PERSPECTIVES ABOUT MUSICIANS' PERFORMANCE ANXIETY

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Perspectives about musicians' performance anxiety

by

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Abstract

The aim of the study was to explore the sources concerning musical perspectives about performance anxiety and their influence on musicians.

Since this study is a review of the available literature on this topic, I used mainly books, articles and reported case studies.

The problems encountered while writing this dissertation were the lack of material available on the subject of using music to deal with musicians who suffer from performance anxiety. Musicians listen to music differently from non-musicians, and therefore, when using music to deal with their performance anxiety, a different approach would have to be used.

In this dissertation four main perspectives of music and their relationship to performance anxiety are discussed. My general conclusion is that, although each theory sees performance anxiety through a different light, they all have the same general thinking about performance anxiety. Performance anxiety has to be dealt with separately and differently with each musician. Unfortunately there is no set pattern or plan that can be set down to alleviate performance anxiety. However, common symptoms and useful ways to deal with them are discussed.

One very important point that I realised early on in my dissertation, was that performance anxiety has to be dealt with at an early age. Young musicians often suffer severely from performance anxiety. If this can be recognised early in musicians' careers, they will start to learn to cope with the symptoms; it will become part of their learning process as musicians.

I feel that there could be a more open approach to performance anxiety. Performance anxiety is often seen as a sign of weakness and is therefore often not discussed openly. The music therapist Pixie Holland says that people with a lot of stress in their lives are often not willing to admit that they have a problem coping with stress. Therefore, the first step to dealing with performance anxiety is for musicians to admit that they suffer from it and cannot cope with it by themselves.

I recommend to musicians to read as much as possible about the subject of performance anxiety. The more one knows what happens while suffering from performance anxiety, the easier it might be to deal with it.

Even though there is much documentation and literature available on the subject of using music to relieve anxiety and stress, there was only a small amount available on the specific use of music to relieve musicians' performance anxiety. I therefore recommend further study on the effects of music on performance anxiety that musicians suffer in a musical performance situation.

Key Words

- Performance anxiety
- Symptoms
- Stress
- Musicians
- Perspectives
- Theories
- Audience
- Negative and positive stress
- Music therapy
- Biological
- Psychological
- Cognitive
- Emotional
- Behavioural

Contents

Chapter 1

Introduction

1.1 Background to the study

Being a pianist and singer, I have performed in many concerts, recitals and competitions. However, I have never fully been able to control my performance anxiety. Before I perform, I experience physical symptoms similar to those of being sick. I become unsure of work that I actually know very well. These feelings are caused by the anxiety one experiences in a performance situation.

Besides these physical symptoms, the emotional side is also damaging to the performer, because it creates feelings of insecurity and a sense of lack of control. These physical and emotional indicators under such pressured circumstances are detrimental to a satisfactory performance. As one grows older and more experienced, one learns how to be more in control of these physical and emotional symptoms, but one is hardly ever rid of performance anxiety.

Many musicians suffer from these problems and some have their own remedies for them. Some practice as much as possible, undergo therapy or even take medication (beta-blockers, for example). However, a certain degree of nervousness may be beneficial, as one may find the resultant adrenaline rush enhances the energy of the performance.

1.2 Aim of the study

The aim of the study is to explore the sources concerning music used for the relief of performance anxiety.

The psychological effects of music have been subjected to extensive research and analysis. The following fields are well-documented in literature: music psychology, the bio-medical model of music, the cognitive model and music therapy. Therefore this study will focus on these four fields. These discourses constitute different, complementary facets of music in general and could be beneficial to alleviate performance anxiety in particular. They will be discussed in the literature review.

1.3 Research questions

Considering the information discussed in the background to the study and the aim of the study, the main research question of the study is as follows:

What are the current different perspectives on and theories about performance anxiety experienced by performing musicians?

The following sub-questions arise:

- What is performance anxiety? (Chapter 2)
- What are the opinions of leading authors regarding the biological perspectives of music and performance anxiety? (Chapter 3.1)
- What are the opinions of leading authors regarding the cognitive processes of music and performance anxiety? (Chapter 3.2)
- What are the opinions of leading authors regarding music psychology and performance anxiety? (Chapter 3.3)
- What are the opinions of leading authors regarding music therapy and performance anxiety? (Chapter 3.4)
- What is the current thinking on the use of music to relieve performance anxiety in performing musicians? (Chapter 3.4)

1.4 Methodology

Since this study is a review of the available literature on this topic, I will use mainly books and case studies to conduct this project. Psychology textbooks will be consulted for definitions of stress and anxiety disorders (Barlow & Durand 2002; Sternberg 2000).

A few possible advantages of a literature study are to (Maranto 1995b: 197):

- Identify gaps in the current literature.
- Stimulate readers for further study in the same field.
- Conveniently collect literature available on a topic. This is especially useful if the topic is not a well-documented subject.

1.5 Delimitation of the study

This study will focus on literature dealing with musicians who suffer from performance anxiety and stress. It will also examine material written about the use of music to alleviate performance anxiety. It will only review the different discourses prevalent in these fields (the bio-medical model, music therapy, the cognitive model, and music psychology), and not any other proposed remedies for performance anxiety and stress.

1.6 Structure of the mini-dissertation

Chapter 1 describes the research questions and aim of the study. It also establishes the methods of research and the delimitation of the study. It constitutes the general background to the study.

In Chapter 2 symptoms (biological, psychological, behavioural, and cognitive) experienced by the musician during performance anxiety as well as performance aspects that influence performance anxiety will be discussed. Ways of rehearsing, memorizing and sight-reading of music, and musical expression and their effects on performance anxiety will be stated.

Four different theories surrounding music are mentioned in Chapter 3; they are the bio-medical model, the cognitive model, music psychology, and music therapy. These all approach music from various angles and their theorists state their different opinions about music and its influence on performance anxiety. In each case, the different perspectives of each theory will be examined (for example biological perspectives in the bio-medical model). Reports on case studies and experiments have been integrated into these discussions as examples of the different influential properties of music. The use of music therapy for the treatment of stress and anxiety will also be reviewed in this chapter. The effects of music therapy on stress and anxiety and a technique often used in music therapy for anxious patients, namely improvisation, will also be discussed in this chapter.

Chapter 4 presents the conclusions of my findings. The different discussions in the previous chapters will be compared and presented in order to provide an answer to the research questions.

1.7 Value of the study

This study will be helpful to me when I have completed it, because reading about other musicians' problems with anxiety makes it more real to me. I will learn a lot from how other musicians deal with their problems. Performance anxiety is a problem that almost every musician deals with in some way. Reading the available literature pointed out in this thesis will encourage musicians to discuss a topic which is often kept silent, because it is often seen as a sign of weakness. This study will be beneficial to musicians at all levels because both novice musicians and professional musicians experience performance anxiety at some level.

The different musical viewpoints of performance anxiety will shed light on different areas of thought surrounding this problem. This can be valuable to others because it will explain how music works with our minds, bodies and emotions to create a piece of music we listen to. Every person experiences music in a different way and therefore some theories of music may have more impact on a person than another one.

1.8 Notes to the reader

It is important that the reader has the following points in mind when reading this study:

- Since this is a literature study, many references and quotes will be made regarding different books and journals.
- Some secondary references may be made where primary resources were not available.
- Many quotes are used in this thesis to describe the authors's different views. These quotes will be introduced and discussed, relating to the relevant topic.

Chapter 2

Performance Anxiety

2.1 Definition and classification of performance anxiety

There are various definitions of performance anxiety.

Krüger (1993: 17) is a concert organist and recording artist who is in demand internationally as a psychotherapist and a musician. She defines performance anxiety in the following manner:

> Performance anxiety – or stage fright – is essentially fear of life. It can mean either a depressing burden or a heightening tingle of the nerves. Except in certain extreme cases it is a healthy reaction to situations fraught with risk, because in every situation in which we expose ourselves, we run the risk of making ourselves ridiculous or of failing entirely. It is then merely an understandable reaction to situations in which we lay ourselves open to the judgement of those around us – a challenge for which hardly any of us has ever been prepared.

Another quote is discussed more in terms of how musicians' music education and knowledge influence a performance. In her article "The fear of performance," in the book *Musical Performance: A Guide to Understanding,* Elizabeth Valentine (2002: 168) defines performance anxiety as follows:

> The experience of persisting, distressful apprehension about[,] and/or actual impairment of, performance skills in a public context, to a degree unwarranted given the individual's musical aptitude, training and level of preparation.

Elizabeth Andrews (1997: 155), a successful musician and chiropractitioner in the UK, on the contrary states that performance anxiety is not dependent on musicians' education and is experienced by musicians of any age and level. She defines performance anxiety in the following manner:

> This can either creep up on a player, or hit one suddenly with a shock when it accompanies some other trauma. It is no respector of age, ability, success or experience.

The next view of performance anxiety is described from a biological perspective, especially concerning the symptoms which is a result of performance anxiety. In their article "Performance Anxiety," published in the book *The Science and Psychology of Music Performance*, Wilson and Roland (2002: 47) define this subject as follows:

> Performance anxiety, sometimes called stage fright, is an exaggerated, often incapacitating, fear of performance in public. As in any other kind of phobia, the symptoms are those produced by activation of the body's emergency system, the sympathetic branch of the autonomic nervous system, including all the well-known effects of increases of adrenaline in the bloodstream.

Many surveys have been conducted and most findings conclude that a vast number of musicians suffer from performance anxiety in one form or another. Famous musicians who admitted to suffering from performance anxiety include Maria Callas, Enrico Caruso, Pablo Casals, Leopold Godowsky, Vladimir Horowitz, Ignacy Paderewski and Sergei Rachmaninoff (Valentine 2002: 168). It is also reiterated that performance anxiety is not only bound to inexperienced amateurs, but also to professional musicians of all levels of ability (Wilson & Roland 2002: 48).

According to Brotons (1994: 64), performance anxiety is the ailment that is most often experienced by musicians. It functionally impairs musicians and they cannot perform on the level that they would like to. Many musicians experience a degree of tension and stress (adaptive anxiety), which is actually a positive point. There is a natural excitement when one performs, because it is a celebration of the musician's love of music and his/her ability (Andrews 1997: 159). In order to reach peak performances, some stress is needed. However, there is a point where the stress and tension becomes harmful rather than helpful and this is where performance anxiety originates (Brotons 1994: 64).

Performance anxiety can take control of musicians' performance, because the stress and tension makes them feel small and inferior, and that actually they are wasting the audience and their own time by their performance. The reoccurrence of performance anxiety can be related to Pavlov's experiments with dogs and their food. He used a bell whenever it was time to feed the dogs and when the bell was rung they would start salivating even before the food was prepared. A musician often starts feeling nervous for a performance hours or days before the actual event. The musician will also know what emotions are waiting ahead in the actual performance. This can happen while practicing for a performance. Just the mere thought of playing the piece in front of an imagined audience can cause symptoms similar to those suffered during performance anxiety (Andrews 1997: 160).

However, tension in a musical performance does not always have to be negative. As seen in Krüger's definition of performance anxiety, anxiety can either be beneficial or detrimental to a performance (Krüger 1993: 17).

Kemp (1996: 85) describes two types of anxiety: trait and state anxiety. Trait anxiety has to do with the particular person's tendency to be anxious, while state anxiety is influenced by a particular situation. These two types of anxiety are linked to each other and there is not always a clear distinction between them.

This compares with the Yerkes-Dodson Law proposed by Glenn D. Wilson (Wilson & Roland 2002:50). In his book *Psychology for performing artists*, Wilson describes the Yerkes-Dodson law as a U-shaped curve which represents the quality of the performance which is related to arousal. This means that low amounts of arousal will result in dull, lifeless performances, while in turn, excessive arousal will result in loss of concentration, memory lapses and unsteadiness in the body and musical instrument. In Wilson's version of this model there are three categories for the sources of stress:

1. Trait anxiety – personal characteristics that influence the susceptibility of stress;
2. Situational stress – environmental pressures, for example public performances, auditions, or competitions; and
3. Task mastery – this spans performances of well-prepared, easy works to under-rehearsed, complicated works.

These three sources of anxiety and their interaction will determine whether the anxiety will be detrimental or beneficial to the performance (Wilson & Roland 2002: 50). It is very important that teachers understand this model, because it will help them to choose the right pieces for their pupils, depending on the pupil's personality and the occasion where the piece will be performed.

Spielberger (1966: 16-17) defines state anxiety as "subjective, consciously perceived feelings of apprehension and tension, accompanied by or associated with activation or arousal of the autonomic nervous system." Kemp (1996: 86) explains trait anxiety: "trait anxiety is frequently seen as reflecting residues of earlier experiences." Therefore, examining trait anxiety might help to understand the impact of music on the developing personality of the

musician, while examining state anxiety will identify the performing conditions and demands made on the musician (Kemp 1996: 86).

