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Caring through Sound and Silence

Technology and the Sound of Everyday Life in Homes for the Elderly

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Abstract

Literature on sounds inside institutions has shown that sounds are indispensable to the working of hospitals, schools, prisons, and other institutional environments. Drawing on ethnographic fieldwork in three eldercare homes in Germany this article suggests that the more permanent care context of institutional homes for the elderly compared to a hospital setting is decisive for people's interpretation of and engagement with sounds. This is true at multiple levels, such as "monitory listening," the use of "music as a technology of self," or sounds as a tool of care. In fact, in this long-term care context even silences prompt action. Based on their experience with individual residents, for example, caregivers can direct their monitory listening not only to existing sounds, but also to the silence of expected but absent sounds. Throughout the article, additional consideration is given to the role of the technologies that produce the sounds, showing how in their design and functioning they shape, complement or prevent people's attention to sound and silence. Finally, I propose that research is needed that goes beyond an understanding of silence as a healing environment for the vulnerable and sick and instead attends to the complexity of this acoustic event within the context of eldercare homes.

Keywords: *elder institutions; ethnography; sound and silence; technology; Sound Studies*

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It will soon be midnight. Most residents in the eldercare home are sleeping. Silently, caregiver D enters one room after the other to see, smell, listen, and feel whether everyone is doing fine, to adjust a fallen blanket, to hand a glass of water, or to change a stoma pouch. I follow her silently. From time to time she whispers a comment about the resident, on what she observes and what she does. Walking along the corridor we can hear radio sounds from behind a closed door. We enter the room. Resident E is lying in her bed, sleeping. Her radio is playing loudly. Caregiver D has a look and decides that everything is fine. On the way out she whispers that she better not turn the volume down yet in order not to wake up the resident.

In his ethnographic study on sound in two British hospitals, anthropologist Tom Rice (2013) noticed how nurses tried to establish a quiet ward during night. They spoke with a softer voice and lifted privacy curtains with more caution than during the day. They exercised what Rice calls "aural self-surveillance" (2013, 29). I made a similar observation in the three nursing homes in Germany that I visited as part of an ethnographic study on everyday sounds in eldercare institutions. While nighttime means a time to sleep for residents in the home, it is the time when the nightshift caregivers become active. Alignment of these different rhythms takes place partly through self-regulation of the caregiver's own production of sounds. Practices of aural self-surveillance during night often include not knocking on the door when entering a resident's room, opening doors carefully, walking on tiptoes, and whispering. However, as the instance I recalled at the start of the article highlights, caregivers sometimes decide against the creation of a night-time silence. Although resident E was already sleeping, the caregiver preferred not to turn off or lower the volume of the radio. Based on my comparative ethnographic fieldwork I argue that caregiver D's action is one example of a form of soundscape interpretation that is characteristic for the context of residential care homes.

Just like hospitals, eldercare institutions are dedicated to taking care of the health of their "patients." One implication of this is that both types of institutions are equipped with various care and non-care related technologies that shape the sonic environment. One example is the help bell system—a key technology for the institution's organization as well as for studying the role of sounds herein. Contrary to hospitals, however, where patients' sonic experiences are commonly connected to a temporary stay on the ward, elderly homes constitute a more permanent institutional environment for their inhabitants. This article's goal is to attend to this difference of permanency versus temporary stay by juxtaposing some of the sonic experiences and interactions of residents and caregivers in my fieldwork sites with those of the hospital patients and nurses in Rice's analysis.

The findings suggest that, in fact, the knowledge and experience gained in long-term interactions with others in the homes play a decisive role in residents' and caregivers' interpretations of and reaction to auditory events. To illustrate this argument, I will lead the reader through three levels of sound interaction in the homes: 1) monitory listening, 2) music as a technology of self and others, and 3) music as a tool of care. These three levels are chosen as exemplars. Of course, there are many more aspects of the soundscape of eldercare homes that are shaped by the time people spend living or working on the ward. Both caregivers and residents told me how over months they had learned to distinguish people in the home by the sounds

of their shoes walking down the hallway. Everyday sounds like the rolling of meal carts or the rattling of dishes become indicators of specific times of the day, helping residents and staff members to adjust to and orientate themselves within the institutional life. Unravelling the multiple ways in which sounds contribute to the structuring of everyday life inside eldercare institutions has been part of my ethnographic study. However, in this article, I will limit the analysis of the empirical material to instances of monitory listening, music as a technology of self and others, and sounds as a tool of care.

It is relevant to mention that the implications discussed in the following pages primarily apply to those cases where both caregivers and residents have long tenures in the homes, allowing them to build up the necessary familiarity with each other and with the institutions' socio-material environment. Where this is the case, though, I made the remarkable observation that not only sounds, but even silences, prompt action. Based on their long-term experience with individual residents and their use of the help bell system, for example, caregivers can direct their monitory listening not only to existing sounds, but also to the silence of expected sounds. In the discussion of each level, I therefore aim to show how in the three fieldwork sites, listening and reacting to sonic events happens in terms of both knowledge about others *and* knowledge about the function of the technologies in use.

Following this introduction, I will first situate the article within scholarly debates in the interdisciplinary field of sound studies and provide background on the theoretical lenses applied. Subsequently, I will discuss my methodology. The analysis of the empirical material will be divided following the three exemplary elements of the soundscape of eldercare institutions mentioned above. Throughout the article, silence in terms of absent sounds reappears as a crucial element of sonic events inside eldercare homes, prompting attention and care and triggering varied personal feelings. The last section then demonstrates that extending the ethnographic focus from sounds to silence—how it is experienced, sought and avoided—can reveal something about the complexity of sonic needs in these later-life home environments.

