

Singing and Well-being

The Experiences of Professional Choir Singers

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1. INTRODUCTION

I remember when I sang lip trills during one of my very first voice lessons in high school. It was not easy and I struggled keeping the airflow stable. However, I could feel the vibrations in my chest and back. The feeling made me really happy in a new way: I was using my own body for making sound and enjoying it. I kept having experiences like this, and when I started singing in my friend's choir in high school, I found out that singing in a group takes the whole phenomenon to a new level. We were singing Eric Whitacre's "Sleep", which has many cluster chords and suspensions. I could almost feel the dissonances ringing in my spine.

After many years of singing solo and especially in choirs, I discovered various types of "feeling good" when singing. This led me to do some research about this topic: I didn't think it was possible that I was the only one with experiences like this. I found out that the best word to describe these phenomena is "well-being". I dug into this topic, and during my bachelor's studies in psychology I wrote a thesis called *Kuorolaulun yhteys hyvinvointiin* (Ginström, 2015; available in Finnish), which translates as "The associations between choir singing and well-being". The thesis was a literature review, and its main goal was to present different studies about the physical, psychological and social well-being effects of singing in a group. Studying to become a voice teacher at the same time, I wanted to broaden this research in my bachelor of music. I surveyed amateur singers about their well-being experiences and introduced different ideas and strategies on how to strengthen these experiences in pedagogical situations, such as voice lessons (Ginström, 2017; available in Finnish, abstract in English).

These two research projects still left one big question open: how does this all apply to professional singers? As I began my studies in The Netherlands and took a step towards becoming a professional musician, this question really started to fascinate me. My love for singing and particularly for choir singing was the reason I got here in the first place, but at the same time I worried that the demands of singing on a higher level would also lead to stress, seriousness and loss of enthusiasm. A few studies have been published about well-being experiences of professional choir singers, and the results vary. For example, according to Beck et al. (2000), singing a choir concert stimulated the responses of the immune system but also elevated cortisol levels, which is associated with a stress response. Interestingly, rehearsal situations were associated with lowered cortisol levels in this study.

These kinds of physiological studies are only one way of examining the (non-)well-being effects of professional choir singing. With a clear lack of comprehensive reviews into the matter, I am first and foremost interested in the experiences of the individual singers. Do singers recognise these effects in their everyday life? How do they describe them? Which factors are important to these experiences, and are there some aspects of (working) life that make it easier or harder to acquire these experiences?

In this thesis I have approached these questions with a survey: an online questionnaire for professional singers. The main focus will be around professional-level choir singing of Western classical music. From an individual and artistic point of view I am also going to include my own experiences in the form of a journal that I will keep during projects within my master's programme, both internal and external projects. I am interested in finding out if the results of the questionnaire are in line with previous scientific research and also with my own experiences.

1.1. What is singing and what does singing as a profession require?

It is reasonable to argue that singing is one of the oldest forms of music making: an instrument within our body. Singing means using our voice organs to produce sound that we call tones or notes: we do it by moving our lips, tongue, jaw and larynx while letting the air from the lungs make our vocal folds vibrate (Sundberg, 1987). Especially in modern music, singing might also require the use of different effects using these same structures. In contrast to the other instruments, which have specific buttons, positions or places for certain notes, the singer's instrument doesn't have this function. Instead the singer needs to have an urge to produce a sound that has been imagined in the inner hearing in advance (Averino, 1989).

Most humans are born with a capability to learn to use their voice in speech and singing when exposed to culture and language. While almost everybody can produce singing sounds, singing as a profession requires much more than that (Averino, 1989). Soprano, voice teacher and researcher Filipa Lã (2014) has described the skills and knowledge that a professional singer should have in the form of a suggested higher singing education curriculum. The first aspect of professional singing that comes to mind is technical mastery of the voice and a healthy singing technique. Lã (2014) suggests that this is practiced during individual singing lessons and coach pianist lessons focusing on the chosen genre.

The first task of the singer is to learn to recognise the elements that are a part of producing healthy sound: the same tools that they have been using their whole life to produce vocal sounds (Averino, 1989). There are many aspects of the instrument that must be studied and mastered: for example body posture, breathing, articulation, diction, resonance, dynamics, sound colours and vibrato management (Averino, 1989; Chapman, 2017a; Sundberg, 2000). A singer must also be able to sing in tune and adjust the intonation to the situation and music being sung (Sundberg, 2018). Lã (2014) also suggests that understanding the anatomy and physiology of the voice, vocal health and its problems and the fields of voice science and voice technology is an important part of the professional singer's knowledge.

Despite its uniqueness as a responsive instrument without specific place for notes, singing is also an instrument among the others. Singers need to have the same theoretical and musical skills as any other musicians to be able to manage in the working life. These include reading sheet music, understanding rhythm, melody and harmony, sight-reading and understanding different genres and eras of music (Miller, 2004). Singers are also sometimes expected to accompany themselves or at least have the basic keyboard skills (Miller, 2004) and maybe arrange and write down transcriptions of songs.

Another unique aspect of singing is of course text. Professional singers, especially in the classical genre, are most of the time expected to sing in many different languages. This means the singer must be able to understand and produce phonetically correct text in at least the languages of English, French, German, Italian and Spanish (Lã, 2014). According to her, managing a wide repertoire, understanding how to research repertoire and the historical context behind it are also important.

Many skills and types of knowledge mentioned above might make a singer great in the rehearsal room - but an inseparable part of being a successful professional singer is of course performing. According to Lã (2014) there are many aspects of performance skills that are crucial, for example actual stage skills (presence, communication, acting, dancing), audition skills, making program notes, managing stress and both taking part in productions and arranging them. Being a performing singer also requires time management skills (preparing the music on time, planning schedules, being on time in rehearsals and performances) and if working as an independent entrepreneur, also managing the finances and legal obligations of owning a business.

Lã (2014) also mentions ensemble singing (with other singers and/or with an orchestra) as an important skill. I will discuss the specific challenges of ensemble singing in the chapter 1.6. “Singing in a choir and its unique demands”.

1.2. Well-being defined

Well-being - in this thesis used in the context of health and occupational psychology and artistic research - is not an easy term to define. In everyday language we use it to describe a state of happiness, comfort, health¹ and prosperity². According to Dodge, Daly, Huyton & Sanders (2012), trying to define well-being has often been replaced by describing its components or dimensions. They propose a new definition of well-being which sees wellbeing as “the balance point between an individual’s resource pool and the challenges faced”. These resources and challenges include psychological, social and physical components (Dodge et al., 2012).

In this thesis I will adapt this multi-faceted definition of well-being. Its components - the physical, psychological and social dimensions - are also used by Gick (2011), whose review on well-being and singing I will go through in the chapter 1.4. “What do we know about singing and well-being?”.

1.3. Music and well-being in general

The idea of the connection between music and well-being is an old one. As is the case with most things, also the idea that music is beneficial for well-being is already discussed in the works of ancient Greek philosophers Plato and Aristotle. Aristotle writes in *Politics* (trans. 1912) that “--music should be pursued -- also as it is very serviceable during the hours of relaxation from labour” and also that “music naturally gives pleasure”. Plato argues in *Laws* (trans. 1921) that “education has two branches - one of gymnastic, which is concerned with the body, and the other of music, which is designed for the improvement of the soul” - his idea seems to be that the good effects of music are mostly psychological. This ancient idea has also been studied by modern scientists across the fields of medical, psychological, social

1 well-being. 2018. In Oxford Dictionaries. Retrieved from <https://en.oxforddictionaries.com/definition/well-being>

2 well-being. 2018. In Merriam-Webster. Retrieved from <https://www.merriam-webster.com/dictionary/well-being>

and artistic research. A full review of music and well-being is beyond the scope of this thesis, so I will present some chosen examples of research about music and well-being in general.

As Aristotle said, music does give pleasure. Listening to music is associated with positive emotions (Vastfjäll, Juslin, & Hartig, 2012) but also with satisfying physical experiences, such as thrills or chills (Harrison & Loui, 2014). Engaging in music by singing (Valentine & Evans, 2001) or playing (Lamont, 2012) is connected to positive emotions. The idea that music brings relaxation and relieves stress is also backed up by many studies. Listening to music appears to have a stress relieving effect at least in the short term (Thoma et al., 2013); the long-term effects seem to be more complicated and connected to the individual's motivation of listening to music as a form of relaxation (Linnemann, Ditzen, Strahler, Doerr & Nater, 2015; Thoma, Scholz, Ehlert, & Nater, 2012). Actively playing an instrument can also reduce stress (for example: Maschi & Bradley, 2010; Toyoshima, Fukui & Kuda, 2011;). The effects of singing on stress and relaxation will be discussed later in chapter 1.4. "What do we know about singing and well-being?".

Music seems to be inherently emotional. The positive affects associated with listening to and making music are not the only way music can promote emotional well-being. Music is an excellent tool for emotion regulation. Emotion regulation is defined as the conscious or unconscious processing of an individual to influence the emotions they are experiencing (Gross, 1998). This also affects how and when the individual expresses these emotions.

Saarikallio (2008) describes in her article different strategies that can be used to regulate emotions and moods through the use of music. These include for example *diversion* (diverting one's attention away from unpleasant feelings with the aid of music), *discharge* (releasing negative emotions through music) and *solace* (finding comfort and understanding from music). As poor emotion regulation is connected to both physical and mental illness (Gross, 1998), music has a great potential to enhance well-being related to this matter.

Listening to music and especially making music engages many areas of the brain and requires the use of different cognitive abilities at the same time, which makes music an excellent form of therapy and rehabilitation (Altenmüller & Schlaug, 2012). As mentioned above, music has the ability to induce positive emotions, which is a great tool for alleviating symptoms of many physical and psychological issues. For example in cases of stroke, use of music as a part of the rehabilitation process doesn't only increase positive mood but also helps in the

recovery of cognitive processes such as memory and attention (Särkämö et al., 2008). Music therapy is also considered an effective treatment option for many psychiatric disorders including depression (review: Maratos, Gold, Wang, & Crawford, 2008), schizophrenia (Talwar et al., 2006) and anxiety (Gutiérrez & Camarena, 2015).

Music's effect on the plasticity of the brain - meaning the ability of the brain to adapt to different stimuli and environments by establishing new connections and even to grow new brain tissue - is thought to be the mechanism behind these healing and rehabilitating processes (Altenmüller & Schlaug, 2012). Maybe the most astonishing effects of music on the brain can be seen in patients with dementia. Often in the late stages of dementia patients lose verbal communication skills but they might preserve the ability to sing and play an instrument, and the introduction of music results in physical and social activation (review: Baird & Samson, 2015). Music can be seen as an important way of promoting well-being of patients with dementia and other neurodegenerative diseases.

Music can also improve well-being indirectly through encouraging people towards healthy activities, for example doing sports. There is substantial evidence of listening to music as a motivator and supporter of physical exercise (Karageorghis & Priest 2012a; 2012b). In this context, music can be beneficial in many ways: it might help the individual to prepare for exercising (Laukka & Quick, 2013), and to keep on going during the physical act itself (Karageorghis et al., 2009). As discussed, music has the effect of relieving stress. In the context of exercise this might boost the recovery from the physiological and psychological strain of exercise (Jing & Xudong, 2008).

Listening to and making music seems to be beneficial in many ways: it improves mood, helps with emotion regulation, reduces stress and can be used as a tool for rehabilitation, activation and relaxation. In the next chapter I will discuss research about specifically singing and well-being. Most of the findings discussed in this chapter also remain true in the case of singing. However, the fact that a singer's instrument is their own body and that it cannot function without the urge to sing a specific sound or note (Averino, 1989) makes it unique among other instruments.

1.4. What do we know about singing and well-being?

The physical, psychological and social dimensions of well-being are well integrated into the research of singing in this context. Producing sounds requires the physical effort of breathing, making sound, sustaining the sound and moving the articulatory structures. As singing is a responsive instrument, the psychological processes of attention and intention come into play. Often singing is also shared with other people in performances or in rehearsals with fellow musicians and teachers, which makes singing also a social act. In her review article Gick (2011) collects together aspects of these dimensions as important areas of research when it comes to singing and well-being. These can be seen in Table 1. In the following chapter I will discuss findings about these aspects both in the context of solo and choir singing.

Table 1. Potential mechanisms of singing-related well-being, adapted from Gick (2011).

Physical (biological)	Psychological	Social
breathing	emotions	non-verbal communication
autonomic nervous system	concentration	social interactions
immune system	distraction	social support
	health behaviours connected to singing	

When researching singing and well-being, or in fact anything regarding music and well-being, there are many variables to be chosen for. If the goal is to find about, say the effects of singing on respiratory health, it in itself is not a sufficient definition for a research topic. As Gick (2011) states, there are variables inside the person, the song (music being used in the context of the research) and the situation. Her suggestions of variables that should be taken into account can be found in Table 2.

Table 2. Variables to be taken into account when researching singing and well-being, adapted from Gick (2011).