Another perspective of performance anxiety is Cattell's theory of anxiety. Cattell (1970: 121-122) names a cluster of six primary factors which contribute to trait anxiety. They are:

1. low ego strength,
2. shyness,
3. suspiciousness,
4. guilt proneness,
5. low self-sentiment, and
6. ergic tension.

The three most powerful factors are:

1. ergic tension,
2. guilt-proneness, and
3. low ego strength.

According to Cattell, low ego strength causes disorganization and frustration. Persons suffering from this trait feel that they cannot cope with a situation, and this trait is often found in artists. Worrying and feelings of insecurity are linked with the guilt proneness factor. This person experiences feelings of unworthiness and inadequacy. This is also often found in artists. A person's self-image is revealed by the self-sentiment factor. This factor decreases in adolescence (at this age a loss of identity is often experienced) but returns gradually when maturing into an adult. Ergic tensions are related to Freud's id, in that there is an undischarged energy brought on by frustrating situations. This is also linked to a poor ability to perform desirably under stress. Cattell (Kemp 1996: 85-92) describes the anxious person as "easily perturbed, worrying, emotional when frustrated, lax, uncontrolled, depressed, moody, hypochondriacal, shy, embittered and of restricted interests".

Many tests and experiments conducted by Kemp and others reveal that once music students start receiving music tuition, they are more prone to anxiety, and professional musicians have a continuing pattern of anxiety. There appears to be a pattern of low ego strength, suspiciousness, low self-sentiment, and ergic tension in adult musicians. It was

found that full-time music students experience the highest levels of anxiety (Kemp 1996: 92-93).

Valentine mentions three different types of anxiety: reactive, maladaptive and adaptive. The first one, reactive anxiety, is usually a result of insufficient preparation. This is a realistic type of anxiety that is best dealt with through rehearsal and music analysis. In order for anxiety to be beneficial to the performer, there has to be the right level of arousal (Valentine 2002: 170). An important means of treating performance anxiety is a cognitive strategy where the performer is encouraged to perceive the anxiety experienced before a performance as helpful and normal. This will prepare the musician for the performance to come (Wilson & Roland 2002: 53).

2.2 Symptoms of performance anxiety

As seen in the previous subheading, there are many different opinions on the definition of performance anxiety, and various models and perspectives describing these definitions. The factor which really influences musicians and the way that they react to performance anxiety are the symptoms.

The symptoms associated with performance anxiety have been divided into four categories by the author of this dissertation:

1. Physical symptoms,
2. Cognitive symptoms,
3. Emotional symptoms, and
4. Behavioural symptoms.

Each one will be discussed separately.

2.2.1 Physical symptoms

The physical (bodily or somatic) symptoms experienced during performance anxiety are similar to those experienced in any stressful situation. A few of the physical symptoms described by Wilson and Roland (2002: 47-48) are:

- Increased heart rate;

- Increased activity of lungs which causes a breathless feeling;
- Sharpening of vision which causes visual disturbances such as blurring;
- Diversion of resources away from digestion which causes a feeling of butterflies in the stomach;
- Redirection of body fluids like saliva into the bloodstream which causes a dry mouth; and finally
- Activation of the body's cooling system which causes sweaty palms.

These are all known as alarm reactions.

Krüger (1993: 19) describes the physical symptoms associated with performance anxiety: "Fear and agitation always go along with the physiological reactions of the body (clammy hands, strong heart palpitation, cramped muscles, etc.), the so-called stress reaction."

Andrews (1997: 160) uses a more physical approach in her explanation of the physical symptoms associated with performance anxiety. These are summed up as experiencing:

- A dry mouth;
- Short, shallow breathing;
- A racing heart;
- Cold, sweaty hands;
- Shaking;
- Loss of feeling, seeing, hearing;
- Heightened awareness of outside stimuli;
- Muscular tension and sickness; and
- Loss of concentration.

The stomach is often involved when a person feels nervous. The emotions feel like they are sitting in the stomach. Therefore people tend to over-eat or starve themselves when they are in a stressful situation. Digestion is one of the first things to shut down; a term often used to describe tension or anxiety is "butterflies in the stomach". The physical reality is that too much acid is being produced for digestion that is not happening and this causes a slight ache in the stomach (Andrews 1997: 160).

There are different ways of dealing with these physical symptoms, but the most often applied method is through the use of beta-blockers. These are drugs that block the effects of adrenaline on the body. However, these drugs also have several side effects. They can lead to asthma attacks, heart failure, diarrhoea, nausea, light-headedness and insomnia.

Beta-blockers can be temporarily effective, especially when taken just before or at the beginning of a performance, and also using small doses. Some studies have even showed an improvement in intonation, evenness of vibrato, bow control, dynamic control, accuracy, memory, rhythm, and tempo (Brotons 1994: 66). Ostwald suggests that musicians should have psychological counselling if they want to use medication. This is mainly to deal with the side effects of these interventions (Andrews 1997: 156).

Some people resort to taking Prozac, which numbs emotions to a certain degree. This is detrimental to a performance because these emotions are vital to a musical performance. It basically has the same side effects as the beta-blockers and can also cause blurred vision.

Another method is to use alcohol in order to dull the symptoms of performance anxiety so that the musician can deal with it. The largest side effect here is clumsiness.

When these musicians decide to stop any one of the above-mentioned interventions, they start dealing with the problem of performance anxiety face on.

2.2.2 Cognitive symptoms

The cognitive symptoms experienced as a result of performance anxiety, are the thought processes and expectations that the musicians generate while they perform. Krüger (1993: 23), a performing musician herself, describes what it feels like to perform by oneself, and how it is different to performing in front of an audience:

> In our private performances without an audience we are free of performance anxiety, because evaluation from outside is missing. Persons who do not 'put their light under a bushel' and show themselves in public expose themselves to situations that can be psychologically explosive.

When musicians are performing in a concert, they are exposing themselves fully to an audience of people. This differs from when musicians just sit in a room and perform for themselves. There is a huge difference in these two types of performances.

Krüger points out that it can be "psychologically explosive" to perform for an audience. She is describing that this is when musicians experience performance anxiety. This compares with Wilson and Roland's description of performance anxiety. They state that when the performer's sense of threat is increased, performance anxiety will also be increased (Wilson & Roland 2002: 49). Valentine in turn refers to the cognitive component of performance anxiety, describing it as the fear of failure and its consequences. When cognitive anxiety is low, the performance will be dull and lifeless (known as the Yerkes-Dodson function). When cognitive anxiety is high, it will follow the catastrophe model, which means that as the arousal increases, the performance will follow a catastrophic decline and will be difficult to recover from. This vicious spiral of negative thoughts leads to worries and reflections on the performance (Valentine 2002: 170).

There are several associative factors that have an influence on performance anxiety. Probably the most common cognitive symptom associated with performance anxiety is negative thinking. Negative thinking includes thought processes such as worrying, poor concentration, and diverting attention which all lead to an increase in performance anxiety (Valentine 2002: 169). This type of negative thinking causes a loss of self-esteem, and self-worth may then in turn rely on a successful performance.

Another of the most common factors is the fear of being negatively evaluated by others. This therefore forms a part of social phobia (Wilson & Roland 2002: 48). It is a social norm that public performances are expected to be perfect. This puts a lot of pressure on the performer and can help increase performance anxiety (Krüger 1993: 23). "As opposed to the setting of spontaneous happenings, a participant in a performance is burdened with expectations. He is left completely alone, however, when it comes to how he deals with the pressure of expectations and their consequences" (Krüger 1993: 26).

According to Wilson and Roland (2002: 49), while the size of the audience often does not have an effect on the performer, their proximity (if the performer is able to see the expressions on their faces) might have an effect on performance anxiety. There is also a status relationship between the performer and the audience, and this definitely will have an effect on how severe the performance anxiety will be. For example, if some of the audience members are known to the performer and are educated in the musical profession (for

example music performers or professors), this may add to the tension, because the performer knows that there is a heightened expectation. Another example of added tension, is when the performer is being critically evaluated, in an examination or in a competition.

According to Beck and Emery (1985; in Wilson & Roland 2002: 50), an anxious person's perception in an anxious social situation can activate their anxiety response. There are four thought processes that influence this anxiety:

- Overestimating the probability of the feared event;
- Overestimating the severity of the feared event;
- Underestimating coping resources; and
- Underestimating rescue factors.

Usually, the most stressful situation is in an audition where the evaluation will be critical and the audition panel's views will have an effect on the career of the performer. Generally, competitive situations are more stressful than performances meant for entertainment, because of the relationship between the performer and some of the listeners (Wilson & Roland 2002: 50).

Steptoe and Fiddler discovered in their study that all three of their groups of professional, amateur and student musicians reported a tendency to imagine a catastrophe and after a minor mistake would imagine exaggerated outcomes (Kemp 1993: 102-103).

2.2.3 Emotional symptoms

Emotional and cognitive symptoms are very much interlinked, because negative thoughts lead to negative emotions. And this in turn will have an effect on the performer's anxiety. As noted in 2.2.2, worry is a result of negative thought processes. Even though the role of the audience seems to have an effect on performance anxiety, it also has to do with the 'mental baggage' that performers carry with them onto the stage. Family considerations and worries also play a role in this.

Ely (1991: 35-39) names a few emotional symptoms associated with performance anxiety: fear of failure, irritability, inflated feelings of fearfulness, and comprehensive panic.

Andrews (1997: 159) discusses the sympathetic and parasympathetic symptoms, which is the level being set according to what the person is doing. There is always one of these types of symptoms that are more dominant. People with high sympathetic levels are usually perfectionists and highly strung and they are easily upset. Laid-back, dozy people have high parasympathetic levels and need extra stimulation in order for them to perform at their best. These people hardly ever experience performance anxiety; they need extra stress to keep them going. In an optimal performance there should be a balance of sympathetic and parasympathetic systems.

2.2.4 Behavioural symptoms

Just as emotional symptoms are closely related to cognitive symptoms, the behavioural symptoms of performance anxiety are closely linked to the physical symptoms but are also influenced by cognitive symptoms as these changes in behaviour are associated with the negative thought processes present in the cognitive symptoms. Valentine (2002: 168-169) states that the behavioural symptoms of performance anxiety can either take the role of the signs of anxiety (shaking, trembling, stiffness and a dead-pan expression) or of impairment of the performance itself. The behavioural measures of performance anxiety have to do with the quality of performance involved.

A few behavioural changes that take place during performance anxiety are knees and hands trembling, lips moistening, shoulder lifting, arm and neck stiffness, and expressionless face (Brotons 1994: 64).

Performance anxiety can become a phobia. This is because the performer will associate the fear of anxiety with the fear of performing, and in turn a phobia is developed. One of the behavioural approaches of dealing with performance anxiety is systematic desensitization. This is a method of training muscular relaxation combined with having the performer imagine the conditions of the performance. It trains the musician to relax their muscles while in a performing situation. Muscular tension is one of the most common physical and behavioural symptoms of performance anxiety (Wilson & Roland 2002: 52).

2.3 Musical factors which influence performance anxiety

Since this dissertation is dealing with the performance anxiety of musicians, it is important to discuss the variety of musical factors which influences a concert, and in turn, influences performance anxiety. The musical factors that will be discussed in this section are musical expression, rehearsal and practicing, sight-reading, and memorizing of music.

2.3.1 Music performance

Musical performance has different meanings to each individual, depending on the context where it takes place. The cognitive psychologist Sloboda (1985: 67) defines a musical performance as follows:

> A musical performance is one in which a performer, or a group of performers, self-consciously enacts music for an audience. In our Western culture, such music is often written by someone not directly involved in the performance. The performers *realize* a pre-existent composition.

This quote describes the role of the performers in a concert and also the role of the composer. Sloboda is stating that music which has been written by a composer will be performed for an audience.

Although there are many factors contributing to performance anxiety (like the performer's personal disposition to stress and the performance conditions), improving musical factors which are present in a performance will be beneficial to the performer and may even help reduce performance anxiety. The most important feature of a successful performance, is when musicians can connect with the audience, be it through their personal musical language or body movements. This is difficult to achieve when performance anxiety is present. Therefore, working on musical aspects of a performance will aid the musician.

There are three main stages at which a piece of music already composed can be studied for performance (Sloboda 1985: 67).

1. Unpremeditated performance: This is basically sight-reading. It is what the musician can do with the piece when seeing it for the first time. Although some musicians' sight-reading is quite good, it is rarely at the level expected for performance.

2. Practicing: A musician practices and plays a piece of music over and over to achieve the desired results.
3. Finished product: This is the professional rendition of the piece of music and is often memorized (especially with pianists). This is also known as expert performance.

