If Music be the Food of Love, Play On

Meaningful Music in Healthcare

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TABLE OF CONTENTS

Foreword

"*If music be the food of love, play on*", is a phrase that was uttered by a resident in her last phase of dementia in a nursing home in London. The musicians who had been playing had finished their last notes and a silence followed which was broken by her words, quoting Shakespeare.[1] The woman looked happy and fulfilled. Only one hour before, she had been utterly distressed, reliving the death of her sister. However, now the music had played its powerful transformative role.

We were, as members of the research group Lifelong Learning in Music (LLM)[2] observing a music workshop of the organisation *Music for Life*, a project of Wigmore Hall Learning London, where musicians engage with people living with dementia and their caregivers as a group. This was in 2009. The research that examined this project and practice lasted till 2014[3] and led in the end to the development of an innovative practice in the Netherlands.

The project 'Meaningful Music in Healthcare' described in this book, emerged from this, as well as from a kind of coincidence. When at some point a professor of Nursing at the University Medical Center in Groningen approached us with the question of what actually music could mean for nurses' wellbeing in an environment that is not only hectic, but where nurses also have to deal daily with experiences which can be very emotional and challenging, this immediately intrigued us. In conversations that followed, we soon realised that the triangle musicians-patients-nurses would be interesting and exciting to explore. Where there was meanwhile much experience gained in the LLM group on the 'person-centred' musical approach in the field of music and dementia, it seemed worthwhile to extend it to a hospital setting, where people are severely ill, vulnerable and, in particular elderly people, prone to the development of delirium.

A number of years of research and exploration followed, with remarkable results. It was a period of great experiences, for the musicians, patients and healthcare professionals alike. It opened up rich outcomes in many aspects and contributed to the awareness that music has a transforming potential, which should be utilised as much as possible.

The person-centred music making, as the musicians termed it themselves at some point in this practice, turned out not only to be transformative for the patients and nurses, but also gave the musicians involved totally new perspectives on their

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[1] From 'Twelfth Night'.

[2] At Hanze University of Applied Sciences, Groningen, Netherlands, at the Prince Claus Conservatoire. See for the mission and work of the research group www.lifelonglearninginmusic.org.

[3] See Smilde, Page and Alheit (2014).

professional identity. In this book we would like to take the reader through this fascinating story.

Groningen, Autumn 2019

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1

Meaningful Music in Healthcare

1.1   MiMiC as an explorative project: a brief history[4]

Why music in a hospital? More and more often musicians work in venues in society, which at first glance may not be an obvious fit with their traditional professional practice.[5] This is changing rapidly however, as there is more and more attention given to the fact that music can contribute meaningfully to people's health and wellbeing.[6] The research project *Meaningful Music in Healthcare* (MiMiC) was based on these ideas.

With MiMiC, which took place from autumn 2015 until January 2018, the research group Lifelong Learning in Music, together with the department of Surgery of University Medical Center Groningen (UMCG), researched an explorative practice of creating person-centred live music for hospitalised patients and healthcare professionals. For the research group LLM the focus was on the learning processes of the musicians and healthcare professionals involved, as well as on the development of a new and innovative practice. The research of UMCG concentrated on the effects of live music on the recovery and wellbeing of, in particular elderly, patients.

During the preparations of the research project, a systematic literature review was conducted by researchers of UMCG and LLM.[7] The objective of this study was to map existing research into the effects of music on the recovery and wellbeing of elderly patients after surgery. This review showed that music interventions have a positive effect on the way people experience pain, and on their cognitive functioning and wellbeing during the post-operative recovery. What this study also demonstrated was that there is knowledge about the effects of 'recorded' music, but relatively little about interventions with live music.

In the autumn of 2015 two 'pre-pilots' for the MiMiC project took place in two surgical wards of UMCG. These pre-pilots provided important information for the setup of six research pilots in 2016 and 2017.

Points of departure of the research were:

- To create an informed development of the MiMiC-practice as an innovative artistic music practice for hospitalised patients and healthcare professionals;

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[4] Part of the text under 1.1 is based on the publication *Meaningful Music in Healthcare* (2017), by Dons, K., Hendriks L. and Pyykönen K. (www.lifelonglearninginmusic.org).