Sound Studies and Anthropology

This article is situated at the intersection of Aging Studies, Sensory Anthropology, and the interdisciplinary field of Sound Studies which has been deeply informed by Science and Technology Studies (STS) (Pinch and Bijsterveld 2012; Sterne 2012). A core theme of sound studies research is to attend to what sonic anthropologist Christine Guillebaud (2017) described as the "inherent complexity" of ambient sound (2), that is, to acknowledge and examine both the material as well as the immaterial (the social, cultural and historic) textures and alterations of the sonic worlds that we live in. This point is emphasized by anthropologist Jennifer Hsieh (2019) who writes that what the study of piano sound as noise in Taiwan demonstrates is "the distinctions between noise as a material object and noise that is imbued with meaning" (14). Although the concept of "soundscape," as it was first formulated by Murray Schafer in the 1970s, has been criticized for focusing primarily on the materiality of sound, neglecting the social and cultural embeddedness of sound and ways of listening (Samuels *et al.* 2010), in later refinements of the soundscape we already find explicitly mentioning of both the material and cultural dimensions. My ethnographic study builds on the work of Emily Thompson (2002), who defines soundscape as:

> simultaneously a physical environment and a way of perceiving that environment: it is both a world and a culture constructed to make sense of that world. The physical aspects of a soundscape consist not only of the sounds themselves, the waves of acoustical energy permeating the atmosphere in which people live, but also the material objects that create, and sometimes destroy, those sounds. A soundscape's cultural aspects incorporate scientific and aesthetic ways of listening, a listener's relationship to their environment, and the social

circumstances that dictate who gets to hear what (1).

Within the broad range of sonic worlds addressed in sound studies literature, most relevant for my research is the emerging debate on sound inside institutions. Scholars from anthropological as well as sociological backgrounds have analyzed sound in schools (Gallagher 2010, 2011), prisons (Rice 2016), hospitals (Harris 2015b; Rice 2013) and hospices (Gunaratman 2009). Their work engages with and answers to concerns raised about western ocularcentrism and the bias towards the visual in knowledge making and representation (Rice 2013; Samuels *et al.* 2010). Often drawing on ethnographic research, these authors vividly illustrate how sounds contribute to the temporal, spatial, and social structuring of everyday life inside various institutions.

Challenging the focus on vision within Foucault's analytical concept of power relations, Michael Gallagher suggests the "dominant ocularcentric understandings of surveillance could be enlarged to encompass what might be termed 'panauralism'" (2010, 271). The management of prisoners, students, patients, and hospital staff members is not confined to the visual realm but takes shape in other sensory modes, such as the production of sounds and forms of monitory listening. Examples of acoustic monitoring include a bell and the teacher's listening ear (Gallagher 2010), a key rattling and screaming voices (Rice 2016) or monitoring technologies and doctors' phones (Harris 2015a; Rice 2013). The concept of "monitory listening" thereby describes one of several modes of listening. Its purpose is to detect and attend to possible malfunctions of the object/subject of attention, indicated by a deviation from what the listener expects to hear or by a sound that explicitly warns about malfunctioning (Supper and Bijsterveld 2015). In his hospital study, Rice (2013) notices how monitory listening often happens alongside other activities. It is a form of "listening in readiness" (Truax 2001), allowing the listener to engage in other tasks while having one's attention ready to receive any significant sonic information.

In the context of residential care homes, such constant auditory alertness may be considered a form of surveillance or supervision, but in as far as it entails the execution of power and control, it is always directed towards the protection and care of the elderly residents. For a nuanced understanding of the blurring between logics of surveillance and logics of care, Peter Lutz (2015) suggests complementing care surveillance with the notion of "care-valence" (158-9). Developed in an anthropological and STS-inspired study of senior home care, this notion introduces the three dimensions of the term valence—screening, bonding and encouragement—to avoid reducing the complex effects of attention in care to disempowering conceptualizations of surveillance.

In fact, it seems helpful to not only examine the sounds of institutions as if these were merely disempowering and outside the control of those immersed in them. Rice (2016) himself has shown how even in captive institutions such as prisons, inhabitants actively create and employ sounds for their own purposes. They exercise "acoustical agency." One form, specified by Rice as "musical agency," is the inhabitants' use of personal stereos for the purpose of managing their emotions. Another form of acoustical agency becomes evident in the prisoners' attempts to escape the often very noisy environment of banging doors, loud music, screaming, or key rattling by actively looking for more quiet places like a prison's chapel (*ibid.*). The concept of acoustical agency then refers to the active use/avoidance of music technologies as well as the active use/avoidance of other forms of sound like those produced by the pushing of chairs or the beeping of the alarm bell system.

For questions concerning the use and avoidance of music technologies in residential care homes, I take sociologist Tia DeNora's (2000) concept of "music as a technology of self" (46) as a starting point since this reflects human agency specifically in the context of music listening. This concept developed out of an exploratory study about private music listening practices of women in the UK and the US. It describes how

music is put on for the purpose of managing the self, how "music is appropriated by individuals as a resource for the ongoing constitution of themselves and their social psychological, physiological and emotional states" (DeNora 2000, 47). The concept entails two key points. The first is the private, one-to-one character of human-music interaction. The second is the proposition that these music practices are done in an "aesthetically reflexive" (DeNora 2000, 48) way, referring to the listener's awareness about what kind of music she or he necessitates to regulate or maintain the desired or demanded state of self.