These three points differ with each musician. Some musicians' sight-reading is better than others and some need more time to practice a composition. It all depends on the musicians' skill, ability and personality (Sloboda 1985: 67).

Sloboda (1994: 152-153) states that there are two psychological questions concerning music performance:

1. What is the nature of skill in a certain performer?
2. What is the acquisition of the performer's skill?

He answers these two questions with a few general answers. Skill depends on the ability of the musician to recognize musical patterns and structure in the music and to understand how they interact with each other to form a piece of music. The amount of practice determines the level of skill in the musician. As skills become practiced and fluent, they tend to become automatic. The different skills acquired do not influence each other.

There are several musical factors which influence performance anxiety. An example is being well-prepared for a concert. When musicians are well-prepared in a concert, it is one less worry they have to think about when performing. Memory is linked with this idea, because if musicians have rehearsed their pieces and know them well, it is another concern they can eliminate when performing.

2.3.2 Music expression

Musical expression is closely linked to musical performance. Musical expression is the musical ingredient in a performance. When musicians are able to master musical expression in a concert, performance anxiety will be decreased. This is because concentrating on musical expression is a useful technique in a stressful situation. It helps musicians to portray their emotions in the music, even when they are not in full control of the situation and of

what their body is doing. Performers' minds start to wander when tension is experienced in the performing situation.

Musical expression is one of the most important parts of a performance, and is sometimes absent when performers are stressed. By focusing specifically on musical expression, musicians can stay more focused on the music rather than being caught up in the emotions experienced during stage fright.

The way in which the musician decides to apply expression in a certain piece of music is determined by the musical structures in that specific composition. Often professional musicians who have a huge repertoire do not even have to think about where to apply what expressions in a composition. It comes naturally to them just by playing the piece. According to Sloboda (1994: 157), even when there exists a system where expression is clearly indicated, the musician's individual style will still shine through in every performance.

The purpose of musical expression is to help the listener understand the structure of the music (Sloboda 1994: 159). According to Juslin and Persson (2002: 219-221), the shaping of a piece of music's emotional expression is crucial to its performance. Many performers consider musical expression to be the most important part of the performance of a piece of music. Teachers are being urged to start teaching their pupils as early as possible about musical expression. If this is not done, these pupils are usually technically very proficient but play music that lack emotion.

If musical expression can be taught to musicians at a young age, this will help them develop this skill as soon as possible, and will aid the decrease of performance anxiety in their performances. Learning how to cope with performance anxiety at the beginning of musicians' careers is very important, because this will help them cope with these problems from a very early age. This leads to the next sub-section which deals with rehearsal and practicing.

2.3.3 Rehearsal and practicing

The most important way of preparing for a performance is through rehearsal and practicing. This will aid performers when they experience performance anxiety, because they will be able to rely on the work that they know very well. An audience will recognize when a

musician is well prepared for a performance or not. The famous pianist Paderewski defines the results of practicing as follows (Barry & Hallam 2002: 151):

> If I don't practice for one day, I know it; if I don't practice for two days, the critics know it; if I don't practice for three days, the audience knows it.

This quote reflects that even professional musicians of a high calibre are still reliant on practicing, even at such an advanced stage of their musical career.

Although a performance rarely lasts longer than an hour, weeks and months are used to prepare in advance for a single performance. Often a performance is a one-off event. Even though psychologists might define practice as learning skills through repetition, musical practice acquires an interaction between various activities, such as memorization, the development of technical expertise, and personal formulations.

Musicians spend a lot of time practicing and rehearsing. In fact, it is probably the thing that they do most often. Therefore the quality and nature of their practice largely determines what the quality of the actual performance will be (Sloboda 1985: 90). According to Ericsson, Tesch-Romer and Krampe (in Sloboda 1994: 161) the skills that are acquired through practicing can be compared to characteristics of talent that might be inherited.

Successful musicians are usually those who started out at a young age and have many years of practice behind them. Once again Sloboda (1994: 162) points out that what is done during practicing is just as important, if not more, than the amount of time spent practicing.

There is no set amount of practice for a piece of music. Every person will have different needs in order to be able to learn a piece and keep their technique in shape. It also depends on a how a person is built physically and the physical demands of his/her instrument (Andrews 1997: 206).

This is very important for the influence of performance anxiety. If the musicians are more familiar with these physical demands of their instrument and know how to deal with their personal difficulties in the instrument, less attention will be paid to these aspects in a performance. Musicians have more confidence in these cases, and therefore will be able to deal with performance anxiety more efficiently.

Barry and Hallam (2002: 151) define practicing as follows:

> Musicians practice to gain technical proficiency, learn new repertoire, develop musical interpretation, memorize music, and prepare for performances.

As Barry and Hallam point out, practicing is a method of preparing for a performance. Therefore, it is also a way of preparing for performance anxiety and to be ready for the effects of it.

According to Barry and Hallam (2002: 152), the most beneficial ways of practicing are:

- Metacognition: When a musician reflects upon his/her own thought processes;
- Combining physical practice with mental practice (cognitive rehearsal);
- Practicing in a organized, goal-orientated manner;
- Analyzing and studying the score;
- Practicing for regular and short sessions;
- Intrinsical motivation;
- Listening to appropriate recordings made by professionals or the student's teacher; and
- The realisation "Practice makes perfect" is not always true: When ineffective practice strategies are used, the desired result may not be achieved.

These different ways of practicing all work together to make practicing more efficient. The end result will be to know the piece of music as well as possible. Practicing techniques all contribute to help eliminate performance anxiety. The better musicians practice and know their pieces, the better a performance will be, because there will be no need to worry about having the piece in the fingers or voices. Therefore, practicing forms a vital part of a musician's road to dealing with performance anxiety.

2.3.4 Sight-reading

Sight-reading is also an important performance aspect and will therefore be discussed in this chapter. Different techniques and skills of sight-reading will be mentioned, so as to train the performer for how to prepare the skill of sight-reading. Although sight-reading is not directly related to performance anxiety, it is still a method of preparing for a piece which can help with practicing and rehearsing. As mentioned earlier, the better the musicians are prepared for a performance, the easier it will be to concentrate on the performance alone, and not

other technical issues or problems. This will lessen the chance of performance anxiety because the musicians are well prepared for the performance, and therefore less stress is experienced.

Gabrielsson (1999: 509) defines sight-reading in the following way:

> Sight-reading means performing from a score without any preceding practice on the instrument of that score, to perform *a prima vista*.

Sight-reading involves identifying groups and patterns of notes. It occupies both reading and motor skills because the performer has to read upcoming note patterns while performing the ones that have already been read. Therefore, for good sight-reading, the performer must be able to read the notes and identify patterns quickly. Other conditions such as music printing and spacing also has an effect on the performer.

When performers are reading patterns of notes rather than individual notes, misprints often go undetected. It is important that during the mental rehearsal before playing the piece, certain elements of the specific piece are noticed: key, time signature, phrases, possible obstacles, and accidentals. Performers should also maintain a high level of concentration during the actual sight-reading exercise, so as to avoid errors. While they are playing, they should pay attention to anticipated problems, musical indications above and below the music stave, and they should self-monitor their own playing so that they can correct errors.

All these are easier to achieve if the performers are familiar with the style of music in which the sight-reading exercise is composed (Gabrielsson 1999: 509-510). This type of concentration is helpful in preparing for performance anxiety. If musicians are able to concentrate on a level where sight-reading is possible, they will be able to concentrate in a concert and not allow performance anxiety to mar their concentration while performing.

Before composers such as Clara Schumann and Felix Mendelssohn, music was hardly ever rehearsed extensively before being played for an audience. This was because the style and idiom of the music composed in that time was very familiar, the same music was not performed more than a few times, and composers were afraid of plagiarism by orchestral musicians. Good sight-reading skills, especially among children, were seen as miracles and the sign of musical prodigies. A few famous good sight-readers included Mozart, Mendelssohn, Czerny and Liszt.

According to current thinking, sight-reading has lost its place in public recitals (Lehmann & McArthur 2002: 136-137). It is vital that sight-reading be taken seriously as it can aid the relief of performance anxiety. Good sight-reading ability gives musicians more confidence in their playing and this is conveyed when playing in front of an audience.

Sight-reading is a very important part of children's musical education. A lot of effort is spent teaching people how to sight-read and often it is not the most favourite part of the lesson. Often children like to memorize a piece of music as soon as possible so that they do not have to worry about reading music any longer. This is very bad for their sight-reading skills because the only sight-reading that they do then is that which their teacher gives to them in their lesson. This forms part of a vicious circle because the less sight-reading is taking place, the worse it becomes, and the worse it becomes, the more students memorize their pieces. Therefore it is a very important part of music education to make sure that students do ample sight-reading. This will also help students when learning a new piece (Sloboda 1985: 68).

When young people are taught the importance of sight-reading at an early age, this will in turn help with performance anxiety. Students become more confident and self-assured, and therefore will feel more confident on stage.

The more experienced the musician, usually the less difficult sight-reading becomes. Often in an examination of a higher level or grade, the candidate is expected to deliver an error-free performance of sight-reading, and also to play the piece of music musically and with expression (Sloboda 1985: 90).

Looking ahead lessens the tension of not knowing what comes next. This means that the musicians are more aware of what is coming up. This awareness of what is happening ahead of time, is a good sense to have. This might help when on stage, when performance anxiety is experienced. When stressful feelings are experienced, musicians will be able to rely on their skills learnt of looking ahead, and trying to control the situation before it becomes a catastrophe.

The famous piano pedagogues Lehrmann and McArthur (2002: 135) state that there is a wide range of levels of sight-reading between different musicians, which does not depend

on the level of skill of performing. There seems to be a general disagreement about this matter. While some authors found that there were virtuoso pianists who could not read music fluently and some excellent sight-readers who were mediocre musicians, other people found through studies that better sight-readers do tend to be better musicians. These factors are influenced by the musician's instrument and also how the skill of sight-reading was acquired and at which age.

According to Lehrmann and McArthur (2002: 139), training and experience are important predictors for sight-reading achievement. Sight-reading abilities should not be used to be an indicator of a musician's talent. The reason why sight-reading is important in the modern musician's lives, is because it enables musicians to survive in an economic situation where music is expected to be learnt quickly, and it offers a chance to play with other musicians of the same level.

Sight-reading is a useful tool in learning music faster and, therefore, having more time to prepare for a concert. This is very important when dealing with performance anxiety because when musicians are well-prepared for a concert, stress is considerably reduced. Sight-reading and practicing go hand-in-hand in this situation.

2.3.5 Memorising

Memorising is another important way of preparing for a musical performance. Many performances are expected to be played off by memory, and this can be a very stressful part of the performances, because memory lapses are something that almost every musician has experienced. This tension can add to the stress already felt by musicians through performance anxiety, and therefore when the musicians prepare the memorisation of a piece properly, less damage might be done in the performance.

Aiello and Williamon (a researcher of performance anxiety at the Royal College of Music, London) discuss memorising in the following way (2002: 167):

> There is extensive biographical and anecdotal information on the memory of exceptional musicians, but only recently has there been systematic research, and this has mostly focused on pianists. Historical reasons for performing from memory can be traced to Clara Wieck Schumann and Franz Liszt. General theories of expert memory can help us understand how expert musicians memorize music. Auditory, kinesthetic, and visual information contribute to musical memory. Recent psychological research suggests the importance of explicitly

> analyzing the score. Memory strategies depend on the skill of the performer and the style and difficulty of the music to be memorized. The ability to memorize seems to be enhanced by studying music theory and analysis. Learning to improvise in the style of the music could also be helpful.

This quote sums up why memorising is important in musicians' lives and how various aspects can aid musicians with their memorising skills.

Tonal memory is seen as an important characteristic of musical talent. In many music examinations, a memory test will always form part of the aural tests. Other tests like this include the Seashore Measure of Tonal Memory and the Kwalwasser-Dykema Test of Tonal Memory. According to Mursell (1937: 223), playing a piece from memory may have no psychological or artistic link to the musician's level of talent. Therefore, just because students score high marks on these tonal memory tests, does not mean that they will be good musicians. This is often misunderstood especially in pianists. An example is that of Artur Rubinstein, who gave up performing for an audience because he could not rely on his memory in a public performance (Lundin 1967: 125-127).

There are three main ways to memorize music according to Matthay (1913, 1926), Hughes (1915) and Gieseking and Leimer (1932/1972) (in Aiello and Williamon 2002: 167):

1. Aurally (auditory memory) – imagining the sound of the piece, anticipating upcoming events in the score, and simultaneous observance of a performance's progress.
2. Visually – images of the written page and other elements of the playing environment.
3. Kinaesthetically (finger, muscular, or tactile memory) – allows musicians to perform motor sequences automatically.