[5] See also Smilde, 2009a.

[6] See e.g. Mc. Donald, R., Kreutz, G. and Mitchell, H. (Eds.) (2012). *Music, Health and Well-being*. Oxford: Oxford University Press.

[7] Van der Wal-Huisman, H., Dons, K., Smilde, R., Heineman, E. and Van Leeuwen, B. (2018). The effect of music on postoperative recovery in older patients: A systematic review. *Journal for Geriatric Oncology*, https://doi.org/10.1016/j.jgo.2018.03.010

- To create an informed development of a training programme, aiming at the development of knowledge and skills that enable musicians to work in a healthcare setting;
- To generate new knowledge on:
  - The effects of music as a non-pharmacological intervention in the recovery of elderly patients after surgery;
  - The interaction between musicians, patients and nurses in person-centred forms of music-making and the learning that takes place;
  - The professional performance of musicians.

The pilots

From September 2016 to June 2017 six pilot projects took place in UMCG in three different surgical wards. These were Traumatology, Abdominal and Oncological Surgery and Vascular and Hepatobiliary Surgery. In each pilot, small-scale, personalised musical interventions were offered to patients and healthcare professionals in the various rooms. The sessions took place in the morning on six or seven consecutive days. For the patients, the interventions in the clinical environment of the hospital offered a moment of peace, personal contact, enjoyment and distraction in a quite often precarious situation. For the nurses the music meant a moment of quiet and, moreover, was able to function as a catalyst to regulate the usual commotion of the ward.

The MiMiC team

A typical MiMiC team as was devised in the research consists of three musicians, which can be considered a chamber trio, and a mediator. Ideally, there is at least one instrument in place with a bass range and one or two with a higher range for a more melodic role and/or a middle voice. During the project, the musicians worked in various combinations of flute (including bass flute), violin, clarinet (including bass clarinet), viola, cello and double bass. They also used singing. The role of the mediator was to keep an eye on the time and planning the visits in the moment, and to serve as an intermediary between the musicians, the patients and the nurses on the ward.

A MiMiC session with person centred music-making

A MiMiC session as was developed, has a regular structure and begins with a briefing of the musicians by the coordinating nurse on the ward. Here the musicians learn which patients are on the ward, and details that may be of importance are discussed. After this, during the nurses' coffee break, the musicians create a musical moment especially for them and following that, the musicians go from room to room. How they make contact with the patient(s) and

whether they play existing repertoire, an arrangement or a person-centred[8] or idiomatic improvisation[9], varies per room and per moment.[10]

For a person-centred improvisation the musicians often ask input from the patient, a group of patients, or patient(s) and nurse(s), like a landscape, a favourite colour or perhaps a feeling or emotion. Sometimes the musicians will invite a patient to conduct them. In this case the patient is handed a baton and through the movements she or he makes, creates the musical piece in the moment, through improvisation.

It happens quite regularly that musicians and patients start a conversation together during the musical visit, but it can also be that the patient listens with closed eyes to the music and that there is little verbal communication, or even none at all. The musicians have a very flexible attitude and adjust their interaction and decisions to the patient's verbal and non-verbal signals and the atmosphere in the room.

Because the interventions are tailor-made and patients are able to influence the course of the musical session in the moment, it is hard to give an unequivocal idea of what happens exactly in a room. Sometimes the musicians play for a patient and a nurse, sometimes they play for several patients and their nurses in one room. It can also happen that one musician plays for one patient, for example when the patient is in a lot of pain and/or in a room for one person.

After the visits to the rooms a brief evaluation takes place in which the musicians, mediator and the coordinating nurse discuss the experiences of the morning.

[8] Person-centred improvisation entails a variety of approaches that seek to 'tune in' to the group, or person, and where the musicians draw upon a body of shared repertoire and approaches (Smilde et al., 2014, p. 27).

[9] Idiomatic improvisation is improvisation that can relate to a certain style and/or idiom, e.g. of a pop band.

[10] In the MiMiC project, the person-centredness extended into, what the musicians termed, 'person-centred music-making', an umbrella term for a range of approaches, where not only improvisation was used, but also repertoire and arrangements were utilised.

