

SELF-REPORTED NEGATIVE COGNITIONS,  
REACTIVE – REFLEXIVE POSITIONS  
AND SOURCES OF FEAR  
IN MUSICAL PERFORMANCE ANXIETY

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Tekijä: Tuulia Nicholls

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Ohjaajat: Jaakko Seikkula

Antero Toskala

## TIIVISTELMÄ

Tutkimuksessa tarkasteltiin sekä haittaavaa että myönteisesti vaikuttavaa musiikillista esiintymisjännitystä. Tarkastelun kohteena olivat (1) negatiiviset kognitiot ja (2) suhde, joka nuorilla muusikoilla on esiintymisjännittämiseen, reaktiivisuus – refleksiivisyys dimension valossa (Toskala & Hartikainen, 2005). Lisäksi (3) tutkimuksessa kartoitettiin muusikkojen omia näkemyksiä jännittämisen syistä. Tutkittavien joukko koostui 80 nuoresta suomalaisesta muusikosta. Tutkimusmateriaali kerättiin tutkimusta varten kehitetyllä muusikkojen esiintymiskokemus - kyselylomakkeella (MEK). Odotusten mukaisesti, mitä enemmän muusikot kokivat haittaavaa esiintymisjännitystä, sitä voimakkaampia negatiivisia kognitioita he raportoivat. Tutkimuksen tulokset eivät tukeneet tutkijan toista esioletusta, jonka mukaan myönteisesti vaikuttavan esiintymisjännityksen lisääntyessä tutkittavien raportoimien negatiivisten kognitioiden intensiteetti olisi vähentynyt. Vaikka monet tutkittavat, jotka kokivat enemmän myönteistä esiintymisjännitystä, raportoivat vähemmän intensiivisiä negatiivisia kognitioita, ero toisistaan kauimmaisten ryhmien välillä ei ollut tilastollisesti merkittävä. Tutkimusmateriaalin laadullinen (sisältö)analyysi osoittaa, että nuorten muusikkojen suhteessa esiintymisjännitykseen on huomattavia eroja vaihdellen vahvasti reaktiivisesta positioista hyvinkin refleksiiviseen positioon. Tulokset kertovat myös musiikillisen esiintymisjännityksen taustalla olevan monenlaisia syitä, joista esimerkkejä ovat pelot liittyen kriittiseen yleisöön, huoli teknisistä epätäydellisyyksistä ja pelko itse esiintymisjännityksestä.

*AVAINSANAT:* Musiikillinen esiintymisjännitys; negatiiviset kognitiot; nuoret muusikot; pelon lähteet; reaktiivisuus – refleksiivisyys

## ABSTRACT

The purpose of this study was threefold: It investigated: (1) debilitating and facilitating musical performance anxiety in relation to negative cognitions; (2) the kinds of positions that young musicians hold in relation to performance anxiety in terms of a reactivity-reflexivity dimension (as defined by Toskala & Hartikainen, 2005); and, additionally (3), it examined self-perceived reasons for experiencing musical performance anxiety. The population consisted of 80 young Finnish musicians. The study material consisted of data collected by a musical performance experience questionnaire (MEK), which was developed for the purposes of this study. Consistent with expectations, the more debilitating performance anxiety subjects experienced the more intense negative cognitions they reported. The results did not support the investigator's second prediction which was that the more facilitating performance anxiety subjects experience, the less intense negative cognitions they would report. Although subjects who experienced facilitating anxiety less frequently tended to report more intense negative cognitions, differences in cognitions between the furthest groups, i.e. those who either *never* or *almost always* experienced facilitating performance anxiety, were not statistically significant. Qualitative (content)analysis of data suggests that there is great variation in the positions that young musicians' hold in relation to musical performance anxiety, ranging from very reactive to notably reflective positions. The results also suggest that reasons for experiencing musical performance anxiety are diverse, ranging from fears regarding the expectations of a critical audience, to technical worries and the fear of the performance anxiety itself.

**KEYWORDS:** musical performance anxiety; negative cognitions; reactivity – reflexivity; sources of fear, young musicians

## INTRODUCTION

Performance anxiety, or stage fright, is a common problem in all the performing arts. In a large-scale survey of professional orchestral musicians in the USA, stage fright was the most frequently mentioned medical or psychological problem (24%), with 16% of the musicians describing the problem as severe (ICSOM survey, Fishbein, Middlestadt, Ottati, Strauss, & Ellis, 1988). Surveys conducted in Europe (Kemenade, Son, & Heesch, 1995; Steptoe 1989, Steptoe & Fidler, 1987) indicate similar or higher levels of prevalence. The prevalence of performance anxiety among Finnish musicians has not yet been investigated.

There is some indication that younger players experience higher level of performance anxiety than professional orchestral musicians (Steptoe and Fidler, 1987). Certainly studies focusing on teenage or third-level students of classical music have reported very high prevalence of stage fright (e.g. Kaspersen & Götestam, 2002; Tamborrino, 2001). Although one might intuitively expect it, this difference does not appear to be due to age (Kemenade, *et al.*, 1995, Tamborrino, 2001; Wesner, Noyes, & Davies, 1990), or to differing amounts of performance experience (Cox & Kenardy, 1993; Kemenade, *et al.*, 1995; Lockwood, 1989; Rae & McCambridge, 2004; Salmon, 1990). Even such seasoned performers as Arthur Rubinstein, Pablo Casals, and Luciano Pavarotti have all reported experiencing extreme tension and psychological distress while performing before audiences (Salmon, 1990). One possible explanation for the higher levels of performance anxiety among students could be that highly anxious musicians may not have been represented in the sample of professional musicians as they may have been forced to terminate their otherwise promising careers as performers due to stage fright. This highlights the importance of investigating musical performance anxiety among promising young musicians, as will be done in the present study.

Musical performance anxiety, or stage fright, can be defined as “*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*” (Salmon, 1990, pg. 3). This definition

highlights three essential elements of performance anxiety. Firstly, performance anxiety creates considerable psychological distress for the performer (even when everything is going fine from an objective standpoint), or actually impairs the musician's performance skills. Secondly, performance anxiety is associated with social situations, such as concert performances, in which the musician is subject to the scrutiny of others, and thereby at the risk of being criticised. Thirdly, performance anxiety is distinguishable from "reactive anxiety" (Sweeney & Horan, 1982), which is the consequence of trying to perform a work that is technically too difficult, or has not been adequately prepared.

The terms "performance anxiety" and "stage fright" are often used interchangeably in referring to the intense psychological distress associated with public performing (Salmon, 1990). It must be noted, however, that musical performance anxiety does not occur only *during* a performance, on the stage. Many musicians report considerable anxiety already days, weeks, or even months before the actual performance (Kemenade, *et al.*, 1995). Thus, if the term "stage fright" is used interchangeably with the term "performance anxiety", as is done in the current discussion, it has to be understood in this broader sense.

Although performance anxiety touches many individuals beside musicians (e.g. test takers, public speakers, and athletes), musicians are unique in the way that they have to be in absolute control of the finest muscles, trust memory, and at the same time, must feel and project the music (Kendrick, Craig, Lawson, & Davidson, 1982). It is clear, that performance anxiety represents a serious problem for a large number of today's musicians, and for young musicians in particular, and warrants extensive psychological research.

Traditionally, research in the area of musical performance anxiety has explained stage fright in terms of excessive physiological arousal (e.g. Havas, 1973; Lockwood, 1989). Significant positive correlations have been reported between musical performance anxiety and a person's level of trait anxiety, i.e. anxiety as a personality dimension (e.g. Kenny, Davis, & Oates, 2004; McCoy, 1999). Although the "fight-or-flight" system has evolved as a means of contributing towards survival under stressful conditions (Salmon, 1991), it seems to have less adaptive value for musicians' professional life. It takes little imagination to see how these somatic symptoms of anxiety can severely impair a musical

performance: shaking interferes with bow control and fingering among string players, and dryness of the mouth and shallow breathing cause trouble for wind players.