Person	Song (music being sung)	Situation
personality	tempo	only breathing exercises
age	mode	performing or rehearsing
gender	duration of notes	singing in a group or solo
socioeconomic status	dynamics	
musical background	genre	
amateur or professional	difficulty	
coping	familiarity	
	melody	
	lyrics	
	harmony or unison	

It would be possible to get very different results when studying the improvements in respiratory health of middle-aged smoking female prison inmates singing country songs in music therapy sessions compared to a boy's choir singing Allegri's *Miserere* in a Sunday morning mass. This fabricated example shows how the study of the same subject might lead to very different conclusions in different situations. It is crucial to keep this in mind when going through research on singing and well-being. The topic of this thesis is the well-being of *professional choir singers*: however, research on this particular topic is scarce. I will be going through studies that address the basic mechanisms of singing and well-being, but in most of these studies the data is gathered from amateur singers. While it is likely that some well-being effects are common for amateur and professional singers, this matter should be taken into consideration. I will present findings specifically about professional singers in chapter 1.5. "What do we know about professional singing and well-being".

The difference between solo and choir singing should also be addressed. As the physical mechanism of producing sound when singing solo and in a group is still the same, it is reasonable to assume that at least some of the well-being effects of solo singing are present in choir singing. While the most obvious difference between solo and choir singing is the

introduction of the social context, Gick (2011) argues that this might not only affect the aspects of social well-being but also moderate for example the effects of stress. To get a comprehensive view on the subject, I will present findings about both solo and choir singing and well-being. For the sake of clarity, I will use the term *choir singing* through this literature review (terms *choir singing*, *choral singing*, *ensemble singing* and *group singing* appear in literature and seem to be quite interchangeable).

1.4.1. Physical well-being effects and benefits of singing

Breathing

While we breathe unconsciously our whole life, in singing we usually become aware of the act of breathing. Learning to control the breath without departing from the natural functioning of the respiratory system is a big part of a singer's training (Chapman & Morris, 2017). This controlled breathing has been a topic of research about singing and physical well-being.

In a survey targeted to amateur choir singers (n=91), Clift and Hancox (2001) studied the self-reported benefits of choir singing. In this study, 84 % of the singers reported feeling that singing was beneficial for their breathing. Interestingly, much of the actual physiological research about breathing benefits of singing has been done in the context of interventions, usually testing singing and breathing exercises as a treatment for breathing-related problems. While there is evidence of singing interventions helping people with conditions such as chronic obstructive pulmonary disease (COPD) and asthma, these studies had some methodological issues, such as the lack of a control group (Gick, 2011).

In one study (Lord et al., 2010), the method of a randomised controlled trial was used to compare singing lessons to standard treatment in patients with COPD. Interestingly, singing lessons did not improve the physiological measures of breathing-related health. The patients themselves reported improvements in breathing and all in all had really positive experiences of the singing training. A different approach to breathing benefits of singing was taken in a study by Pai, Lo, Wolf and Kajiaker (2008), who measured the snoring of semi-professional choir singers and non-singers. They found out that singers snored significantly less than the controls, which may be a demonstration of the effect of singing on the breathing muscles.

Symptoms of Parkinson's disease can include breathing problems, but also speech and voice complications (Jankovic, 2008). To study the effect of singing on these issues, Stegemöller, Radig, Hibbing, Wingate and Sapienza (2017) assigned participants to choir singing groups for a period of eight weeks. The results indicated improvements in breathing pressure and phonation time. Also earlier research backs up the possibilities of singing as a treatment for respiratory problems in patients with Parkinson's disease (Di Benedetto et al., 2009).

Stress and the immune system

The hormone cortisol has been extensively connected to a physiological stress response which can be triggered by psychological factors (review: Dickerson & Kemeny, 2004). This is why cortisol levels have been a subject of research in many studies concerning singing and well-being. Another physiological indicator associated with stress could be the protein immunoglobulin-A (Ig-A), which is present in the immunological response: low levels of Ig-A are perceived in stressful situations (Herbert & Cohen, 1993), and high levels are associated with pleasurable and relaxing activities (Green & Green, 1987; Pressman & Cohen, 2005).

The first study to address cortisol and Ig-A in singing situations was conducted by Beck, Cesario, Yousefi and Enamoto (2000). Their participants were actually *professional* choir singers who sang Beethoven's *Missa Solemnis* in two rehearsals and in a concert. Their saliva was collected before and after the rehearsals and the concert to measure the concentrations of cortisol and immunoglobulin-A. Both after rehearsals and the concert, Ig-A concentrations were significantly higher than before the singing took place. The upward change in Ig-A was bigger in the concert situation, suggesting a greater impact on the function of the immune system. Singing did seem to decrease stress in the rehearsal situations: significant decreases in cortisol levels were observed after singing in the rehearsals. However, the opposite was true for the concert situation: cortisol levels actually increased, maybe due to performance anxiety (Beck et al., 2000). A very interesting discovery of this study was also that the baseline levels of cortisol in these singers were remarkably low compared to the levels that are considered "normal" in humans. Beck et al. (2000) suggest that this might be an indication of the long-term effects of singing on stress, but no longitudinal studies on the matter seem to exist yet.

Another study concerning cortisol, Ig-A and choir singing was carried out by Kreutz, Bongard, Rohrmann, Hodapp and Grebe (2004). Their subjects were *amateur* choir singers, and they compared a rehearsal situation to a music listening situation. The singers took part in a rehearsal that consisted of warming up, vocal exercises and then singing parts of Mozart's *Requiem*. The listening condition took part a week later, and the singers were told to listen to a recording of the *Requiem* attentively. Saliva samples of cortisol and Ig-A were collected before and after the rehearsal and the listening situation. The results indicated a significant rise in concentrations of Ig-A during the singing rehearsal, which replicates the findings of Beck et al. (2000). Cortisol levels in the singing situation, however, did not change significantly in this study (Kreutz et al., 2004). The listening condition did not affect Ig-A levels, but a significant lowering of cortisol levels associated with listening to the *Requiem* was observed. The finding of cortisol levels not changing was replicated in a later study by Bullack, Gass, Nater and Kreutz (2018): they studied amateur choir singers in a rehearsal context. Bullack et al. (2018) suggest that this finding might be due to the diurnal effect (levels of cortisol changing during the day, the concentrations being highest in the morning and lower towards the evening) or a stressful and busy rehearsal period.

With solo singers, similar types of studies have been conducted. Grape, Sandgren, Hansson, Ericson and Theorell (2003) studied both amateur and professional singers during singing lessons. In their study, cortisol levels of both groups did drop during a singing lesson, but only in females: increase in cortisol was observed in men. Interestingly, singing also increased the level of the hormone oxytocin in amateurs and professionals. Oxytocin plays a role in social behaviour, mating, reproduction and feeding, but it is also associated with reduced stress (Gimpl & Fahrenholz, 2001). In a study with conservatory singing students (Beck, Gottfried, Hall, Cisler & Bozeman, 2006) both Ig-A and cortisol concentrations were measured during a 10-week period containing both rehearsals and performances. Ig-A was increased only after performances, not after rehearsal situations. Beck et al. (2006) speculate that this might be due to the higher baseline Ig-A levels of these young singers. In this study, changes in cortisol levels were not significant. Interestingly, after a self-reported successful performance a significant drop in cortisol level was observed, indicating the resolving of a stressful situation.

Based on these findings, there is evidence that singing might reduce stress and enhance the activity of the immune system. The effects of a rehearsal and a performance might be

different, since singing a concert is much more stressful as a situation. Interestingly, with singing students, their perception of the successfulness of the performance contributed to the lower levels of cortisol. A similar finding with Ig-A was actually observed in the study of Beck et al. (2000) with professional choir singers: positive performance perception was associated with higher concentrations of Ig-A. Unfortunately in their study the relations between performance perception and cortisol levels couldn't be examined because of the extremely low baseline cortisol levels. These extremely low cortisol levels combined with the findings of high baseline levels of Ig-A in singing students (Beck et al., 2006) raise the question about the long-term effects of singing on cortisol and Ig-A. Is it possible that professional singers and singing students, future professionals, already have higher levels of Ig-A and lower levels of cortisol due to the amount of singing activities they have done in their life? This question remains open and is subject to future longitudinal studies.

Singing as a medical intervention

The use of singing as a treatment for medical conditions was already discussed to some extent above in relation to breathing problems. Singing has also been studied as an intervention to other conditions, such as Irritable Bowel Syndrome (IBS) (Grape, Wikström, Ekman, Hasson & Theorell, 2010) and chronic pain (Kenny & Faunce, 2004). In the case of IBS, choir singing was compared to discussion group meetings. An upward change in testosterone levels was observed after 6 months in the choir singing group, suggesting a process of recovery from the effects of stress, a contributor to the symptoms of IBS (Grape et al., 2010). In the chronic pain study, choir singing was compared doing physical exercise while listening to music. No significant difference in self-reported pain was observed between singing and exercising groups, however, pain symptoms did reduce in both groups (Kenny & Faunce, 2004).

1.4.2. Psychological well-being effects and benefits of singing

Experienced stress

In the previous subchapter the physiological indicators of stress were addressed. Stress is also a psychological experience: the individual feels that the conditions or demands of an environment or a situation are too difficult, exceeding their resources or threatening their well-being (Lazarus & Folkman, 1984).

Stress like this and the reduction of it by singing can be studied through self-reports. In their survey targeted at amateur choir singers (n=91), Clift and Hancox (2001) reported that 79 % of the singers agreed with reduced stress due to singing and 80% thought singing helped them to relax. Also in a later survey directed at English community choir singers (n=591), a majority of respondents agreed with the positive effects of choir singing, including reduced stress (Clift et al., 2010). A factor called “relaxation benefits” was also found in a Finnish survey (Johnson et al., 2013) which consisted of the responses of 171 adults aged 58 or older.

These findings support that choir singing is perceived as stress-reducing and relaxing. Solo singing was studied by Grape et al. (2003) in the context of a voice lesson. In their study both amateur and professional singers filled in a questionnaire before and after the lesson. Both groups reported significantly greater feelings of relaxation after the singing.

Mood and emotions

Music affects our emotions and moods. Moods can be distinguished from emotions by duration and intensity: moods tend to last longer but be less intense than an individual emotional experience (Larsen, 2000). In one study, listening to music was rated as the second best tool for mood regulation (Thayer, Newman & McClain, 1994), and as mentioned earlier, listening to music is associated with positive emotions (Vastfjäll, Juslin, & Hartig, 2012). In the surveys of Clift and Hancox (2001) and Clift et al. (2010) emotional and mood benefits of choir singing were widely reported. There are also several studies that have examined the effect of singing on mood and emotions in an experimental context.

Valentine and Evans (2001) compared singing (both solo and choir) to swimming. Participants (n=33) were asked to fill out a mood questionnaire before and after solo singing, choir singing or swimming, depending on the group. In their study, the questionnaire (UWIST model adjective checklist, “UMACL”) measured three components of mood: tense arousal, energetic arousal and hedonic tone. There was a significant decrease in tense arousal and an increase in energetic arousal and hedonic tone after all the activities. The greatest change was observed in the swimming group, and the solo and choir singing groups didn’t really differ from each other. This study suggests that singing, alone or in a group, can help in mood regulation. However, physical exercise, in this case swimming, seems to have a bigger effect.

The study of Valentine and Evans (2001) lacked a control group that didn't actively engage in any activity. Unwin, Kenny and Davis (2002) conducted a study that compared choir singing to a passive listening situation. In their design, half of the participants (amateur choir singers and people without prior experience in singing, $n=81$) sang and the other half was sitting down and listening to the practice. To minimize the effect of lyrics and other associations on mood, the music in this study was chosen to be unfamiliar, simple and in other languages than the mother tongue of the participants. The singers and listeners filled a mood questionnaire (Profile of Mood States Questionnaire, "P.O.M.S") before and after the choir practice and also one week after the practice. The results showed a positive change in mood. Unexpectedly, Unwin et al. (2002) did not find a difference between singing and listening groups: a trend of greater mood increase in the singing group was observed, but this did not reach statistical significance.

Kreutz et al. (2004) also compared singing and listening in their study. Their design was a bit different from Unwin et al. (2002) as they had the same group singing and then listening to the music (Mozart's *Requiem*) after one week. In addition to giving the samples of cortisol and Ig-A, the participants also filled an emotional state questionnaire (Positive and Negative Affect Schedule, "PANAS"). After the singing situation, positive affect increased and negative affect decreased. Interestingly, after the listening situation, positive affect stayed the same but negative affect increased. The positive effects of the singing situation were expected, but the findings of increasing negative emotions after the listening situation were a surprise to the researchers (Kreutz et al., 2004). This is not in line with the research about music's uplifting effects on mood and emotions. Kreutz et al. (2004) suggest that this might be a result of the situation: choir practice is usually for singing and not for listening to music from a recording. They also consider the possibility that the *Requiem's* lyrics and sorrowful atmosphere might have more influence on the participants' emotions when they are not busy with singing.