1.2 The healthcare perspective

Life expectancy is increasing. Of course, there are exceptions to the rule. However, in the Western world and in China it is to be expected that the number of elderly people will increase considerably. For the Netherlands the estimate of growth of the number of elderly people, depending on the municipality, will range from less than 30 to more than 60 percent.

Elderly people will (and will have to) stay active and independent for a longer period of time. Developments such as the so-called 'Blue Zone' concept in which attention on social cohesion, healthy nutrition and sufficient regular physical activity are central, are becoming more popular. Physical and psychological fitness, and actively pursuing this oneself, also at an advanced age, are the focus of much attention. Furthermore, particularly in the Western world, a redefinition of the concept of health is being discussed. Until recently, health was defined as the absence of illness. Machteld Huber introduced the notion of positive health in the Netherlands (Huber et al., 2011). Because of this notion, health is no longer seen as the absence or presence of illness, but as the ability of people to deal with life's physical, emotional and social challenges and take control as much as possible. In short: the elderly person is encouraged to have control over their 'old age' in sickness and in health. At the same time, the vulnerability of the elderly unmistakably increases with age.

The number of vulnerable elderly people in hospitals is thus increasing. Admission to hospital can have a big impact on an elderly patient. A bed is two square metres and control is an illusion. Loneliness, pain and fear are the rule rather than the exception.

In patients who have surgery, complications such as infections (lung, wound, urinary tract infections), malfunctioning of bodily functions (gastrointestinal tract, heart, kidneys), weight loss, and delirium can complicate an operation. The treatment of these complications often leads to undesirable side effects that make things even worse.

The MIMIC project can be seen as making a contribution to patient-centred care (PCC). PCC is a major component of high-quality care that refers to taking a whole person perspective and is based on respect for patients' values, needs and preferences, while informing, educating, and involving them in decision-making, and showing emotional support. PCC practice has a proven number of advantages such as improvement of patients' knowledge of their own health, self-care behaviour, satisfaction, quality of life, and reduction of admissions, readmissions, and length of hospital stay. PCC has also been associated with reduction of stress, anxiety, and depression in patients' family members. Improvement of job satisfaction, self-confidence and quality of care, and reduction

of stress and burnout have been reported for healthcare professionals (Casu et al., 2019).

The MIMIC research project examines the question of what live music can contribute to the recovery of patients after an operation. With undivided attention, musicians play for a patient. Before, during and after the musical intervention, pain, fear and stress, blood pressure, heartrate and breathing are monitored. A control group of patients, where otherwise everything is the same, do not receive a musical intervention. Besides patients, healthcare professionals are also part of the project. In summary, the MIMIC project has a unique focus on the elderly, vulnerable (surgical) patient where it aims to contribute in a holistic way to patient-centred care.

1.3 Research approach: qualitative and quantitative

Qualitative research into musicians, patients and nurses

The research from the side of the LLM research group aimed at questions concerning the musicians' musical and non-musical interaction with patients, healthcare professionals and the ward as a whole; the contribution of the practice to the wellbeing of patients and healthcare professionals in the ward, and lastly, to the professional performance of the musicians, in an artistic, social and situational sense.

The qualitative research was ethnographically informed (Hammersley and Atkinson, 2007), as this gives the possibility to reconstruct a social situation in a detailed way, by using a triangulated approach to ensure validity. We made use of (participant) observation[11], episodic expert interviews[12], group interviews[13] and reflective journals.[14]

The researchers wrote field notes, based on observation of the daily sessions during the pilots, also using sound recordings. Individual episodic expert interviews were held with nurses and the musicians, and in addition group interviews were held with nurses at the wards. Finally, the musicians held an

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[11] The systematic description of events, behaviours, and artefacts in the social setting chosen for study (Marshall and Rossman, 1989, p. 79, in Kawulich, 2005).

[12] An expert interview is open, and gives the interviewee the opportunity to talk freely, without being subject to a strict framework of questions (Meuser and Nagel, 2006). There is room for episodic elements, where the interviewee can be asked to reflect on a specific moment, which brought about insight and learning.

[13] Group interviews and discussions (Bohnsack, Przyborski and Schäffer, 2019) have a special function because they do not just express individual opinions, but also reflect emerging discourses, i.e. collective opinions.