This neuro-biological view of performance anxiety has generated the most common treatment for musical performance anxiety, namely the beta adrenergic blocker. (Fishbein, *et al.*, 1988). In the ICSOM survey 27 % of the musicians reported daily or occasional use of beta-blockers, with the majority of users taking them without medical supervision. However, although beta-blockers seem to be highly effective in lowering heart rate and tremors (Fishbein, *et al.*, 1988; James & Savage, 1984; Slomka, 1992; Steptoe 1989), there is growing evidence that beta-blockers do not remove subjective distress, the cognitive elements of performance anxiety (e.g. Fredrikson, Klein, & Öhman, 1990; James & Savage, 1984). There are also potential risks associated with long-term use of beta-blockers (Nies, 1990), and the obvious ethical question of whether an instrumentalist taking drugs has an unfair advantage in a musical competition just as has an athlete in a sport competition (Slomka, 1992).

The physiological model of musical performance anxiety has been challenged by more recent research. Contemporary findings question the notion that individuals with high and low performance anxiety differ in terms of their physiological responsiveness. When somatic symptoms are measured by using self-report questionnaires, highly anxious individuals indicate the existence of considerably more physiological symptoms than low anxiety subjects. However, when actual physiological measures are used, differences between these two subject populations seem to disappear (Craske & Craig, 1984, Eysenck, 1992; Steptoe, 1989). This highlights the importance of recognising the cognitive processes involved in performance anxiety and leads to the inference that physiological activation *per se* is not a sufficient cause of stage fright.

Over the past 20 years there has been an increase in the understanding of the cognitive aspects of musical performance anxiety. A number of studies have been carried out in the cognitive-behavioural tradition, based on Beck's general model of anxiety (see e.g. Beck & Emery, 1985). Such studies have differentiated between physiological arousal, negative thoughts, and anxiety characteristic behaviours. Many of the negative cognitions in musical performance anxiety revolve around perceived somatic arousal and exaggerated beliefs concerning the importance of the performance (Steptoe & Fidler,

1987; Tobacyk & Downs, 1986). Also, fear of memory lapses, lack of confidence and worry about the performance are common (Brotons, 1994; Cox & Kenardy, 1993; Ely, 1991; Green & Gallwey, 1987; Salmon, 1990; 1991). Steptoe and Fidler (1987) investigated musicians' self-statements taken immediately before giving a performance, and found positive correlations between reported stage fright and negative self-statements. According to this research, musicians with stage fright tend to "catastrophise", i.e. exaggerate the consequences of minor mishaps. For them, even a small mistake ruins the whole performance spoiling the musician's entire career prospects. Such thought processes divert the artist's attention from the complex task at hand, and thereby increase the danger of errors. These kinds of negative cognitions have sometimes also been referred to as "maladaptive thoughts", "irrational thinking", or "faulty appraisals of reality" in the cognitive-behavioural literature. It is in the overall cognitive-behavioural sense that negative cognitions are conceptualised in the current study.

All the above suggests that musical performance anxiety consists of *heightened arousal combined with negative cognitions*, as has been proposed by Steptoe (1982, 1989). Moreover, it would seem that it is the *interplay* between cognitive processes and physiological activation that is of central importance (Kircher, 2003). However, Greenberg and Paivio (2003), who think along the lines of contemporary cognitive-constructive framework, maintain that dysfunctional emotional experiences, such as anxiety, do not *always* rise simply from faulty appraisals of reality. They suggest that although performance anxiety (in general) is typically strongly linked to negative or even irrational cognitions, there are instances when maladaptive thinking stems from more fundamental states of mind, such as a core sense of self as unlovable or worthless.

Cognitive constructive theorists stress the importance of emotionally loaded subjective meanings which people give to their experiences. In fact, anxiety provoking situations are often not dangerous as such. Rather, the perceived threat is generated by the meanings that a person gives to the situation (Toskala, 1997; Toskala & Hartikainen, 2005). According to Greenberg and Paivio (2003) people bring their unique affective goals, needs and concerns to any given situation. The situation is then organised and analysed in relation to these goals. For example, if a person has a high need to be

accepted, then an appraisal of rejection in a situation is likely to result in maladaptive cognitions and strongly negative emotion. This implies that the most crucial point is not simply the existence of negative cognitions but the person's vulnerability to the effects of them. Moreover, Toskala (1997) maintains that a same overt "symptom", such as anxiety, may result from significantly different underlying concerns and processes in different people.

If Greenberg's and Paivio's, and Toskala's theoretical stances are applied to musical performance anxiety they would seem to suggest that simply looking at physiological arousal and negative cognitions is not sufficient. Simply "knowing" that one's thoughts are irrational, will not necessarily help to control the anxiety. What is needed, if one follows this theory, is exploring and unravelling the unique ways in which individual musicians organise and interpret their experiences of performing and anxiety.

A call for this type of research has already been expressed by Brotons (1994) and Arjas (2002). Brotons investigated the effects of different types of jury conditions on musical performance anxiety and performance quality. As part of a post-jury interview, she asked the music students "*What aspect of the jury made you feel most nervous?*", and found great variations in response. Although this data was only a minor part of Brotons' study, it holds important implications. In the words of Brotons (1994, Pg. 78) "*... It is erroneous to assume that every performer experiences anxiety in similar ways or for identical reasons... [researchers interested in this area] must examine more fully individual differences in the experience of performance anxiety and the conditions that exacerbate anxiety.*" This challenge is taken up in the present study.

There is indication that situational factors (such as solo vs. group performance), also play a role in determining the experienced level of stage fright (Cox & Kenardy, 1993; Fredrikson & Gunnarsson, 1992). Debilitating musical performance anxiety has often been linked with socially related fears and social phobia in particular (Clark & Agras, 1991; Ely 1991; Osborne & Franklin, 2002; Osborne & Kenny, 2005; Wesner, *et al.*, 1990). Support for this line of thinking would seem to come from the notion that musical performance is typically higher in solo performances or other exposed and evaluative conditions than in ensemble performance or practice (Kaspersen & Göttestam, 2002). This seems to further emphasise the importance of investigating the particular

meanings that performance situations have for a musician. It also points to the importance of studying group and solo performance situations separately.

In addition to stressing the importance of studying individuals' ways of construing their experiences, cognitive-constructive theorists (e.g. Greenberg & Paivio, 2003; Toskala, 1997; Toskala & Hartikainen, 2005) maintain that no emotion as such is maladaptive. Rather, they maintain that it is when a person has no sense of agency over the emotion and is thereby unable to regulate the intensity and duration of an emotion, that problems arise. This may for example be in the form of being overwhelmed by the emotion, or needing to over-control the emotional experience. Based on the assumption that man is always striving towards preserving his/her sense of self-integrity, a crucial question therefore becomes how and how well different emotional experiences can be integrated as being part of oneself (Toskala & Hartikainen, 2005). One way of examining the level of integration is looking at it through a reflexivity-reactivity dimension. Reflexivity and reactivity can refer to a number of things in psychology, but are here understood in the sense that Toskala & Hartikainen (2005) use them. In a reactive position a person makes quick automatic interpretations of situations/experiences which are followed by immediate emotional reactions. The person is not able to consciously reflect on their thoughts and feelings, and may feel very threatened by their experience. This threat to oneself may lead to an overwhelming need to control the experience or result in acting upon the feelings. This kind of diminished reflexivity can be associated with many psychological problems (Toskala & Hartikainen, 2005). At the other end of the dimension is reflexivity, which refers to the ability to recognise and reflect on one's inner experiences and processes. This means being emotionally in touch with the real experience, while at the same time being consciously aware of the dialectic processes within oneself, especially those between one's experiences and one's subjective interpretations of it. In this position even difficult emotional experiences may be integrated to become part of one's personal experience, different possible meanings to the experience may be reflected upon, and the person feels a sense of agency over the experience. Importantly, the reactivity – reflexivity is not a dichotomy, nor does a person stay fixed in any point on the dimension. Rather, people move along the dimension in relation to various different types of experiences, or even within any given experience.

The reflexivity – reactivity dimension has not, to the author’s knowledge, been applied to efforts to understand musical performance anxiety in the research literature. The author is interested in exploring how, and how well, the young musicians integrate performance anxiety as being part of their personal experience. In particular, she is examining what kinds of positions they hold in relation to performance anxiety, in terms of the reactivity-reflexivity dimension. Further, she wishes to examine how the different emerging positions relate to the degree in which the musicians experience debilitating performance anxiety.