Such use of "music as a technology of self" can also be found in residential care homes. However, the institutional setting implies that the boundaries between private and public, and between self-decided and not self-decided use of sound technologies, blur, as who turns music on and off, for whom, and for what purpose is not only a question of institutional power relations. In an environment of care, differing physical and mental capabilities affect who gets to hear what. Moreover, the design and placement of sound technologies co-shapes the possibilities of individuals to exercise acoustical agency. This specific setting of eldercare homes, the mingling of private and public space, and their special temporal context as long-term will be given attention throughout the article.

Methodology

The empirical material stems from a research project in which I studied the role of everyday sounds in three eldercare homes in Germany. In the case selection I looked for differences in the institutions' approaches to eldercare and the role that music and technology played. In the EDEN-Alternative care philosophy, as practiced in home A, both instrumental and electronic music play an important role. A record player on wheels is one example of how in this institution sound technologies are explicitly used to interact with the residents. As a contrast, a second home was included (referred to as home B) where the approach to care and the social and material organization of everyday life is grounded in the ideas and values of anthroposophy, a cosmologic and spiritual-scientific philosophy founded by Rudolf Steiner. My assumption was that in a nursing home based on this worldview I might come across explicit avoidance of sound technologies (Heine 2009). Actively making music by singing and playing instruments together, however, seemed to be as important as in the first home. For the third case, I included a more standard German nursing home, one in which the handling of sounds and music did not seem to be as much in the focus as in the other two (referred to as home C).

Between March and May 2018, I conducted two weeks of ethnographic fieldwork in each home. Attentive listening, participant observation, and fifteen semi-structured qualitative interviews with caregivers, care workers, residents, their relatives, and institutional managers were further enriched by sound elicitation. As anthropologist Anna Harris (2015a) explains, the sound elicitation method uses sonic prompts as a way to interact with interviewees and to "elicit fuller and more detailed responses than might otherwise be possible" (20). In a context where elderly interviewees might suffer from forgetfulness and therefore potentially have difficulties sharing past sonic experiences, sound elicitation can help to trigger sleeping memories.

During fieldwork, I used sound elicitation in two different ways. One was to record sounds of the institution's everyday life (roughly 25 hours in total), play short sections of one to four minutes to my interlocutors and work with the prompted verbal and non-verbal responses. The second way was to elicit the sonic prompt myself. At the end of interviews, I sometimes reproduced typical routine sounds like the knocking at residents' doors. While the first form proved promising in interviews with caregivers, some residents had difficulties hearing the recorded sounds. Reactions then resembled a guessing game. However, the use of knocking as a sonic prompt elicited rich accounts of everyday sound memories which the respondent did not think of during the normal interview. In reaction to such a knocking sound, one

lady for instance told how this sound is something she looks forward to every morning. She is unable to get out of her bed herself. Hearing the knocking is therefore a sign of approaching help, a relief in the situation of a pressing bladder. The sound elicitation method thus indeed supported the remembering and sharing of experiences related to the prompted sound and the subjective meaning it carries for the interviewee, but replication worked better than playing the recordings.

One conceptual remark about the delineation of the "everyday sounds" considered shall be added here. When starting the project, I was specifically interested in two questions: first, how the sounds of technology contribute to the structuring of everyday life inside eldercare institutions, and second, how residents, staff members and visiting relatives actively employ or avoid these sounds to create a life that they consider good. Technology and its sounds was thereby understood in a broad sense, including the beeping of alarm and monitoring systems or songs and voices played by radio and TV appliances but also the sounds of chairs being moved, of shoes walking down the hallway, of meal carts being pushed into elevators, or of caregivers' knocking on residents' rooms. In line with Thompson's soundscape definition, I furthermore payed close attention in my ethnographic observations to the architectural details of the houses and the design of the materials used inside. Inspired by an STS understanding of technology as both material artefacts and as practices, DeNora's (2000) concept of "music as a technology of self" became an important analytical framework for studying the active use and avoidance of sounds inside elderly homes and an additional factor for the choice of sounds to be studied. When considering sounds from a perspective of "music as a technology of self," not only music technologies and musical instruments, but also some human vocalization in the form of singing, appeared to play a role and was therefore included in my study of the sounds *of* and *as* technology in eldercare homes.

Although additional forms of human vocalization—communication, expressions of feelings, or the repetitious and distressed sounds coming from some dementia patients— are of course a central feature of the soundscape of eldercare institutions, my ethnographic study thus primarily concentrated on those everyday sounds produced by technologies and those used as a technology of self. During fieldwork, however, I repeatedly noticed how staff members' decision to put on music or radio sounds was closely related to matters of human vocalizations in the home, especially the silence of a group of residents sitting together without talking. In my attempt to unravel some of the complexity of the absence of sounds in relation to the specific context of elderly homes, I therefore also turn back to (the absence) of human vocalization.

Monitory Listening

Within empirical research on institutions, Michael Foucault's (1977) "panopticism" is an often-used concept for the study of power and supervision. While the panopticon was originally designed for a prison by Jeremy Bentham, Foucault extends this idea of visual surveillance to explain power mechanisms in a variety of disciplinary institutions including factories, schools, army barracks, and also hospitals. In line with Foucault's argument, Rice (2013) writes:

> They [hospitals] are spaces in which power is directed towards the control and organization of people and behavior. Hospitals involve the management of large numbers of people. Patients must, for instance, be sorted, categorized and spatially arranged according to the nature of their complaints. Their freedom to move around the hospital and interact with other patients must be restricted so as to limit contagion. They must be repeatedly checked to ensure the treatment is properly administered and followed, thus becoming subject to practices of monitoring and supervision (22).