It is widely known that performing a piece from memory is stressful and tricky. However, many musicians have musical reasons for performing from memory. An example is easier communication with the audience. It allows performers more freedom in their own expressive ideas. In a study conducted by Williamon, he found that audiences rated memorized performances higher than ones that were not memorized, because of the communication that was intensified during memorized performances. This was especially true if the audience members were musicians themselves (Aiello & Williamon 2002: 168-169). This is important since the audience plays a big role in performance anxiety.

As mentioned earlier, audiences and the atmosphere in the audience influence musicians on stage. When musicians are able to communicate with their audience, this creates a musical communication where musicians feel that they are reaching the audience through their music. This will lessen the effect of performance anxiety and shift the focus to the music in the performance.

Edwin Hughes is quoted as saying that "performing with a bundle of notes" obstructs "absolute freedom of expression and the most direct psychological connection with the audience." There are some exceptions, however. Some famous musicians who performed with the score in public performances include French pianist Raoul Pugno, Béla Bartók and Dame Myra Hess (Williamon 2002: 114).

Williamon (2002: 113) states that performing a piece from memory is tremendously difficult, and therefore very stressful. Apart from learning all the many notes and performance indications by memory, it is demanding to perform these all accurately in a stressful situation, such as a public recital. Many musicians prepare for this horrible feeling by lots of repetitive practicing so that the performance will go on, even if there might a memory lapse, for example. According to Williamon, these strategies are often not efficient and can result in lapses of recall. Memory lapses are one of the main causes of performance anxiety.

Williamon states that teachers should help their students prepare for memorised performances by creating many opportunities for them to play their memorised pieces. They will also get used to audiences' critical and high expectations (Williamon 2002: 118).

If performers' memory could be trained to recall information as accurately as possible, this could have exciting implications for musicians suffering from memory lapses in concerts, and therefore also from performance anxiety.

It is important to distinguish between short-term memory and long-term memory. Short-term is the type of memory that stores information only for a very short amount of time (about 10 minutes). One type of short-term memory is working memory. This is used to manipulate information, and will be used in music for sight-reading. Long-term memory is a permanent way of storing information, and it can be recalled over long periods of time. This

is the most important type of memory for performing musicians as this is what is mostly used when memorizing music (Aiello & Williamon 2002: 170).

Many studies have found that expert memory abilities have been developed because of a great knowledge which is specific to a particular interest. Therefore, professional musicians who have been memorising music over their whole careers will usually have expert memory abilities. This helps immensely with reducing memory lapses and causing less stress.

Long-term memory should be able to be retrieved without any hesitation and searching for the information (Aiello & Williamon 2002: 170). This is very important when performing in a stressful situation where music has to be recalled without the musician having to think about it. Long-term and short-term memory should be available without hesitation by an experienced musician in order for the performance to be successful. This in turn will lessen the occurrence of performance anxiety.

The role of the musical style of the piece when memorising it, is also very important. That is because musicians not only draw information from previous experiences, but the style of the music also influences the way they memorise a particular piece of music. For example, contemporary music is very difficult to memorise because there often is no tonality in the piece. In these cases, it is very important to analyse the music before it is learnt and memorised.

The commended pianist Claude Frank noted: “I do not memorize music easily that I do not hear thoroughly. For example, some contemporary music. I can force myself to memorize, but its hard work, and I tend to forget easily.” And acclaimed pianist Rudolf Firkusny said: “When you are memorizing complex modern works, the harmonies are more complicated and anything but what you expected. Then you need much more concentration” (Williamon 2002: 175).

All these different ways of memorising music are all means to lessen the stress in a performance. It is once again a method of having more self-control over the performance. Memory lapses is a very big fear among performers, so much so that musicians experience performance anxiety before even going onto the stage. They imagine what will happen if a

memory lapse appears. Training one's memory could have great positive implications for performance anxiety.

2.4 Summary

This chapter dealt with the definitions and symptoms of performance anxiety, and also different musical factors that have an influence on a performance. Since it is a literature review, several definitions of performance anxiety were discussed. It is interesting to see various perspectives involved in this subject. The symptoms of performance anxiety were divided into four types of symptoms: physical, cognitive, emotional and behavioural. All these symptoms are usually felt during an episode of performance anxiety. However, each musician will experience them differently. Some might experience one type of symptom more than the others.

The different methods of preparing for a performance were mentioned in chapter 2.3. These are related indirectly to performance anxiety. Preparing for a performance is an essential part of a performance. When musicians feel confident about their work, it is one less worry in the performance. Therefore, performance anxiety might be diminished. The different performing factors mentioned in this section are musical performance, musical expression, practicing and rehearsal, sight-reading and memorising. These are all important factors of a musical performance and all contribute to a well-rounded presentation, which means that there will be more attention available to control performance anxiety.

Chapter 3

Various perspectives on music and performance anxiety

Four different theories surrounding music will be discussed in this chapter: the bio-medical model, the cognitive model, music psychology and music therapy. These theories approach music from various angles and their theorists have stated their different opinions about music and its influence on performance anxiety. Case studies and experiments will be integrated into these discussions as examples of the different influential properties of music.

3.1 Bio-medical model

One of the elements of music and performance anxiety is the physical aspect. The bio-medical model views music as being an integral part of human behaviour. Therefore it influences human behaviour in many different ways.

3.1.1 Biological perspectives

The bio-medical model is interested in the biological perspectives of musical behaviour. Human beings are comparatively free from instinctive behaviours. This is one of the aspects that separate humans from animals. Therefore, we are able to make our own choices regarding our behaviour towards music.

One of these choices is the ability to make the decision to create music. Freedom of choice is one of the most important traits for humans and music (Hodges & Haack 1996: 470). Darwin (1874; in Hodges & Haack 1996: 470) stated that man's music evolved from the vocalizations of apes, and these were used for emotional signals. However, these are not always seen as musical behaviours in humans. Ape vocalizations do not share the organizational qualities of human music.

Music is sometimes seen as a necessary skill in humans. There are no cultures in the world without music, and music often plays a daily role in their activities. Since the development of technology and computers, modern society does not always have the same need for music as it used to in ancient cultures (Sloboda 1985: 260-268). Whereas in previous

cultures, and for some more remote cultures, music used to be a form of life, music is mostly seen as mere entertainment in modern society. According to Sloboda (1985: 268):

> Music is a fundamental human resource which has played, and may well play again, a vital role in the survival and development of humanity.

Sloboda explains in this quote that music plays an essential role in human life, and even goes as far to say that it is needed for the continued existence of humankind.

As society and cultures develop, music develops alongside them, and is an important aspect of this evolution. Music forms part of humanity and humanity is linked to culture. Therefore these elements go hand in hand.

It is vital to understand the importance of music in human life, since this in turn influences the way we approach performance anxiety. Since performance anxiety often dominates musicians' performing careers, when we grasp the role that music plays in our daily life, it will put performance anxiety into perspective with this view.

The human brain grew so large through the course of evolutionary history, that if humans are born with their brains the size that it is at full term, the baby's head will not be able to pass through the birth canal. That is why babies are born with their brains not completely developed. Over the course of their first six years of life, the brain grows to full size. During this period of time, the baby relies on its parents or caretakers for survival and is completely dependent on them. The most important thing that takes place during this time is the communication of love and affection. Music plays a big role in this. Examples are:

- Rhythmic behaviours: Rocking, stroking, and patting;
- Pitch patterns: Speaking with varied tone and intonation; and
- Singing lullabies: A special musical way of communicating love.

According to Birdsong (1984; in Hodges & Haack 1996: 471), the term "motherese" is used for a specific kind of speech pattern that the mother uses to communicate with her baby. There are musical aspects in motherese and these are very important because they help the child to develop language skills and to communicate emotions. Before infants learn to speak, they will be able to understand the emotional language by the musical characteristics of motherese.

There are other physical features which also add to human musical behaviour. Another important one is our hearing mechanism. Humans need this to discriminate pitch and dynamics changes. The body parts we need for playing an instrument or singing are: fingers, hands, lips and the vocal tract. These are all most strongly represented in the sensory-motor cortex of the brain. The vocal tract permits a person to attach emotional nuances to his/her vocalizations. Animals also have emotional substance in their vocal sounds, but these are more limited.

Rhythm also has a strong influence over our bodies. We all have body clocks which work in a rhythmic manner. If there are any disturbances in our body rhythms, it often means that we are becoming ill. Human music has a strong rhythmic element because of biological and environmental rhythms, such as the four different seasons in a year (Hodges & Haack 1996: 471).

Music has a strong influence on human biology. There is a medical condition known as marasmus which is defined as a condition that babies under one year of age get if they are not loved enough. This is usually fatal. Music plays a big role in the affection expressed to babies. Music also has an effect on the motor systems. When one listens to music, usually there is some kind of physical response, such as that of tapping one's foot. The energizing effect can also be used for the coordination of work behaviours, for example in exercise activities.

Physiological responses are also affected by music, for example changes in heart rate, blood pressure, breathing rate, muscle tension, pupil dilation, digestion, brain waves and brain chemistry. It is well-documented that music can be used as a pain-killer (Hodges & Haack 1996: 472). Music has often been used in hospitals, as Van de Wall (1948; in Hodges & Haack 1996: 472) reports. It can be used therapeutically or for entertainment. According to Staum and Brotons (2000: 27), music can be used as a distracter for people experiencing pain or acute stress due to uncomfortable medical procedures, but may not always produce a physiological change.

All these physical responses to music prove that music always provides some sort of physical reaction. This is an important subject in the discussion of performance anxiety, because many of the symptoms of performance anxiety are physical (as stated in 2.2.1). This means

that these two subjects are linked. Since music elicits a physical response, this could perhaps be used to aid in situations where performance anxiety appears. Musicians can explore their physical reactions to certain types of music and perhaps discover which music and which musical situations result in a stressful physical response.

3.1.2 Musical thinking and biology

Music influences the human body and the human body, in turn, can influence music. Young (1978; in Hodges & Haack 1996: 472) maintains that the:

> Proper study of the organization of the brain shows that belief and creative art are essential and universal features of all human life. They are not mere peripheral luxury activities. They are literally the most important of all the functional features that ensure human homeostasis.

Young believes that people's daily lives are influenced by music, and that music is not just an extra activity that people partake in. He says that it is essential for a healthy balanced lifestyle.

Since the human is controlled by the brain, we know that all the origins of our physical musical actions come from the brain. It has been discovered that intellectual functions are located in different areas of the brain and therefore, if there is damage to one area of the brain, it will only disrupt a proportion of the normal functioning.

The brain is divided into two symmetrical halves. The nerves belonging on one side of the brain connects with the other side of the body. Each hemisphere is specialized to some degree. For most people (right-handed people) the left hemisphere controls language behaviour, while the right hemisphere is in charge of spatial orientation and other non-verbal skills. Therefore, left hemisphere intervention causes speech disturbance and right hemisphere disturbance causes disruption of singing. As a result, people who suffer from stuttering will have no problem with singing, because the two actions take place in different parts of the brain. These results were found in a study conducted by Gordon and Bogen (1974; in Soboda 1985: 260-261).

The physical symptoms experienced during performance anxiety have been discussed in 2.2.1. There are many theories of using music as a therapeutic tool, for example music therapy (which will be discussed in 3.4). A way of using one's body to cope with

performance anxiety is the Alexander Technique. This intervention is used by many musicians and is also offered at many music colleges and universities for music students. Alexander Technique is named after Fred Alexander, an Australian actor (Wilson & Roland 2002: 54).

After Alexander almost completely lost his voice, he developed a way of using his body in the correct way by facilitating his body muscles in different positions and movements. He managed to cure his vocal problems without any other medical help, and then noticed that other people also use their bodies in incorrect manners and positions. Alexander started his technique with the encouragement of a doctor in Sydney and then moved his practice to London.

Even though Alexander died in 1955, the Alexander Technique it still very popular, especially among musicians with physical problems and those who suffer from performance anxiety. In his book *Use of the Self* (1932: 21), Alexander describes how to use one's body in the correct way, in order to take control of one's body. This is very helpful in performance anxiety, especially as one of the symptoms is to lose control over muscular functions when panicking on stage.

There is another field known as music medicine. Brandfonbrener and Kjelland (2002: 83) define this by stating that:

> Most of the medical problems of musicians are the shared consequence of the specific instrument, performance technique, and repertoire interacting with the physical and psychological nature of the individual. The incidence of problems is greater for those instruments requiring more repetitious actions over a long period of time and in all the risks that are increased by stress. Most frequent are musculoskeletal pain problems such as tendonitis, which typically resolves with simple measures like reducing activity, anti-inflammatory medication, and icing. Prevention is preferable to treatment for all these conditions but more research is needed to validate the techniques to be employed and to more precisely identify the casual factors. This requires close collaboration between medicine and music education.