Research on musical performance anxiety has almost exclusively focused on the debilitating effects of nervousness, and assumed direct positive correlations between the level of anxiety, experienced subjective distress, and degree of impairment in performance quality (e.g. Cox & Kenardy, 1993; Fredrikson & Gunnarsson, 1992; Kemenade, *et al.*, 1995; Middlestadt, 1990; Salmon, 1990, 1991; Wesner, *et al.*, 1990). However, there is some indication that performance anxiety does not always have a negative impact on a musical performance. Particularly, the assumed negative relationship between somatic symptoms of anxiety and performance quality has been questioned (Brotons, 1994; LeBlanck, Jin, Obert, & Siivola, 1997). In fact, it seems to be common wisdom among musicians that “nervousness is essential for a good show” indicating that performance anxiety may also have positive effects (Steptoe, 1982). Although there seems to be some awareness of this notion among the research community, and a great number of papers have been written about facilitating performance anxiety in the field of sports, very little systematic study concerning the nature of the somewhat paradoxical construct “facilitating musical performance anxiety” has been conducted.

Most commonly, the facilitating form of performance anxiety has been referred to as “adaptive anxiety”, and has often been *explained* (but seldom empirically demonstrated) in terms of the Yerkes-Dodson Law, according to which the relationship between arousal and the quality of performance on a task is curvilinear (i.e. follows an inverted U-shaped pattern) (e.g. Lockwood, 1989; Steptoe, 1982; 1989; Sweeney & Horan, 1982). Best performances will be produced at moderate levels of tension, taking into account the difficulty of the task. Easy tasks require higher levels of tension for

reaching optimal performance than more complex tasks. The notion, that performance will not only be impaired if arousal is too high but also if it is too low, is well-known in the Opera world. Performances in long opera runs are often dull because artists fail to “rise for the occasion” (Steptoe, 1982). On the same basis, concerns have been expressed about the possible “dullness” of performances given by musicians using beta-blockers (Gates, 1989). However, Rae and McCambridge (2004) have pointed out that in certain situations, when cognitive anxiety is high, the Yerkes-Dodson law is unable to accurately explain what happens to a musician during a performance. Using Hardy’s and Parfitt’s Catastrophe Model of Anxiety and Performance (1991, in Rae & McCambridge, 2004), they describe how a performance can suddenly plummet, go “all wrong” to a point from which there is little hope of recovery or reaching even a mediocre standard of performance. This dramatic drop is rather dissimilar to the gradual deterioration of performance as implied by the Yerkes-Dodson law.

Since physiological changes underlying all intense emotional experiences, such as fear and desire, are similar and non-specific, Steptoe (1982; 1989) believes that musicians tend to mislabel their arousal to anxiety, and may be worried about the very arousal that propels them to give an excellent performance. According to him, what is needed for a good performance is not anxiety, which is heightened physiological activation combined with negative cognitions, but moderate somatic arousal. However, this assumption that the presence or absence of cognitive symptoms of anxiety lies at the core of the difference between more and less adaptive forms of musical performance anxiety has not to the author’s knowledge been tested empirically, and is one of the questions this study attempts to answer.

Finally, Mor, Day, Flett, and Hewitt (1995) have argued that debilitating and facilitating performance anxiety do not represent opposite poles of the same dimension, but should be examined separately. Their results indicated a strong negative correlation (-.57) between facilitating and debilitating performance anxiety, but were these simply opposite poles of the same construct, an even stronger (nearly -1) correlation would have been expected. Greenberg’s and Paivio’s (2003) theory of emotional functioning seems to lend support to the idea of separating these constructs. According to them, situations that provoke debilitating anxiety may sometimes also be experienced as exciting and

interesting, depending on how one views the situation. Interest and excitement, together for example with joy, are positive emotions involving both arousal and orientation. They are distinct emotional experiences, and not simply feeling the relief of reduction in the undesired emotion, such as debilitating anxiety. According to Greenberg and Paivio, interest and excitement are rewarding and motivational, and can thereby greatly enhance performance and be a source of creativity. The existence of dysfunctional emotional processes, such as may be experienced in debilitating performance anxiety may, however, block the emergence of excitement and interest. Because of these considerations, debilitating and facilitating performance anxiety are investigated separately in the current research.

### **Aims of the current study:**

The objectives of the current study are to study young musicians' experiences of debilitating and facilitating musical performance anxiety, and how these relate to the intensity of negative cognitions. It also aims to qualitatively investigate how well the musicians are able to integrate musical performance anxiety as being part of their personal experience: what kinds of positions they hold in relation to performance anxiety, in light of the reactivity – reflexivity dimension (as defined by Toskala & Hartikainen, 2005). Additionally, it aims to gather data on the subjects' perceptions of what it is about performing that makes them feel nervous. Even though every individual would have a unique perspective, it is expected that some common themes will arise in the qualitative answers. These aims translate themselves into the following hypotheses and research questions:

### **Hypothesis 1:**

The more debilitating musical performance anxiety a subject experiences, the more intense negative cognitions s/he reports.

**Hypothesis 2:**

The more facilitating musical performance anxiety a subject experiences, the less intense negative cognitions s/he reports.

**Research question 1:**

Conceptualised in terms of the reactivity-reflexivity dimension, what kinds of positions do the young musicians hold in relation to musical performance anxiety? How do the emerging positions relate to debilitating musical performance anxiety?

**Research question 2:**

What is it about public performing that makes the young musicians feel anxious? What kind of threats do they perceive in the situation?

## **APPROACH AND METHODOLOGY:**

### **Construction of a musical performance anxiety questionnaire**

Performance anxiety is most commonly assessed by self-report questionnaires. Questionnaires have been favoured over more objective methods of assessment not only because they are quick and allow large amounts of data (Robson, 1995), but also because they capture the subjective experience of stage fright. Objective ratings of the existence and influence of musical performance anxiety are extremely difficult. There are so many technical and artistic aspects to a musical performance, and therefore numerous views as to what constitutes a high quality performance. Furthermore, even if performance anxiety does not objectively impair the performance, the musician may perceive it so (Salmon, 1991). Despite contradicting objective evidence, this subjective perception could seriously diminish the enjoyment of performing or even discourage the musician from further study of music. It can therefore be argued that research on musical performance anxiety should study the phenomenon from the musician's subjective point of view. Thus, a self-report method was applied in the current study.

Three different musical performance anxiety scales with the best reported psychometric properties were considered for the current study: the Performance Anxiety Questionnaire by Wesner, *et al.* (1990), the Performance Anxiety Questionnaire by Cox and Kenardy (1993), and the Music Performance Anxiety Inventory for Adolescents (MPAI-A) by Osborne & Kenny (2005). However, none of the above inventories were considered suitable for the present study, as they either measured the *frequency* (rather than intensity) of anxiety symptoms, or did not include *facilitating* performance anxiety or items specific to *musical* performance anxiety. A further problem with all the above inventories was that none of them have been translated and validated for use with Finnish population.

Because of these difficulties with the existing questionnaires, the author developed a musical performance experience questionnaire, "Muusikkojen esiintymiskokemus -kysely" (MEK). The MEK is a semi-structured questionnaire. Although the specific focus of the current study was on negative cognitions, the author

developed the structured part of the questionnaire to include items measuring the intensity of physiological arousal and behavioural symptoms as well. The questionnaire also includes an item measuring debilitating effects of nervousness (*How often does performance anxiety impair your performance?*), and an item measuring facilitating performance anxiety (*How often does performance anxiety improve your performance?*). Subjects respond to a 5-point scale to every question, thereby indicating how many of the symptoms they experience, and how severe these symptoms are. Because the MEK is a symptom checklist and not concerned with attitudes, there was no need to counterbalance positive and negative statements.

The investigator took most of the physiological symptoms of anxiety in the MEK from the three musical performance anxiety inventories mentioned above, especially the MPAI-A. However, she checked that those symptoms were also widely reported elsewhere in the literature on musicians' stage fright. The author made some of the symptoms more specific (e.g. "*My fingers, arms or knees shake*" instead of "*I shake*"). One item, "*I have difficulty in seeing or hearing clearly*", was not included in any of the above questionnaires, but chosen for the MEK because it was mentioned in several papers on musical performance anxiety (e.g. Brotons, 1994; Green & Gallwey, 1987), and represents a characteristic feature of musical performance anxiety.