Some of these characteristics also apply to eldercare institutions. They too are places where care of sometimes more than 100 residents must be coordinated. In general, residents may move around freely. Yet, on wards for patients with high levels of dementia, sometimes entrance doors are locked, located in close proximity of a receptionist's eyes and ears, or redesigned into a painted bookshelf. In all three research sites, the residents are checked frequently. One of the main reasons mentioned by caregivers is the risk of falling and not being able to call for help. How is this need for a constantly present "help in readiness," and for the awareness of any distress faced in the three homes?

It was interesting to observe that the architecture and material design of each institution show elements that support the idea of a panopticon and others that clearly contradict it. Especially in newer buildings (home C plus dementia house in home B) the caregivers' offices are placed in the middle of the ward and designed with big windows facing group areas. This way caregivers can observe many residents at once while simultaneously having the possibility to close the door and be out of the residents' auditory horizon. I participated in a group activity in one of the dementia sections of home B which involved piano playing and moments of intense silence. Two nurses were sitting in the office, seeing us and being seen, but I did not hear their voices, although I saw that they were talking.

Nonetheless, visual control is not always a priority in the design of these houses. Before the renovation of home C there were long corridors where the gaze could wander all the way from one end to the other. In the course of renovating the home, architects suggested building "eggs" (term used by the care manager to describe them) in both ends of the corridor. These are wide round pillars with wooden lamellas that give the long corridor a more aesthetic character, but limit visual surveillance. Yet, sounds can still follow the roundabout around these eggs, being heard by the attentive listener further down the hallway. This is a good example of how visual surveillance can be complemented and replaced by the ear, underlining Rice's (2013) argument about the reinforcing relationship between the visual and the auditory in monitoring patients in healthcare institutions.

While I acknowledge the relational dimension of sensory experiences also foregrounded in Serematakis' (1994) discussion of "relative sensory ratios or balances" (126), unravelling the interplay of the senses in acts of care and supervision would go beyond the scope of this article. Aware of my drawing of sensory boundaries, I hope that this zooming in on my research participants' experiences and engagements with auditory aspects of their everyday lives inside the homes will help to clarify the point I want to make: that indeed, the special context of these more permanent care and home environments allows residents and caregivers to interpret, engage with and actively co-shape their sonic environment in ways that differ from those in other more temporary health care institutions. To this end, the rest of this section analyses practices of monitory listening in my fieldwork sites and subsequently compares them to other literature on sound and monitory listening in healthcare institutions.

In the homes I studied, the clearest example of mediated monitory listening is the use of the help bell system. Typically, there is one help button attached or close to every bed plus another one in the bathroom. Once a resident presses the button, a beeping sound goes off at several stations on the ward, including one in a caregiver's office, one in the ward kitchen and living area, and sometimes in the hall or common bathroom. In addition to these stations, the alarm will go off in every resident room where a caregiver is currently present. Whenever they enter a resident's room, caregivers have to push an attendance button to indicate their presence to their colleagues. An activated attendance button in turn implies that any call issued on the ward will also elicit a beeping in this room. This way it is secured that monitory listening can be done wherever caregivers are and whatever they are doing.

What is the everyday practice of attending to these calls? In her study, sociologist Sabine Weishaupt (2006) demonstrated the centrality of experience-based knowledge in care activities in nursing homes. Indeed, my ethnographic data confirms that caregivers' interpretation of and reaction to the bell ringing is informed by multiple senses and tacit knowledge. After hearing the sound, they usually look at the device's display, see the room number and note who is calling. Based on their assumed knowledge about every elderly resident and on the urgency of their current activity, they decide how fast they will react to the sound. Occasionally this can take time.

Rice (2013) made a similar observation in the hospitals where he conducted research. He tells how in very busy moments nurses would sometimes not respond to help calls directly or ignore them entirely. When numerous calls and tasks arose simultaneously, priority decisions had to be taken. Weighing between competing tasks and calls is a challenge of monitory listening that caregivers in residential homes also face. Yet, I want to argue that the different tempi in answering help calls observed during my fieldwork are not primarily a matter of competing tasks, but also, of the more permanent setting of this healthcare environment.

One day in home A, lunch had just been finished and the two caregivers had accompanied each resident to their room for rest. The help bell station in the ward kitchen started beeping. One caregiver looked at the room number shown on the display and made a joke with the resident by imitating a voice mail into the system's two-way intercom option, hanging up immediately after. She did not go to the resident's room. Later, she commented to me that this resident is one who constantly presses the help button after lunch. Thus, the caregiver explained why she did not attend the call. Given her experience, she felt confident that this call would be nothing urgent, just one of the resident's repeated requests for attention

Long-term experience not only allows caregivers to decide where and how quick to allocate their attention and care, but also, through repeated interactions, they can build an acoustic knowledge of their residents' daily rhythms. A caregiver illustrates this nicely:

> For example, in the morning around 7am it is always clear that this and this person will give a call, yes, and then of course I expect their call, or rather that I receive a beeping, have a look and see the room number. And when that is not the case, then at the latest 15 to 20 minutes later I will go into the room, whether she has called or not (Interview F).

This caregiver has been working for several years in home B. What in the beginning might have appeared as an enigmatic network of help calls has over time and repeated experiences crystallized into some routine morning calls. Drawing on the work of anthropologist and ethnomusicologist Steven Feld (1996), the caregiver's knowledge about residents' daily rhythms might be understood as a form of "acoustemology," mediated by the technological system. Originating from Feld's realization of how central rainforest sounds are to the Kalulis' life, knowledge and sense making, "acoustemology" describes a way of knowing through sounds (see also Rice 2018). This is not to argue that sound is the most important factor in caregiver's relationship with and management of patients, but that being familiar with residents' routine morning calls enables them to coordinate care activities accordingly.