Brandfonbrener and Kjelland explain that the medical problems which musicians experience are a specialised field and describe the type of problems that occur in this quote. They agree that prevention is the best treatment, because these medical problems are not easy to solve and cause great discomfort in professional musicians' lives.

Music medicine has only been given attention since the 1980s, and has grown worldwide since then. While all musicians can suffer from occupational hazards in their music careers, the diagnosis and treatment between instrumental musicians and singers differ vastly from each other. The level of science needed to treat vocalists is much higher than that of instrumentalists. The medical conditions suffered by instrumentalists can be divided into three categories (Brandfonbrener & Kjelland 2002: 83-94):

1. Musculoskeletal pain syndromes: For example, tendonitis. The most common places in the body for this to occur are the arms, neck and back, most often resulting from overplaying.
2. Nerve entrapments: This occurs when a nerve is trapped in a particular place in the body by some other tissue, for example scar tissue or inflamed/swollen tendons. Pain is usually experienced (sometimes quite severely) in the distribution of the affected nerve rather than only at the site where it is pinched, and this is often accompanied by a pins-and-needle sensation.
3. Focal dystonias: These are occupational cramps. This is the most serious of the three, and may significantly impair professional performance careers. Focal means localized, and dystonia means abnormal muscle tone. This usually results in an inability to control fingers, mainly in one hand.

Music medicine can have important implications for musicians suffering from performance anxiety. These injuries named above are serious injuries which can severely affect musicians' lives. Musicians are often very anxious about these types of injuries and this can be translated into their playing, and add tension. Therefore it is contributing to performance anxiety.

One way of avoiding stage fright is by being well-prepared (as noted in 2.3.3). Musicians prepare mainly by practicing and rehearsing, and this can sometimes go on for several hours a day. Over-rehearsing and certain types of practicing (depending on the instrument) can result in some of the severe injuries mentioned above. Therefore, these injuries are indirectly (and sometimes directly) affected by performance anxiety.

3.1.3 Music and relaxation

Staum and Brotons (2000: 27) describe the relationship between music and relaxation by saying that music therapy and other music-related techniques are often used in a therapeutic situation. Therefore it has been well-documented in literature and has been recognised in society for many years.

It is generally accepted that music is often used to aid relaxation. According to Robb (2000: 9), clinical research has proved that music therapy has a positive effect on people suffering from stress. It improves active coping mechanisms and increases empowerment of the immune function and physical well-being. Studies found that the best way to receive desirable results is to combine music listening with muscle relaxation training (Stoudenmire 1975; in Robb 2000: 9). It was also found that using music which the patient preferred enhanced relaxation.

Music listening has been one of the most popular ways for relaxation purposes in many different situations. Often music used for stress reduction can be divided into two groups: stimulative and sedative. Sedative music (for example New Age music) is seen as most effective for relaxation (Staum & Brotons 2000: 27).

Background music and noise has an effect on people while they are working or doing their everyday activities. This is also very dependent on a person's individual taste in music (Staum & Brotons 2000: 26).

Another technique used to increase relaxation is progressive muscle relaxation. Robb defines this as "the systematic tensing and releasing of major muscle groups, moving progressively from the lower extremities toward the head. Periods of tension and complete muscle relaxation are alternated to improve awareness of sensations of muscle tension and relaxation" (Robb 2000: 9). She also states that when using progressive muscle relaxation in combination with music, the following will happen:

- There is a natural tendency to combine music-based physically-based relaxation techniques for people.
- The focus of attention is increased and mental tension is eased by the combination of music and structured relaxation exercises.

- Alert states of relaxation are encouraged by music combined with structured relaxation exercises.
- It might help participants to carry on with the relaxation programme because of the enjoyment of the activity.

Alert states of relaxation help to alleviate stress, and this also reduces mental tension (Robb 2000: 2-18).

Music has an effect on the state of relaxation of a person, and the volume at which it is played, plays a big role as well. Every person has a different reaction to music volume. This is because of people's stronger or weaker nervous systems, and these need different intensity levels and duration of stimulation. According to Davis, Cowles and Kohn (1984; in Staum & Brotons 2000: 23), personality plays a big role in the preference for stimulation. They state that extroverts usually prefer larger amounts of auditory stimulation and louder music, while introverts would rather have softer music because they prefer less intense stimulation. People's musical backgrounds influence their preference for stimulation (Staum & Brotons 2000: 23).

According to Fredrickson (2000: 40), people differ in their reactions to music:

> Historically it has been common for people to assume that special abilities in music, musical training, or a combination of the two set people apart as it relates to the way they responded to music. This included everything from analytical ability (cognition) to preference (affective response). Logically it makes a great deal of sense to assume that time spent studying, performing, and listening critically to music will alter the framework in which a human being will interact with musical stimuli.

Fredrickson concludes in this quote that people's musical backgrounds and education have an influence on the way they listen to music, and the way they are affected by it.

Musicians' own musical background has a great effect on the way they listen to music. They usually listen to music more analytically, and therefore are not always able to just listen to music for relaxation purposes. This, of course, depends on the level of their musicianship and what repertoire they have performed and worked with. Possibly listening to pieces they have never performed or even heard before, will have a different effect than listening to pieces they have worked on, or even just pieces that have been composed for their specific instrument.

This has implications for dealing with performance anxiety. If musicians would like to use music as a relaxation technique, specific music will have to be used and possibly different techniques. This is because they listen to music in different ways than people who are not musicians; they therefore need different treatment.

3.1.4 Performing conditions

There are various factors that all contribute to performance anxiety. These are known as performing conditions. They all have to do with the type of musicians, jobs, type of instruments, and repertoire generally associated with that specific instrument. The performing conditions in a performance are usually evaluated within a concert. One of the purposes of a concert is supposed to be enjoyment for the audience. However, there is an expectation that the musician's performance should be perfect.

According to Middlestadt (1990), Salmon, Schrodt and Wright (1989) (in Brotons 2000:75), often peak anxiety is reached before performance, but then when the musician starts playing, it decreases. This means that neither the quality of the performance or the behaviour of musicians are affected. This completely depends on musicians' personal makeup and how the four elements of performance anxiety work together to make them react to the performance situation.

Brotons (2000: 78) describes the link between music and reactions to anxiety, by stating that:

> The health of our world, in the broadest sense, is highly dependent on our individual and collective creativity which is directly linked to the health of the creative among us – our artists and performing artists.

In this quote Brotons highlights the importance of performance anxiety by stating that the well-being of musicians have an influence on the well-being of the world. The two depend on each other.

3.2 Cognitive model

The cognitive model of music explains the thought processes that are involved while making music. This means that it also deals with the thought processes which occur during performance anxiety.

3.2.1 Music as a cognitive skill

The difference between the scientific perspective of music as compared to the influence that the human mind has on music is described by Sloboda (1985: 1):

> Seen with the cold eye of physics a musical event is just a collection of sounds with various pitches, durations, and other measurable qualities. Somehow the human mind endows these sounds with significance. They become symbols for something other than pure sound, something which enables us to laugh or cry, like or dislike, be moved or be indifferent.

Sloboda (1985: 2-3) explains this statement in two ways:

1. Most of our responses are learned. There are a few instinctive responses to music; for example: loud, fast music is often experienced as arousing, while soft, slow music is calming. However, different cultures respond to various types of music differently. Therefore, there is a more subtle and multidimensional thought process involved.
2. Our musical responses cannot simply be explained as conditioned responses. The conditioning theory (also known as the "Darling, They're Playing Our Tune" theory by Davies 1978) states that the piece of music gathers its noteworthy emotional connotation from the situation where it is heard. This means that only the context is important. Sloboda disagrees with this because he states that listeners within a specific musical culture will agree that there is an emotional character attached to a certain piece of music, even if they have never heard of it before. The conditioning theory states that there will be many different responses to this same piece of music because of the context of the situation. The emotion in a piece of music often changes throughout the piece, whereas the conditioning theory believes that the emotion experienced because of the situation will be predominant. Every person will also have his/her own emotional response to the music, because of his/her own personal taste.

There are many thought processes engaged when listening to music. Two stages involved in the understanding of music are the cognitive stage and the affective stage. The cognitive stage is necessary in order for the affective stage to take place, but the affective stage does not always follow the cognitive stage. The cognitive stage is defined by Sloboda (1985: 3) as "forming an abstract or symbolic *internal representation* of the music". Therefore, the

cognitive skills in music have to do with the way in which people listen to, memorize, perform, create and react to music.

As discussed in 2.3.4, music has many regularly occurring patterns – chords, scales and arpeggios. There are also structural patterns, such as thematic repetition and harmonic chord progressions. All these musical cornerstones help people when they listen to music to make sense of it. These musical thought processes are a learned skill, and not just an automatic thought response.

There is a difference in the way that novices and musical experts listen to music. This is because of the experience in music that experts have gained throughout their lives. A novice listener will probably only notice small patterns of neighbouring notes, which form part of the musical foreground. Experienced musicians have learnt the vocabulary of music which helps them to memorize music, for example cadential sequences, passing notes and tonic chords. Musicians will recognize these elements in the music they are listening to and might even look for it in the music.

One of the most important cognitive skills is the speed at which the process takes place. The person has to keep up with the inflow of new material when listening or reading music. That is why musicians practice to make it an automatic process to take in information rapidly. When composing or improvising music, it is also helpful to recognize the structures in music and understand the quick employment of these structural patterns in the music. In order to learn all these processes, Sloboda (1985:6-7) recommends an examination of the learning process itself:

- Developmental enculturation: What we learn through music from our childhood culture and the achievement of simple skills, for example to reproduce a short song. These are learnt through everyday social experiences.
- The attainment of specialized skills through training: This is the education process that one has to go through in order to become a professional musician.

These cognitive processes show us how we encode and decode music, and what happens in our minds while we play. This has important conclusions for performance anxiety, because if

we can understand what happens in our thought processes while we play, we will be able to understand our thought processes that takes place during performance anxiety.

3.2.2 Cognitive music psychology

Music psychology is a branch on its own and will be discussed in 3.3. There is a small field that combines cognitive psychology with music. The contemporary thought in cognitive psychology is functional, which means that it tries to discover the principles of structure and operation of the way in which we observe humans behave. The structures and functions of the brain are carried out in these principles.

As discussed in 3.1.2, musical skills have different locations in the brain. The functional organizations of the brain work with specific parts doing specific jobs. In cognitive psychology, there is an interest in higher cognitive processes and the control of complex behaviour, and also awareness of the organization of knowledge and its use in cognitive skills. The growth of the science of artificial intelligence has an important influence on cognitive psychology. This is because the theories of cognitive functioning are specific enough to predict actual examples of behaviour and also broad enough to report a wide range of cognitive achievements.

Cognitive psychology has grown in terms of using situations outside of laboratory conditions. Thus people are viewed in their everyday lives and how they deal with extended and meaningful material. Cognitive psychology is also interested in the developmental elements of cognition and its cultural discrepancy. Therefore, the focus of cognitive music psychology is on what people do with music and also their output skills (for example, composition) and input skills (for example, listening) (Sloboda 1985: 7-9).

There are a few cognitive psychology strategies to help people deal with performance anxiety. A few of these strategies are described by Wilson & Roland (2002: 55-56):

- Viewing anxiety as a positive aspect: The anxiety experienced before a performance can be seen as normal and even helpful. This only evolves through repetition.
- Positive self-talk: Many professional musicians use this strategy. Anxious performers often use negative self-talk and catastrophizing before a concert. If performers

realistically evaluate their insight of music they will develop more positive feelings about their performance.

- Mental rehearsal and imagery: This is an important way of preparing for a performance. Musicians can go through the performance and make it go exactly as they want it to. They can focus on all the realistic elements of the performance, for example sound, sight, touch, taste, smell and kinaesthetic. This provides a form of neuromuscular programming which will help the musician to perform automatically in the desirable way.
- Goal setting: This is a common strategy in work and sport environments, and has not been used as much in musical settings. Short- and long-term goals should be worked out before the performance. There can be process and outcome goals. The aspects of the performance that the musician wishes to achieve are the process goals. The outcome goals are the more observable goals, for example, learning certain repertoire. It is healthier to concentrate more on process goals.

These strategies are helpful in the elimination of performance anxiety. Once musicians can get used to implementing these strategies in their performing situations, it will form part of the development in their confidence as musicians.

3.3 Music psychology

Music psychology is a psychological point of view of music. Psychology is a study of human behaviour, and therefore music psychology is a study of human behaviour in relation to music, or the human musical behaviour. Music psychology therefore also deals with human behaviour during performance anxiety.