The newest study concerning singing and mood was conducted by Bullack et al. (2018). Their design compared a singing situation to a non-singing situation in a weekly practice session of an amateur choir. Participants were randomly assigned to either singing or non-singing groups. While the singing group was doing vocal exercises or practicing Händel's *Messiah*, the non-singing group did everything else the other group was doing except the actual singing (following conductor's orders, looking at the music). The participants

answered questions assessing both negative affect and positive affect before and after the practice. There were two experiments: the first one included a singing practice of 30 minutes and the second one a practice of 60 minutes. In the first experiment, the results showed no change in positive affect, but negative affect decreased in the singing group. The second experiment resulted in an increase in positive affect for singers, but a decrease of positive affect was observed in the non-singing group. Negative affect decreased in the singing group and increased in the non-singing group. The findings suggest that a 30-minute singing session might be enough to reduce negative affect, and a 60-minute session additionally raises positive affect. The increase of negative emotions in the non-singing group might be due to the disappointment of not being able to sing in the rehearsals (Bullack et al., 2018).

All the studies presented above found evidence of singing affecting the mood and emotions of singers in a positive way. In the light of these results, it seems that singing especially reduces negative affect, but might also have an effect on positive mood and emotions. It is worth noting that none of these studies used the same scale or questionnaire to measure mood and emotions, which means that comparing these observations is not completely straightforward. In addition, the music being sung (the wistful *Requiem* vs. praising *Messiah* vs. unfamiliar traditional songs) might play a role in what emotional states are being experienced. In the studies of Kreutz et al. (2004) and Bullack et al. (2018), disappointment or boredom of not singing might have caused or at least intensified the difference between singing and non-singing groups or situations.

Quality of life

While self-reported stress, mood and emotions give us information about an individual's well-being, the actual of importance and value the individual places on these aspects is often missing from these measurements. One way to get more in-depth information and a broader sense of well-being is to measure *quality of life*, which is defined as “an individual's perception of their position in life in the context of the culture and value systems in which they live, and in relation to their goals, expectations, standards and concerns” (Skevington, Lotfy & O'Connell, 2004, after The World Health Organization's definition). Two studies (Clift et al., 2010; Johnson et al., 2013) have used the WHO's questionnaire “WHOQOL-BREF” (The World Health Organization Quality of Life Questionnaire, short version) to measure the quality of life of amateur choir singers.

Clift et al. (2010) administered the WHOQOL-BREF to 633 choir singers who were mostly from England. The WHOQOL-BREF has 4 scales measuring the different aspects of quality of life (physical, psychological, social and environmental), and Clift et al. (2010) focused their interest on the psychological quality of life scale. In their sample, a majority reported good or excellent quality of life. Interestingly, women reported lower quality of life on average than men: in another questionnaire administered in this same study, women reported *more* experienced well-being benefits from singing than men. It is suggested by Clift et al. (2010) that women might benefit from choir singing more than men, and this could be one explanation to why there is often a majority of female singers in choirs. They also speculate that choir singing be of great importance for some singers who report lower quality of life but a lot of experienced benefits from singing. These singers might be suffering from different challenges in life, for example mental health problems, and choir singing is an important way of coping for them. What needs to be taken into account is that the average age of respondents was quite high (61 years old) and 77 % of them were women.

The study of Johnson et al. (2013) was aimed at older adults, so the average age was quite high (72 years old) as in the study of Clift et al. (2010). In this sample, however, the majority (64 %) of respondents were actually men. A really big majority of 86 % rated their overall quality of life good or very good. Experienced benefits from choir singing were correlated especially with psychological, social and environmental domains of quality of life and not with the physical domain. Johnson et al. (2013) also replicated the findings of Clift et al. (2010) with the gender differences as women reported more experienced benefits from choir singing than men. This study (Johnson et al., 2013), as well as the study of Clift et al. (2010) share the same limitation of cross-sectionalism: there is no control group or longitudinal follow-up measurements. This is why it's not possible to draw conclusions about causality and suggest that singing in a choir increases the quality of life of a singer. However, in the sample of Johnson et al. (2013) the years sung in a choir did not correlate with quality of life or experienced benefits, suggesting the lack of accumulating gains.

Singing as an intervention for mental disorders

Considering the evidence from several studies that singing can be helpful in relieving stress, dealing with negative moods and emotions and increasing quality of life, it is not far-fetched to consider singing as an intervention for mental disorders. In a recent study, Clift, Manship and Stephens (2017) examined the effects of choir singing on self-reported mental distress

and mental well-being in a longitudinal setting. The participants were people with current or recovering mental health problems, for example depression, anxiety, bipolar disorder and insomnia (Clift et al., 2017). During six months the participants took part in community choir groups. A significant decrease in mental distress was observed after these six months. In interviews with the participants, benefits for mental health was one of the principal themes mentioned. Although the findings of Clift et al. (2017) are promising, they did not have a control group and their sample consisted of people with many different types of mental health issues. In order to study singing as a clinical intervention to mental disorders, it is crucial to concentrate on a specific diagnosis or symptoms. Comparing the singing activity to other (standard) treatment and to a no-treatment condition as well as incorporating the use of random assignment is crucial for bias-free research (National Institute for Health and Care Excellence, 2019).

Two studies with a comparison group examined the effects of choir singing on depression: one in elderly people in nursing homes (Werner, Wosch & Gold, 2017) and one for Australian Aboriginal and Torres Strait Islander adults (Sun & Buys, 2016). The number of people classified as depressed decreased in the study of Sun and Buys (2016), but in the study of Werner et al. (2017) an *increase* in depression levels was actually observed in the choir singing group. However, the control group in this study took part in music therapy sessions, and for them the outcome was the opposite and depression levels decreased (Werner et al., 2017).

Fancourt and Perkins (2017) examined the associations between mothers singing to babies and postnatal depression symptoms. In their cross-sectional study they observed that singing was linked to fewer symptoms but also to enhanced well-being, self-esteem and infant-mother bonding. To test the feasibility of singing-related interventions in postnatal depression, Fancourt and Perkins (2018) recruited mothers who suffered from symptoms of postnatal depression. They randomised the women into three conditions: a 10-week choir singing group, a 10-week community play programme and a non-treatment group. As symptoms of depression decreased in every group, the singing group showed a faster improvement than the other two groups, especially with mothers who had moderate to severe symptoms. The results suggest that singing can help new mothers to recover more quickly from postnatal depression.

1.4.3. Social well-being effects and benefits of singing

The social well-being effects of singing have mostly been studied in the context of choir singing. This seems quite logical given the inherently social nature of singing in a choir. Studies seem to fall into two categories: social effects and benefits in general and interventions for different groups of people experiencing social problems.

Social well-being in general

In their survey Clift and Hancox (2001) studied the self-reported benefits of choir singing. Of the respondents, who were young amateur choir singers (n=84), 75 % reported having made new friends, 73 % bonded with the choir and 64 % continued socialising after rehearsals. Also, in the study of Johnson et al. (2013), older adult singers reported high levels of social well-being. The interesting observation in their study was that the experienced benefits of singing were associated with social well-being only in males (Johnson et al., 2013): women in this study seemed to be more prone to experience psychological well-being associated with choir singing. A questionnaire to measure social connectedness was administered to amateur singers in the study of Bullack et al. (2018). In this study, however, there was a control group who did not sing. A significant increase in social connectedness of the singing group was observed after 60 minutes of choir practice (Bullack et al., 2018).

Social interventions

A choir can serve as a safe and encouraging environment for all people, but especially for marginalised groups the social effects of singing can be far-reaching. Bailey and Davidson (2005) gathered experiences from people taking part in a choir of homeless people in Canada. For them, singing in a choir brought a sense of belonging together with other people and also a social support system: something that homeless people with possibly no family and friends can be missing. The choir gave these people an opportunity to take part in and communicate with larger society in a way that wasn't present in their everyday life. Singing provided them with experiences of pride, contribution to society and other people seeing them as something else than only homeless people (Bailey & Davidson, 2005). Other groups that have enjoyed social benefits of choir singing include for example female prisoners (Silber, 2005), women with eating disorders (Pavlaou, 2009) and elderly people in institutions (Mathew, Sundar, Subramaniam, & Parmar, 2017).

1.4.4. A word about the separation of well-being into domains

The scientific findings discussed above support the idea that singing is beneficial in many different ways. It makes sense to separate the physical, psychological and social experiences and benefits associated with singing when writing a literature review. However, in the world outside of this thesis, these phenomena are complicated and intertwined, not separate benefits that magically heal the body and the soul. Also, many of the studies discussed above could not provide proof of causality - that the *singing* is actually responsible for the positive effects. A good example of the intertwining of “two domains” of well-being is the Ig-A and cortisol study of Beck et al. (2000) with professional singers in rehearsal and performance situations. They note that the increase of Ig-A (physical domain) was strongly related to the positive emotional experience (psychological domain) of the singer: so it might not be the singing itself, but the positive emotions induced by singing that are responsible for the benefits for the immune system. It is good to keep in mind that these domains are in constant interaction with each other, and there are likely to be phenomena that won't fall perfectly in only one category.

1.5. What do we know about professional singing and well-being?

The focus of this thesis is the professional singer. A review of the general effects of singing on well-being, with both amateurs and professionals and in the solo and choir situation, is essential for understanding the background and context of this research. However, there are studies that have focused on the professional singer, some of them specifically on the professional choir singer.

1.5.1. Rehearsal and study situations

It is quite safe to assume that most classical professional singers have sometime in their life taken part in a voice lesson, most of them taking a university course with weekly voice lessons. Grape et al. (2003) studied the effects of a voice lesson on many different variables. Their participants, eight professional singers, took part in electrocardiography to record the activity of the heart and a blood test measuring serum cortisol, serum prolactin, serum TNF-alpha and serum oxytocin (see Table 3). They also answered a questionnaire about emotional states (Visual Analogue Scale, “VAS”).

Table 3. Variables in the study of Grape et al. (2003).

Name	Function	High levels associated with	In professional singers after a voice lesson
cortisol	hormone	arousal, stress	increased
prolactin	hormone	stress	increased
TNF-alpha	cytokine	inflammation, psychological stress	increased*
oxytocin	pituitary hormone	pleasant situations	increased*

*=statistically significant

As can be seen from Table 3, TNF-alpha increased after the voice lesson indicating higher levels of stress. Also the other two stress indicators (cortisol and prolactin) showed an upward trend, which was not statistically significant. The hormone oxytocin also increased. These results suggest that the voice lesson is both a source of stress and enjoyment, which makes sense: the voice lesson is a work situation for the professionals. This is confirmed by the interviews conducted by Grape et al. (2003), in which the professional singers came across as very achievement-oriented. In contrast, the amateur singers of this study found the voice lesson to be a situation of self-actualisation, relaxation and enjoyment. Based on the results of the VAS, both professionals and amateurs did report more relaxation and energy after the lesson.

The context of a choir rehearsal was examined in the study of Beck et al. (2000). A professional choir sang Beethoven's *Missa Solemnis* in two rehearsals. The singers' saliva was tested for cortisol and Ig-A before and after the rehearsals. As mentioned before, the cortisol levels of the singers decreased after both of the two rehearsals, indicating lower stress. The levels of Ig-A increased after both of the two rehearsals, indicating a heightened immune response. These results differ from the observations of Grape et al. (2003) in the context of the voice lesson. It can be speculated that the individual singing lesson is a more stressful environment, where the singer has to concentrate more on themselves than in the choir rehearsal, where also social support might play a role.

1.5.2. Performance situations

Performing is a thrilling experience that can also cause performance anxiety. To study the physical changes associated with performing, Harmat & Theorell (2010) studied professional singers and flute players in solo rehearsals and solo concerts. Comparing the rehearsal situation to the concert situation, they observed a rise in heart rate and decrease in heart-rate variability, suggesting a stress response. The self-ranked difficulty of the pieces being performed seemed to heighten this response, but this result was not statistically significant. Flute players and singers didn't differ from each other in their responses (Harmat & Theorell, 2010). Also the study of Beck et al. (2000) observed the stress-induced effects, an increase in cortisol levels, after a performance in professional choir singers. The singers in this study associated the performance more with positive and negative emotions than the rehearsals: in general, the performance was rated as highly satisfying, but many singers also reported anxiety. Beck et al. (2000) speculate that while singing a concert can increase cortisol levels and trigger performance anxiety, the perceived positive emotions during and after performance still override the negative emotions. Both performance anxiety and the pleasurable performance experience might contribute to the increased Ig-A levels observed in this study.

Fancourt, Aufegger and Williamon (2015) studied professional choir singers in two types of performances: low and high stress situations. The professional ensemble performed Eric Whitacre's music at the same venue two nights in a row, on the first night without an audience and on the second night with 610 paying audience members. Their saliva was tested for cortisol and cortisone (another hormone associated with a stress response) levels before and after these performances. The results of this study reflect those of Beck et al. (2000): the low-stress situation was associated with a decrease in both hormones, and the high-stress situation (performance) marked an increase in cortisol and cortisone.

Combining the findings of these studies about rehearsal and performance situations, it seems that professional singers can enjoy some of the known well-being benefits of singing. Especially choir rehearsals can reduce stress (Beck et al., 2000; Fancourt et al., 2015), and while individual singing lessons might not, singers can experience them as relaxing and energizing (Grape et al., 2003). Both rehearsal and performance situations can boost the immune system, while they also trigger a stress response in professional singers (Beck et al., 2000; Fancourt et al., 2015). It needs to be noted, though, that none of the studies on amateurs

discussed in this thesis addressed a performance situation. The studies of performing seem to be only focusing on professional singers. It is not possible to rule out that performing is nerve-wracking for everybody: the observed stress responses of professional singers might not mean that they cannot experience the same well-being associated with singing as amateurs. Instead this observation might be the result of different research focuses, not the differences in responses to singing. Similar studies to Grape et al. (2003), but focusing on a performance situation, are needed to address this matter.