[14] A reflective journal entails open, lightly directed, questions and is a way of thinking in a critical and analytical way about one's learning-in-progress. It is a personal journal that can address anything that is learnt, personally and professionally.

individual reflective journal about their experiences and learning processes. More about the research questions and approach is detailed in Chapter 2 on Methodology.

Quantitative research into patients' clinical outcome measures

In the context of evaluating the effect of music, either recorded music or live music, on recovery after surgery, theoretical models supporting the outcome parameters have to be explored. We have distinguished four theoretical models (Van der Wal-Huisman et al., 2018), which are visualised in *Fig. 1.* below.
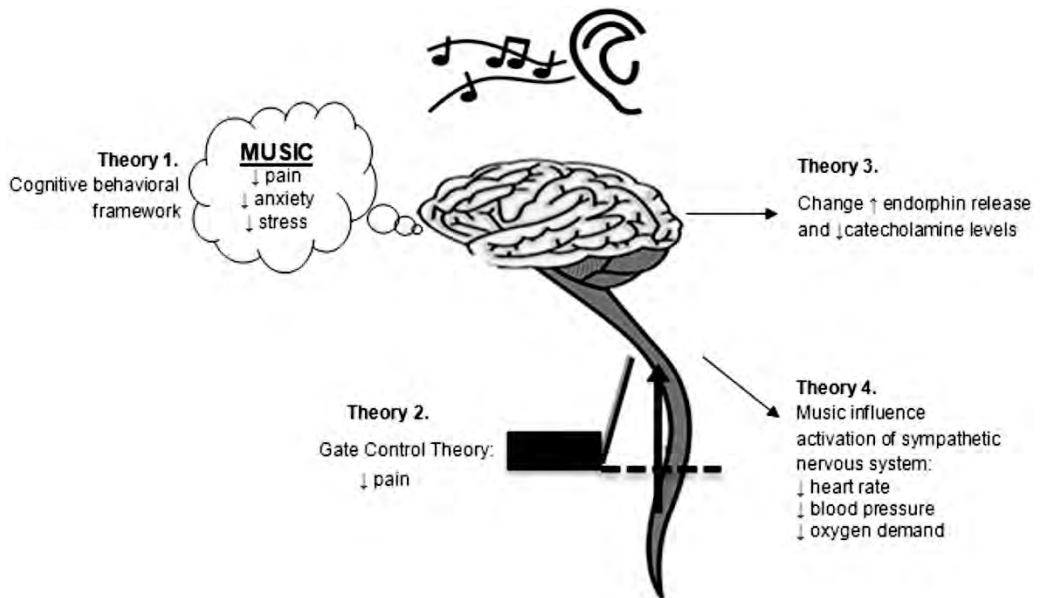
Fig. 1 : **Theoretical models underpinning the effect of music**

Theory 1

The first theoretical model, the Cognitive-behavioural framework model (reducing stress via distraction), combines behavioural/cognitive and physiological theoretical models (Chaput-McGovern, 2012). This model stipulates that music is able to increase competence, autonomy, and relatedness resulting in distraction and better coping. Distraction is facilitated through a more comfortable environment for patients and music may contribute to a more positive hospital experience. The outcome parameters related to the Cognitive-behavioural framework model are (reduction of) pain, (reduction of) anxiety and (reduction of) stress.

Theory 2

The second theoretical model, the Gate Control Theory, advocates that pain impulses are transmitted from the nerve receptor to synapses in the grey matter. The synapses are thought to act as gates that may either open or close to allow or prevent the (pain) impulses from reaching the brain. Whether these gates are open or closed, depends on what other kinds of sensory impulses are simultaneously bombarding the gates (Melzack and Wall, 1965). Music may deviate sensory input from the brainstem, close the gating mechanism and as a result reduce the pain experience. The outcome parameter related to the Gate Control Theory is (reduction of) pain.

Theory 3

The third theoretical model states that music releases endorphins and changes catecholamine levels in ways that facilitate pain relief and cause decrease of blood pressure, heart rate, respiratory rate, and oxygen consumption (Twiss, 2006). The outcome parameters related to this theory are (an increase in) endorphin levels and (reduction of) catecholamine levels.