3.3.1 The definition of music psychology

Gaston (1968; in Eagle 1996:2) defines music psychology by saying that:

> Music, a form of human behaviour, is unique and powerful in its influence.

The word “psychology” has been defined by the *American Heritage Dictionary* (1982) as “the emotional and behavioural characteristics of an individual, group, or activity” (Eagle

1996: 1). Eagle states that since music is a part of human behaviour, this field can be defined as music psychology.

Carl Seashore was known as the father of music psychology and he said that "we may speak of the psychology of musical esthetics, the science of musical esthetics, or possibly, merely musical esthetics" (Eagle 1996: 2). Textbooks were written by Seashore (1938), Mursell (1937) and Schoen (1940) (in Eagle 1996:2), and they all approached the psychology of music from a mental point of view. This means that they focused more on psychology as the study of how the mind works rather than the investigation of observable behaviour. Seashore feels that the mind is a part of the body which presides over our musical actions and a place where our talents are stowed.

Many different theories of music psychology have been formed over the years. Sears (1968; in Eagle 1996: 12) devised a psychological theory of music where he states that "music demands time-ordered behaviour." This theory presented:

- Experiences within musical structure,
- Experiences in self-organization, and
- Experiences in relating to others.

Eagle (1996: 13) developed a physical theory of music in his "theory of quantum musichanics". The ground for this theory is based on four of the principles of quantum physics:

1. Einstein (relativity)
2. Bohr (complementarity)
3. Heisenberg (uncertainty)
4. Bohm (holonomy)

Eagle presents in this theory the quantum givens and their musical corollaries. This is to explain the "understanding of why people make music, how music influences people, and what to do in applying that understanding in practice" (Eagle 1996: 13-14).

Understanding why people make music and what controls their musical behaviour is very important in the comprehension of why musicians suffer from performance anxiety. The

emotional and behavioural characteristics of performance anxiety link up with these same characteristics of our musical behaviour. Therefore understanding the one, will help deal with the other.

3.3.2 Emotional responses to music

The emotional responses in music are very important. Music is a form of communication, and therefore, for any piece of music there will always be an emotional response. Emotional responses can differ from relaxation (as mentioned in 3.1.3), to more tense feelings. This is all up to the piece of music and the way it is interpreted by the performer. Sloboda (1985: 1) states the following about emotional responses in music:

> The reason that most of us take part in musical activity, be it composing, performing, or listening, is that music is capable of arousing in us deep and significant emotions. These emotions can range from the 'pure' aesthetic delight in a sound construction, through emotions like joy or sorrow which music sometimes evokes or enhances, to the simple relief from monotony, boredom or depression which everyday musical experiences can provide.

Sloboda explains the different types of emotional responses the music's elicits from its listeners. He states that this is the reason why we partake in musical endeavours.

According to Eagle (1996: 14), "humans make music for people consumption" and "the fundamental characteristic of nature is periodic functioning in frequency, or musical pitch". To understand the interaction between people and music, musicians need to know more about people, how they respond to structured sounds through music, and how people need music for their biological, psychological, sociological and spiritual needs. This will help people find meaning in life.

Once again, this connection between people and their need for music, also has an influence on performance anxiety. Since music is such a big part of human life, dealing with performance anxiety becomes a very important issue. If musicians can understand the role they play in their own music-making and how performance anxiety manipulates this, they might be able to pinpoint the problem and resolve the cause of their anxiety.

Lundin (1967: 9-10) states that intelligence might be necessary to understand the emotional responses of music. However, it has also been proved that in cases with average intellectual ability, there is little relation between musical ability and intelligence. Psychological

progressions such as perceiving, learning, remembering and feeling are important because they form musical behaviour. The perceptual responses of music include psychological dimensions of tone (pitch, dynamics, volume, timbre, density and brightness), perceptual aspects of melody and harmony (consonance and dissonance), perceptual dimension of tone, and feeling and emotional responses.

Musical stimuli are very important for performing musicians. Since musical responses are mostly learned, psychological responses to music are significant. These include preferential reactions as well as what is found to be beautiful in music. Performance anxiety is also a learned response to music-making. Understanding what triggers anxiety in performers will be a starting point to sort out the problem.

Music heightens our emotional lives. Music can provide many social rewards because it is often a social activity. This is why musicians can earn a living through performing music, because music is almost always used in public scenarios. The emotional factor of music is transcultural. Some fundamental attraction to organized sound transcends cultural boundaries. The emotional factors of music are necessary in order for music to survive, and therefore it is important to discover how music is able to affect emotions. Without emotion, music can be seen as just a collection of sounds. Humans transcribe these symbols into something other than just pure sound, and these sounds come to have some significance (Sloboda 1985: 1).

According to Stratton and Zalanowski (in Eagle 1996: 306), mood is a cognitive response and music affects mood to the extent that it leads to cognitive appraisal. There are specific moods that can be discussed regarding musical responses to music (Eagle 1996: 306-310):

- Anxiety: Music has been reported to affect anxiety. For example stimulative music tends to increase anxiety while sedative music seems to decrease anxiety. Greenberg and Fisher (1966) and Fisher and Greenberg (1972) found that exciting music results in more anxiety and aggression. In a study conducted by Elam, it was established that under a stress situation, stimulative music will obtain emotional responses that change as the dynamic levels are influenced.

- Arousal: Rhythm is one of the strongest elements of music to influence emotional responses. Neher (1962) found that rhythmic drumming produced muscle twitching and unusual behaviour.
- Other types of responses: Ridgeway (1976) established that interaction while listening to music has an influence on the emotional responses of music. Highly responsive listeners described music effects in terms of symbolic participation in group processes. Self-concept seemed to improve in a study done by Allen and White (1966; in Eagle 1996: 306-10).

It is important to comprehend these reactions that various aspects of music result in, when thinking about performance anxiety. It could be possible to use these responses to music when dealing with musicians who suffer from performance anxiety. Musicians could identify music that helps them feel less tense, and use this to their advantage when dealing with performance anxiety.

3.3.3 Music's influences on human behaviour

The theory that music influences human emotions and behaviour is not a new idea. Socrates, Plato, Pythagoras and Confucius all wrote about this matter (Eagle 1996: 15). Musical sounds, which are actually sound vibrations produced by energy and force, correlate with humans which are resonant beings with vibrating parts giving and receiving energy and force. Music relates to the human body vibrations via the vibratory nature of musical notes, chords and instruments used in specific compositions. Music compositions make use of vibratory groups of sequences (musical pitches) and intensities (musical dynamics) for various reasons Eagle 1996: 15-16):

- to increase mental ability and affecting cerebral function;
- to sustain physiological health and correcting bodily disorders;
- to eliminate fears, habits and neuroses by maintaining emotional stability; and
- to involving aesthetic objectives by encouraging spiritual and holistic awareness.

The body tries to "get in harmony with itself" by using music as a prime mode of reducing stress in an educational and therapeutic manner. The body will have to readjust back to a sense of normalcy or homeostasis of balance (Eagle 1996: 15).

3.3.4 Psychological perspectives of music psychology

As seen above, psychology is the scientific study of human behaviour. In this section psychological perspectives about music psychology will be discussed. The study of human behaviour can reap benefits for performance anxiety. This is because understanding human behaviour and the various perspectives about musical behaviour in performance, can aid the behaviours that are present while performance anxiety is experienced.

The field of psychology has been divided into many different views and opinions. Most music psychology books have been written by psychologists. Music has been found to be an independent form of intelligence. However, it is possible for a person of high IQ to have minimal musical skills. The opposite is also equally possible. Musical and linguistic symbols are processed in different ways by the brain. According to Eagle (1996:524-531), human beings are just as able to perform musically as they are mathematically or linguistically.

Gardner (in Eagle 1996: 531) has found that the way in which elements of music (for example rhythm and pitch) are processed symbolizes a set of operations that deal with specific kinds of input. This may include pitch-pattern processing, timbre perception, awareness of structure or form, and affective responses. There are three difficult barriers one needs to overcome when performing:

1. The big variety of musical behaviours among different cultural groups;
2. the variety of behaviours within a given cultural group; and
3. the lack of standards by the general population regarding expected musical skills.

The impact of these barriers are also felt in performance anxiety. Since they influence performing, in turn they influence performance anxiety as well.

Another psychological viewpoint is that music can be seen as a human knowledge system. This means that it is a way of sharing, expressing, understanding and knowing information about the internal and external worlds and understanding the relationship between the two. This structure is part of a brain structure that everyone is born with, and is a way of functioning in a certain environment. Musical intelligence in this case then becomes the competence with which the person is able to cope within the musical knowledge system.

There are various different levels of operating in this system. The musical knowledge system also has room for other aspects, such as talent, ability, aptitude, achievement and musicality. Therefore, it is not always connected with intelligence. According to Eagle (1996: 533), each person has a personal system to understand a variety of thoughts and emotions. There will be a knowledge system to deal with a specific thought or emotion. Eagle (1996: 534) names nine points that can be understood or expressed through music:

1. Feelings: This can range from vague, unclear moods to intense emotions, such as joy or grief. Music is fundamentally connected with feelings.
2. Aesthetic experiences: All humans have an innate need for beauty and therefore cannot help but have a response to music.
3. Ineffability: Even though music is a nonverbal way of communication, it is one of the most effective ways to express emotions or feelings which cannot be put into words. There is a level of love and spirituality.
4. Thinking: Music can be a strong way of expressing ideas and understanding the truth about something. Therefore, musical thought is just as important as mathematical, linguistic or visual thought.
5. Structure: This is closely related to the idea of thinking. Humans are always seeking patterns, structure, order, and logic. Music has a formation and therefore is a unique way of organising sounds, which in turn provides structure in thought, feelings and experiences.
6. Time and space: Music can organize sounds across time. One experiences felt time, rather than actual time when listening to music.
7. Self-knowledge: Music allows insight into intrinsic worlds because the role of music is intrinsic. The peak learning experiences are a very good model for this.
8. Group knowledge: This can be divided into two types of experiences:
    - It helps to strengthen the bonding between members of a group who have the same ideas and beliefs; and
    - It helps to isolate one group from another.

    Therefore, music can be both inclusive and exclusive in a group situation.

9. Healing and wholeness: Music can be used for therapy and medicine purposes, as well as having thoughtful and deep effects on people.

These nine points prove that music provides knowledge of the human condition (Eagle 1996: 533-4).

Although music offers an understanding of the internal and external worlds, it is a learned process. There are a series of environmental interventions in the form of learning experiences that need to take place before the knowledge systems can be used. Some aspects are simple enough to be learned informally, by observation and imitation. The formal learning experiences, however, are presented in the form of education, which is the systematic development of human knowledge systems. For people to achieve maximum potential, they need to be educated in all the different knowledge systems (Eagle 1996: 535).

This type of musical knowledge and awareness of what happens around us, is important when considering performance anxiety. When musicians know what is happening around them it will help them understand themselves, and this is an important factor when trying to understand performance anxiety. As seen before, performance anxiety is involved with musicians' self-confidence, and a knowledge of oneself and others around oneself, is a key to deciphering performance anxiety.

3.4 Music therapy

3.4.1 The effects of music therapy on anxiety and stress

Through the years music therapy has become a very popular tool to aid in anxiety and stress disorders. The reason why this is the case is the ability of music to affect people in both physiological and emotional responses. There has been some evidence that even background music has a calming effect under stressful circumstances (Schmidt Peters 1987: 114).

Music therapy in combination with relaxation techniques has proven to be successful. There are many different ways of applying music therapy; it all depends on the situation. Stress can have both positive and negative effects on a person's life. Positive stress is focused,

time-limited and balanced by relaxation. Negative stress does not have a purpose, is ongoing and unbalanced (Robb 2000: 2). It is how we deal (or do not deal) with the stress and anxiety in our lives that determine the outcome.

There are certain stereotypes of types of music that are seen to relax people. For example, many people believe that slow music has a calming effect. However, according to Hanser (1985: 199), it is not always seen in this light:

> For instance, slow, arrhythmic music which otherwise meets all criteria for sedative music may appear foreign or frightening to some listeners. Researchers must use care in generalizing beyond a single musical selection until more exhaustive efforts to quantify the effects of different music have been undertaken.

It is often thought that slow music has a calming effect in people. This quote by Hanser contradicts this well-known belief. This has important implications for performance anxiety sufferers. As mentioned before (3.2.1), musicians listen to music differently than non-musicians, and therefore will probably find slow music least relaxing. This is because musicians listen to music in a more analytical way, and are not just affected by the affect and emotion of a piece.