1.5.3. Occupational health and well-being

There is evidence that singing is beneficial for well-being in many ways and professional singers can also enjoy these benefits, especially in the rehearsal context. However, the job of a singer is also a job as any other occupation is. According to the World Health Organization, “Occupational health deals with all aspects of health and safety in the workplace and has a strong focus on primary prevention of hazards. The health of the workers has several determinants, including risk factors at the workplace leading to cancers, accidents, musculoskeletal diseases, respiratory diseases, hearing loss, circulatory diseases, stress related disorders and communicable diseases and others” (WHO, 2019). So what do we know about the occupational health of singers? Which aspects of health and well-being are required to be able to sing as a profession?

One finding from the study of Grape et al. (2003) was that professional singers seemed to have better cardio-physiological fitness than amateurs. It cannot be deducted from this study if this was a result of professional singing or a trait associated with people who make it to a professional level. As being physically fit is a healthy goal for any individual, for professional performers it is a necessity: professional singers should take care of their aerobic fitness and muscle strength by for example walking, swimming and going to the gym (Chapman, 2017b). A singer often stands in a performance, and especially on the operatic stage the physical demands of the profession can be high. Being fit also helps staying healthy and avoiding the common cold, something that a singer wants to stay clear of (Chapman, 2017b).

The most obvious threats to the professional singer’s occupational health are different vocal problems. These can be a result of bad technique, excessive singing, too demanding/mismatched vocal tasks (for example singing in the wrong *fach*) or other medical

issues, such as infections, gastroenterological problems or mental health issues (Jahn, 2009). As the body is the singer's instrument, most health problems will have an effect on singing as well. Jahn (2009) describes stressors present in the working life that affect a singer's health. Examples of these are listed in Table 4.

Table 4. Examples of physical and emotional stressors in the occupation of professional singing, after Jahn (2009).

Physical	Emotional
travelling	constant competition
late-night working hours	lack of financial security
unpredictability of venues	strained interpersonal relationships
lack of sleep	feelings of non-rootedness
irregular diet	dependance on the good will of other people
quick-fix medications	poor reviews

All these can affect the voice and the overall health and well-being of a singer. In many other professions, these stressors are managed by traditions, workers' unions or even the law. Take an airline pilot for example: their work also includes travelling, irregular hours and changing venues. In one study, the average "short" layover time of the airline crew was 39 hours after an intercontinental flight (Petrilli, Roach, Dawson & Lamond, 2006). A singer might have a morning rehearsal and a concert or an opera performance lasting until late in the evening - and then take a morning flight to a different country for other rehearsals. Their "layover" can easily be under 8 hours.

Of course, comparing a singer's job to a pilot's job (whose reduced alertness and increased fatigue levels might compromise the lives of hundreds of people) can be seen as quite a stretch. This example just shows that another profession requiring a high level of skill acquired by many years of practice is both well-paid and the professionals' recovery from the strain of the work is governed by the law (example: United States of America, Code of Federal Regulations, 2019). Maybe a singer doesn't require a 39-hour break after a long day of rehearsals and performances and for sure, a singer is not responsible for keeping people alive in high altitudes. However, many singers need to have so called "day jobs" to secure

their finances (Jahn, 2009), take part in many different projects with possibly clashing schedules (especially as a freelancer) and, if working in opera, conform to the theatre rehearsal schedules. These can make finding time for sufficient recovery very difficult.

The occupational health of professional singers has been studied very little. Eller et al. (1992) studied 51 professional opera singers in Denmark and asked about their health behaviours and health complaints. Compared to instrumentalists, singers had better blood pressure and smoked less. Singers reported surprisingly high levels of lower body joint problems and also upper airway symptoms. Eller et al. (1992) speculate that the lower body problems might be due to the long times singers must stay standing in rehearsals and performances. According to other research, singing might boost the immune system by increasing the levels of Ig-A (Beck et al., 2000; Beck et al., 2006; Kreutz et al., 2004), which would suggest *lower* occurrence of the common cold and other upper airway symptoms in singers. Beck et al. (2006) mention in their article an unpublished paper which claims that the increased airflow associated with singing exposes the body to pathogens, and this is partly responsible for the rise in Ig-A levels. So maybe singers do experience more upper respiratory symptoms, or maybe the observation of Eller et al. (1992) is due to the tendency of singers to notice even small differences in upper respiratory functions, as these are crucial for singing.

In a study by Kenny, Davis and Oates (2004), 32 Australian professional opera choir singers answered questionnaires about their work-related stress. Compared to a normative sample, singers reported higher occupational strain and also scored higher on trait anxiety. Interestingly, the singers had more personal resources to deal with the stress in the working life than the normative sample. According to Kenny et al. (2004), the stressors of working in an opera choir included unclear and conflicting expectations and evaluation in the profession, environmental concerns such as temperature and air quality of the workplace, irregular and demanding schedules and a high workload. To deal with these stressors, singers engaged in activities such as exercising, taking care of sleep and nutrition, avoiding harmful substances and practicing relaxation. Especially the singers that had high trait anxiety had better personal resources for coping. It seems that the job of a professional (opera) choir singer is really demanding, but the individuals who choose and stay successful in this career also have the skills to cope with that.

1.6. Singing in a choir and its unique demands

As discussed above, singing is a demanding profession that has many unique qualities compared to other occupations. Singing in a choir is its own specialty of this profession. In her book “The Solo Singer in the Choral Setting: A Handbook for Achieving Vocal Health” Margaret Olson (2010) describes aspects that separate choir singing from solo singing. Examples of these are listed in Table 5.

Table 5. Demands of choir singing, after Olson (2010).

Challenge	Explanation
age and changes in voice	young singers often have to sing challenging choir repertoire when the voice is still developing; also vocal timbre and tessitura might change when the singer ages
challenging tessituras	choir parts can require singing in extreme ranges for a long time
singing by sensation	singer cannot trust auditory feedback in a choir and needs to learn how to sing by sensation
sitting posture	choir rehearsals often include a lot of sitting, a good seated position is needed for achieving technical balance
blending	singers must achieve a “blended sound” by adjusting their vocal colours to match those of each other
staggered breathing	choir repertoire often includes phrases that cannot be sung in one breath: to overcome this, singers must breathe independently of each other in places that might not make musical sense
vibrato management	conductors might ask for different amounts of vibrato; matching vibrato with other singers
diction and text	diction must be precise as a group, vowels matching to each other; the interpretation of text is also important in the choral context

voice classification	the singer cannot always choose to sing the part best suited for them; finding the right part might not be straightforward (for example do mezzos sing alto I or soprano II?)
demands of a rehearsal	rehearsals can be really long compared to solo practice and fatiguing for the voice
relationship with the conductor	differences in approach to artistic and technical issues; interpersonal challenges
emotional expression	the choir must find a way to express the emotional content of the music as a whole instrument
feedback and reference	listening to other singers while singing simultaneously by sensation; over- or under singing due to acoustical feedback being different from solo singing
singer's formant	singing in a choir might require less use of singer's formant; in opera choruses the opposite seems to be true

Many of the challenging aspects of choirs singing stem from the fact that part of the responsibility and control is given to other people: the conductor and the other singers. Of course, as a soloist one seldom sings alone (without a pianist, band or orchestra for example), but the freedom in vocal production and artistic expression is different from singing in a choir. Understanding these demands is crucial when studying the well-being experiences of professional choir singers.

1.7. Research questions and hypotheses

Recognising the exploratory nature of this research, the two research questions were formulated as follows and no hypotheses were set:

1. How do professional choir singers describe the effects of singing and the professional life on their well-being?
2. What is the importance and effect of singing-related well-being for my own artistic development?

2. METHODS

2.1. The target group of this research & the data gathering process

One purpose of this research was to find out how professional singers describe singing-related well-being. The definition of a professional singer in this study was that they are currently singing or have sung in a group/ensemble/choir that pays money for singers in exchange for their time spent in rehearsals and concerts. To get an idea of the extent of employment of these professional singers they were asked the percentage of their yearly income that singing accounts (or accounted) for. I also included myself in the group of professional choir singers, since becoming one is the goal of my studies, and I wanted to find out about the role of singing-related well-being experiences for my own artistic development.

A questionnaire was created to gather the experiences of professional singers on the subject of well-being. The details of the questionnaire are explained in the next chapter 2.2. “The questionnaire”. An email containing a link to the questionnaire and an explanation of the research project was sent to numerous professional choirs in Europe. It was also sent to colleagues by Harry van Berne, an ensemble singing teacher in The Royal Conservatoire of The Hague (KonCon) and a singer in The Netherlands Chamber Choir. The link to the questionnaire and an explanation of the project, including the definition of a professional singer in this study, was published in a Facebook group called “Singers United”, a collegial support group for Finnish professional singers. While the choirs that received the email were mostly focused on Western classical music, the Finnish Facebook group also had singers from other genres, such as musical theatre and folk music.

To gather my own artistic experiences, a set of open questions was created. These questions were answered after choir singing projects during my master’s programme at KonCon or during paid projects outside the school. These questions are discussed further in the chapter 2.3. “The collection of my own experiences as a choir singer”.

2.2. The questionnaire

For easy online access, the questionnaire was created within the Google Forms survey application. It consisted of three types of questions: background/demographic questions,

statements that the participant was asked to evaluate on a 5-point scale, and open questions about well-being experiences and choir singing in general. The demographic questions were the following:

- age
- gender
- nationality
- voice type
- years spent in profession of singing
- employment status in a choir at the moment (yes, no, not anymore)
- years sung in professional choirs
- the percentage of yearly income that singing accounts/accounted for
- the type of employment contract at the moment/at the time of singing in a professional choir.

The statements fell into three categories:

1. The frequency of specific well-being experiences, for example: “*How often have you experienced **physical pleasure** from singing?*” (always, often, sometimes, rarely, never).
2. The importance of specific aspects of the situation or the professional life in experiencing singing-related well-being, for example: “*How important do you find **easiness of singing** in experiencing well-being related to singing professionally?*” (crucial, important, somewhat important, not very important, does not matter to me at all).
3. The degree of which some aspects of the professional life disallow the experience of well-being, for example: “*How much does **disliking the repertoire in general** affect you?*” (stops me from experiencing well-being completely, affects me a lot, somewhat affects me, affects me just a bit, doesn’t affect me at all; also “not applicable”, if the experience was not familiar to the participant).

After each of the three statement blocks, there was also an open question about other experiences or aspects that the participants wanted to write about. Finally, three open questions were asked:

1. Do you feel that there is a difference between solo singing and singing in an ensemble?
2. How and how well did your education in singing prepare you for ensemble singing?
3. Do you have other experiences of singing and well-being in the context of singing in a professional choir that you want to share?

The statements were chosen based on previous research, especially on the experiences that amateur singers mentioned in my bachelor's thesis (Ginström, 2017). Most of the statements about aspects of working life were decided after a brainstorming session with Gerda van Zelm, an experienced voice teacher, former professional choir singer and the supervisor of this thesis. To get a fuller understanding of the working life experiences of a professional choir singer, the open questions were created.

2.3. The collection of my own experiences as a choir singer

I created a set of questions for myself to answer after rehearsals and performances. The goal was to gather experiences about professional-type situations, so I decided to choose the projects that were paid and the projects with The Netherlands Chamber Choir (unpaid internship in a professional choir). The situation in The Netherlands Chamber Choir was usually that the internship only included singing in (part of) the rehearsals and not doing actual concerts.

The questions were the following:

1. General comments about feelings and experiences in the rehearsals.
2. Which things were good for well-being?
3. Which were not?
4. What kind of experiences did I have (positive and negative)?

2.4. Data analysis

For quantitative demographic questions, the average and the standard deviation were calculated. For categorical demographic questions, the percentage of respondents for each category was calculated. When answering the well-being statements, the respondents chose one category on a 5-point scale (or a “not applicable” in the third statements block). Percentages of respondents in each category were calculated for every statement. The answers to the open questions were used as explanations and examples for getting a deeper understanding of the experiences, and I chose to include quotes as illustrations and extensions of the numeric data. While most of the respondents used English when answering the open questions, some used Dutch or German: these were translated into English by me.

A qualitative method called thematic analysis was used to interpret and analyse my own journal. The method is described in detail in an article by Braun and Clarke (2006). The first stage of the analysis was coding interesting features of the responses and keeping a list of these codes. After this these codes were combined for different themes. As the theoretical framework of this thesis included the multi-faceted model of well-being, I first divided my experiences into these categories (physical, psychological, social). However, since I felt that this division didn't provide much new and deeper experiential information of singing and well-being, I grouped the codes again for smaller themes. Finally, examples of these themes were collected and will be presented in the next chapter.