Theory 4

The fourth theoretical model states that the stress caused by pain in turn may cause the cardiovascular system to respond by activating the sympathetic nervous system. Activating the sympathetic nervous system results in an increased heart rate, blood pressure, and higher oxygen demand (Pasero et al., 1999). The outcome parameters related to this theory are (reduction of) heart rate, (reduction of) blood pressure, and (reduction of) oxygen demand.

In summary: physiology-related outcome parameters to be measured when studying the effect of music on the recovery of patients undergoing surgery are pain, anxiety, blood pressure, heart rate, respiratory rate, oxygen consumption, endorphin level, and catecholamine level. The outcome measures which have been extensively evaluated in the context of music interventions are indeed anxiety and pain. It has been shown that anxiety and pain in adult surgical patients are significantly reduced (Kühlman et al., 2018). Furthermore, the effect of music interventions on postoperative recovery in specifically elderly patients has been evaluated. It has been shown that music has a positive effect on the recovery of elderly patients after surgery. Not only pain and anxiety were reduced, but also relaxation, cognitive functioning, and patient satisfaction increase during postoperative recovery (Van der Wal-Huisman et al., 2018). The aforementioned studies do not make a clear difference between an intervention with recorded versus an intervention with live music. This is still an area of research to be further addressed.

In the MIMIC-project the primary outcome parameter is *pain*. It has been shown that live music significantly reduces pain perception in elderly patients after surgery in comparison with a control group of patients who received no musical intervention. Furthermore there is a significant reduction in pain within the music group between the pre-test score versus the post-test score and the pre-test score versus the follow-up score.

In the table below the VAS (Visual Analogue Scale) pain scores are depicted.

Table: VAS-scores

	Music group (n=38)	Control group (n=46)	p-value
Pre-test score	1.25 (sd 1.85)	1.49 (sd 2.14)	.56
Post-test score	0.66 (sd 1.49)*[15]	1.41 (sd 2.12)	.013*
Follow-up score [16.]	0.52 (sd 1.01)* [17]	1.42 (sd 2.12)	.003*

In the MIMIC project the secondary outcome parameters are anxiety, stress, cognition, heart rate, heart rate variability, blood pressure and respiratory rate. These outcomes parameters are still being processed.

[15] Significant difference within the music intervention group between the pre-test versus the post-test and the pre-test versus the follow-up scores.

[16] Significant difference within the music intervention group between the pre-test versus the post-test and the pre-test versus the follow-up scores.

[17] The follow-up measurement took place three hours after the end of the session.

1.4   'Mixed methods' in the MiMiC research

The *'mixed methods approach'* is – at least in the European context – still controversial. The paradigms of scientific theory and, above all, the standards and quality criteria of qualitative and quantitative research are not easily compatible with each other (see Alheit, 2010). But there are, of course, pragmatic reasons that make different strategies of empirical consideration meaningful for a deeper understanding of a complex realm of reality (Burzan, 2010). The 'classical' *Marienthal study* (Jahoda, Lazarsfeld and Zeisel, 1975 [1933]), to take an example, is an outstanding proof of this. Recently, the interest in mixed methods has again increased and has given rise to new research efforts, for example in the educational research (Gläser-Zikuda et al., 2012) or evaluation research (Kuckartz and Busch, 2012).

In fact, this tradition has been widespread since the 1970s, especially in the US context. It is legitimate to talk of a socio-scientific 'research milieu' that deals intensively with 'method triangulation' and 'mixed methods' (see Denzin, 2010; Creswell and Plano Clark, 2011; Alheit, Rheinländer and Watermann, 2008; Tashakkori and Teddlie, 2010; Creswell in Kuckartz, 2014).

The present study is not interested in deepening the discourse on the problems or legitimacy of the 'mixed methods approach' on an academic level. Rather, it is a heuristic attempt to supplement the interesting results of the qualitative study with evidence-based explorative medical research. Nonetheless, a triangulating method approach is legitimate, but as Kelle (2008, p. 290) rightly claims,

> "Theory and qualitative and quantitative research go hand in hand [...]: here, first of all, sociologically relevant patterns of action on a statistical aggregate level have to be described with regard to their distribution, and these patterns of action must be explained explicitly [...], a task that in many cases cannot be achieved without the use of qualitative methods. Third, the explanations thus developed must be examined as to their scope." (translation by the authors)

The first step was not possible in our case because the field examined was completely unknown and had to be developed qualitatively. A statistical aggregate level without any exploration would have made little sense. The second and third steps were realised in the present study.