The author selected negative cognitions on the basis of a literature review. Approximately 75% of the most often reported symptoms are also included in the PAQ by Cox and Kenardy, and in the MPAI-A by Osborne and Kenny, and were chosen for the MEK. Items, which were neither in the PAQ nor in the MPAI-A, concerning fear of forgetting music and worry about something going wrong with one's instrument, were taken solely from the literature (Brotons, 1994; Ely, 1991; Green & Gallwey, 1987; Salmon, 1990, 1991; Steptoe, 1982; Steptoe & Fidler, 1987). The author took behavioural symptoms for musical performance anxiety from the MPAI-A questionnaire, but adapted their wording to suit the context in which the study was carried out.

The unstructured part of the MEK addresses questions regarding the musician's own perception of performing and his or her anxiety. By asking the musician to give a written, descriptive account of their own experiences, it attempts to gather information on how the individual performers themselves understand their experiences.

The MEK also records some biographical data, such as age, gender, instrument group, and amount of performance experience. The author piloted the questionnaire, which involved giving the questionnaire to 29 students of a musical instrument, in order to identify and correct any ambiguities or mistakes before the experimental run. She also asked subjects in the practice run to express their opinions about the wording of the items. In the pilot it became evident that solo performances ought to be separated more clearly from group performances. The number of open-ended questions was also increased, as it was felt in the pilot study that qualitative data gave particularly insightful information, which complemented more quantitative data.

## **METHOD**

### **Participants:**

The sample consisted of members of a national youth orchestra, “VIVO”, in Finland. Members of the orchestra represent talented young musicians around the country and are selected through an audition process. A questionnaire on musician’s performance experiences (muusikkojen esiintymiskokemuskysely) was distributed either in a pen-and-paper form or in an electronic web-based form to 134 players of whom 80 (a response rate of 60 %) voluntarily completed it. The sample consisted of 37 males and 43 females, aged between 14 and 28 years (Mean = 20.41, SD = 2.975). All participants played an orchestral instrument and had experience in performing in public over 50 times on average. One point to note in the sample is that string players are somewhat over-represented (60 %), as compared to wind players (31%) and other instrument players (9 %). This bias occurs primarily because the majority of players in any symphony orchestra play a string instrument.

### **Materials:**

The MEK - questionnaire

### **Qualitative analysis**

One frequently employed method for analysing open-ended questions in questionnaires is qualitative content analysis. This type of analysis is particularly useful when the investigator is interested in the respondents’ own beliefs and ways of construing situations (Smith, 1995). It has also been said that this method is particularly valuable when used supplementary to other methods of data collection and analysing (Robson,

1993). Content analysis in the current study was carried out according to the principles of Syrjäläinen (1994, Pg. 90):

Firstly, the investigator familiarised herself thoroughly with both the data and central concepts in theoretical literature, the cognitive-constructive framework in particular (Greenberg & Paivio 2003; Toskala,1997; Toskala & Hartikainen, 2005). Secondly, data was “internalised” and theorized on (“thinking phase”). Thirdly, initial rough constructs and themes were elicited. Fourthly, definitions of the constructs were made more specific. Fifthly, frequencies of the various issues and exceptional cases were noted. Revised categories / themes were constructed. Sixthly, themes and constructs were cross-validated across all data. Answers from all respondents were coded according to the final constructs / themes. And, finally conclusions were made. An inter-rater was used to help validate the categories.

## **Design**

This was a survey type design. It was used to gather information on and investigate the relationships between the following 5 dimensions:

- 1) Feelings that one’s performance is being impaired by performance anxiety;
- 2) Feelings that one’s performance is being enhanced by performance anxiety;
- 3) The intensity of negative cognitions;
- 4) Qualitative data on the subjects’ positions in relation to performance anxiety (in terms of the reactivity-reflexivity dimension);
- 5) Qualitative data on the subjects’ perceptions regarding what it is about performing that makes the individual musician feel nervous.

## **Procedure**

The author conducted the study during May and August 2006. In May, she approached members of the orchestra during the orchestra’s rehearsal weekend, and gave a short

briefing. She informed the young musicians of the nature and purpose of the study, and asked them to participate by filling out the questionnaire. The completion of the questionnaire took approximately 20 minutes. Players who were not present at the May rehearsal weekend were contacted by the investigator via e-mail in late August 2006 and asked to participate in the study by filling in the same questionnaire in a web-form. The three month time lapse between these two points of data collection occurred primarily because the investigator thought it important that the musicians took part in the study outside their summer holiday period, when they may have been practicing and performing less frequently. Data from the web-survey was in a computer based statistics (SPSS) form and the author entered data from the pen-and-paper questionnaires also into SPSS for analysis.

## RESULTS

### Statistical Analyses

Averages for each symptom category (1. negative cognitions; 2. physiological arousal; 3 behavioural symptoms) in each experimental condition were calculated. These provide the raw data for analyses and are presented in Table 1 and Table 2. A higher score reflects more intense symptoms (1 = not at all, 5 = extremely). SPSS was used for calculating both descriptive statistics and inferential analyses.

#### Hypothesis 1:

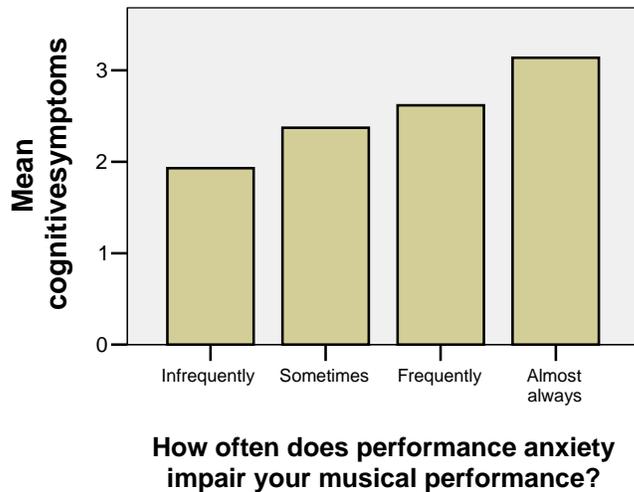
The more debilitating musical performance anxiety a subject experiences, the more intense negative cognitions s/he reports.

#### Descriptive Analysis of Data for Hypothesis 1:

Means for the intensity negative cognitions in relation to the different levels of debilitating musical performance anxiety can be seen in Table 1. and Figure 1.

	<b>Performance anxiety impairs the performance (debilitating anxiety)</b>				
<b>Symptom category</b>	Never	Infrequently	Sometimes	Frequently	Almost always
Negative cognitions		1.93 (SD = .467)	2.37 (SD = .487)	2.62 (SD = .447)	3.14 (SD = .858)
Physiological arousal		1.96 (SD = .476)	2.29 (SD = .591)	2.52 (SD = .500)	3.21 (SD = .963)
Behavioural symptoms		1.44 (SD = .651)	2.18 (SD = .830)	2.17 (SD = .835)	3.22 (SD = 1.269)
	N = 0	N = 25	N = 34	N = 12	N = 9

Table 1. Means (intensity of negative cognitions, physiological arousal and behavioural symptoms) for each experimental condition in regard to debilitating musical performance anxiety. *Note:* Higher figures indicate more intense anxiety symptoms.



**Figure 1.** Mean intensity of negative cognitions for each experimental condition in regard to debilitating musical performance anxiety. Higher figures indicate more intense negative cognitions.

On the basis of this descriptive analysis of data, it may be assumed that the more debilitating performance anxiety a subject experiences, the more intense negative cognitions s/he reports. To confirm this assumption, data was subjected to inferential analysis.

### **Inferential Analysis of Data for Hypothesis 1**

This was an independent subjects design; Subjects were divided into groups following their position on the item “How frequently does performance anxiety impair your musical performance?” Since there were no respondents in the *Never* condition, this left four experimental groups for analysis. Since this was a reasonably sized sample ( $N = 80$ ), variances in the different experimental conditions were equal, and data was normally distributed in each condition, parametric oneway ANOVA was chosen for inferential analysis.

The null hypothesis ( $H_0$ ), which stated that there are no significant differences in the intensity of negative cognitions between the four degrees of impairment due to musical performance anxiety, except by chance, was rejected on the basis of oneway ANOVA ( $F = 12,977$ ,  $p < .001$ ). It may thus be assumed that the sample rank means are not equal.