3. RESULTS

3.1. Demographics

There were a total of 82 professional choir singers who answered the questionnaire. Half of the respondents were women and the other half men (41 each), and the average age was 40.5 years (range 23–67 years, SD=11.3). Most of the respondents were Dutch (28 %), German (18.3 %) or Finnish (14.6 %), but in total 16 different nationalities were mentioned, the majority of them inside Europe. All voice types from soprano 1 to bass 2 were represented, the biggest individual group being soprano 1 (22 %).

Only one respondent did not sing in a professional choir anymore, others were active as professional choir singers. The average time spent in the profession of singing was 16.4 years (range 2–45 years, SD=10.5), of which 14.8 years on average in professional choirs (range 1–45 years, SD=10.8). When asked about the percentage of yearly income from choir singing, some respondents answered a percentage range (for example 10–30 %). An average of this range was used to calculate the overall average percentage of yearly income from professional singing, which was 61.5 % (range 7.5 %–100 %, SD=30.8 p.p.). The most common type of contract was a freelance contract, as 61 % respondents said they had worked on this basis. 40.2 % had worked with long-term contracts and 41.5 % project-based contracts. Two respondents stated that they had never worked with an employment contract in a choir.

3.2. Results from the questionnaire

3.2.1. Descriptions of well-being experiences

In total, all of the well-being experiences mentioned in the statements were recognised by a large majority of respondents (81.8 % to 100 % depending on the experience). Some of the most prominent findings are presented in more detail in this chapter, and all results can be found in Table 6.

Table 6. The frequency of well-being experiences.

Experience	Always	Often	Sometimes	Rarely	Never
physical pleasure from singing	8.5	64.6	20.7	6.1	0.0
feelings of body resonating	17.1	57.3	19.5	6.1	0.0
ease of producing sound	12.2	69.5	18.3	0.0	0.0
ease of producing desired artistic level	9.8	68.3	20.7	1.2	0.0
joy of learning	35.4	35.4	24.4	4.9	0.0
ease of extreme ranges of the voice	7.3	40.2	41.5	11.0	0.0
ease of extreme dynamics of the voice	9.8	50.0	30.5	9.8	0.0
reduced every-day-life stress	7.3	18.3	48.8	22.0	3.7
reduced every-day-life anxiety	7.3	20.7	39.0	25.6	7.3
feelings of purpose	8.5	54.9	28.0	8.5	0.0
feelings of empowerment	9.8	32.9	43.9	12.2	1.2
feelings of satisfaction	9.8	67.1	22.0	1.2	0.0
feelings of singing being therapeutic	6.1	31.7	26.8	23.2	12.2
being able to concentrate only on making music	22.0	50.0	23.2	4.9	0.0
being in charge of one's instrument	26.8	50.0	18.3	4.9	0.0
joy of working together as one instrument	19.5	57.3	20.7	2.4	0.0
joy of connecting with the audience	20.7	36.6	34.1	8.5	0.0
spiritual/religious experiences while singing	0.0	23.2	29.3	29.3	18.3

The most common experience was *ease of producing sound* (81.7 % experiencing this always or often). This highlights the importance of being able to use one's voice freely and in a flexible way, as one respondent explained:

“The positive experience of making music and performing is dependent on how much control you have on your voice at that time.”

Indeed, ease of producing sound is closely related to *being in charge of one's instrument*, which was experienced always or often by 76.8 % of the respondents. Interestingly, the idea about vocal production in solo vs. choir singing varied a lot between respondents, as the two contrasting quotes show:

“When singing in a choir, I feel more relaxed vocally. -- I sometimes feel able to take more risks technically when singing in a choir, as I am not as exposed.”

“I've been trained as a solo singer, and often in ensemble work I feel that the best that I could give as a professional (vocally, artistically) is not needed or wanted. I often feel that the need to adapt to the ensemble requires worse technique from me than in

solo singing. -- I often feel like being a much worse singer when singing in an ensemble.”

Ease of producing desired artistic level was experienced always or often by 78.1 % of the respondents, followed by *feelings of satisfaction* (76.9 % always or often). Many respondents connected the satisfaction and reaching a high artistic level to the idea of working together:

“The best experiences are connected with belonging, meaningfulness and great aesthetical quality of sound.”

“The good choirs bring flow, that is a wonderful experience of which I cannot get enough. Singing in tune all together makes it the best job in the world. If not in tune, for me it becomes only hard work.”

“I feel like I am most motivated when the ensemble together feels a sense of purpose. -- I feel inspired when I hear another singer doing something extraordinary during performance, a well closed phrase, a vibrant culmination, a captivating piano -- These moments are the best, when you can live in a moment together as one organism.”

This *joy of working together as one instrument* was experienced always or often by 76.8 % of respondents. One respondent noted the experience of “the result is more than just the sum of the parts”.

While all of the experiences were widely recognised by the participants, some of them were experienced less often. *Religious or spiritual experiences* was one of these: 18.3 % reported that they had never had this experience, and only 23.3 % experienced it often (no respondent experienced this always). One participant wrote:

“I am not a spiritual person. But singing I had/have my metaphysical moments.”

Singing wasn't deemed particularly relaxing or therapeutic by the professional singers. *Reduced everyday life stress* or *reduced everyday life anxiety* were experienced always or often by only 25.6 % and 28 % of the respondents, respectively. While 37.8 % did find singing to be therapeutic always or often, 35.4 % had this experience rarely or never. This

quote illustrates the idea of singing as work as any other job, not a medium of relaxing and well-being:

“The experience of well-being for me is not particularly related to singing. It is a job that I try to do as good as I can, because I love doing it. But after all, it is a profession, with more extraordinary facets than most regular jobs. Singing itself does give a satisfactory feeling, but only for the actual moment of singing/performing: just as any job can give you a good or bad feeling. Personally I can imagine that this experience may well be different for amateur singers.”

3.2.2. The working life and occupational well-being

In addition to the specific well-being experiences, the professional singers were also asked about how important certain things were for experiencing singing-related well-being. The results are presented in Table 7.

Table 7. Situational aspects and features of the working life and their importance in experiencing well-being.

Experience	Crucial	Important	Somewhat important	Not very important	Does not matter at all
easiness of singing	30.5	56.1	12.2	1.2	0
flow state	14.6	47.6	30.5	6.1	1.2
feeling connected with one's body	45.1	47.6	4.9	1.2	1.2
social interaction with colleagues	32.9	48.8	13.4	4.9	0
autonomy in making decisions about one's singing	20.7	46.3	25.6	7.3	0
the repertoire being of one's taste	7.3	22	46.3	22	2.4
the repertoire being challenging but manageable	8.5	57.3	17.1	12.2	4.9
the language of the repertoire	0	6.1	22	46.3	25.6
taking voice lessons/coaching	20.7	48.8	24.4	3.7	2.4
professional development	32.9	50	14.6	1.2	1.2
practicing one's own singing outside choir rehearsals	50	28	18.3	2.4	1.2
working schedules	22	50	22	6.1	0
the conductor's artistic approach	52.4	42.7	3.7	1.2	0
the conductor as a person	31.7	35.4	24.4	7.3	1.2
singing in small ensembles	19.5	51.2	20.7	4.9	3.7
singing in big ensembles	0	20.7	36.6	34.1	8.5

The conductor's artistic approach was deemed crucial or important by 95.1 % of the respondents, contrasted with 67.1 % finding *the conductor as a person* crucial or important. *Social interaction with colleagues* was also crucial or important for 81.7 % of the participants. These results highlight the importance of the choir as a social workplace: the

attitude the conductor has towards the singers and the music is connected to well-being experiences, as well as the mutual respect between singers. The following quotes elaborate this idea:

“That you're surrounded by great musicians during work and make music on a high level with great conductors in great venues.”

“The feeling of being appreciated: when I feel or know that the sound of my voice, or my way of singing, is appreciated by the conductor or by my colleagues, the good feeling in the body, the "well-being", arises almost by itself. (translated from German)”

“For me, one of the most striking things about singing in a choir is the feeling of "being family" that it entails. Singing together creates a huge bond, both in smaller choirs and in a large choir, without having to be good friends with everyone. (translated from Dutch)”

In contrast to the social aspect of choir singing, the individual experience of one's instrument being fit for the job and the possibility of professional growth was recognised as a requirement for well-being. *Feeling connected to one's body* and *easiness of singing* were crucial or important for 92.7 % and 86.6 % of respondents, respectively. The idea of *professional development* was crucial or important for 82.9 % of the singers. The following quote highlights the importance of taking care of one's instrument and continuing to learn:

“After 37 years in a professional ensemble, I realise how important it is to have the instrument, the voice, ready at all times, cared for, also to educate yourself and shape the way of your life so that is compatible with a physically and psychologically highly demanding profession. (translated from German)”

Interestingly, the repertoire or the language being sung didn't seem to be of importance to the singers. One respondent even told that the same repertoire might lead to completely different experiences depending on the situation, in this example through the effect that the situation had on the vocal production:

“One interesting experience was that Händel's Messiah was surprisingly easy to perform with only 8 singers. -- With only 2 singer per part you could be vocally more free and also the small size of the ensemble (both orchestra and choir) encouraged everyone to have a lighter way of phrasing that helped the singing a lot. Meanwhile Messiah with a larger choir conducted in a different way can be a very draining and tiring experience.”

The results of the statements addressing the factors that block or diminish the well-being effects of singing are presented in Table 8. In general, the responses seem to be more concentrated on the middle categories (somewhat affects me, affects me just a bit) than in the first two statement blocks. There are two issues that appear to affect the respondents of this study the most negatively: *vocal problems* (65.9 % well-being experienced are completely blocked or affected a lot) and *challenges with one's physical state or health* (60.9 % blocked or affected a lot). Since ease of singing is recognised *both* as a well-being experience and a prerequisite for these experiences, this is a logical finding. Vocal problems and health issues both stand in the way of easy vocal production.

Table 8. Aspects of the professional life that disallow or reduce the experience of well-being.

Experience	Blocks well-being	Affects a lot	Somewhat affects	Affects just a bit	Does not affect at all	Not applicable
disliking the repertoire in general	2.4	23.2	37.8	30.5	4.9	1.2
the repertoire being vocally difficult	3.7	20.7	41.5	24.4	9.8	0.0
the repertoire being musically difficult	1.2	12.2	31.7	31.7	23.2	0.0
the language of the repertoire being difficult	0.0	3.7	23.2	42.7	30.5	0.0
the language of the repertoire not to one's liking	0.0	6.1	14.6	20.7	40.2	18.3
the repertoire being "too easy"	1.2	6.1	23.2	15.9	48.8	4.9
challenges with one's own physical state or health	8.5	52.4	28.0	6.1	0.0	4.9
challenges with one's own mental state or health	7.3	39.0	29.3	19.5	2.4	2.4
stress about schedules	2.4	25.6	42.7	24.4	4.9	0.0
stress about money/income/finances	1.2	26.8	32.9	18.3	15.9	4.9
stress from social relationships in general	3.7	25.6	34.1	24.4	9.8	2.4
poor relationships with colleagues	9.8	42.7	24.4	12.2	3.7	7.3
poor relationship with the conductor	15.9	30.5	28.0	13.4	8.5	3.7
poor relationship with the choir's administration	2.4	19.5	29.3	32.9	6.1	9.8
low vocal self-esteem	11.0	37.8	15.9	12.2	4.9	18.3
vocal problems	29.3	36.6	15.9	6.1	2.4	9.8
vocal changes as a result of aging	2.4	7.3	18.3	13.4	8.5	50.0
not being able to sing the part suiting one the best	1.2	24.4	36.6	23.2	0.0	14.6
workload being too big	7.3	29.3	45.1	13.4	4.9	0.0
not being paid for sick leave	4.9	23.2	18.3	13.4	7.3	32.9
always working in a group	0.0	8.5	20.7	20.7	43.9	6.1
gossip about me	13.4	15.9	18.3	20.7	11.0	20.7
gossip in general	1.2	23.2	26.8	18.3	25.6	4.9
bullying	26.8	19.5	11.0	6.1	7.3	29.3
social group behaviour during rehearsals	3.7	37.8	28.0	19.5	8.5	2.4
social group behaviour outside rehearsals	1.2	19.5	34.1	25.6	18.3	1.2
worry about the continuation of the job	1.2	22.0	23.2	24.4	13.4	15.9

The social aspects of singing in a professional choir play a big role also in the negative sides of the profession. *Poor relationships with colleagues* was marked as blocking well-being experiences or affecting them a lot by 52.5 %, and the corresponding number for *poor relationship with the conductor* was 46.4 %. For this respondent the main issues are trust and appreciation, and they affect the actual level of singing:

“I feel it is important to feel well mentally - trusting your colleagues and conductors and feel appreciated by them. If you don't feel well in the ensemble, it will affect your singing. If you feel your skills are being doubted, it will affect your singing. If you feel that your colleagues believe in you and appreciate you, you will sing much better.”

Also, not trusting your colleagues yourself can be a problem:

“I am very much affected by colleagues who let go of all discipline during concerts.”

“[describing things that stand in the way of well-being experiences] Singing on one part with an ill-prepared or lazy or unwilling colleague.”