There is something additionally interesting to notice in the quote above: the caregiver tells how, when listening to the help bell system, he orients his attention and care not only to incoming calls but also to the silence of expected, yet absent calls. This is an important observation as it illustrates how in this more permanent healthcare environment, caregivers' acoustemology allows silence to prompt action. For the monitory listening of caregivers, the silence of expected but absent sound can be a sign of danger or

heightened caution preparing them to go and have a look if everything is fine (Bijsterveld 2019). Rice (2013) does not mention whether listening to the absence of expected calls was part of monitory listening in the hospitals he visited. However, this phenomenon presupposes routine sound productions on side of the elderly (ringing every morning around 7am) and knowledge about these routines on side of the listener. Since residents usually spend a long time in eldercare homes, caregivers can base such expectations on their long-term experiences with every elderly resident. This is likely to be different in a hospital environment.

Residents are not only the objects of monitory listening. In all three homes I was told stories about how residents come to actively complement the monitory listening of caregivers. One resident in home A, for example, shared such memories:

> Well if I am not listening to music, I hear quite a lot. In the next room Ms. G passed away last year in the summer, she suffered greatly from dementia but was a wonderful, lovely woman. And when I was in my bed at night, I usually heard every sound. And then, when I heard something, I knew that Ms. G had fallen again. Of course, I then immediately pressed the help button myself, the alarm button. (Interview H).

Again, knowing the vulnerable state of the neighbor and the sounds of her falling, the resident was able to quickly call for help. Such horizontal monitory listening among residents becomes especially relevant when the "listening in readiness" (Truax 2001, 22) of busy caregivers is complicated by everyday background sounds.

So far, we have seen how a mutual knowing becomes key to the monitory listening practices inside eldercare institutions. I have shown that in cases where caregivers "know" that most probably it is only a call of being bored, their reaction can take time. This is different, however, when the frequency of the beeping changes. I was "lucky" to experience such a situation once during my sonic walking with a caregiver in home B. We had entered the room of one resident and the caregiver was now preparing the man for the night. Suddenly the help bell started beeping but with a different sound, with shorter intervals than usual. Without hesitation, the caregiver left everything and rushed to the room where the call had been set off.

To understand his reaction, another detail of the help bell system needs to be mentioned. The system does not only provide assistance to residents, but additionally communicates help calls among caregivers. When they are in a resident's room and an emergency happens, a caregiver can call for a colleague's help by pressing the same button as the resident. A caregiver's call can be distinguished from a resident's based on the higher frequency of the beeping tone. In the situation above, hearing the quick beeping indicated to the caregiver that one of his colleagues is in serious need of help, that there is an emergency, and that he has to run *now*. Thus, it is not only the familiarity with residents and their call routines that is important for the caregivers' interpretation of the sounds of the alarm bell system. Their understanding of the functioning of the technological system also plays a role. They have learned that the fast alarm beeping means urgency with little regard to second thought.

Music as a Technology of Self

Apart from informing care activities, such as the monitory listening discussed so far, sounds and music are often assigned important roles in eldercare homes, negotiated by the residents, their visiting relatives, and the institution with caregivers, care workers and other professionals. This makes nursing homes an interesting place to study sounds from DeNora's perspective of "music as a technology of self."

In her ethnographic study on private music listening practices among women in the UK and US, DeNora (2000) shows the various forms in which individuals use music as a way to change or enhance their mood. They draw on music to relax, become active, feel pleasure – all tied to music's role in the "construction of the self as an aesthetic agent" (46).

The use of music in eldercare homes is often attributed a similar role. However, the institutional context implies a very different setting from the one in DeNora's study. Music listening practices in residential care homes go beyond one-to-one human-music interaction. They take place in group activities such as the dancing described by anthropologist Jonathan Skinner (2013). In many residential care homes, radio sounds fill public areas like living rooms, ward kitchens or elevators. They are heard in the rooms of residents or offices of employees. Sometimes, "Glenn Miller Big Band music floats out from behind closed doors" (Denzin 2019, 1). Even in cases where the act of listening is private, the choice of music as well as the turning on and off may be done by another person. In fact, patterns of musical agency are complex, diffuse, and constantly (re-)negotiated among residents, caregivers, institutional managers and visitors from outside.

Two examples illustrate how the more permanent character of eldercare institutions also manifests itself in practices of musical agency. It is common in all three homes that caregivers put on music for residents in their rooms. What usually happens is that residents who want to listen to music, but cannot turn on the technologies by themselves, ask caregivers to do so. However, this is not a daily type of communication. A caregiver's account illustrates how preference statements become integrated into routine behavior:

> I: ...with one resident I know exactly he wants his radio to run in the morning. That is the first, when I enter the room, I turn on the radio. Then I sit him up, drive him into the bathroom, make the bed, but I know exactly that the radio has to be running, yes in fact the residents specify it more or less.
>
> R: Did he tell you once that he wants to have it every morning?
>
> I: Right right, and when he isn't having a good day, he says 'not today' (Interview F).

In this example, the radio is put on by the caregiver following the resident's personal request. It is put on for the elderly man in his private room, for his state of self. The caregiver thus exercises musical agency in the name of the resident. However, given their everyday interaction, the impulse for the caregiver to turn on the radio shifts from an expressed statement to a knowing of the resident's wishes. Interestingly, then, music listening practices become part of the habits through which caregiver and cared-for know each other and interact.