The use of music as an aid to a relaxation process has been well documented in literature. The benefits and application of music in a therapeutic situation involving stress and anxiety are often used (Staum 2000: 27). An example of this is in the medical field where patients often suffer from pain and acute stress as a result of a medical procedure (like a bath to remove skin from a burn patient). Music may be used as a distracter with these patients. Music listening is one of the most popular methods for relaxation purposes. Music serves as both a stimulant and a sedative. Tranquilising music is most often used for relaxation. This is contrary to what is mentioned above about musicians' choices of relaxing music. Of course the patient's personal taste plays a very important role in the choosing of music, as mentioned above.

"Music assisted progressive muscle relaxation, music listening, and silence: a comparison of relaxation techniques" is a study performed by Sheri L. Robb. The study was conducted to see if music could help relax people. The general conclusion was that all participants experienced significant relaxation under all the different conditions: music listening, music

listening combined with progressive muscle relaxation, and silence. The author made the following conclusions based on the findings of the study (Robb 2000: 18):

- The selection of relaxation techniques should be focused on the individual's choice. This will result in the person being able to learn and integrate these techniques into their own patterns of daily life.
- Direct instructions should be given if music listening is used for relaxation or anger management. This promotes the focus of attention and it will structure physical responses which do not just happen by itself. The therapist should therefore be able to help the client understand how the factors of music influence mood and physical responses.
- Before the relaxation exercise begins, the therapist must decide what the outcome will be. This can aid in aspects such as an alert state of relaxation. If people know how to do the exercise correctly, they will be able use this state of relaxation to manage the anxiety and stress in their own lives.

Holland (1995: 424) compiled a list of character traits that people possess who suffer from stress and anxiety. She devised specific techniques to use with these personality qualities. They are as follows:

1. Lack of confidence: When clients suffer from a lack of confidence, Holland asks them to think of a time when they were happy and confident in their lives. She then asks them to choose an instrument on which they can express these feelings. She joins them in their playing and soon it lifts their spirits.
2. Suppressed anxiety: Holland instructs the patient to do two improvisations. The first one is based on how the clients feel now, and the second is how they feel deep down inside themselves. Often the patients realize that their inner strength is much stronger than the anxiety they feel on the surface.
3. Loss of identity: People who are experiencing a loss of identity work the best in a group, according to Holland. It is important to create group awareness in the first group session, so that each member can feel safe within the group from the very beginning. Holland starts the improvisation with a strong and steady beat. She looks at each person, inviting them to join in with the improvisation, and ask them not to

play the same rhythm that she is playing. This is so that the clients realize that every person is different and that they have their own identity. Once they have confidence in the group, this seems to help with their identity outside of the group.

4. Feeling out of control: Holland tries to help clients change the way in which they look at their lives. She says that the best way to do this is with a Brazilian rainmaker. She will ask clients to think of balance while improvising. They will soon realize that when the rainmaker is perfectly balanced (vertically), it will make no sound. This is to help them see that a problem can be viewed from another perspective. They are in control of the sound the instrument makes by keeping it balanced or unbalanced. They are in control of making their own decisions.
5. Out of rhythm: Clients often experience stress or anxiety because they feel out of rhythm with their own lives. Holland states that often these clients struggle to keep a steady rhythm in an improvisation. She will ask them to play a strong and steady beat. While they try and do this, she will play her own rhythm in between their rhythms and soon they will be manipulated to follow her rhythm. Then she will go back to their rhythm and keep it very steady so that they can return to their original rhythm and stay there. The structure of this rhythm exercise is to show that it can relate to the structure in their lives.
6. Panic attacks and hyperventilation: This concerns clients that have irregular breathing. Holland and the clients will both improvise on instruments. She will match her breathing to theirs. She will then start making vowel sounds. Holland manipulates the beat of her instrument to become slow and deliberate and then invites them to join her. By this time the rhythm is slow and secure and they will be vocalising with her in a slow and steady rhythm.
7. Isolation and loneliness: These clients also work best in a group. The mere fact of being in a group already eliminates loneliness. Sharing creativity in the group prepares these patients for communication outside of the group. The changes they make in the group can be carried out into their own lives. Holland also does a visualisation exercise that creates an inner awareness and a pleasant feeling for each member of the group. They become in touch with their innermost emotions through the music, which is safe and secure. They then realize that they can also feel safe without the music.

8. Frustration and anger: In this group, it is important that clients feel very safe with the therapist. When they are, Holland asks them to express their anger and frustration onto an instrument. Usually when the anger is expressed, the improvisation moves to quiet and calm sounds. It helps to let them have instruments that make very loud sounds so that they experience the full effect.
9. Exhaustion and lack of energy: Here Holland uses a lot of sighing sounds and matches her voice with the clients' voices. The instruments will be added when necessary. They usually feel good to be allowed to feel exhausted and to express it. It takes the guilt away from their emotions. In clients who lack of energy, Holland asks them to imagine a hard rock just below their belly button. This is a ball of energy that cannot disappear. As they improvise, they are asked to feel the energy growing and flowing out of this hard rock.

Music therapy has proven to have a positive effect on active coping mechanisms. It also seems to help with a person's general well being and even one's immune system (Robb 2000: 3). The goal here is to teach people to listen to themselves by listening to the music, and also to learn from their own reactions to the music. That is why it is so important that the right music is chosen for each person. Everybody has an individual preference and it is important that the therapist keeps this in mind. In this way maximum benefits will be achieved through the session.

Music can result in many physical responses in people. A few examples are: changes in heart rate, blood pressure, cardiac output, galvanic skin response, respiration rate, electroencephalographic alpha brain waves, and muscle tension. However, these all differ between people. They are not the same for every person (Robb 2000: 4). Everybody has their own physiological response to music and this is the product of people's idiosyncratic physiological makeup. It is also further influenced by the person's individual choice of music.

The reason why many people take a long time to seek help or sometimes do not seek help at all is because the stress has become such a part of their lives, that after a while it is not possible for them to see it as something that can be changed. Men in particular often ignore their anxiety problem and find some other way to distract themselves, for example physical exercise. They have a tendency to ignore the emotional and psychological perceptions of

stress. Women are usually more open about their feelings and may talk to a relative or friend about their anxieties (Holland 1995: 421). Some people in general just do not really feel that they are unwell and that it would be a waste of money to attend therapy sessions.

There is a relatively new perspective on the treatment of anxiety and stress with music therapy (Holland 1995: 406). Music is used in the session to rid patients of stress and anxiety and then also to teach them how to prevent stress and anxiety. They will learn how to manage and control their own stress and tension. They will also learn how to determine whether the stress that they are experiencing is positive or negative. The music serves as a tool to put everyday stress in a different perspective. Holland uses stress as a positive aspect. She encourages patients to release their stress by means of improvisation and then to channel this energy into a positive source. Holland (1995: 406) states that:

> … music therapy is successful in controlling and managing stress and tension. It is unlike other methods of stress management because it gets straight to the emotions, bypassing language. Music therapy strips bare the soul revealing particularly difficult or private anxieties, concerns and problems, and helps people rebuild their responses.

Holland describes that music is a very powerful non-verbal tool which can be used very effectively in cases where stress is prominent.

Music is strongly associated with memories. The therapist can use this to make patients feel more relaxed by asking the patients to think of a peaceful time in their lives. In this time period they had no worries and felt completely at ease with the world. The music can help evoke these feelings of calmness, and help the patients relive the experience. They might experience feelings that they thought were not possible to feel in their stressful lives.

Often people have a strong and confident outer self which they show to the world. According to Holland (1995: 413), this is especially the case with men. However, when they improvise in the music therapy session they are unable to hide even their deepest emotions. These people often make soft, vulnerable sounds when improvising. This is why music therapy is so rewarding; the patients become in touch with their inner, spiritual side. It is an aspect that is often lost in today's modern society: do humans lose the inner balance of their soul and spirit?

According to psychoanalysis and specifically Carl Jung, man is constantly making compromises because of the unconscious aim to keep the balance between the ego and the self. And then on top of this, the soul wants to achieve everything possible in this busy world, in social, political and intellectual areas. Jung says that besides all the materialistic achievements in people's lives, there is still a yearning of the inner self that has to be satisfied. He calls this "the illness of the Westerner" (Holland 1995: 414). Jung's view can be closely related to music therapy. Music restores the equilibrium by allowing people to talk more openly about how negative stress is affecting their lives.

A few examples of stress factors that people deal with daily are: low self esteem, fear of success, creative blocks, burnout, unemployment, maintaining standards, stage fright, perfectionism, and fear of auditions. These are all stressors of a group of creative people who had a few sessions with Holland. She states that they had very expressive improvisations. Holland concludes that artists are very lonely people and that group music therapy sessions are a way of making music where nobody else is judging them. This helps them to break down the isolation of the career that they chose, by sharing their sounds with other people's sounds in a friendly and encouraging way. To artists, music is the source of their life and therefore has a priceless personal value (Holland 1995: 415).

Myra Staum (2000: 36) conducted a study on the effect of music amplitude on relaxation response. She used three different volume levels and investigated how they affect both the psychological and physiological relaxation responses. She also examined the preference among young people for relaxation and compared the different responses between the genders. It was found that the younger people had a preference for louder music more so than the older participants. Differing physiological responses were also recorded, for example a faster heart rate among the older people. Although the men preferred louder music than the women, in general the preference leaned towards softer music for relaxation purposes. The difference between the genders is that the men had a more enthusiastic response to all three volume choices used in the study and that the women were more sensitive to the sound levels in general. The women also experienced a higher overall heart rate than the men, regardless of the amplitude level. They also reported a slightly greater increase in relaxation than the men. Between the music and non-musical majors, the musicians preferred softer music. The music majors also had a considerably higher heart

rate than the others. They also had a significantly higher demonstration of relaxation. With the few people who preferred louder music for relaxation, they stated that the loud music helped them escape their present situation, and that this distracted them from all their problems.

There were also reports of instrumentation that served as irritations. High-pitched instruments were found to be bothersome and percussion and bass notes were found to be distracting, for example. These comments on instrumentation influenced the participants' preference for volume levels. The selection of music also played a role in the volume choice (six different selections were used in the music). This means that there was a strong interaction between music preference and amplitude (Staum 2000: 36). This finding is another reason why individual preferences for music should be researched before a therapy session, as this will have an influence on the treatment.

By becoming in touch with their emotions and feelings through a session, patients often realize what the cause behind the problem is. The patients see that when one works through the different emotions with the aid of improvisation, one is able to control the amount of emotion experienced, and might sometimes be able to control this emotion up to the extent that it is not experienced at all. Patients understand when it is necessary to feel the emotion (in a positive way) and when it is taking over their lives (in a negative way) (Holland 1995: 423).

All these different types of music therapy techniques are effective ways of dealing with performance anxiety. Musicians can use this healing aspect of music to help them with their performance anxiety when performing in a concert.

3.4.2 Relaxation techniques

There are many music therapy techniques designed to relax the patient. One of them is listening. The therapist uses music that is intended to relax and direct the listener. The therapist guiding the patients through the music follows their experience and afterwards it is discussed. They confer about responses and descriptions (Wigram 1999: 162).

The technique most often used in music therapy when working with patients who suffer from anxiety and stress, is improvisation. Improvisation makes people aware of the tone

and volume of their communication (Schmidt Peters 1987: 115). Improvisation is a means of communication. Often people who come to look for help with their anxiety problem, do not know the true source of their problem. And if they know, they do not know how to deal with it. In this improvisation or communication the therapist will be able to pick up where their vulnerabilities lie. Improvisation in music therapy is a tool for the music therapist to find out where clients are in their own world. Once the therapist has established this, a connection can be made, as the therapist then understands clients on their own level.

In improvisation, patients usually become in touch with their feelings very soon. However influential these feelings are, they always resolve into quiet and serene music. This has a positive effect on the clients as they realize afterwards that they are feeling and even looking better. According to Holland, some of her clients even reported an improvement in their skin, and that after a good music session, their sleep was much deeper and peaceful (Holland 1995: 422).

Another method of using music therapy for relaxation is through the cognitive behavioural model. The purpose of this model is to (Wigram 1999: 162):

- Focus on positive thoughts and emotions;
- change the patient's mood;
- elicit a deep relaxation reaction;
- cue positive visual imagery;
- make use of a rhythmic structure in order to release tension in the patient's body;
- offer a musical stimulus for steady breathing; and
- direct attention away from anxiety and stress that the patient is experiencing.

This model is based on creating new thoughts and feelings to replace the stressful ones. The patient is encouraged to visualize pleasant and relaxing body images that take the place of worry and tension in the body. These reactions become conditioned responses when the same calming music is used for this purpose every session (Wigram 1999: 162).