One respondent also described how the lack of trust in the conductor can even lead to vocal problems:

“It is crucial that one sing healthy - even if conductors demand otherwise. -- when the chief conductor has no real understanding of healthy vocal production, no idea of the difference between "vibrato" and "wobble", no ability to communicate their wishes in a way that promotes vocal health, etc., it is truly up to the individual singer to safeguard their own vocal health.”

While answers to statements about different social behaviour in the workplace seemed scattered, it's important to note how bullying and gossiping were still recognised by many participants of this study. While 29.3 % of the respondents stated that they hadn't experienced bullying, 46.3. % rated bullying as something that blocks their well-being experiences or affects them a lot. Interestingly, the answers to open questions didn't provide more information about these themes.

Many of the experiences mentioned in this “negative” statement block didn't seem to affect the well-being of respondents, and there were also some experiences that respondents didn't identify with. *Vocal changes as a result of ageing* was something that 50 % of the respondents did not recognise in themselves. Also, 32.9 % of the professional singers in this study reported that unpaid sick leave didn't apply to them; while this might seem like a positive surprise, it still means that 67.1 % have had to deal with not getting paid in a situation where they have not been able to work for health-related reasons.

As reported with the results of the “positive” aspects of the working life, repertoire didn't seem to be of big importance in singing-related well-being. Disliking the repertoire in general or finding it difficult vocally or musically was considered something “somewhat affecting” or “affecting just a bit” for the majority of the respondents. The language of the repertoire was considered to be even less important, with a majority finding it affecting them just a bit or not at all.

3.2.3. The recognition of the profession as a choir singer

One theme that emerged from the answers to the open questions was the appreciation of choir singing as a profession. Respondents shared experiences of teachers, singers, the general public and decision-makers not acknowledging the art of choir singing:

“The pressure and physical challenges involved in professional choir singing is often under-estimated or neglected by audiences, amateur singers, singing students and managers.”

“Main problem to do regular professional singing is low finance and resources in music culture. Another problem is lack of valuation and kind of bad attitude for professional choir singing, that is really a profession and not a hobby!”

“More funding to the professional choirs - that would make it possible for us singers to believe in actually having a job also next year - which is also good for our well-being...”

The attitudes toward choir singing can already be seen in educational settings. When asked how well their education in singing prepared them for ensemble singing, many respondents mentioned their teachers not thinking highly of choirs:

“-- the attitude was very anti-choir at the time I studied (“choir singing will harm your voice” etc.).”

“-- I was almost rejected at the Conservatory's entrance exam when I told the jury I wanted to become a professional choir singer, because they claimed that a Conservatory would only form soloists.”

“There was hardly any preparation for choir singing, it was a very soloistic education. Professional choir singing was more considered a job for losers.”

The practical consequences of lack of appreciation of the profession can lead to financial stress for singers. Even if there is enough work for financing every-day life, planning a sustainable future can be problematic, as these quotes illustrate:

“-- being a professional choral singer full time (no solo work, no teaching or no other job) does not make very much money. With certain ensembles it is even impossible to work full time and earn enough money to be able to buy a house or support a family.”

“[referring to freelancers] -- There is also a lot of anxiety over the long term future, no pension, inability to save, difficulty even being accepted as renters/getting a mortgage without contracts etc. Amongst younger women, there is also the question of how to combine singing with starting a family (if wanted).”

The lack of appreciation is not only a problem amongst the people outside professional choirs - even the singers themselves might believe in choir singing being something less important than solo singing. Ensemble projects can be seen as something temporary on the way to the “real” work as a soloist, which might affect the well-being of other singers:

“The most horrible thing for my well-being is to sing in an ensemble where everybody is just trying to get a solo (or a soloist contract) and has no real interest in ensemble work. Nowadays I don't even bother applying, if I know that might be the case.”

As discussed earlier in chapter “1.6. Singing in a choir and its unique demands”, professional-level choir singing is not something that any singer can just do without paying attention to the certain demands and skills specific to choir work. Clearly, in the field of classical music, there are certain beliefs and assumptions that are not helping the recognition of choir singing as a “real” profession, or at least this is the experience of singers who have worked in professional choirs.

3.3. My own experiences as a choir singer

From my journal of experiences in professional rehearsal and concert situations, seven themes emerged:

1. technical mastery
2. professional satisfaction
3. personal preferences and experiences
4. making music together
5. management
6. perception of the situation
7. extra-musical issues

I will provide explanations and examples of each of these experiences and elaborate on their meaning for my artistic development.

3.3.1. Technical mastery

Almost every entry in my singing-related well-being journal contained at least a mention of the technical aspects of singing. In general, if singing felt easy, I registered the situation as a positive experience enhancing well-being, as the following quote illustrates:

“I really got to enjoy the great music. Singing felt easy and I was able to do different things with my voice.”

Easiness of singing didn't only mean the ease of producing sound, but also feeling free to make differences in dynamics, to sing in tune and be able to fine-tune chords and intervals. Mastering technical aspects of singing also gave me a feeling of being in charge of my own instrument and of trusting my singing:

“Technically challenging parts were becoming more possible for me to sing in a sustainable way.”

The technical mastery also meant that I was able to perform even if I wasn't physically at my best:

“Even though I felt a bit ill, I noticed that my body could support me and I could sing despite the cold.”

On the other hand, technical difficulties in singing resulted in reduced well-being. These difficulties could be a result of many different things, for example challenging tessitura, tempo and phonetics:

“The piece was really challenging in many ways, especially vocally. I had to sing in my “Bermuda triangle”³ for a long time in a slow tempo and with lots of consonants.”

When I started my bachelor’s studies in singing, I didn’t always have this feeling of technical mastery, or even the actual possession of the skills needed to sing in a sustainable and healthy way. I have noticed a pronounced correlation between the feeling of technical mastery and experiences of well-being. When I feel that I’m singing on a technically good level, I am more prone to experiencing especially physical well-being: for example feelings of my body resonating, good body connection, pleasure from deep breathing and physical relaxation. I also had these experiences when I was younger and less skilled and less experienced, but they were less common and occurred more at random. I think this is not due to the actual technical level of singing but instead to the *feeling* of performing at a good technical level. When I was 16 years old and singing a Vaccaj vocalise for the first time, most likely my singing technique was not particularly good. Sometimes I still felt that the singing went well and felt easy. Nowadays, as my technique is also objectively better, I find it easier to reach a level of technically good/sufficient singing which leads to more frequent well-being experiences.

3.3.2. Professional satisfaction

While I recognise the technical mastery of singing as its own theme, it’s also a part of a bigger issue that I would call *professional satisfaction*. In my journal I wrote about experiences that made me feel like I was doing well in the profession of singing, and that my skills were matching the requirements of the task at hand. Some of these experiences were quite close to technical mastery, but the sense of “doing well” was broader in the musical sense:

“I felt I was mastering the music.”

3 notes that feel difficult to sustain: the *passagio* area, roughly B4-E5 for me

“I really enjoyed the level of singing and music-making.”

“I knew most of the music really well and felt that I was mastering it.”

Feelings of professional satisfaction were also a social experience: I wasn't only reaching my own goals and preferred level, but I could do well in relation to other people I was singing with. This meant keeping up with the rehearsal pace and being able to deliver what the conductor asked from the singers. Encouraging comments from colleagues and the conductor boosted this experience.

The opposite of professional satisfaction could maybe be not reaching the desired level and getting bad feedback, but in my journal the opposite extreme seemed to actually be boredom and feelings of pointlessness. This was often due to a “role confusion” when singing in choir as an extra: you can rehearse until a certain point and then you're dropped out because singing concerts is not a part of the internship. Sometimes I didn't feel any point at all in rehearsing, because there was no concert or another goal to achieve in the moment. A couple of times I actually felt I was in the way of the other singers because my individual effort didn't have a place in the rehearsals:

“Halfway to the rehearsals it was announced that they would start stage rehearsals, which meant that we could not sing anymore.”

“We felt again in the way and pointless.”

“It also became really clear that we wouldn't be singing any concerts, which made rehearsing again feel a bit pointless.”

My experience in amateur choirs has been that you usually have a place in the section if you want to be there and do your best. In professional choirs, the artistic result is the starting point, not the idea of individual singers having fun. During my internship in The Netherlands Chamber Choir I was sometimes in a weird position as an extra singer, as the following quote shows:

“Singing in an unbalanced choir (16 voices + us 3 extra for random parts) makes it hard to blend and take initiative, because in a way you’re not supposed to be there.”

I was expected to sing according to the professional standards, but I knew I still wouldn’t be good enough for the concerts, which after a couple of rehearsals did lead to loss of motivation. While this was mostly due to the special circumstances of the internship, it also tells something about the conditions for reaching professional satisfaction. You need to feel that your position in the organisation (choir) is useful, that you can keep up with the requirements of the job and that your goals are clear and motivating.

3.3.3. Personal preferences and experiences

Many well-being experiences seem to be a result of personal preference: for example liking the repertoire or enjoying a certain language or style. My choir singing background is mostly in the music of renaissance, classical and romantic eras and I am not very experienced in modern classical music, especially atonal compositions:

“[During a modern music project] we decided to take “Warum ist das Licht gegeben...” by Brahms to the repertoire. Singing it felt like coming home and I was really enjoying the music.”

For me this means that I will most likely enjoy singing Mozart’s *Requiem* a lot more than a newly composed piece with dissonant cluster chords. However, in my journal I also wrote about a change in perception which led to a positive experience:

“One of the modern pieces (Letter to Michael) had a really touching story behind it. Hearing it made singing feel much more connected to emotions and I started liking the music more.”

In my opinion, finding connection with the music usually leads to psychological well-being experiences, such as happy mood. The connection can be emotional as in the previous quote. However, sometimes the music just contains something that I personally find interesting, or the acoustical perception is highly enjoyable:

“The music had really interesting harmonies that made me happy.”

“Fine-tuned chords that rang in the rehearsal space made me feel really good.”

Of course, separating these experiences into the three dimensions of well-being (physical, psychological, social) isn't always necessary, and they often seem to overlap. For example, I personally experience the fine-tuned chords both bodily and mentally: they ring in the acoustical space giving me a physical sense of vibration and ringing myself, but they also trigger a psychological response of pleasure and enjoyment. Maybe it could also be described as a social experience, since I am not alone responsible for this phenomenon: I am a part of a social instrument.

3.3.4. Making music together

As discussed above, one major component of choir singing being a source of well-being is its social aspect: in the choir you are always making music together with the other singers and the conductor. This was also very visible in my journal:

“The (vice)conductor was really friendly and firm and it made singing easy. The language coach made me feel that I can master the phonetics. My choir coach had a really nice, high-ringing voice that made fine-tuning and blending easy.”

Trust is a major component of the social well-being experiences when singing in a choir. This includes trusting in and feeling comfortable with your colleagues and the conductor. This creates a friendly working environment, where you are free of judgement but encouraged to achieve your best:

“The general atmosphere in the rehearsals was friendly and relaxed. My coach [who was a singer of the choir and singing next to me] was supportive and showed me that it's ok to make mistakes (sing wrong notes etc.) and learn from them.”

“The organist was really making an effort to make singing easy for us.”

“The conductor was really enthusiastic and I caught the feeling too.”

When making music together, the end result seems often to be bigger than just the sum of its individual parts. In my experience, this results often in magical, fine-tuned chords in a cappella music, and/or the feeling of being rhythmically exact with the group. The feeling of working together as an instrument is the combination of individual artistic input but also following the same directions in music, usually provided by the conductor. If there is no time to rehearse together or some singers of the group only join for the concert, this feeling can be endangered. This happened in one project, mostly due to poor planning:

“Half of the singers joined only for this rehearsal and it was a bit hard to suddenly sing with new people who had different musical ideas.”

“I sometimes felt that I was not able to trust the conductor.”

I personally feel that it is completely impossible to enjoy social well-being experiences in situations like this. This has been true before when singing mostly in amateur choirs: if the conductor is not consistent, the people singing next to you are changing constantly or you don't have a common musical goal, the whole situation will feel stressful instead of enjoyable. This of course means that an individual singer also has a social responsibility in the choir of coming prepared, being open to musical ideas and taking other people into account. When these things work, both the social experience and the artistic result become much better. For me, this has been one of the biggest reasons for studying to become a professional choir singer. The social aspect of singing in the choir and making music together makes me want to be a better singer and artist as well.

3.3.5. Management

As briefly discussed in the previous chapter, poor planning and management of a project/rehearsal/concert can lead to the loss of well-being experiences. Management can be internal or external: how I manage myself as a professional singer and how the management of the choir or project works. When these things work well, they are almost invisible. You are mentally and physically prepared, you have the right sheet music, you know what to sing and when and where, for example.

Internal management means that I take the responsibility of myself being ready for the rehearsal or concert. This means studying the scores beforehand, practicing difficult passages

and warming up my voice. If I don't do these things, I will feel insecure and well-being experiences become rare:

“I had been really busy with other projects, so my preparation time was limited and that made me feel insecure.”

“I had done poorly with my warm-up (read: I didn't warm up) so my voice was a bit rough in the beginning.”

However, even a bigger obstacle for my well-being was the poor planning and management by other people. I found situations of uncertainty and confusion extremely stressful, boring and frustrating. This could mean anything from not having enough singers for the piece to hard-to-read sheet music, unclear schedules or rushed rehearsals:

“The rehearsal was very rushed, because we only had one hour before the concert started. I felt like I was in a hurry and we were not able to sing all the parts with all the singers.”