The second example is a phenomenon I only observed in home B. Here, each stationary care section is equipped with at least one piano which everybody may use. On one ward, a resident plays piano in the dining room almost every day. After breakfast residents often remain at their tables, waiting for one of the group activities to start or just to pass the time. On this specific ward the break between breakfast and the first program was often filled with the resident's piano play. Occasionally he would improvise, but mainly he played folk songs. What regularly happened was that other residents joined in the singing. The making of and listening to music became a shared activity, not initiated by the institution or staff members, but rather by a group of residents themselves. From the facial expressions and moving fingers one could obviously see its effects on participants' emotional state. Moreover, the folk songs triggered conversations about memories of a shared past. This phenomenon in its entirety suggests a use of music as a technology

not of self but of the group-self. Four elderly ladies at one of the tables, for instance, grew up in the same region a few valleys away from the care home. They told me how they sang in choirs together for many years, where one of them used to play the organ. When the piano player played his songs, she often happened to follow the sound, moving her hands in the air as if it was her organ that filled the room with music. The form of this group activity again shows traces of how the participants have come to know each other in a distant past or during the many mornings spent together in the dining room, singing songs or listening to the piano music.

In her recent study on piano sounds in Taiwan, Hsieh (2019) reminds us that if we are to understand the soundscape of one place, we need to open up the perspective to include those broader sonic expectations that inform social connections and disconnections over auditory events. Hsieh (2019) explains how the piano, which was introduced to Taiwan as part of Western art music, served "as a symbol for upward mobility as well as an instrument for moral refinement" (7). The equipment of several pianos in each institution where I conducted research also hints at a broader understanding of piano sounds as a positive feature of the soundscape of elderly homes. As much as the spontaneous making of music among the residents in home B or the disputes over piano sounds among neighbors in Taiwan are emplaced phenomena, they also are embedded in wider expectations within a sonic world.

Sound and Silence as a Tool of Care

Shifting the discussion on the use and avoidance of music and sound in the three homes, this section addresses a form of acoustic agency where actively employing sounds and controlling the sound production of oneself and others can be understood as itself an act of care.

During one fieldwork day in home B, at around 9pm, an elderly woman issued a call via the help bell system. It was not her first one this evening and according to the caregivers not the only evening that this happened. One reason for her frequent calling seemed to be that she could not fall asleep. The nightshift caregiver looked after the lady, talked with her for a while, and before leaving turned on the TV. Back in the hallway she commented that the low background sound would help this resident to fall asleep.

In this case, the caregiver's decision to put on background TV sounds did not follow an expressed wish by the resident. It was the caregiver's initiative. From what I could observe the elderly woman neither showed a reaction of pleasure nor objection. As in the use of music as a technology of self, the purpose of this practice is to affect a specific physiological and emotional state—to calm down and rest. Yet the context and meaning of the situation here is very different from DeNora's (2000) concept. Rather than as a technology of self, we might conceptualize this use of sounds as a technique. This technique does not focus on the regulation of one's own, but of another person's constitution. It is an act of care through the employment of sounds. Its basis is the caregiver's more general expectation about what (positive) impacts the sounds of technology can have combined with her experiences with this resident.

The introduction to this paper recounts a related experience from my night fieldwork in home A where a caregiver decided not to turn down the volume of the radio in a resident's room in order not to wake the sleeping resident. As a one-time observer, I was struck by this active "inaction" of not adjusting the radio volume to the surrounding night-time silence. It seemed counterintuitive to the aim of care and the creation of a "healthy" sonic environment for the night. However, seeing the caregiver's decision within the context of her overall experience with this resident, makes room for a different perspective. Her active inaction might be understood as a form of soundscape interpretation that is characteristic for the special context of residential care homes since it builds on the knowledge emerging from long-term interactions between caregivers and cared-for.

Caregivers' efforts to care through the regulation of sounds, though, can be offset by disturbing and uncontrollable sounds of the technologies involved. A night-shift caregiver in home C explained:

> Sometimes it is frustrating, when you enter a room you have to push the attendance button, and then if another room calls it beeps just as loudly as here and, in the rooms, you cannot adjust the volume and sometimes people wake up, even if you only have a look and are really quiet (Interview I).

Here, technological design prevents an attention to sound and silence. The caregiver expressed the wish that someday it will be possible to see the call on the phone, to have a light signal instead of a sound. Interestingly, home B has resolved this problem in some way. Caregivers there cannot control the sound volume of the attendance system either. So, they use a pager, a small portable device connected to the alarm system in which they can adjust the beeping sound. When I accompanied the night-caregiver in home B, I almost did not hear the pager ringing; silent was the lowest volume level.

Speaking Silence

When Rice (2013) writes about the nurses' efforts to create a degree of night-time silence in the hospital wards, he relates this to a historical preoccupation with quiet as a healing environment for the sick. The linking of health and silence is also present in current discussions on hospital noise reduction in the field of health services research. Adatia, Law and Haggerty (2014), for instance, argue that the problem of harmful noise levels in technology intensive hospital units is endemic and propose health care decision-makers implement a daily quiet time on maternity wards (see also Johnson and Thornhill 2006). In the care environments I studied, by contrast, silence was not primarily sought, but often it was to be avoided. In this last section, I therefore want to share some of the participants' contrasting and often deep and controversial experiences around silence. The silence I refer to is not one of a complete absence of any auditory event, but rather, it is an expectation of and hope for sounds that for some reason are not there.