1.5   The chapters

Chapter 2, *'Research journey'*, sets the research in its historical, sociological context, and provides its theoretical and methodological basis, taking as point of departure our holistic research question '*What does music actually 'move' in the hospital setting'?* The backgrounds of the research style of grounded theory, which has been used, are explained in detail.

Based on the data gathered from observations of the MiMiC sessions, interviews with nurses and musicians, and reflective journals held by the musicians, Chapter 3, *'Stories of Mutual Development'*, contains six 'stories' which depict the various dimensions of the research, foreshadowing the three core categories, *'Participation'*, *'Compassion'*, and *'Excellence'*, from the perspective of all participants involved, musicians, patients and healthcare professionals.

The stories immediately give a deep insight into the MiMiC practice and in particular into the 'learning journeys' of these three groups in the space of time. These are described and analysed per target group in Chapter 4, *'Learning Pathways*: *Musicians, Patients and Nurses'*. This chapter gives an insight into the development of all participants involved, where the musicians and patients start from a pole of uncertainty, and through the pathway of emotion and inclusion come to reflection; the nurses taking the reverse pathway, starting in a more reflective and cognitive mode and going towards emotion. Chapter 4 makes use of observations, the stories from Chapter 3, episodic interviews with musicians and nurses, and musicians' reflective journals.

Chapter 5, *'Towards Intuitive Artistry'*, subsequently aims to give a 'thick description'[18] of the three core categories Participation, Compassion, and Excellence, where all participants from the triangle are involved. All these core categories are interconnected by Polanyi's *'Tacit Dimension'* (1966). The resource, which lies in our implicit knowledge, in pre- and subconscious intuitions which we use tacitly, in the anticipation capabilities acquired through long experience, is the prerequisite for excellent professional artistry – not just for musicians but also for healthcare professionals.[19] This amazing parallelism is a key discovery of our study.

Finally, the concluding Chapter 6 reflects on *'Changing Perspectives of Excellence'*, where the outcomes of the research make us reflect on perspectives of interprofessional collaboration, on the question what they mean for the professional life of 'the musician' and 'the nurse', and for musicians' education and training.

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[18] As originally devised by the anthropologist Clifford Geertz (1973).

[19] This kind of acquisition of professional mastery, which we owe to the influential considerations of Donald Schön (1983), show us new ways of modes and strategies in which productive cooperation can be realised across professional boundaries.
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A useful hint for a selective reading of the text:

The chapters can be read more or less independently, however the Chapters 3, 4 and 5 are best read as a unity.

2

Research Journey

"... one thing more is needful: first-hand observations. Go and sit in the lounges of the luxury hotels and on the doorsteps of the flophouses; sit on the Gold Coast settees and on the slum shake-downs; sit in the Orchestra Halls and in the Star and Garter Burlesk. In short, gentlemen, get the seat of your pants dirty in real research."

Robert Ezra Park[20]

Introduction

A hospital is a world of its own. There are things that everyone can see, *'forestages'*, so to speak: people lying in beds, obviously weakened and needing care, and others, the caregivers, who look after them, who are friendly, business-like and professional. A distinction can easily be made between two classes of caregivers, namely nurses and doctors, i.e. between those operating visibly in the foreground, and the more influential operators in the background. There are also *'backstage'* areas, however: special rooms to which only certain persons have access, containing unusual technical equipment that defines them as places where something special happens, such as operations. This could be where members of the doctors' class are active, but not in a way that is visible to all. Then there are places to which professional staff can withdraw to eat, or to relax briefly, or which can be used for discussions out of public earshot. Erving Goffman, the Canadian-American sociologist, described hospitals as having their very own *'interaction order'* (Goffman, 1981, 8ff.). This stipulates how, *behind the backs* of social actors, so to speak, power and influence are distributed, which produce astonishing realities in a barely perceptible manner. There is, for example, the trivial phenomenon that an overwhelming majority of nurses are female, whereas doctors until recently were predominantly male. That means that this world has its specific structures, routines and tacit assumptions, and functions according to its own logic.