“I had [been given] the wrong sheet music for some pieces which didn't have all the repetitions and some note lengths were incorrect which stressed me out.”

While good external management might seem invisible to the singer, there were also mentions of this in my journal. For example, the conductor's clear and firm style made me feel confident about what I was supposed to be doing. Also, if the conductor seemed to think about the vocal health of the singers by making good choices in breathing, phrasing and the duration of the rehearsal, I felt I could do better with my singing. This all is good management and leading.

3.3.6. Perception of the situation

By perception of the situation I mean the thoughts, feelings, expectations and interpretations I have of a rehearsal or a concert. They can be both positive and negative, but I found it easier to recognise the negative perceptions and write them down in my journal. One positive mention under “things that were good for well-being” was my perception of the concert venue:

“Beautiful weather and natural light in the church made the atmosphere really warm and inviting.”

A positive thought might also be that I noticed how concentrated I was in singing the music, how nice the chords sounded in the acoustical space or that I interpreted the audience to be a welcoming one. These all made well-being experiences possible. On the other hand, the negative perceptions were often in the way of well-being and blocked it:

“Things that were not good for well-being: my own thoughts about not doing well enough because of my physical state [of being ill].”

“In a way I did not care that much about the “result” or how the concert would go - I think this was a defence mechanism because of the stress from the unclear and tight-scheduled rehearsals.”

“I was a bit too worried about my aria and was really nervous in my body before it.”

These ideas easily become self-fulfilling prophecies that also have a direct effect on vocal technique. I would call it “survival singing”. In a situation, if for some reason or another I am sure that I won’t manage, I switch into a non-connected way of singing. I disconnect from my body and emotions and only focus on making sound that is healthy enough (not hurting me or damaging my voice) and isn’t out of tune. This kind of singing might get me through a choir rehearsal, but I find it quite impossible to enjoy the act of singing anymore or focus on making music. To get out of a feeling like this, I usually have to take a break and do something completely different, or have a good night’s sleep and try again the next day. Sometimes I might be able to change my perception in the situation: this usually happens with the aid of another person, for example voice teacher or conductor. My personal challenge is to get better at doing this on my own, for example if my perception of a concert situation is making me way too nervous.

3.3.7. Extra-musical issues

Last but not least, sometimes singing-related well-being is enhanced or blocked by something that has nothing to do with music or the professional situation. For me the biggest extra-musical issue was my own physical state. Being tired or feeling ill is obviously not good for general well-being, and it can make singing feel more like a task than something enjoyable. One interesting thing to note is that during the first entries of my journal I had just met my partner, so I was not really sleeping or eating well during the project. This is of course completely “extra-musical”, but it both gave me a boost to my singing (feeling inspired by something romantic going on in my personal life) and made me distracted and tired. We singers are also just human beings, so the joys and sorrows of everyday life affect our work and the artistic result. I do think that turning these joys and sorrows into expressive energy is an important skill in becoming a professional musician: everybody is distracted once in a while, but finding the focus in music is also the key into well-being experiences.

4. DISCUSSION AND CONCLUSIONS

The aim of this research was to explore the well-being experiences of professional choir singers. As I am studying to become a professional choir singer myself, I also chose to elaborate on the effect and importance of well-being-related experiences to my own artistic development. Thus this research had two different types of data sources: an online questionnaire aimed at professional singers containing both multiple-choice and open questions, and my own diary that I kept during professional-level choir projects. The results were presented in the form of percentages of professional singers identifying with different experiences, and I used the answers to the open questions as examples and explanations of these. My own diary was analysed with a method called thematic analysis.

Respondents from 16 different nationalities, mostly from Europe, answered the questionnaire. The total number of participants was 82. Among the respondents, men and women were represented equally, and there were also singers from each voice type in the choir. Every well-being experience mentioned in the questionnaire was recognised by a large majority of the respondents, the most common ones focusing around the themes of ease of singing and reaching a high artistic level. Enjoyment from working together as one instrument was also widely recognised. The experiences of singing being stress-relieving or therapeutic were less common. These soothing and relaxing effects of choir singing are frequent themes among amateur choir singers, so this finding might suggest a difference between professional and amateur singers' well-being experiences.

When answering the questionnaire, the respondents evaluated different aspects of working life based on their importance in experiencing singing-related well-being. The conductor's artistic approach as well as the relationships with colleagues were of great importance to the majority of respondents, as well as their own ability to sing with ease and keep on learning and developing themselves. For the majority of the respondents, the repertoire being sung and its properties were not of great significance. Interestingly, a general theme of the lack of appreciation for the profession emerged from the open answers. A number of singers mentioned that the general public, music educators and even fellow singers don't always recognise choir singing as a real, demanding profession, and this can lead to stress and loss of well-being.

The analysis of my own diary revealed seven themes that have an effect on my well-being as a singer and are either enabling or disabling singing-related well-being experiences. The technical mastery of the music being sung and reaching a high artistic standard were the core of my well-being experiences, which are very similar to those experiences reported by the professionals answering the questionnaire. For me personally, the repertoire being sung was really important to singing-related well-being, contrasting the findings of the questionnaire. In many ways, my perception of the situation, including my personal musical preferences, had an effect on my experience of well-being. Neglecting my own preparation for the rehearsal/concert or experiencing the external planning and management of the situation as poor led to stress and loss of motivation. One of the most important aspects and sources of well-being for me was the social part of choir singing: making music together with other singers, instrumentalists and the conductor.

In the next chapters I will address the results in the light of previous research and compare the findings of the questionnaire with the themes derived from my own diary. I will also dive a bit deeper in some of the themes that are crucial for my own artistic development. To finish, I will discuss the strengths and limitations of this research, suggest themes for future studies and present my conclusions.

4.1. The results and previous research on well-being

As discussed before, research concerning singing and well-being on professionals has been much scarcer than comparable research on amateurs. In general, many of the well-being experiences derived from research on amateurs were recognised by the professionals in this study. Most of these experiences were included in the questionnaire based on my previous research (Ginström, 2017). Some of the findings of amateur singing studies couldn't really be applied in this explorative questionnaire format since they revolved around strictly measured themes, such as quality of life (Clift et al., 2010; Johnson et al., 2013), improvement of mental health (Clift et al., 2017) or change of mood (Valentine & Evans, 2001). However, for example the positive emotions associated with choir singing (studied among others by Kreutz et al., 2004) were also recognised by professional choir singers in this sample: they reported joy of learning and feelings of satisfaction. The social well-being benefits of choir singing are something that is widely reported among amateurs but also something that professionals in this study identified with. For example, the social connectedness reported by

the amateurs in the study of Bullack et al. (2018) resembles the experiences the professional singers described in their open answers. Moreover, for professionals in this study, the themes of appreciation and acknowledgement were closely connected to the social well-being experiences.

Turning the attention to the previous studies done on professionals, the results of this research seem mostly to be in line with them. While rehearsal situations have been shown to be possible relaxing experiences also for professionals, performances generally are not (Beck et al., 2000; Fancourt et al., 2015). The questionnaire of my research didn't make the distinction between rehearsal and performance situations, but the general result was that choir singing is not perceived as particularly stress-relieving or therapeutic. As one of the respondents wrote in their answers to the open questions, “[singing,] just as any job, can give you a good or bad feeling”. Even if singing is not a medium of stress release for professionals, it can still lead to enjoyment. This was also the result of the study of Grape et al. (2003): professional singers are very goal-oriented, and a professional singing situation (such as a voice lesson in their study) is a moment of performance and self-development.

In the study of Kenny et al. (2004), singing in an opera chorus was deemed a highly stressful job that singers can still manage with their stress-coping skills. In their study, the biggest stressors were unclear and conflicting expectations and evaluation in the profession, environmental concerns such as temperature and air quality of the workplace, irregular and demanding schedules and a high workload. In my research, the unclear and conflicting expectations weren't mentioned as such, but could be understood as a part of poor relationships with colleagues or conductors. For example, if a conductor is expecting a way of singing that is not presented in understandable ways or feels damaging for the singer, well-being experiences most likely won't occur. Environmental concerns can also be understood as a part of vocal problems, which was one of the mentioned stressors in my research. For example, singing in cold, mouldy buildings for long time periods isn't the optimal setting for enjoying vocal health. In contrast, feelings of singing with ease and being in charge of one's instrument were really important experiences for singers in my study: healthy environments, meaning both healthy facilities and relationships in the workplace, are needed for the well-being and longevity of singers.

One aspect of professional choir singing that hasn't really been studied before is the social context of the work. While the study of Kenny et al. (2004) hints towards the social aspects of choir singing with mentioning "unclear and conflicting expectations and evaluation [in the profession]", the positive effects of singing together in a professional setting are still not explored. In this research, the social nature of the work and joy of singing together with amazing colleagues was mentioned many times in different ways, and it was also one of the most important themes derived from my journal. To discuss this topic further, in chapter "4.2.1. Social well-being as my motivator: the story of Somnium Ensemble" I will elaborate on the meaning of social well-being experiences for my own motivation and development as a singer.

4.2. Well-being experiences and my development as an artist

My journal entries contained many of the same elements as the data collected through the questionnaire. Especially the themes of technical mastery and professional satisfaction can also be seen in the answers and descriptions of the professional singers. Maybe the biggest difference between the questionnaire and my diary was the theme of personal preferences and experiences. For me, the repertoire and my feelings about it played a really big role in experiencing singing-related well-being. It is possible that this is a difference between me and the majority of professionals in this study: however, maybe the professionals have already found their "place" in the field of professional choir singing and are mostly singing repertoire they like anyway. It makes sense that in the course of their professional career singers audition for choirs and productions that are to their liking. While a young professional might not have a possibility to choose their jobs, more experienced singers will most likely move towards the genres and ensembles that they find interesting in the first place.

The role of management, internal or external, was an essential part of my (non-)well-being experiences. For the professionals in this study, it was not a frequent theme. The reason for this might also be the different points of our singing careers. I, as a student and a budding professional choir singer, might find myself in situations that are indeed poorly organised. One of the projects I described in my diary didn't have enough rehearsal time planned and in the concert we still had the wrong sheet music. Even if this was a paid job and in that sense a "professional" project, I am quite sure (or at least I hope) that things like that would not happen in a professional choir such as The Netherlands Chamber Choir. According to my

experiences with them as an intern, it also does not happen: the producers do a great job and provide the singers with the tools and rehearsal time they need. Also, my internal management will most likely get better with age and experience. Being unprepared, not warmed up or too busy will make me learn, at least by trial and error, that I need to plan my life better.

To conclude, my experiences are very similar to those of the professional singers in my study, and the differences might have a lot to do with my young age and modest amount of experience. In the following chapters I will turn the focus completely on myself and explore some of these experiences deeper and reflect on how they have affected and will keep on affecting my development as a singer.

4.2.1. Social well-being as my motivator: the story of Somnium Ensemble

One of the answers to the open questions of the questionnaire really moved me and made me think about my journey from a 16-year-old high school kid who liked classical music into a second-year master's student who has sung her first concerts with a professional choir. This quote was the following:

“Singing together creates a huge bond, both in smaller choirs and in a large choir, without having to be good friends with everyone.”

Something about this really resonated with me and made me appreciate the effect a certain choir has had on my development as a musician and as a person. I would like to share this story as a perfect example of motivation and artistic development driven by well-being experiences. This choir is Somnium Ensemble, a semi-professional choir in Helsinki, Finland. It was founded by my high school acquaintance Tatu Erkkilä, then a beginner-level conductor (and a 16-year-old) who wanted to start a choir with his friends. I joined this choir in 2010, and sang with them until my departure to The Netherlands in 2018 to start the master's course this thesis is a part of. I can say with certainty, that without my experiences with this choir during those eight years, I would not be singing in choirs on a professional level, living in The Netherlands or writing this thesis. What happened during those years, and how is it all connected to that quote about the bond created by singing together?

When I was singing the first rehearsals and concerts with Somnium Ensemble, the whole thing looked (and probably sounded as well) like something a group of over-energetic school kids did for fun after school hours. However, from the start the conductor and the core members had a burning passion for making good music: singing all the choir classics, finding the most goosebump-inducing tunes and making attempts in singing really ambitious works. We had young voices, an untrained conductor and the rehearsals sometimes resembled more of a zoo than a musical practice situation. Still, from the start, we had a common goal: to sing music that we loved with people that we really liked and to enthusiastically share it with an audience. We were really proud of what we were doing and wanted to show that to the whole world, which at that time mostly meant organising concerts for our parents and friends. This experience of doing something extraordinary with nice people and sharing it was there for me from day one with this choir, and it continued through the eight years.

I remember singing *Kyrie* from Josef Rheinberger's *Mass in E flat major (Op. 109)* in the early days of the choir and thinking how the part fit me and how the low notes felt really good. At the same time I struggled with "high" pitches (D \square 5, which is a part of my middle range nowadays) and my breath never lasted for the full phrase. Experiences like these really motivated me to continue taking private voice lessons, so I could be able to sing better with the choir. Through the voice lessons I also found the passion for solo singing, which led to my bachelor's in vocal pedagogy. While I knew many people in the choir and would call some of them my friends, at this point it was mostly the shared interest in music that was keeping me attached to the group.