The experimental hypothesis 1 being tested stated that the more debilitating musical performance anxiety a subject experiences, the more intense negative cognitions s/he reports [2<3<4<5]. A Post Hoc Tukey test was used for examining differences between the experimental conditions. It showed a statistically significant difference between the groups *infrequently* and *frequently* ( $p = .002$ ) / *almost always* ( $p = <.001$ ), and *sometimes* and *almost always* ( $p = .001$ ). However, differences between the groups *infrequently* and *sometimes*, *sometimes* and *frequently*, or *frequently* and *almost always* were not statistically significant. Therefore, the experimental hypothesis 1 was not fully supported.

On the basis of this analysis it may be assumed that subjects who experience more debilitating performance anxiety report more intense negative cognitions than subjects who report less debilitating performance anxiety, but that in regard to these symptoms, there are no significant differences between subjects who experience debilitating performance anxiety *infrequently* and *sometimes*, *sometimes* and *frequently*, and those who experience it *frequently* or *almost always*.

## Hypothesis 2

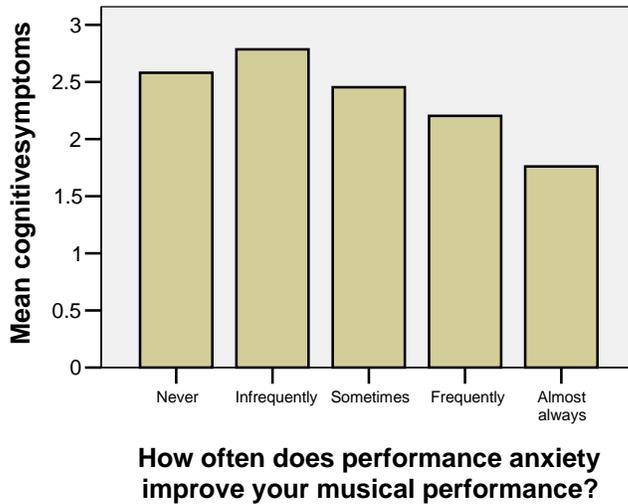
The more facilitating musical performance anxiety a subject experiences, the less intense negative cognitions s/he reports.

	<b>Performance anxiety improves the performance (facilitating anxiety)</b>				
<b>Symptom category</b>	Never	Infrequently	Sometimes	Frequently	Almost always
Negative cognitions	2.58 (SD = .972)	2.78 (SD = .601)	2.45 (SD = .446)	2.20 (SD = .547)	1.76 (SD = .384)
Physiological arousal	2.62 (SD = 1.164)	2.54 (SD = .723)	2.38 (SD = .569)	2.27 (SD = .579)	1.78 (SD = .381)
Behavioural symptoms	2.81 (SD = 1.492)	2.46 (SD = 1.041)	2.25 (SD = .786)	1.67 (SD = .714)	2.06 (SD = .980)
	N = 9	N = 13	N = 23	N = 25	N = 10

Table 2. Means (intensity of negative cognitions, physiological arousal and behavioural symptoms) for each experimental condition in regard to facilitating musical performance anxiety. *Note:* Higher figures indicate more intense anxiety symptoms.

## Descriptive Analysis of Data for Hypothesis 2

Means for the intensity of negative cognitions in relation to the different levels of facilitating performance anxiety can be seen in Table 2 and Figure 2.



**Figure 2.** Mean intensity of negative cognitions for each experimental condition in regard to facilitating musical performance anxiety. Higher figures indicate more intense negative cognitions.

This descriptive analysis of data seems to suggest, that subjects who experience *almost always* or *frequently* facilitating performance anxiety report less intense negative cognitions than subjects who experience it *never*, *infrequently*, or *sometimes*. However, this relationship does not seem to be as linear as predicted by the experimental hypothesis 3. Also, whether or not the observed differences are statistically significant, cannot be inferred on the basis of this descriptive analysis.

## Inferential Analysis of Data for Hypothesis 2

This is an independent subjects design; subjects were divided into five groups following their position on the item “How frequently does performance anxiety improve your musical performance?”(facilitating performance anxiety). Since assumptions of equal variances across groups could not be assumed, non-parametric Kruskal-Wallis and Tamhane’s T2 were used for inferential analysis.

The null hypothesis (H0) was that there are no significant differences in the intensity of negative cognitions between the five degrees of improvement due to musical

performance anxiety, except by chance. H0 was rejected on the basis of Kruskal-Wallis test (Chi-Square = 18.832, p = .001). It may thus be assumed that the sample rank means are not equal.

The experimental hypothesis 2 stated that the more facilitating performance anxiety a subject experiences, the less intense negative cognitions s/he reports [1<2<3<4<5]. Since most differences between groups in a Post Hoc Tamhane T2 test were not statistically significant, this hypothesis was not supported. Statistically significant differences were only found between groups *infrequently* and *almost always* (p = .001) and *sometimes* and *almost always* (p = .002). It is important to note that the difference between groups *never* and *almost always* was not statistically significant (p = .325).

It may thus be assumed that subjects who *almost always* experience facilitating performance anxiety report less intense negative cognitions than subjects who experience it either *infrequently* or *sometimes*. However, there does not seem to be as clear-cut a linear decrease in the cognitive symptoms of anxiety, as had been predicted by the experimental hypothesis 2.

### **Other statistical analysis**

A correlation was calculated for debilitating and facilitating musical performance anxiety. A strong negative correlation was found:

Facilitating vs debilitating musical performance anxiety = - 0.643

## Qualitative analysis of data

### Research question 1:

**Conceptualised in terms of the reactivity-reflexivity dimension, what kinds of positions do the young musicians hold in relation to musical performance anxiety? How do the emerging positions relate to debilitating musical performance anxiety?**

Qualitative data for this question in the study was prompted by the following questions: *“If you notice yourself being nervous about your musical performance, how do you relate to the symptoms of anxiety? What do you think and feel? How do you act?”* By the use of content analysis eight separate categories or positions were constructed from the answers ranging from “lack of sense of agency over the anxiety” to “welcoming the emotion”. These positions can be thought of along the reactivity-reflexivity dimension (according to Toskala & Hartikainen 2005), starting from the most reactive position. Categories 1-3, and to a degree category 4 as well, reflect more reactive ways of dealing with the emotional experience. Categories 5-8 are reflective of a more reflexive position. Examples of each category are given. Some of the respondents’ answers had elements of a few positions at the same time. According to Toskala & Hartikainen (2005) this kind of shifting is typical when people reflect on their experiences.

#### 1. Lack of sense of agency over the anxiety

“I suppose I panic. Yet I know I can’t do anything about these feelings of anxiety. I still don’t know what to do with these feelings. They just appear somehow insidiously...” (ID23)

“I have a sense of terror” (ID 73)

“I can’t think at all. Panic is a good description for the situation. After the performance I have no memory of the situation.” (ID 72)

“ I wish the anxiety would go away and that I could perform well. But I fear that the anxiety won’t go away and that I will fail in the performance.” (ID14)

“I feel very anxious, sometimes I panic...” (ID80)

“I hope it won’t become really bad. I’m not really able to be in charge of the anxiety. I haven’t found a way of getting rid of it.” (ID54)

## **2. Negative emotional responses to anxiety**

“If my anxiety is high I start cursing it...” (ID41)

“ If my hands shake, I get annoyed, because it distracts... and prevents me from being able to enjoy the music.” (ID44)

“I think I get more nervous from knowing that I’m nervous” (ID33)

“I feel really annoyed, pissed off” (ID70)

## **3. Strong attempts to control the anxiety**

“I try to prevent and repress the anxiety as much as possible.” (ID14)

“I try either to calm down or I rage like a madman in my attempt to dampen the anxiety.” (ID45)

## **4. Attempts to ignore the anxiety**

“I try not to think about them [symptoms of anxiety].” (ID28)

“I try to direct my thoughts elsewhere.” (ID31)

“I try to think how I could forget the anxiety. In the back of my mind I also hope that I could skip the concert.” (ID69)

## **5. Acceptance of the anxiety and positive thinking**

“ At first I feel terrified and want to run away., but then I think that this is perfectly normal and try to become familiar with the matter. .. I think of my close friends and relatives and how they are keeping their thumbs up for me and how nice it is to be able to perform music that I have practised so much.” (ID5)

“I feel uneasy and restless...I focus my thoughts and imagine the whole situation going well in advance... I boost my self confidence.” (ID29)