When *live music* comes into such a world, changes are bound to occur. Music affects the mood, or atmosphere. Music may be perceived as a disturbance. It can enliven, but also it may produce calm. Music is a world of its own, yet it is never 'by itself'; it intervenes and affects people. When the world of the hospital and the world of music meet, 'resonances' are produced (Smilde and Alheit, 2018) – vibrations that bring about movement in a variety of ways and contexts. The question of interest for research is *what kind* of movement is involved – a form of resonance that is helpful and supportive for sick people and nursing staff alike, or a kind of movement that affects people and makes them feel insecure? The core question of the MiMiC research project was precisely that: *what does music actually 'move' in the hospital setting?*

That question can be answered methodologically in two very different ways: in *quantitative* medical terms with evidence-based measurements, e.g. by proving

[20] Cited in Burgess, 1982, p. 6.

that blood pressure or pain is reduced after an encounter with live musicians. Or it can be answered *qualitatively* by participant observation, by interviewing patients, nursing staff and musicians. The project presented here did both: classical examination of evidence and meticulous qualitative analysis. This *mixed methods approach* (see also Denzin, 2010) turned MiMiC into a genuine 'model' research project.

In the preceding chapter, it was clearly shown that the measurements that are essential in medicine to guarantee evidence-based treatment, have led to an extraordinary conclusion: *Live music fosters the recovery process.* That seems to be an undeniable fact. But how come? If that is actually the case, then why was music not adopted as an element of institutional healthcare long before now? Apart from the observation that music has a good influence on most sick people, it makes sense to reconstruct more precisely *how* music achieves this and *under what conditions* it succeeds in doing so.

Time also seems to play a certain role. The effects of music cannot be explained with the simple logic of stimulus and response. They depend on complex processing that occurs within a social context which needs to be described more precisely, and on processes that take time to unfold. The crucial aspect is thus to identify, in a methodologically appropriate way, the *field* in which hospital and music meet, on the hospital ward, the *'forestage'* where the music sounds, and also on the *'backstage',* where its effects are talked about. But importantly, it is also in the heads of the people themselves who are involved or affected: the patients, the musicians and the nursing staff, whose impressions will go beyond a particular situation, and can turn into a kind of 'experiential journey' or 'learning journey' in the course of time. So, strictly speaking, we are dealing not just with an 'objective' space in which procedures can be observed and responses can be measured precisely (e.g. blood pressure after a music session), but with a *mental space* in which a plethora of 'subjective' feelings can create a 'climate' among the participants, which can impact on patients' recovery process. This notion links into the *sensitising concept*[21] of the qualitative study described here.

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[21] The term *'sensitising concept'* has its origins in the *grounded theory* tradition (Glaser and Strauss, 1967; Strauss, 1987), which is briefly described in section 2.2. It refers to a specific, theoretically grounded attentiveness, a specific way of looking at the data that are collected and which can change in the course of the study, yet is explicitly not a dominant 'grand theory' to which the data are then subordinated by the logic of 'subsumtion', as it were.

2.1   The 'sensitising concept' behind the study

The idea of mental space is not that new. It takes its origins, interestingly enough, from investigations into the impacts and consequences of the German unification in 1989/90 (Alheit et al., 1999, 2004, 2006). A fascinating phenomenon that could be observed at that time, under almost laboratory conditions, was that the social space of a sub-society, namely the former German Democratic Republic, underwent dramatic changes within just a few years. Pierre Bourdieu, the famous cultural sociologist from France, described that process, using the terminology of his own theory, as a radical devaluation of the *'political capital'* that had determined people's positioning within the social space during the GDR years (Bourdieu, 1991). Since the 'turn', it has been replaced again by *'economic capital'*, resulting not only in major changes but also in major disquiet in everyday life (see also Alheit et al., 2004).

