or that sense of meaning in a song and it just seems to have more power in it when you're in a group.

This comment indicates how creating sonic harmony can have implications for perceptions of intra-choir relationships and connection. Reminiscent of Schütz's "mutual tuning-in relationship", the statement also further illustrates the potential for multi-sensory or embodied experiences in a choral setting, which can in turn affect bonding experiences. Recognition of the interdependence and group effort required to create a work of harmony was present a several responses. Participants noted that it requires communication and cooperation, and that one can't do it alone. Some responses were also affiliated with the idea of creation and being part of greater whole, which recurs later in this study.

R: I love what you can co-create with other people, and you know, I can hear harmony in my head but I can't sing all the parts...I like singing harmony. You need other people.

T: I still get great joy out of how the music fits together, like the ups and downs, the length of the notes—being able to bring that into a physical life is really cool...But I think when you add the plus of the social side of it, the social support into the experience, it really does make it better overall.

T. also indicated an appreciation of good singers in the choir, suggesting a lack of competitiveness and an emphasis on mutual support and collectivity, in which a person with a strong voice is perceived to make the whole group that much better. She also notes that existing choir members have an obligation to rise to the occasion and fully sing their part, since the overall whole cannot be achieved without each singer contributing. An element of social responsibility is present, and a feeling of shared musical commitment.

Harmony also revealed itself to be an effective vehicle of collective unity through goal attainment. There was a strong sense of pride: in oneself, in one's particular section, and also in the choir as a whole, expressed by J., O., T., and M. This appeared to facilitate mutual bonding, as well also mutual respect. Support for one another was strongly evident, with the mentality that all succeed as the group succeeds.

J: (W)e'll sometimes applaud each other, like when the basses suddenly get their part, or do an extra super job, everyone'll clap, and vice versa. So it is...community. Certainly.

O: There's challenge when you sing in harmony, and something that's most amazing—once you actually get it to work! —it's really quite cool.

The challenge often appears to be what sets harmony apart from unison singing, and this ties into the aesthetic and sonic attributes of the experience as well.

Creation

As evident above, the idea of musical creation comes into play in this choral context-creation being a relatively broad, diverse concept that appears to have different meaning for different individuals. For some, musical creation involves aesthetics, with relations to sound and harmony. For others, social meaning is derived from sharing the product with audience. For still others, working with a group towards a uniquely musical goal was paramount. Pride and accomplishment is evident here also, although not necessarily related to harmony specifically.

Statements such as the one below illustrate the way in which musical creation can have a strong sonic basis that contributes to feelings of interconnectedness. Aspects of Feld's (1996, 2003) reciprocal embodied resonance and Schütz's (1951) "mutual tuning-in relationship", though not directly stated, seem to be implicitly invoked by way of feeling connected with others in the space through the process of creating a greater sonic whole.

S: A bigger realm that just feels so profound, I guess, of being in a room and hearing the harmony and having my voice be part of it, or, you know, being part of a group that seeing the creation of this layering of stuff.

I suppose there is that sense of journeying, of all going together –and it could be from learning the songs up to performance, that feels like a journey–and there's exposure, vulnerability, I think, that I experience and witness in varying degrees–so that closeness, and just admiration and caring that comes from that.

Comments by I., T., and Y. echo the feelings of support and empowerment arising from the eventual choral performance or musical product. One participant suggested this phenomenon was applicable to any group activity, and another chorister expressed similar sentiments in relation to participating in theatre productions, so there are clearly also non-sonic examples. However, the statement above was issued in response to the question of why she chose a choir and not another social activity, indicating that, for her, it represented a very specific experience, unique to singing and performing together in a choral setting.

Shared sound as social therapy

Another aspect involved a communal experience of providing and receiving healing. Although there is much documentation of the personal, individual therapeutic benefits of choral singing, the intensely social, group-based process of healing was considerably less expected. Given the sonically grounded nature of the following comments, they evidently represent an additional way in which choral participants experience community through singing. Participant I., whose grandson was in critical condition at birth, elaborated on the healing aspect, as did S.:

I: The choir sang to us, and for us...they were just holding us in their hearts, but they were singing while they were doing it, and there's something about that.

What we do occasionally if somebody is not feeling well, or suffering, or tired, or just needs a little encouragement is we put them in the centre of the circle and then we sing to them– hoho, I tell you–THAT's an experience!