“You can’t get rid of anxiety in a moment, so you just have to adjust to it. It IS possible to play even when your hands shake a bit.” (ID16)

“I feel unsure of myself. Gradually I have learnt to be in charge of the anxiety symptoms though. I concentrate and try to calm down. I go through the performance in my mind and concentrate on imagining myself succeeding on the stage.” (ID 67)

## **6. Acceptance of anxiety and focusing**

“This is part of the deal. It doesn’t really bother me. I keep my hands warm and try to breathe deeply.” (ID1)

“I try to relax and focus on the music itself.” (ID35)

“I recognise my own ways of getting nervous. It’s part of performing. I always feel nervous, sometimes less sometimes a lot more...I try to calm down and focus on the performance. I have practised, I know how to do this.” (ID43)

“...I try to calm myself, breathe deeply and think about the piece that I’m about to play. Sometimes I even go through the whole performance situation in my mind” (ID80)

## **7. Reflection on the anxiety**

“I recognise whether the anxiety is about the performance situation or whether it’s related to the technical management of the piece. If it’s the former, it helps me to concentrate on the performance situation and feel in charge of my playing... If it’s this I feel safe. The latter tells me of insufficient preparation... If it’s this then I get worried and wonder whether I still have time to do something about it.” (ID30)

## **8. Welcoming the anxiety**

“It’s usually quite a welcomed emotion as it gives more energy and improves your concentration.” (ID15)

“ I think that nervousness brings that little bit of extra to a successful performance.” (ID9)

“Anxiety is part of the deal, I enjoy it.” (ID74)

“I think it’s good to be anxious and I’m grateful I’m nervous before a performance and not during it.”(ID53)

“I experience anxiety as a positive force. If one took a different stance it could be disturbing.” (ID64)

When these categories or positions were related to debilitating performance anxiety, it was found that category 1 was found exclusively in those subjects who either “frequently” (38%) or “almost always” (62%) experienced debilitating performance anxiety. Category 2 was found across all subject groups, and categories 3 and 4 were found in all the other groups, except the lowest incidence of debilitating performance anxiety (“infrequently”). Categories 5, 6, 7 and 8 were not at all found in those who “almost always” experience debilitating performance anxiety, and were rare in the group who “frequently” experience it. In the “sometimes” and “infrequently” groups categories 5, 6 and 7 were found approximately as often, and category 8 was only found in the group who “infrequently” experienced debilitating performance anxiety.

## **Research question 2**

**What is it about public performing that makes the young musicians feel anxious?**

**What kind of threats do they perceive in the situation?**

Qualitative data on self perceived reasons for experiencing musical performance anxiety were prompted in the study by the following questions: *Explain in your own words what is it about musical performance situations that makes you feel nervous (Q30), Are there possibly performance situations where you feel less anxious about playing? (Q 32), Imagine a situation, where your musical performance has not gone according to your hopes: How do you feel, what do you think of yourself and what do you imagine people in the audience think (Q28)?*

By use of content analysis, six main sources of fear and threats were elicited from data.

1. Failure to meet the expectations of a critical audience
2. Disappointment in relation to one's own goals
3. Technical errors in a performance
4. Inability to project the music
5. Specific social fears
6. Inability to control the anxiety

### **1. Failure to meet the expectations of a critical audience**

The most frequently perceived reasons for experiencing performance anxiety were the fear of performing before critical audiences and the fear of being judged by them. Musical authority figures, “gurus” and fellow music students (especially of the same instrument) were believed to be most critical in their attitude. Many of the young musicians described feeling considerably less anxiety in situations where the audience was thought to listen in order to enjoy the music or “not to understand music”. Given examples of such situations were church services, such as weddings and funerals, playing for either children or the elderly and performing in non-classical concerts. Many of the musicians also felt considerably less anxiety in group performances (e.g. orchestral concerts), although also the opposite was true for a few musicians.

“I’m afraid of what others will think of my playing” (ID 56)

“Usually I’m anxious when I think that listeners assess my playing as a judged performance, especially if there are “experts”, such as musicians or music students in the audience.” (ID5)

“I’m afraid of authority figures in the audience in front of whom I don’t want to fail...” (ID30)

“[I feel less performance anxiety] in funerals, weddings or some other situations where I feel that I can create real pleasure for normal listeners.” (ID40)

“[I feel less anxious] at gigs for the elderly, weddings and other places, where there aren’t other musicians “judging” my performance.” (ID 63)

“Oh well, [I feel less anxious performing at] grannies’ coffee parties.” (ID27)

Many of the musicians elaborated on their fear of a critical audience. For many fears centred on threatened loss of status in the musical community, fear of being looked down upon and fear of rejection. Some musicians also felt greater pressure if they were performing before paid audiences or familiar people.

“My fear is that I won’t succeed, and because of that, my respect and status as a player will go down.”(ID31)

“[If I don’t succeed] I feel that the audience will look down upon me from there on, especially if they are other music students or musicians.” (ID21)

“I’m afraid that people will think I’m totally ridiculous and feel superior to me. Perhaps they’ll also empathize with my feelings of shame.” (ID5)

“[I’m afraid] that I won’t play well, that people will hold me in contempt.” (ID 73)

## **2. Disappointment in relation to one’s own goals**

Another commonly felt reason for one’s anxiety was the fear of not meeting one’s own expectations. Many of the respondents felt that a musical performance was the only real measure of one’s playing ability, and a failure to play well would confirm that one’s playing ability is substandard. Some of them elaborated on the theme:

“The fear that I won’t achieve the goals I’ve set myself. That I’m worse than I think.” (ID8)

“It’s my need to succeed and get glory combined with the fear that this won’t happen...” (ID21)

“I set myself sky high expectations which lead to a compulsion to excel. This usually results in playing worse, because you end up concentrating on yourself rather than the music...[If I don’t

succeed] I don't think so much as to what the audience is thinking in that moment. Rather I'm bitter over what they could have thought had I played as well as I really can." (ID27)

"It's my own insecurity about whether I'll make it as a musician. I suppose I'm also afraid of being rejected." (ID 67)

"I'm afraid that I'll play below my own standard." (ID 70)

In the above examples, we can see high expectations on oneself and the need to get glory combined with the fear of not meeting these needs. Some musicians also feared that this would result in a loss of self esteem or being looked down upon by others, as in the first category.

The third and fourth category are more specific fears and were in many cases in the data intertwined with either of the two categories above.

### **3. Technical errors in a performance**

Fears of technical imperfections were frequent. The most common sources for anxiety were dread of memory loss, unsatisfactory intonation and mistakes. Some musicians also expressed a worry that their (self perceived) inadequate technique would be exposed.

"My biggest fear is that I'm standing on a stage and playing - and then I forget how the piece continues. It's most embarrassing to be standing there and ponder over how the piece continues from there...In that moment I wish I could disappear under the earth. I feel most dreadfully ashamed." (ID 16)

"[I'm afraid that] my technique will fail" (ID 51)

"[I'm afraid of] memory troubles" (ID 52)

"I worry about my intonation and whether sustained notes will stay [and not break] in quiet nuances." (ID55)

" I feel really anxious if I know that I'm not on top of the piece technically..." (ID5)

### **4. Inability to project the music**

Some musicians felt that their anxiety was generated by the fear of not being able to project and communicate the music in the performance moment. They were acutely aware of the uniqueness of each performance situation and were afraid that they would not be able to create the right kind of musical atmosphere or be able to enjoy the moment.

“It’s the fear that I won’t be able to enjoy the performance” (ID33)

“[It’s] the uniqueness of the situation. You can’t get a moment back.” (ID15)

## **5. Specific social fears**

Another, albeit infrequent, theme that arose from the data were specific social fears. These ranged from being the centre of everyone’s attention to social embarrassment.

