

Investigating Musical Performance Performance anxiety across musical genres

The career demands on professional musicians are high. In order to develop and sustain expertise, they need to be physically, emotionally and mentally fit. One of the most debilitating and frequently-reported problems they face is musical performance anxiety (MPA). The Investigating Musical Performance (IMP) project has investigated the presence, causes, contributory factors and effects of anxiety, and the coping strategies employed by musicians in four different genres: Western classical, popular, jazz, and Scottish traditional music.

- Musical performance anxiety (MPA) is a common experience amongst performing musicians. Female and Western classical performers report higher distress levels. → Higher Education Institutions have a responsibility to prepare musicians for the demands of professional musicianship, and challenge the conception that successful musicians do not experience performance anxiety.
- Musicians experience higher levels of anxiety in contexts where they feel more exposed, for example in solo or small group performances, irrespective of their musical genre. → Strategies for coping with the demands of performance should be person- and performance-specific. Individuals' performance anxiety thresholds will vary between different performance contexts.
- Levels of MPA tend to be higher immediately prior to a performance, but reduce once it begins → MPA is a normal experience for musicians. What matters is how individuals learn to deal with it. Performance expertise develops in a community of practice alongside peer support.
- The impacts of MPA relate to its perceived severity during performance but are mediated by musicians' performance experience, their susceptibility to anxiety and their coping strategies → Techniques focusing on modifying people's perceptions and facilitating a positive mindset, such as cognitive behavioural therapy and neuro-linguistic programming, can be particularly useful for musicians.

my blood circulation.' (Classical)

- **Decreasing control over body**
'Nerves don't help my performance as they affect my circulation and breathing, leaving lack of control in fingers - as they are cold - and breath support.' (Classical)
- **Damaging musicality/expression**
'Nerves always destroy fifty per cent of the work input. It also damages musicality.' (Classical)
- **Contributing to experiencing physical problems**
'At times I find that anxiety may not only affect my mental state of being, but also may hinder my physical ability to deliver an accurate and sensitive interpretation of the piece. Expression is sometimes lost in this.' (Jazz)

Musicians' perceptions of the effects of anxiety on the quality of their performance were explored separately in each musical genre. Western classical, jazz and popular musicians referred to positive effects more frequently, in contrast to Scottish traditional musicians who more frequently referred to negative ones.

Analyses also revealed that the same musicians have a tendency to experience the same type of anxiety (adaptive or maladaptive) in both solo and group performances. Having performance experience appears to relate to the positive benefits of experiencing anxiety. This may be because seasoned performers learn to control physiological arousal so that it peaks just before a performance and decreases during it (Salmon et al., 1989). Another explanation is that they see pre-performance arousal as something to be expected, not as a threat to their performance (Salmon and Meyer, 1998). A low overall tendency to being anxious protected musicians from fear of failure and negative evaluation. These fears may contribute to 'over the top' arousal that is difficult to control during performance.

Coping strategies for performance anxiety

This study has established that performance anxiety can have positive connotations for some musicians. But for others it can create significant problems. It impairs their ability to cope with the demands of performance and reduces the quality of the performance they eventually give. As one musician said in the survey:

'Many musicians develop their love of music and passion for an instrument before considering how equipped they are for dealing with public performance. Other musicians grow up in an environment where they have many opportunities to display their skills in public at an early age. Regardless of environment, those who suffer detrimental effects usually carry on suffering until they take a step.' (Classical)

It is important for musicians to develop strategies for dealing with pre-performance nerves. Our thematic analyses showed that these strategies could be categorised as being 'emotion focused' or 'problem focused.' Emotion focused strategies concentrated on alleviating or moderating distressing emotions, and included approaches such as:

Major implications

University departments, conservatoires and colleges have a responsibility to educate and prepare performers for the demands of their chosen profession. This should include challenging and demystifying the conception that musicians who are skilled and successful do not experience pre-performance nerves:

'[Performance anxiety] should be properly acknowledged as a common problem that most people will encounter at some point in their career. Music Colleges should address this from the first year and offer advice and training on preventative techniques and ways to cope, e.g. relaxation, Alexander Technique, yoga, mental preparation.' (Jazz)

This study suggests that performance anxiety is a concern for a significant majority of undergraduate and professional career musicians. It adds to the existing body of knowledge by exploring its presence across four musical genres. Findings suggest that musicians from all the genres we studied shared similar perceptions and concerns. Anxiety appeared to have negative connotations and be a problem for many musicians, although some reported that it can be beneficial. Solo performance appears to be more stressful than performing in a group.