Group therapy sessions work well with clients who suffer from anxiety. Being with other people in a group makes one realize that anxiety is not just a figment of one's imagination. It is a real problem and there are also other people trying to live with it. Discussion activities

and music listening can also be beneficial. An example of this is using song lyrics as a channel for discussion. This can help clients to identify areas of stress, identify and express feelings associated with stressful areas, share with the group and receive feedback, ventilate emotions, and determine alternative positive coping mechanisms in how to deal successfully with stressful situations (Schmidt Peters 1987: 115).

Improvising in the group makes one feel part of a group and this might also help with relieving people from their anxious thoughts. The focus is now on the music in the group instead of these intruding thoughts. Group sessions can also help other people who may be present, for example parents, siblings and nursing staff (Holland 1995: 410). As with any disorder, stress and anxiety disorders also prove to be stressful for the caregivers of the patient.

Group therapy sessions often also prove to be a great deal of fun. While people are enjoying themselves in the session with the music, they also have time to think about their own lives, how they deal with specific situations, and how to do it better the next time. They have their own time in the session to view their own lives as it is at the moment (Holland 1995: 410).

People who have top positions in their companies and a very successful career often find their job very lonely and this isolation can be converted into stress and anxiety. These people will benefit greatly from group music therapy sessions. They soon realize that the group has no expectations of them to perform in a certain way. This is a place where it is safe to be oneself. Here there is a different way of communication; the music and improvisation is the means of communication rather than the verbal dimension of communication. According to Holland (1995: 422), members of a music therapy group are often supportive towards each other. Each individual sound and improvisation forms a whole to make up a whole sound.

Holland (1995:421) uses a three-step plan for group improvisation.

1. Group awareness: In this first step she makes use of rhythmic attunement. Rhythmic attunement is the heartbeat basis of life, the seasons and stars. The therapist starts the session with a strong basic beat and every client joins her one by one. When

everybody is playing together she asks them to be aware of each other, and to try and form a group rhythm. Then they have a feedback section where people talk about their experiences. They also do an exercise where everybody hums and tries to find their harmony within the group.

2. Exploration of emotions: Each person can pick an instrument and they all play together. Afterwards they have another feedback session. She sometimes also lets clients play on their own and the rest of the group gives feedback. The therapist can pick up on different emotions in this stage. This gives the therapist a chance to confront the specific hidden emotion. She will ask the group to imagine this emotion and make sounds in the improvisation that this emotion evokes. By doing this clients are given permission to express this emotion and to work through it. They might change their perception of this intruding emotion. She also does an exercise that involves two improvisations. Firstly the group is asked to think about a situation they would like to change in their life while improvising and to play how they are feeling while doing this. In the second improvisation they are asked to still think about this change but this time not to play how they are feeling. They have to play a strong definite rhythm of their own choice. This means that the rhythm changes but the client is still thinking the same thoughts. This is to encourage people to shed old habitual negative thought patterns. It means that they do have power to change things in their lives.
3. Relaxation and visualisation: This is where clients focus on a specific sound and makes it a part of them. Holland often uses a vowel sound and each person in the group can become part of this sound within the group. This part of the session is very free and will end in its own time. At the end of the session Holland asks everybody to imagine a time when they were very happy and peaceful. They improvise on instruments while thinking of this time. This is a good way to end the session. Clients' blood pressures are lowered and they leave with a relatively good or peaceful memory of the session.

3.5 Summary

This chapter dealt with all the various perspectives of music and performance anxiety, and the influence they have with each other. Four main theories were discussed: the bio-medical model, the cognitive model, music psychology and music therapy. In each section there are different forerunners who propose their ideas related to performance anxiety. It is interesting to see the various views on the same subject (performance anxiety) and how they link up with each other.

The bio-medical model deals with all the physical occurrences in a human's body during music and how this affects the physical symptoms discussed in 2.2.1. In the same way, the cognitive model links up with the cognitive symptoms (2.2.2). Music psychology explains how behaviour in music can be observed and used to musicians' advantage. Relaxation techniques and improvisation are the two main methods discussed in music therapy, since they are the main ways of dealing with stress and anxiety.

These four perspectives all have the same aim: they help manage performance anxiety. They all have their useful processes and systems which help to use music to aid in the reduction of performance anxiety in a concert. It is observed that these four perspectives link up with one another and influence each other to create a complete model for controlling performance anxiety.

Chapter 4

Conclusions and recommendations

4.1 Introduction

Much has been written about the different perspectives on music and its influence on performance anxiety. Views on performance anxiety are numerous and I was able to find many different definitions of performance anxiety. The author of this dissertation found the writings on various perceptions of music (chapter 3) very interesting. There are many different theories about it, and music influences every individual in a unique and personal way.

4.2 Answering the sub-questions

4.2.1 What is performance anxiety? (Chapter 2)

The author of this dissertation compared various definitions of performance anxiety. It was found that although theorists have different approaches to this subject, the conclusion is that stress can have a negative or positive effect on a performance. The four types of performance anxiety symptoms discussed in chapter 2.2 (physical, cognitive, emotional and behavioural symptoms) show the different ways that musicians react to performance anxiety. Even though musicians experience these symptoms every time they perform, they are not always aware of them.

Preparing for a performance is just one of the many ways of trying to avoid performance anxiety. The discussion in Chapter 2.3 is useful for musicians to look at the way they prepare for a performance, memorize music, perform sight-reading, and most importantly, how they think about the music and its expression. These are musical factors which all have an enormous impact on a performance, and indirectly on performance anxiety.

4.2.2 What are the opinions of leading authors regarding the biological perspectives of music and performance anxiety? (Chapter 3.1)

The biological perspectives aid musicians to understand the physical processes that happen

while music is performed. Understanding these biological procedures will assist with the comprehension of the physical symptoms that are associated with performance anxiety.

As Sloboda (1985: 268) points out, music is an essential element of life and forms part of human existence. I also realised how important music is in our everyday lives, for example the big role it plays in forming cultures. Hodges and Haack (1996: 471) describe how infants use musical sounds as their first form of communication and how musical rhythm is connected to the rhythmic cycles of our lives, for example time and seasons.

Staum and Brotons (2000: 27) state that music can be used for people who are in severe pain as a part of the healing process. This is closely linked to Brandfonbrener and Kjelland's theory (2002: 83-94) of music medicine, which is the treatment of musicians' injuries.

A possible way in which the physical symptoms can be dealt with is the Alexander Technique (Chapter 3.1.2). This is an example of how biological thinking can help alleviate performance anxiety.

The author of this dissertation found that music is very successful when used to evoke relaxation (Chapter 3.1.3). The leading theorists here are Staum and Brotons (2000: 26) and Robb (2000: 9). Fredrickson (2000: 40) noted that in order to achieve relaxation, people's personal music tastes have to be taken into consideration as well as the way they listen to music. Musicians, for example, listen to music in a more analytical way than non-musicians. Performing conditions (Chapter 3.1.4) were also found to influence performance anxiety.

4.2.3 What are the opinions of the leading authors regarding the cognitive processes of music and performance anxiety? (Chapter 3.2)

The different cognitive theories all related to the thought processes which run through musicians' minds when they perform and also to the way they think while experiencing performance anxiety. Sloboda (1985: 1) describes how music can be used as a cognitive skill (Chapter 3.2.1).

It was found that the cognitive processes we have greatly influence the way we perceive performance anxiety. Performance anxiety is mostly linked with negative thought processes, and if this can be controlled, it will help alleviate performance anxiety.

Cognitive music psychology (Chapter 3.2.2) discusses different ways of dealing with these negative thought processes. An example is Wilson and Roland's theories (2002: 55-56) which view anxiety as a positive aspect by using the following methods: positive self-talk, mental rehearsal and imagery and goal-setting. These are all different ways of helping to create a positive attitude towards performance anxiety.

4.2.4 What are the opinions of leading authors regarding music psychology and performance anxiety? (Chapter 3.3)

Music psychology deals with the observation of musical behaviour. In this study, it was found that music psychology also deals with the musical behaviour involved in performance anxiety. Carl Seashore is known as the father of music psychology and he focused more on the aesthetical side of music. Eagle (1996: 12) is also an important music psychologist. The author of this dissertation found that when dealing with performance anxiety, music psychology provides important solutions which can help with the alleviation of performance anxiety. Emotional responses are important in music psychology, because music is a form of communication between the musicians and the audience. The audience and their response to a performance have a big influence on performance anxiety. When musicians feel comfortable with the audience, this severely diminishes performance anxiety.

4.2.5 What are the opinions of leading authors regarding music therapy and performance anxiety? (Chapter 3.4)

It is well-documented that music therapy is used for anxiety and stress disorders. It can also be used to help relax people. Once again, the type of music is very important and personal. The type of music that has to be used for music therapy to be effective, is determined by the client.

Pixie Holland (1995: 424), a music therapist, describes certain character traits that stressful people have and how to deal with these problems as a music therapist. The author of this dissertation found that music can be used as a healing agent when musicians can listen to themselves playing and observe the reaction their bodies have to music. Robb (2000: 4) says that each person has different physical responses to music, and it is up to the music therapist to use these reactions to predict what to do in a performance anxiety situation.

Music therapy has proven to be a very successful non-verbal type of therapy to deal with people who suffer from anxiety and stress. This can have great implications for musicians suffering from performance anxiety. Various relaxation techniques (3.4.2) were also discussed. Wigram (1999: 162) suggested a cognitive-behavioural approach to relaxation techniques, while Holland (1995: 422) likes to use improvisation on various musical instruments for her clients to release stress.

Group therapy is also often used, and Holland devised a three-step plan to make this successful, which are group awareness, exploration of emotions and relaxation and visualisation. These were found to be the principal methods in music therapy to deal with anxiety and stress.

4.2.6 What is the current thinking on the use of music to relieve performance anxiety in performing musicians? (Chapter 3.4)

It is very important to notice that even though there is ample literature on the subject of music therapy and stress or anxiety, there is hardly any material on music therapy exercised on musicians. As pointed out in Chapter 3, a person with musical experience does not listen to music in the same way as a person without a musical background. Therefore, music therapy will probably not follow the same approach with musicians as with non-musicians.

Generally, the relaxation techniques and improvisation discussed previously will work on musicians. But slightly different approaches and music will probably have to be used when dealing with musicians. The author of this dissertation found that music has large possibilities to be used as a tool to alleviate performance anxiety.

4.3 Answering the main research question: What are the current perspectives on and theories about performance anxiety experienced by performing musicians?

As seen above, four main perspectives of music and their relationship to performance anxiety were discussed in this dissertation. My general conclusion is that, although each theory sees performance anxiety through a different lens, they all have the same general thinking about performance anxiety. Performance anxiety has to be dealt with separately

and differently with each musician. Unfortunately there is no set pattern or plan that can be set down to alleviate performance anxiety. However, common symptoms and useful ways to deal with them were discussed.

One very important point that I realised early on in my dissertation, was that performance anxiety has to be dealt with at an early age. Young musicians often suffer severely from performance anxiety. If this can be recognised early in musicians' careers, they will start to learn to cope with the symptoms; it will become part of their learning process as musicians.

I feel that there could be a more open approach to performance anxiety. Performance anxiety is often seen as a sign of weakness and is therefore often not discussed openly. In Chapter 3.4.1, the music therapist Pixie Holland was quoted as saying that people with a lot of stress in their lives are often not willing to admit that they have a problem coping with stress. Therefore, the first step to dealing with performance anxiety is for musicians to admit that they suffer from it and cannot cope with it by themselves.

4.4 Recommendation for musicians

I recommend to musicians to read as much as possible about the subject of performance anxiety. The more one knows what happens while suffering from performance anxiety, the easier it might be to deal with it. These various perspectives on music involved in this subject is truly inspiring and can be very helpful in gaining knowledge about it.

I think there is a great scope for using music to help alleviate performance anxiety, and if musicians in general take an interest in this topic, it can grow and create many different options when dealing with performance anxiety. Therefore, I feel that musicians have a duty to themselves and other musicians to find out what role performance anxiety plays in their musical lives, and how they can improve their situation.

4.5 Recommendation for further study

Even though there is much documentation and literature available on the subject of using music to relieve anxiety and stress, there is only a small amount available on the specific use of music to relieve musicians' performance anxiety. I therefore recommend further study on

the effects of music on performance anxiety that musicians suffer in a musical performance situation.

4.6 Final word

In reading these various perspectives on performance anxiety, I, as a musician, have seen how performance anxiety develops, what the symptoms are and what the different theories and views entail. I found it very illuminating and helpful to read about this subject, as most musicians go through this stage sometimes in their lives, and some less unfortunate musicians deal with it on a day-to-day basis. Therefore, I hope this dissertation can provide musicians with the necessary perspectives on performance anxiety. From these they can choose the best method, or a combination, for them to deal with in their specific situation.

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