It is common in these homes that from time to time residents sit together in one room but do not interact at all. They just sit there silently. One therapist in home B described such a moment as her most intense experience with silence in the house. She walks along the hallway, does not hear anything, comes around the corner and sees a group of residents sitting there in complete silence. She called it a *"speaking silence."* It felt sad to her and in some sense uncomfortable. You feel like you need to start a conversation, to break the silence. The same urge was expressed by various participants, mainly staff members but also visiting relatives. One morning the son and daughter-in-law of one resident approached me. Without me saying anything they told how they had spent breakfast time together with the residents the last few days and how it always had been so silent. "Nobody talks. Such a freaking silence. Couldn't you ask them to play some background music? That would be nicer for everyone. Some elevator music. Something calm but nice."

For many in the field, the picture of silently sitting residents triggered feelings of uneasiness and sorrow, urging them to start conversations, animate, or put on music. Yet this is a sensitive situation: How do the residents themselves perceive these moments? Does the silence feel uncomfortable to them? My empirical data give some indications. First of all, "residents" obviously are not a homogenous group. Whereas comments by some of them aligned with experiences described above, others clearly showed a different perspective. Some residents confided to me how they enjoyed moments of silence in group areas. Especially older residents made statements more about enjoyment of silence in groups than about uncomfortable silences. Early in the morning, one woman commented that she likes being among the first

for breakfast because then there is "silence before the storm." For her this is a pleasing sonic environment for a first cup of coffee.

In clear contrast, another woman suddenly touched upon this topic when telling about her lunch-time experience:

> I: I am surprised every day. We are sitting there at a big table, silently, more silent it could not be. We are unable to have a conversation.
>
> R: And how is that for you?
>
> I: *(exhales loudly)*. Not easy. Because I then cannot either. And small talk, I don't do that. That would be no life anymore. But it is, I am suffering from it to be honest. We are all sitting at the table waiting for the meal to be served. Oh and then I just look at the people, one after the other, that is also interesting, all their faces, right, but having a conversation, impossible. But I guess that is normal among older people unless they are friends. But still it is strange. You are sitting in a room, maybe 10 to 12 people and absolute silence. That is strange.
>
> R: Could you imagine, if there was music in the background would that be something nice for you or would it be...
>
> I: I actually requested that already. That would of course make it much more pleasant, but they forget it from one time to the next. They are busy the ladies who are serving us. But that would of course be a much nicer atmosphere if there was some background music. But I don't give up, I keep asking for it (Interview J).

It is striking that the respondent is one of the relatively younger and fitter residents and someone who actively uses music for herself. Yet, these experiences tell us something about the complexity of sonic needs in eldercare institutions and the difficulty of aligning them. Some of the tragedy of these later-life home environments expresses itself in silence.

Conclusion

The role of sounds inside hospitals, schools, prisons and other institutions has been examined from various angles, focusing on practices of acoustic surveillance, on the sonic experiences of those immersed in the auditory realm, or on people's active employment or avoidance of sounds (Gallagher 2010, 2011; Rice 2013, 2016). The preceding article builds on and contributes to this work by investigating what the special context of eldercare institutions as a long-term care and home environment implies for people's interpretation of and engagement with sounds. I have argued that in cases where residents and caregivers live and work together for an extended period of time, a familiarity with each other and with their socio-material environment can develop which supports forms of monitory listening, of music as a technology of self, and of sounds employed as a tool of care, which in more temporary care contexts might not emerge in the same way. Caregivers include their experiential knowledge of each resident in decisions about whether to or how quick to answer help calls. Moreover, residents themselves become active contributors to horizontal monitory listening as they come to know each other and learn to detect falling sounds out of the acoustic cues coming from the rooms of their neighbor residents. Mutual experience with and among caregivers and cared-for also affects matters of acoustic agency: how music is used as a technology of self, of others, and of the group-self, and how sounds become employed as a tool of care. What seems important,

thus, is that the knowledge about each other and about the function of the technologies allows people to integrate sonic experiences and expectations into their everyday interactions.

Moreover, it seems that as a characteristic of the long-term home and care environment not only sounds but also silences prompt action. In some cases—as the caregiver's reaction to the absence of an expected morning call—this phenomenon indeed connects to the more permanent care environment. In other cases, however – such as the relatives' urge to ask for background music when experiencing a silent breakfast, the silence of residents sitting together without interacting – this phenomenon cannot be explained within the argumentation of the present article. Participants' often deep and controversial experiences around the silence of elderly residents' hint at a central role of silence in my research fields more generally. Further research seems needed that addresses (the absence of) human vocalization within elderly homes. Research that goes beyond an understanding of silence as a healing environment for the vulnerable and sick and instead attends to the complexity of this acoustic event within the context of eldercare homes. Amanda Cachia's (2015) perspective on silence as "a space of richness rather than a void or vacuum where nothing happens" (336) might be a useful starting point. Her work responds to work by Friedner and Helmreich (2012) which sets out to bring together Sound Studies and Deaf Studies, arguing that deaf people are not only people of the eyes but do experience both sound and the "unsound" in diverse sensory forms. What these authors share with the present article is an attempt to open up sensory anthropologists' and Sound Studies scholars' focus on sound to also attend to the experiences of the "unsound," or the richly filled and *speaking silence*.

References

Adatia, Safina, Susan Law, and Jeannie Haggerty. 2014. "Room for Improvement: Noise on a Maternity Ward." *Health Services Research* 14: 604. https://doi.org/10.1186/s12913-014-0604-3.

Bijsterveld, Karin. 2019. *Sonic Skills: Listening for Knowledge in Science, Medicine and Engineering (1920s–Present).* London: Palgrave Macmillan. https://doi.org/10.1057/978-1-137-59829-5.