The intensity of anxiety levels during performance, as well as factors such as trait anxiety, performance experience and the perceived quality of previous performance experiences appear to relate to how anxiety influences musicians and to how they interpret the presence of physiological arousal associated with performance anxiety. Musicians who regard anxiety as beneficial interpreted it as improving their concentration and stamina and signalling their motivation and passion to do well, making it something that helped their performance be special. Those who viewed it negatively focused on how it reduced their enjoyment of playing, contributed to practical problems that hindered performance, and decreased the control they had over their body. This group interpreted physiological arousal as a threat to the quality of their performance.

Overall, the study suggests that the effects of anxiety on performance are closely related to how pre-performance arousal is

interpreted. This suggests that techniques such as cognitive behavioural therapy and neuro-linguistic programming are particularly promising for musicians who suffer from negative performance anxiety, as these methods focus on modifying people's perceptions of an event/the situation and facilitate a more positive mindset.

A variety of personal factors are likely to interact in influencing how a performance event is perceived by the performer. This means that more specialised techniques may be appropriate for people who, for instance, have high trait anxiety as a result of other life events. Specific performance factors (type of performance, context and musical style) also add to the range of responses which a musician may have to the demands of a particular performance. Successful strategies for coping with the demands of performance should be person- and performance-specific. Techniques that work for one person may not work for another. Previous research has demonstrated differences between subjective and objective measurements of anxiety, suggesting that there are variations in the performance anxiety thresholds of individuals (Abel and Larkin, 1990; LeBlanc et al., 1997; Papageorgi, 2007) that may influence how musicians perceive and respond to physiological arousal. Musicians reported a variety of coping strategies to deal with maladaptive performance anxiety, most of which were self-devised. Few musicians reported seeking advice or support from psychologists, other professionals or peers. This suggests that for many musicians admitting that performance anxiety is a problem may still be a taboo and considered best to be dealt in private.

Some tentative variations between the ways in which musicians from different musical genres conceptualised and dealt with performance anxiety were observed in the qualitative data. These indicate that the specific performance context may influence their perceptions of the demands of performance and their ability to cope with them. Further research is needed to investigate how genre-specific contexts might influence musical performance anxiety so that strategies to deal with the demands of performance can be adapted accordingly.

- Accepting oneself
- Drinking alcohol or using beta-blockers
- Avoiding performance
- Being realistic about performance
- Using herbal aids
- Investing in techniques such as hypnotherapy or neuro-linguistic programming
- Maintaining a positive mental attitude and self-image
- Reading self-help books
- Doing activities to reduce pressure or take one's mind off the performance
- Seeking support from others
- Being under-prepared in an effort to reduce the pressure of performance

Problem focused strategies concentrated on finding ways to cope with the demands of performance and deal with the negative effects of anxiety. These included:

- Practising and being well-prepared
- Being proactive about performance
- Deep breathing
- Exercising
- Employing mental rehearsal
- Investing in healthy nutrition
- Warming up before performance

Some variations in coping styles for musicians across the four musical genres were observed. Western classical and Scottish traditional musicians more frequently referred to emotion focused strategies, whereas popular musicians spoke about problem focused strategies, and jazz musicians referred equally to both.

The research

The study reported here formed part of the *Investigating Musical Performance (IMP): Comparative Studies in Advanced Musical Learning* research project, a two-year comparative study devised to investigate how classical, popular, jazz and Scottish traditional musicians deepen and develop their learning about performance in undergraduate, postgraduate and wider music community contexts.

Included in the research methodology was a specially devised, web-based questionnaire survey, comprising 57 questions and linked electronically to a 623-field database. The questionnaire was distributed on two separate occasions and served to provide a comprehensive, short-term, longitudinal comparison of participants' backgrounds, attitudes and approaches to advanced performance learning over a twelve-month period. Complementary data were obtained from semi-structured interviews, individual case studies, focus groups, participant email diaries and observations of studio-based HEI instrumental lessons.

The presence of performance anxiety

The findings indicate that musicians, irrespective of musical genre, experienced higher levels of performance anxiety in contexts where they felt more exposed (such as in solo playing), and suggest that female musicians tend to be likely to report high levels of anxiety, corroborating earlier research with classical musicians. The difference in performance anxiety between female and male musicians was larger in the more experienced group than for undergraduate musicians. The effects of gender and professional experience varied with musical genre (see Figure 1). Classical and jazz female undergraduate musicians appeared to be more anxious than older, portfolio musicians (those who performed and also taught) with the exception of female popular musicians with portfolio careers. No differences

surfaced in relation to degree of professional experience amongst Scottish traditional musicians.

Further analysis suggested that the experience of high solo performance anxiety levels was related to similar experiences of high anxiety in group performances, and to perceptions of its negative effects on performance. Positive feelings about performance preparation were sometimes linked to the experience of higher levels of anxiety. This may be because when musicians felt that they prepared well for a particular performance, they increased their expectations of success, adding to the pressure they placed upon themselves:

'Strangely, the more confident I am with the material in the practice, the greater the chances of my becoming anxious.' (Jazz)

Across the four musical genres, Western classical musicians appeared to be the most anxious group. The interview data suggest that this may relate to the formality of the classical context within which they operate.