“[I’m afraid of] walking there and being in front of an audience. I think too much of myself in the situation when I ought to really be thinking about the music.” (ID29)

“I suppose it’s the fact that everyone is staring at me.” (ID13)

“Perhaps I’m most afraid of the fact that I’m the centre of everyone’s attention.” (ID12)

“I start worrying about unbelievable things such as what about if my music stand falls over, I get hiccups or my nose starts bleeding.” (ID18)

## **6. Inability to control the anxiety**

The final source of musical performance anxiety relates to the fear of the anxiety itself. Musicians who expressed this fear worried that their anxiety would take over in the performance situation, or that they would feel little control over it. Examples of worries in this category were:

“ [I’m afraid that] my breathing technique won’t work because of anxiety” (ID40)

“All I’ve managed to do in a performance so far is worry over how I can control myself and my anxiety on stage...” (ID23)

“I’m afraid that my knees will shake, my heart will pound, hands will stiffen up and that I won’t be able to manage the situation without a catastrophe. That I’ll get so nervous I won’t be realistic in the situation.” (ID 63)

“I’m afraid that my anxiety symptoms will prevent me from being able to play and therefore the performance will be a disaster.” (ID11)

“I’m afraid that because of anxiety my hands will stiffen up so that I can’t play in tune.” (ID32)

“I suppose I’m most afraid that I will ruin the performance by being too anxious” (ID54)

“ [I’m] Probably mainly [afraid of] the anxiety itself because I feel it affects my playing.” (ID69).

## DISCUSSION

The present study examined negative cognitions in relation to debilitating and facilitating musical performance anxiety. Consistent with expectations, the more debilitating performance anxiety subjects experienced the more intense negative cognitions they reported. However, differences were accrued only gradually across the experimental groups. The results did not support the second expectation which was that the more facilitating performance anxiety subjects experience, the less intense negative cognitions they would report. Although subjects who experienced facilitating anxiety less frequently tended to report more intense negative cognitions, differences in cognitions between the furthest groups, i.e. those who either *never* or *almost always* experienced facilitating performance anxiety, were not statistically significant.

Qualitative analysis of data illustrated that there was great variation in the young musicians' positions in relation to musical performance anxiety, ranging from very reactive to especially reflective positions. A number of different reasons for experiencing stage fright were also elicited from the data, ranging from the fear of not meeting the expectations of a critical audience, to technical worries and to the fear of the anxiety itself.

The findings have several implications. First of all, the current results are consistent with the conceptualisation of debilitating musical performance anxiety that views it as consisting of not only physiological arousal but also negative cognitions (e.g. Cox & Kenardy, 1993; Ely, 1991; Green & Gallwey, 1987; Kendrick, *et al.*, 1982; Salmon, 1990;1991; Steptoe, 1982; 1989; Steptoe & Fidler, 1987; Tobacyk & Downs, 1986). Subjects who experienced more debilitating performance anxiety reported more intense negative cognitions, compared to subjects who experienced less debilitating performance anxiety.

Secondly, obtained data does not give strong support to Steptoe's (1982; 1989) assumption that the presence or absence of negative cognitions lies at the core of the difference between more and less adaptive forms of musical performance anxiety. Although intense negative cognitions tended to be reported by those who almost always

experienced debilitating performance anxiety, there was not a clear cut linear decrease in the intensity of negative cognitions, as a function of increasing facilitating performance anxiety. Importantly, there was great variation in the intensity of cognitive symptoms among those who never experienced facilitating anxiety. As a consequence, this group did not differ significantly from those who almost always experience facilitating anxiety. This would seem to suggest that other factors, such as one's position in relation to the anxiety (see below), or aspects not investigated in the present study are at play. Research in the related field of speech anxiety, as well as in musical performance anxiety, suggest that factors, such as excessive attention to self (Daly, Vangelisti, & Lawrence, 1989; Arjas, 2002) could be important in determining more and less adaptive forms of anxiety.

Thirdly, a negative correlation of  $-0.643$  was found between facilitating and debilitating performance anxiety. Although strong, it was still far from  $-1$ . The present correlation figure is close to the correlation ( $-0.57$ ) obtained by Mor, *et al.* (1995), and gives support to their claim that although the two forms of performance anxiety are negatively related, they cannot be treated as simply different poles of the same dimension. Further support for this notion comes from the present finding that, although the intensity of negative cognitions *increased* as a function of *increased debilitating* performance anxiety, there was no corresponding clear cut *decrease* as a function of *increasing facilitating* performance anxiety.

The qualitative analysis of data indicated that musicians' positions in relation to performance anxiety vary considerably, and that these can usefully be conceptualised through a reactivity-reflexivity dimension (as defined by Toskala & Hartikainen, 2005). Consistent with cognitive constructive literature on emotions (e.g. Greenberg & Paivio, 2003; Toskala, 1997; Toskala & Hartikainen, 2005), the most reactive positions, such as lack of sense of agency over the anxiety experience, were found in those who experienced mainly debilitating performance anxiety. The most reflective positions, such as reflecting on or welcoming the anxiety, were more typical for musicians who only seldom felt that their performance had been impaired by stage fright. This is in line with Greenberg's and Paivio's (2003) conceptualisation that it is important to willingly experience an emotion, to accept it rather than feel the victim of it. Results of this study suggest that the existence or intensity of physiological arousal and negative cognitions,

which have been of interest in a large body of previous research on musical performance anxiety (see Introduction), are not the only important questions in this research area. The current study indicates that another vital question is whether the performance anxiety poses a threat to the musician's sense of self, or whether it is an experience that s/he can accept, or even befriend? It should also be noted that the question of one's position in relation to performance anxiety is not identical with Steptoe's (1982; 1989) question of how musicians label their arousal experience. Future research could investigate in depth how the musicians' positions on the reactivity – reflexivity dimension and their performance anxiety experiences (in a broader sense) are construed.

The qualitative analysis of reasons for experiencing stage fright, indicated that anxiety sources are not identical for all young musicians - a notion already put forward by Brotons (1994). The current results suggest that the question of how a performance situation is interpreted is of utmost importance. One of the most common sources of fear was performing before critical audiences. Concerns about audience expectations and feeling under pressure to give a faultless performance can be defined as socially prescribed perfectionism, which has already been shown to be associated with performance anxiety (Mor, *et al.*, 1995; Brotons, 1994). Thus, the current findings lend support to the notion that for some musicians socially prescribed perfectionism can be a determinant of stage fright.

The fear of disappointment in relation to one's own goals and the worry that one may not receive the glory one desires, have not been examined in much detail in the literature of musical performance anxiety. However, these issues can be thought of in terms of problems associated with self focused performers (see Arjas, 2002), for whom musical performing takes an instrumental value. It is suggested that future research examines such fears in detail.

Fears of memory lapse, making mistakes, or of "spoiling the whole performance" have often been labelled as "catastrophising thoughts" (Steptoe, 1989; Steptoe & Fidler, 1987) or irrational fears (Ely, 1991; Tobacyk & Dopwns, 1986), and treated as *symptoms* of anxiety. However, rather than seeing such fears as symptoms of anxiety, the author believes that in the current study, they are often the *source* of stage fright as they were prompted by a question: "What is it about performing that makes you feel most

nervous?”. Furthermore, researchers should be careful when labelling such fears. After all, memory can be impaired by changes in a person’s arousal and mood (Eysenck & Keane, 1994), and the field of classical music *is* extremely competitive (Salmon, 1990). Mistakes in performance lower marks in exams, cost recording studios money, and diminish the musician’s chances in auditions. It seems thus, that worries about making mistakes or forgetting the music, are not necessarily unwarranted or “irrational”. Interestingly, some of the musicians felt their anxiety stemmed from the worry of not being able to communicate the music. As a *source of fear* this has not been the focus of much research. More typically communication focus (as opposite to viewing one’s presentation as a performance) has been associated with *lesser* performance anxiety (Motley, 1990; Arjas, 2002).

For some musicians performance anxiety seems to be a form of social fear, such as the fear of being the centre of attention. This kind of social phobic tendency underlying musical performance anxiety has been reported in past literature (Clark & Agras, 1991; Ely, 1991; Steptoe & Fidler, 1987; Wesner, *et al.*, 1990), but it is worth noting that it was only a small proportion of subjects who reported such fears. However, worries over social rejection, or fear of being looked down upon by a “musically knowledgeable” audience were common. It is not possible, however, to determine, on the basis of this study, whether these statements stem from a vulnerable core sense of self (see Greenberg & Paivio, 2003) and a deep rooted social anxiety, or whether they are a realistic response to the nature of today’s classical music world? One could examine this issue with in-depth case studies. What this does highlight, however, is Greenberg’s and Paivio’s (2003) notion, that situations are interpreted in relation to the goals that an individual musician brings to that particular situation. For many musicians performing in front of a “friendly” audience bears different meanings to performing before musical authority figures. If one has a goal or need to be accepted as part of the musical elite, then the situation is analysed in relation to this goal, and may make the musician particularly vulnerable.