Because I was one of the most trained singers in the choir for a long time, I was often responsible for carrying the alto parts and sang in a really soloistic way. When the choir grew, new members joined and the overall level got higher, I started to make a shift in my singing. I trusted other singers more and became a better ensemble singer in many ways, taking more care of blending, tuning, dynamics and phrasing together as a section. For me, the social part played a huge role in this process: singing together with the same people for a long time and becoming good friends with the conductor began the development of the aforementioned bond. I feel that the motivation for developing my own technique, musicality and musicianship was the group and the people in it. Belonging to this small community made me want to do better and achieve ambitious artistic goals together with these people.

During the eight years I gained an enormous amount of musical experience with the choir. We sang competitions, recorded a cd, arranged countless concerts, sang in church services every month, arranged training “camps” as we called them and took part in an opera production. Amongst all of these activities the bond grew stronger and stronger. I am not a religious person, and really there is nothing that would make me get up on a Sunday morning and go to church - other than maybe big amounts of money, and then this choir. For me, it would be one of the highlights of the week: going to sing a service with these people and then have a coffee afterwards. We had a Whatsapp group that was pinging all day long, keeping us all connected to each other also when we were not singing.

However, maybe the truest part of the quote is “without having to be good friends with everyone”: while some of the singers in Somnium Ensemble were and are very close to me (including my sister, most of my best friends and old love interests), some of them are just people that I used to sing with every week and to whom I say hello and maybe do a bit of small talk with. There is something about the choir itself, as an entity, that makes me attached to it. It’s a combination of all the experiences we have shared, the artistic vision of the conductor, the amazing music we have had the opportunity to be enthusiastic and ambitious about and all the extra-musical activities that we have done together. The choir gave me a profound feeling of belonging somewhere and having a “musical home”. When I applied for this master, the female singers of the choir didn’t hesitate to help me make my audition video that required performing a small ensemble piece. The choir was also a source of social support and practical help.

Why did I leave this musical home? It’s a good question. My experiences with Somnium Ensemble made me hope that I would be able to do that every day. While Somnium has been approaching a really high musical level, it’s not a professional choir and for the time being it’s not going to be one. I wanted to reach a level of singing that would make it possible for me to earn a living in professional choirs, and that was the reason I left for The Netherlands. I did have the idea of coming back to Finland with my newly acquired skills and knowledge and of using them to help Somnium Ensemble to become a professional choir. While I don’t know if this is really going to happen, I do have my doubts about the “professionalisation” of Somnium Ensemble. Would it lose the factors that make the choir so special? If people do something for money, do they lose the enthusiasm for the substance?

For me, making music is a deeply social experience, and it took me a while to understand that it is one of my biggest motivations and even the requirement for my artistic development. During my studies in The Netherlands, I haven't had a similar type of community to be a part of, which has sometimes led to motivation problems and doubts about my abilities as well. I understand that less than two years in a new country is not enough time to find something like what I had with Somnium Ensemble - the process with the choir took a lot more than two years. I can also recognise that I haven't been seeking experiences like this in this country - why should I when I have my musical home in Finland that I can always return to after my studies? I can now see that this is a dangerous thought. While professional projects and choirs might not share many of the traits that Somnium has because of its history and meaning for me, it doesn't mean that I should not seek these experiences when singing with other people. In fact, the real step into the professional world requires the recognition and appreciation of this trait of mine, and I must make an effort to take part in the social side of choir singing, wherever and with whomever I am doing it.

4.2.2 The importance of personal practice and management for me as a choir singer

In my "previous life" with Somnium Ensemble, we maybe had the ambition of a professional choir, but our resources and rehearsal schedules were definitely those of an amateur ensemble. This meant that I could usually prepare my own singing just by going to the choir's weekly rehearsal and listening to the pieces on my own, if needed. The conductor would make sure that we warmed up together and arranged rehearsals with sections to ensure that we knew our notes and could also practice the technical aspects of singing. In a professional choir, this is not the norm. During my internships with The Netherlands Chamber Choir the tempo was completely different: if a rehearsal started at 13.00, it did start at 13.00 by going straight to tutti singing and making music. There was no warming up together, vocal exercises or practicing difficult parts. All work like this is something a professional singer is expected to do at home with their own time well before the actual rehearsals.

For me personally, this was a lesson to be learned. I knew all of these things, but I didn't understand the practical implications before experiencing professional-level choir rehearsals. Even if I am able to reach a technically acceptable level of singing and sing the right notes in a rehearsal, it's not enough for me to experience well-being. Also, I'm sure it's not enough for reaching high artistic standards: surviving on a professional level is something really

different from doing well on a professional level. Mastering the music, something that is crucial for my well-being, has to start with my own practice sessions. This means that I need to sit down in a rehearsal room and sing through the whole piece at least once, preferably with a recording. After that I know which parts I have to focus on because of difficult rhythms, pitches, text or technical challenges. I do this kind of work with solo repertoire all the time, but I never “had to” do it with choir singing before.

The times when I have been really sure about my part and done a lot of technical preparation in a choir project, I have felt ease of singing and much more freedom in making music. When my experience grows, reading improves and technical skills get better with time, I’m sure the time needed for my own preparation will be shorter and I will know better which things to focus on. However, at the moment I really cannot ignore the process I need to go through myself before going to sing a professional choir project, especially if the repertoire is completely new to me. Even if I do “well enough”, measured by the conductor’s evaluation of my singing for example, it is not “good enough” for me - I also want to feel good when singing, not just survive.

There were also some extra-musical issues affecting my well-being experiences that came up in my diary. Being well-prepared and practicing my own parts before a project is definitely a part of the “internal management” aspect. This internal management is also a bigger lifestyle question: how do I arrange my life outside of the choir rehearsals and concerts to ensure the best singing experiences possible? In an ideal world, I would always be energised, relaxed, happy and motivated before I am going to sing. However, this is not realistic, and these are things that I also need to plan and work for. One of the most important lessons for me is to learn to take time for things: time for practicing and preparing, but also for warming up, commuting, finding the right venue, eating well before singing and relaxing between different rehearsals and concerts. I am a person who just wants to get things done, and I often underestimate the effect of being in a rush on my well-being. Of course, general lifestyle choices are also important, including exercising, sleeping well, and taking care of nutrition. I think this is a practical, but really important part of my development as a professional musician. Taking care of myself should not be neglected, since it will have a direct effect on my performance and will encourage the type of singing that allows me to experience well-being.

4.2.3. Finding my own place in the field of professional choir singing

It has become quite clear that singing-related well-being is something that is the core of my motivation for singing. I would argue that well-being experiences are also an indication of reaching the technical and artistic standards I am pursuing in the moment. What does this mean in the practical sense of entering a career in choir singing?

Firstly, I should not ignore my preferences in what kind of repertoire I want to sing. My two absolute favourite composers are Bach and Mozart. I also highly enjoy singing music from the turn of the 19th to the 20th century. During this master's course I have started getting more into contemporary music, but I mostly enjoy modern pieces that are based on tonal ideas. Somebody might say that my taste is very "mainstream", and maybe that is true.

However, this is the kind of music I want to make at the moment! It makes more sense for me to audition for a choir that sings many St. Matthew Passions than a choir that mostly performs new commissions. Of course, my career is just starting and I have to be humble and say yes to whatever opportunities might arise. I still believe that my skills are of better use in an environment where I can fully enjoy the music being sung. There also lies a trap in this thinking: I should not isolate myself from new experiences because of only singing things that I already feel comfortable and happy with. Broadening my horizons and learning to like different types of music are as important as knowing my niche.

Secondly, I crave the social experience in choir singing. Of course, there might be a professional choir out there that I would fit in really well and with whom I could have the same type of motivation and drive as with Somnium Ensemble. On the other hand, why shouldn't I start my own ensemble? It's not really an idea I've seriously considered before, and I still don't have a clear vision of what it could look and sound like. Being a part of an ensemble from the beginning and getting to know the people in the founding process would be something that I could actually enjoy a lot. Singing in professional projects and choirs and also having my "own" ensemble are not mutually exclusive. This kind of approach might actually offer me a platform where I can make just the kind of music I am interested in and give me a chance to practice a variety of skills.

4.3. Strengths and limitations of this research

This research is to my best knowledge the first one describing the well-being experiences of professional choir singers. While some effects of singing have been studied in the professional context before (for example, how singing relates to stress and the immune system: Beck et al., 2000), the explorative and descriptive nature of this research creates a new angle on this subject. The results of the questionnaire provide new information on how professional singers identify with the well-being experiences and effects that have previously been studied on amateurs. A sample size of 82 participants might be a modest one for a quantitative study, but for the qualitative part of this research it is a remarkable number. The open questions gave the professional singers an opportunity to express freely what they have to say on the subject of professional choir singing, well-being and occupational health. Because of the anonymous format, it was possible to get sincere commentary on the working life of a professional choir singer. My own diary and my discussion on the entries also provides a detailed and personal perspective on choir singing and well-being from the point of view of a singing student. I hope that my experiences and thoughts on them can provide other aspiring professional choir singers with new ideas, focus points and inspiration for future artistic research.

I chose to approach this topic from two directions - the psychology of well-being and health, and artistic research. This choice is a fully personal one that relates to my two fields of study and two career choices, psychology and ensemble singing. I recognise this as both a strength and a limitation. Interdisciplinary research in itself is a fruitful possibility to find new information and combine knowledge from different fields. Listening to and understanding people's artistic experiences related to singing and well-being is crucial in order to research them from a psychological or medical standpoint - how else would it even be clear what kind of things should be studied? On the other hand, the impact of these well-being effects and experiences on the artistic process and result is also an interesting research topic. The combined nature of my research does mean that neither of these directions - psychological or artistic - could be explored or utilised in their entirety.

One of the ideas behind the questionnaire was to find out if professional singers identify with similar kinds of experiences as amateurs have reported in numerous studies. For the purpose of exploratory and descriptive research this is a fine approach, but it should be noted that no

real comparison was done here. In order to actually address the differences and similarities between two groups, a group of amateur singers and an a group of professional singers should be included in the same study, being subjects to the same research questions and answering the same questionnaire. Also, a weakness of my questionnaire was that it didn't take into account the differences between rehearsal and performance situations. As we know from previous studies (Beck et al., 2000; Fancourt et al., 2015), rehearsals and performances have really different effects on the stress response, for example.

It should also be recognised that this study addressed professional choir singing from a viewpoint of Western classical music. The results cannot be directly applied to professional singers from other genres and cultures. However, inside the Western classical context the sample was a heterogenous one: 16 different nationalities and all voice types in the choir were represented, and there was an even number of men and women in the study.

4.4. Recommendations for future research

This research is only scratching the surface of the topic of “well-being” in the context of professional singing. As stated before, only a handful of studies have addressed this subject before. While broad, explorative studies are relevant in an emerging field of research, it is of great importance to focus on different aspects and sub-concepts of well-being. This means researching for example the effects of professional-level choir singing on the breathing of singers, the change of self-evaluated anxiety between the beginning and end of a rehearsal day, or the effect of recording an album on the social connectedness of singers. These are examples of clearly defined research topics that go beyond the “feeling good” definition of well-being.

Comparing amateur and professional singers is also an interesting research focus. However, doing this properly requires the use of good methodology, including the two groups singing the same repertoire, in the same environment with the same conductor and measuring the outcomes with similar means. Also, rehearsal and performance situations should be clearly separated from each other when studying well-being experiences and effects, such as reduction of stress. This is also part of the research gap between amateur and professional choir singing: performance situations have only been studied with professionals, which might be skewing our knowledge of the subject. An interesting topic for future research would be

for example how amateur and professional singers experience performance anxiety, and if there are differences between these groups.

Since this study focused on Western classical music, future research could also expand into different cultures and genres. Professional singing groups of different sizes, different distribution of genders and from a variety of different cultures should be studied and compared to reach extensive understanding of the topic of choir singing and well-being.

4.5. Conclusions

The aim of this research was to describe the well-being experiences of professional choir singers and discuss the importance of such experiences to my own artistic development. The main findings suggest that choir singing is a source of joy and enjoyment for professionals, and reaching a high technical and artistic standard of singing is important for these experiences. While singing is generally seen more as a job than as a relaxing activity, the professional choir can at its best be an encouraging and inspiring working environment that provides experiences of social well-being. However, the perception of the overall lack of appreciation for the profession of a choir singer can be a source of stress.

My own motivation for singing is highly connected to well-being experiences, especially those of social nature. In order to find my own place in the field of classical choir singing, I must recognise my musical interests and strengths. The idea of starting my own group has arisen as a result of this thesis. Good technical preparation and feeling well prepared in choir projects are crucial for my well-being, and I must keep on developing my self-management skills concerning this matter.

Maybe the most important realisation for myself is that starting a career in professional choir singing does not mean that I need to give up “feeling good” when singing. My preparation might have to be different and more vigorous than before, and maybe I need to take more initiative with the social aspects of future working life. I am in charge of my career and my own well-being.

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