'You're every day becoming more aware of the classical music and the boundaries and everything about it so what's making your nervous is your own expectations and knowledge of what's achievable, not anything else.' (Classical)

The timeline of anxiety in performance

Reported anxiety levels increased as solo and group performances approached. These followed a pattern described in previous literature as being important in facilitating optimal performance (e.g. Salmon et al, 1989; Wilson, 2002), as anxiety peaked right before the performance and decreased significantly during the event.

No significant differences were found between musical genres before and during solo performances, but some variations between genres were observed prior to group performances. Popular musicians were the most anxious group immediately before performance and jazz musicians reporting the most anxiety one hour before. Levels of anxiety during group performance were similar across the four musical genres (see Figure 2).

The causes of anxiety in musical performance

The perceived causes of performance anxiety were examined by a thematic analysis of the qualitative data. Four key variables were identified: fear of failure, the quality of the performance context, a personal assessment of an event's value, and lack of confidence. Fear of failure and the quality of the performance context were the factors more frequently mentioned. Classical and jazz musicians in particular tended to comment on increased anxiety from arising from the formality of the classical context and playing improvised music respectively, as well as having a large audience and playing solo. A contrasting positive influence was the presence of co-performers in reducing the pressure of performance. Popular and Scottish traditional musicians made more frequent references to factors signifying fear of failure. These include being assessed,

playing with highly-esteemed performers, high expectations, attributing high status to the audience, perceiving an imbalance between ideal and actual ability, expecting negative outcomes and feeling under pressure to succeed.

The impact of performance anxiety on performance

When participants were asked to report the extent to which their performance was impaired or improved as a result of performance anxiety, a different response pattern emerged for solo and group performances. The largest percentage of respondents reported that their solo performance was impaired by anxiety, but most musicians felt that their group performance improved.

'During a solo performance, the anxiety turns to fear for me. In a group performance it turns into excitement.' (Classical)

A number of themes were identified concerning the positive effects of anxiety on musical performance:

- **Improving concentration and stamina**
'Good nerves can help elevate a performance. An amount of adrenaline increases focus and awareness, and increases stamina.' (Classical)
- **Making performance special**
'It all gets channelled into making a good sound. It gives me that extra sparkle.' (Classical)
- **Confirming motivation to do well**
'It isn't a bad thing to get nervous before a performance. It can show that you care about what you are about to do and can often help you concentrate on what you are doing.' (Popular)
- **Improving performance quality**
'If anxiety is used positively it can easily be turned into adrenaline to fuel a good performance.' (Jazz)
- **Signifying a passion for music**
'If there are no nerves before a performance then you've lost your passion for performing.' (Popular)
- **Being beneficial if approached in the right way**
'Personally, I find that if you channel your nerves and anxiety before a performance, you can make them work for you - like a rush of adrenaline to kickstart the performance!' (Scottish traditional)

In discussing negative performance anxiety, participants mentioned a number of common factors:

- **Decreasing the quality of playing**
'Oh, it definitely decreases the quality. And I never perform to the standard I know I can perform to, because I'm so nervous.' (Scottish traditional)
- **Reducing the enjoyment of playing**
'The anxiety that I associate with performing (especially solos) is the single, most powerful factor that has significantly impaired my enjoyment of music and performing.' (Classical)
- **Increasing tension**
'Since the age of thirty, I have experienced muscle pains and weakness caused by tension affecting

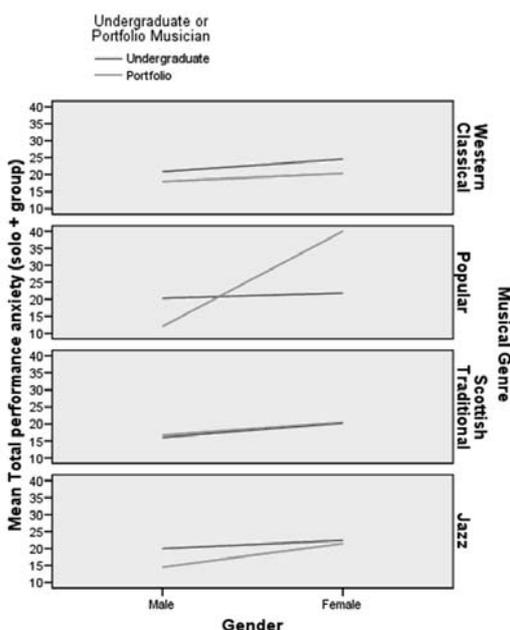


Figure 1: Relationships between performance anxiety level and gender, professional experience and musical genre

Further information

Further information about the project, journal publications and conference papers is available at <http://www.tlrp.org/proj/Welch.html>

Key project publications:

Welch, G., Papageorgi, I., Haddon, L., Creech, A., Morton, F., de Bezenac, C., Duffy, C., Potter, J., Whyton, A. & Himonides, E. (2008). Musical genre and gender as factors in Higher Education learning in music, *Research Papers in Education - Special Issue*, 23(2), 203-217.