S: That sense of connection, being part of a greater whole...And having a place to grieve.

In these cases, it appeared that the aspect of *shared* awareness of therapy was equally as important as the *personal* experiences of healing. Further, the therapeutic qualities are intimately linked to the experience of participating in the sonic whole, bringing another dimension to the sonic means of connecting and bonding.

Sound as collective memory

This category was unexpectedly prominent, and manifested itself in different ways. The clearest route involved singing repertoire

that was culturally familiar. Expressions also cited audience participation, and how performing familiar songs in a concert setting can strengthen feelings of solidarity, familiarity, and subsequent community. Within the choir itself, repertoire choices as well as informal gatherings provided opportunities for members to share social sonic memory.

T: I think the memories part of it is really cool, where you remember that you used to sing, because you had to, in elementary or church or whatever... A lot of the choir members are older, and they'll say, 'oh, yeah, I used to sing this in school when I was a kid'... And the audience has said this too–like we'll sing 'Take Me Out To the Ballgame' and the audience will sing right along–cause they know those words!

C: (Denis will) do a bunch of Beatles songs, and various things like that, and just get everybody singing songs that they know...just sort of a fun sing-along around the piano, at the end of the potluck...all these little ways of (creating) community.

Memory involving social, sonic experiences from past also appeared to be carried on into the present, with ramifications for feelings of community in the current setting. The participants below, from Danish and Quaker backgrounds, respectively, noted that they grew up in a strong cultural singing tradition that forged deep social ties.

O: You would sing at any occasion, birthdays, festival, Christmas–and everyone knew–and if not, could always follow along – it was a really connecting thing.

C: I grew up singing folk songs, and stuff, with people around, so I was used to the whole idea of singing in groups... I grew up in a very encouraging community of singers...For me it's just like...coming home, you know, it's like what I need based on where I've come from to feel comfortable, is good people to be with. And singing is a good thing to do.

In this context, the concept of 'sonic bonding' (Turino 2008) takes on a somewhat different colour. Bonding through sound becomes contingent on identifying personal or shared sonic memory,

adding another layer to the increasingly complex matter of experiencing community through sound and song.

CONCLUSION

In this study I sought to determine whether the experience of singing together in a choral setting could generate experiences of social cohesion through uniquely sonic means. Drawing on previous evidence and theory from music and the social sciences, I expected that participants would perceive feelings of social bonding through the avenues of shared physical participation, a sensation of embodiment and synchrony, and sound production and perception. I approached these from an acoustemological standpoint, acknowledging sound as a unique, sensory way-of-knowing.

All these groupings were indeed represented, but not necessarily in ways that were predicted. Participant reflections on the shared sonic experience were fluid and complex, often encompassing multiple categories and concepts. Consequently, the boundaries between the predicted responses became necessarily blurred. The physical experience was revealed to be often indistinguishable from the emotional experience, rendering distinctions between the strictly physical, and the more generally embodied, obsolete. Sound and sonic perception were verified to be a particularly large part of the social singing experience. Participant responses showed that utilizing a sonic means of understanding the choral and social situation was common, reinforcing the necessity of an acoustemological approach in studying group musical activities. The process of vocalizing sound together brought about implicit feelings of mutual "tuning-in" and connection, creating feelings of collective unity in a specifically sonic manner.

Additional comments and concepts widened the range of sonic attributes predicted to be evident among responses, however. The act of jointly creating a musical product was an important community builder, and the therapeutic aspects of singing together were not limited to the individual experience, but became a collective cause. Memory also played a role for some participants, generating community and continuing the cycle of group singing from the past into the present. The many aspects and dimensions exceeded expectations, and the diverse nature of these responses illustrates the wealth of knowledge that can be gained from taking a sensory approach to social experiences. This could further inform the way we consider, and subsequently address, social or interpersonal processes and contexts, from corporate team building to use of public spaces.

This study features a small number of participants in a very specific location and circumstance, and so should be treated as a limited case study, and not as a broad generalization. However, further work can be done in testing the applicability of these concepts and categories in alternate settings, and it is my hope that studies of this nature will expand the depth and breadth of anthropological research. From the responses gathered thus far, it is evident that the sonic potential to generate cohesion through singing remains strong, and such groups continue to be relevant–creating community, connecting individuals, and building bridges of sound.

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