The fear of not being able to control one’s anxiety as a reason for stage fright seems to be important. Worries over one’s anxiety symptoms have already previously been associated with stage fright (Arjas, 2002), although such worries have not been

investigated in greater detail. Taken together with the current data on the reactivity-reflexivity dimension, see above, this would seem a vital issue in relation to debilitating performance anxiety, and calls for further examination.

In addition to their theoretical implications, the current findings are noteworthy in terms of their possible practical implications for coping with performance anxiety. Firstly, the findings confirming the role of cognitive and cognitive-constructive processes in musical performance anxiety lend support for the idea of cognitively oriented treatments, as a means of treating stage fright. Perhaps such treatments could be combined with the more traditional pharmacological treatments. Secondly, and perhaps more importantly, obtained data suggest that reasons for experiencing performance anxiety are diverse and individually specific. For example, for some musicians stage fright may be the problem, while for others it may be a manifestation of more serious underlying difficulties, such as social phobia, or related to one's difficulty in staying with the anxiety experience. Thus, before an effective treatment for performance anxiety can be found for any musician, his/her unique reasons for nervousness must be examined.

It is important to realise that the findings of the present investigation cannot be generalised without caution. The most obvious limitation of this research is that the musical performance experience questionnaire (muusikkojen esiintymiskokemukysely, MEK) used is not a fully validated inventory. However, the author carried out a posteriori reliability analysis for the scale. Cronbach's alpha for each symptom category was high (physiological arousal 0.809, negative cognitions 0.819, and behavioural symptoms 0.735). It is suggested that future research intending to utilise the MEK would carry out a thorough investigation of its psychometric properties.

Due to the slightly biased sample, the generalisability of the findings may be limited. String players are somewhat overrepresented in the sample. The relationship between stage fright and instrument played has not been the focus of much investigation, but it has been suggested (Middlestadt, 1990) that these may be related. Therefore, it is possible that a similar study in a less biased sample would obtain different results. It must also be borne in mind that this was a study of the experiences of young aspiring musicians and generalisations should not be made to seasoned professional musicians without caution.

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## Muusikkojen Esiintymiskokemus - kysely (MEK)

Tämä kyselylomake sisältää kysymyksiä siitä, miten sinä henkilökohtaisesti koet musiikilliset esiintymistilanteet. Esiintymistilanne voi olla esimerkiksi konsertti-esiintyminen, matinea tai kurssitutkinto.

Kyselylomakkeessa on 24 osiota. Ole ystävällinen ja rastita kunkin osion kohdalla se vaihtoehto, joka parhaiten kuvaa omaa kokemustasi sooloesiintymisissä (tai sellaisessa orkesteriesiintymisessä, jossa sinulla on solo). Pyydän sinua vastaamaan avoimiin kysymyksiin mahdollisimman rehellisesti oman kokemuksesi pohjalta.

**HUOM!** *Kaikki tiedot ovat luottamuksellisia, eikä niitä säilytetä sellaisessa muodossa, että vastaajien henkilöllisyys voisi paljastua.*

### Vastaajien taustatiedot:

Nimimerkki \_\_\_\_\_

Ikä \_\_\_\_\_

Sukupuoli \_\_\_\_\_

Instrumenttiryhmä: 1) jousisoittimet      2) puhaltimet      3) muut soittimet

Kuinka usein olet soittanut konsertissa, matineassa, tutkinnossa tai muussa esiintymistilanteessa, joko yksin tai orkesterissa? (ympyröi sopivin vaihtoehto)

- 1) 1-5 kertaa
- 2) 6-20 kertaa
- 3) 21-50 kertaa
- 4) Yli 50 kertaa

Häiritseekö esiintymisjännitys yleensä soittoesiintymisiäsi tai niihin valmistautumista?

- 1) Kyllä      2) Ei

<b>Missä määrin koet musiikillisissa esiintymistilanteissa tai niitä ennen seuraavia asioita:</b>	<b>En laisinkaan</b>	<b>Hieman</b>	<b>Jonkin verran</b>	<b>Aika paljon</b>	<b>Todella paljon</b>
1) Vatsassani on perhosia					
2) Epäilen kykyäni onnistua esityksessä					
3) Soittaisin mieluummin vain itsekseni, enkä esiintyisi yleisön edessä					
4) Sormeni, käteni tai polveni tärisevät					
5) Pelkään tekeväni virheitä tai soittavani epäpuhtaasti yleisön edessä					
6) Sydämeni lyö tavallista nopeammin					
7) Minun on vaikea keskittyä soittamiseen					
8) Jos teen esityksessäni virheen, tunnen joutuvani paniikkiin.					
9) Käteni hikoilevat					
10) Olen esiintymiseni lopussa soittooni tyytyväinen					
11) Yritän välttää sooloesiintymisiä					
12) Tunnen olevani jännittynyt juuri ennen esiintymistäni					
13) Pelkään, ettei yleisö arvosta soittoani					
14) Esiinnyn mieluummin orkesterin tai yhtyeen jäsenenä kuin yksin					
15) Lihakseni ovat jännittyneet					
16) Voin pahoin tai vatsani on sekaisin					
17) Minusta tuntuu, etten ole valmistautunut esitykseen tarpeeksi hyvin					
18) En pysty näkemään tai kuulemaan kunnolla					
19) Suuni tuntuu kuivalta					

	<b>En laisinkaan</b>	<b>Hieman</b>	<b>Jonkin verran</b>	<b>Aika paljon</b>	<b>Todella paljon</b>
20) Pelkään, että instrumenttini menee epäkuntoon					
21) Minun on vaikea hengittää kunnolla					
22) Pelkään, että minulle tulee esityksessäni muistikatko					
	<b>Ei koskaan</b>	<b>Aika harvoin</b>	<b>Joskus</b>	<b>Aika usein</b>	<b>Lähes aina</b>
23) Kuinka usein jännittäminen parantaa soittoesiintymistäsi?					
24) Kuinka usein jännittäminen huonontaa soittoesiintymistäsi?					

**25) Pidätkö musiikillisesta esiintymisestä? Miksi pidät / et pidä?**

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**26) Pidätkö muunlaisesta esiintymisestä (kuten puheiden tai esitelmien pitämisestä, näyttelemisestä tai muusta sellaisesta)?**

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**27) Millainen on mielestäsi onnistunut musiikkiesitys?**

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**28) Kuvittele tilanne, että musiikillinen esityksesi ei ole onnistunut toiveittesi mukaisesti:**

a) Miltä sinusta tuntuu? \_\_\_\_\_

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b) Mitä ajattelet itsestäsi? \_\_\_\_\_

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c) Mitä luulet yleisössä olleiden ihmisten ajattelevan? \_\_\_\_\_

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**29) Jos huomaat jännittäväsi soittoesiintymistäsi, miten suhtaudut jännittämisen oireisiin?**

a) Mitä tunnet ja ajattelet? \_\_\_\_\_

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b) Miten toimit? \_\_\_\_\_

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**30) Kerro omin sanoin, mikä sinua musiikillisissa esiintymistilanteissa eniten jännittää?**

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**31) Auttavatko ”perhoset vatsan pohjassa” sinua joskus soittamaan erityisen hyvin? Jos, niin millaisissa tilanteissa?** \_\_\_\_\_

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**32) Onko mahdollisesti sellaisia esiintymistilanteita, joissa jännität tavallista vähemmän soittamista?** \_\_\_\_\_

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**33) Millainen sinun tulisi olla muusikkona, jotta voisit olla itseesi suhteellisen tyytyväinen?**

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**34) Kerro vielä sellaisista esiintymiskokemuksistasi, jotka ehkä ovat olleet sinulle merkityksellisiä joko myönteisessä tai kielteisessä mielessä, mutta jotka eivät ole edellä tulleet esille.**

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**35) Voisinko haastatella sinua tarkemmin soittoesiintymiskokemuksistasi ja siitä, mitä soittaminen sinulle merkitsee?**

1) kyllä    2) ei        Jos vastasit ”kyllä”, kirjoita yhteystietosi alle:

**Nimi:** \_\_\_\_\_ **Puhelin:** \_\_\_\_\_