Creech, A., Papageorgi, I., Duffy, C., Morton, F., Haddon, L., Potter, J., De Bezenac, C., Whyton, A., Himonides, E. & Welch, G. (2008[a]). Investigating musical performance: commonality and diversity among classical and non-classical musicians, *Music Education Research*, 10(2), 215-234.

Haddon, E. (2009). Instrumental and Vocal Teaching: How do music students learn to teach?, *British Journal of Music Education*, 26(1), 1-15.

Creech, A., Papageorgi, I., Duffy, C., Morton, F., Haddon, E., Potter, J., De Bezenac, C., Whyton, T., Himonides, E. & Welch, G. (2008[b]). From music student to professional: the process of transition, *British Journal of Music Education*, 25(3), 315-331.

Papageorgi, I., Creech, A., Haddon, E., Morton, F., De Bezenac, C., Himonides, E., Potter, J., Duffy, C., Whyton, T. & Welch, G. (2009). Perceptions and predictions of expertise in advanced musical learners, *Psychology of Music*, in press.

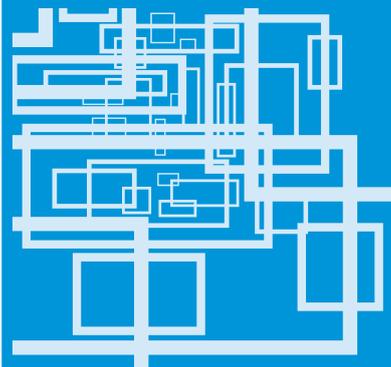
The warrant

The project was conceived as a multi-site, multi-methods study that draws equally on the strengths and expertise of four Higher Education Institutions (HEIs): the Institute of Education, University of London; University of York; Leeds College of Music; and the Royal Scottish Academy of Music and Drama, Glasgow.

An innovative, web-based, PDF survey instrument was designed, which allowed data from participants at remote sites to be sent automatically to a central server for collation. The online survey instrument was piloted and refined before the main data collection. The contents of the questionnaire survey included 57 questions that embraced a wide range of perspectives on musical performance that built on diverse literature sources. Respondents were 244 musicians, 55 per cent of whom were male and 45 per cent female. More in-depth information was obtained from face-to-face, semi-structured interviews with 27 selected case studies (13 undergraduates and 14 portfolio musicians) and qualitative comments related to performance anxiety provided in the survey by 65 musicians.

The project has produced new evidence relating to the processes that underpin teaching and learning within higher education music contexts. Findings from the IMP project have so far been published in key Higher Education, Music Psychology and Music Education journals, such as *Research Papers in Education*, *Psychology of Music*, *Music Education Research* and the *British Journal of Music Education*. We have also presented our findings in a number of international conferences (31 up to March 2009) in the fields of Higher Education, Music Education and Psychology of Music.

Teaching and Learning Research Programme



TLRP involves some 90 research teams with contributions from England, Northern Ireland, Scotland and Wales. Work began in 2000 and the Technology Enhanced Learning phase will continue to 2012.

Learning: TLRP's overarching aim is to improve outcomes for learners of all ages in teaching and learning contexts across the UK.

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Enrichment: TLRP commits to user engagement at all stages of research. It promotes research across disciplines, methodologies and sectors, and supports national and international co-operation.

Expertise: TLRP works to enhance capacity for all forms of research on teaching and learning, and for research informed policy and practice.

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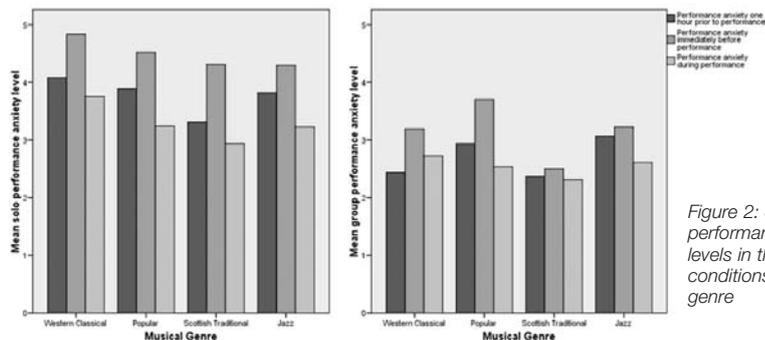


Figure 2: Solo and group performance anxiety levels in three time conditions by musical genre

Project website:

<http://www.tlrp.org/proj/Welch.html>

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October 2008

ISBN-978-0-85473-842-7



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