The process that is at work here, can be grasped by looking at the historical movement of two social classes in East Germany's social space: the middle-class intelligentsia and the working class. If we take Bourdieu's almost 'classical' representation of the social field in modern Western societies (Bourdieu, 1979), then the following historical movement can be identified for the East German society and the two social classes addressed here:
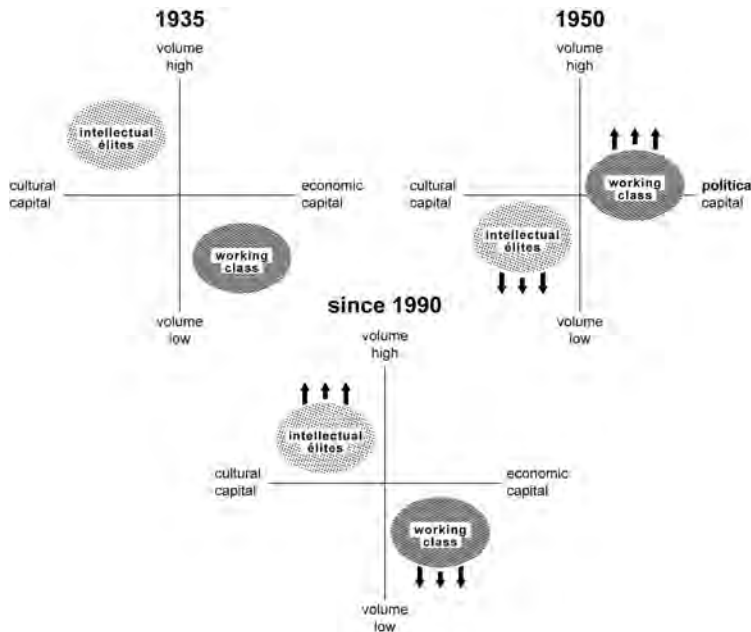

Fig. 2: **The change of the 'social space' in East Germany**

Around 1935, despite the Nazis' rule in Germany, social relations in most Western societies were such that the working class occupied the area at the bottom right of the social space. They have neither economic nor cultural capital. The middle-class intelligentsia, by contrast, is positioned in the upper region of the social sphere of influence, but they have less economic than cultural capital. This situation changes dramatically with the establishment of the Soviet occupation zone after 1945, even before the GDR was founded.

Economic capital has now lost its significance and, as Bourdieu says, is replaced by "a variant of social capital", namely *'political capital'* (Bourdieu, 1991, p. 37). This transition is accompanied, for plausible ideological motives, by the upgrading of the working class and propagandistic downgrading of the cultural élites. With a degree of irony, one could say that the social space 'tilts to the left'. That said, one can also note with the same ironic attitude that it 'tilts back' to the right again after the 'turn': the cultural élites regain their traditional place in the upper left area of the social space, while the working class falls back into its marginalised position.

What is now interesting are a number of symptoms that qualify these quasi 'objective' changes. It is true to say that the GDR, in its own words a *workers' and peasants' state*, discriminated against the middle-class élites and gave preferential treatment to the children of workers. Middle-class parents were initially barred from sending their children to university. However, when the supply of natural scientists began to wear thin in the early 1960s, because ambitious children from working-class families were preferring the social and educational sciences to the natural sciences, access to university was explicitly re-opened for middle-class students. The fact that so many natural scientists suddenly became politically active after the 'turn' – Angela Merkel being only the most prominent example – shows that the intellectual élites did indeed know how to 'survive' neo-socialism and were definitely the 'winners' of the turn in 1990.

This means that the *mentality space* in the GDR was not identical to the social space after the 'objective' changes to which it was subject. The new 'political capital' had by no means neutralised the oppositional 'cultural capital' (see also Alheit et al., 2004). In terms of mentality, the 'old society' retained its presence even in the ostensibly new, socialist society. A similar effect was manifested after the German unification. Although all the parameters indicated an 'objective' adjustment to the western principles of the German Federal Republic, and the 'tilt to the right' (see above) was a fact, mental attitudes developed in the GDR over the course of 40 years, remained. The mental space of present-day Eastern Germany probably bears a greater similarity to the GDR situation than to conditions in the West German Federal Republic. The 'objective' conditions have long since come together, yet subjective moods and sensitivities still differ significantly in the two parts of the country.

This key observation in connection with a large-scale political example leads us methodologically to an interesting experiment in practical application: a hospital, too, might be more than what is 'objectively' perceived on first inspection. Even the 'backstage' area does not reveal the whole truth. A hospital, too, is a *mental*