Cachia, Amanda. 2015. "LOUD Silence: Turning up the Volume on Deaf Voice." *The Senses & Society* 10, no 3: 321-40. https://doi.org/10.1080/17458927.2015.1130311.

DeNora, Tia. 2000. *Music in Everyday Life*. Cambridge: Cambridge University Press.

Denzin, Norman. 2019. "Sights and Sounds on Xmas Eve in a Midwest Nursing Home and Renewal Center." *Qualitative Inquiry* 00, no 0: 1–2. https://doi.org/10.1177/1077800419838488.

Feld, Steven. 1996. "Waterfalls of Song: An Acoustemology of Place Resounding in Bosavi, Papua New Guinea." In *Senses of Place,* edited by Steven Feld and Keith Basso, 91-135. Santa Fe: School of American Research Press.

Foucault, Michel. 1977. *Discipline and Punish: The Birth of the Prison.* Translated by Alan Sheridan. New York: Vintage Books.

Friedner, Michele and Stefan Helmreich. 2012. "Sound Studies Meets Deaf Studies." *The Senses & Society* 7, no 1: 72–86. https://doi.org/10.2752/174589312X13173255802120.

Gallagher, Michael. 2010. "Are Schools Panoptic?" *Surveillance and Society* 7, no 3/4: 262-72.

----. 2011. "Sound, Space and Power in a Primary School." *Social and Cultural Geography* 12, no 1: 47-61. https://doi.org/10.1080/14649365.2011.542481.

Guillebaud, Christine. 2017. "Introduction: Multiple Listenings. Anthropology of Sound Worlds." In *Toward an Anthropology of Ambient Sound*, edited by Christine Guillebaud, 1-18. New-York: Routledge.

Gunaratman, Yasmin. 2009. "Auditory Space, Ethics and Hospitality: 'Noise', Alterity and Care at the End of Life." *Body & Society* 15, no 4: 1-19. https://doi.org/10.1177/1357034X09337781.

Harris, Anna. 2015a. "Eliciting Sound Memories." *The Public Historian* 37, no 4: 14–31. https://doi.org/10.1525/tph.2015.37.4.14.

----. 2015b. "Sounding Disease: Guest Blog at Sociology of Diagnosis website." Accessed May 30, 2019. https://www.facebook.com/SociologyOfDiagnosis/posts/79904983018109.

Heine, Rolf. 2009. "Die Zwölf Sinne." Accessed January 13, 2020. https://www.vfap.de/anthroposophische-pflege/die-zwoelf-sinne

Hsieh, Jennifer. 2019. "Piano Transductions: Music, Sound and Noise in Urban Taiwan." *Sound Studies* 5, no 1: 4-21. https://doi.org/10.1080/20551940.2018.1564459.

Johnson, Patricia, and Lisa Thornhill. 2006. "Noise Reduction in the Hospital Setting." *Journal of Nursing Care Quality* 21, no 4: 295–97.

Lutz, Peter A. 2015. "Multivalent Moves in Senior Home Care: From Surveillance to Care-Valence." *Anthropology & Aging* 36, no 2: 145-63. https://doi.org/10.5195/aa.2015.105.

Pinch, Trevor, and Karin Bijsterveld, eds. 2012. *The Oxford Handbook of Sound Studies.* Oxford: Oxford University Press.

Rice, Tom. 2013. *Hearing and the Hospital: Sound, Listening, Knowledge and Experience*. Canon Pyon: Sean Kingston Publishing.

----. 2016. "Sounds Inside: Prison, Prisoners and Acoustical Agency." *Sound Studies* 2, no 1: 6-20. https://doi.org/10.1080/20551940.2016.1214455.

----. 2018. "Acoustemology." In *The International Encyclopedia of Anthropology*, edited by Hilary Callan. London: Wiley. https://doi.org/10.1002/9781118924396.wbiea2000.

Samuels, David, Louise Meintjes, Ana Maria Ochoa, and Thomas Porcello. 2010. "Soundscapes: Toward a Sounded Anthropology." *Annual Review of Anthropology* 39: 329-45. https://doi.org/10.1146/annurev-anthro-022510-132230.

Serematakis, Nadia. 1994. "Implications." In *The Senses Still: Perception and Memory as Material Culture in Modernity,* edited by Nadia Serematakis, 123-54. Chicago: University of Chicago Press.

Skinner, Jonathan. 2013. "Social Dance for Successful Aging: The Practice of Health, Happiness, and Social Inclusion Amongst Senior Citizens." *Anthropology & Aging Quarterly* 34(1): 18-29. https://doi.org/10.5195/aa.2013.24.

Sterne, Jonathan, ed. 2012. *The Sound Studies Reader.* Abingdon: Routledge.

Supper, Alexandra and Karin Bijsterveld. 2015. "Sounds Convincing: Modes of Listening and Sonic Skills in Knowledge Making." *Interdisciplinary Science Reviews* 40, no 2: 124-44. https://doi.org/10.1179/0308018815Z.000000000109.

Thompson, Emily. 2002. *The Soundscape of Modernity: Architectural Acoustics and the Culture of Listening in America, 1900–1933.* Cambridge, MA: MIT Press.

Truax, Barry. 2001. *Acoustic Communication*. Westport, Connecticut: Ablex Publishing.

Weishaupt, Sabine. 2006. "Subjektivierendes Arbeitshandeln in der Altenpflege - die Interaktion mit dem Körper." In *Arbeit in der Interaktion - Interaktion als Arbeit,* edited by Fritz Böhle and Jürgen Glaser, 85-106. Wiesbaden: VS Verlag für Sozialwissenschaften.