

An investigation into musicians' thoughts and perceptions during performance

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Abstract

Given the current state of understanding surrounding musicians' experiences while performing, this study sought to investigate musicians' thoughts and perceptions during performances and the perceived impact their evaluation of those thoughts and perceptions has on their subsequent musical activities. Twenty-nine student and professional classical musicians were interviewed concerning factors perceived to contribute to the quality of performances, experiences prior to and during performances, and their responses to performances. Self-perceived successful performances were often connected with feelings of sufficient preparation and positive mind-sets, and presented a high yet attainable level of challenge. Less successful performances were typically linked with inadequate preparation, negative mental outlooks, frustration, and lack of enjoyment during the performance itself. Furthermore, the results pointed to the relevance of facilitative versus debilitating perfectionism, locus of control, interpretation of anxiety symptoms, and the interaction between self-talk, self-efficacy, and performance quality to musicians' performance experiences and satisfaction.

Keywords

musical performance, musicians' training, perception, performance anxiety, performance experiences

Introduction

Displays of exceptional musical skill and ability are often met with fascination and awe. Researchers have long sought to understand and explain exactly how such high-level skill emerges. It has been proposed that a minimum of 10 years or 10,000 hours of deliberate practice is required to attain musical expertise (e.g. Ericsson, Krampe, & Tesch-Römer, 1993; Sloboda, Davidson, Howe, & Moore, 1996). However, research is making clear the fact that practice quantity alone cannot guarantee musical success. For instance, Williamon and Valentine (2000) suggested that the definition of deliberate practice proposed by Ericsson et al. (1993) may be too broad and that it does not take into consideration the possible differences in specific practice content and quality.

In the light of this, researchers have begun to examine practice content and quality to understand better the relationship between practice behaviours and performance quality (e.g. Chaffin & Imreh, 2002; Chaffin & Logan, 2006; Williamon, Lehmann, & McClure, 2005; Williamon & Valentine, 2000, 2002; Williamon, Valentine, & Valentine, 2002). While such investigations have lent support to the basic premise that deliberate practice is essential to performance achievement (Ericsson et al., 1993), they have also elucidated *how* such practice facilitates expertise and provided explanations as to why more is required of musicians than simply amassing hours in the practice room.

Research suggests that self-regulated learning is a key component of effective skill acquisition in music and can have an impact on performance quality (e.g. Barry & Hallam, 2002; Hallam, 2001a, 2001b; Lisboa, 2008; McPherson & Zimmerman, 2002; Nielsen, 1997, 2004; Zimmerman, 1989). McPherson and Zimmerman (2002) define self-regulated learning as a situation “where learners acquire the tools necessary to take control of their own learning and thereby learn effectively” (p. 327). On-going planning, observation, and evaluation of practice facilitate the development of metacognitive practice strategies, at which point practice and performance preparation become highly skilled problem-solving activities (Hallam, 1998). Indeed, it has been noted that expert musicians employ a variety of activities beyond those typically involved in the development of motor skills and learning specific repertoire, when preparing for performances (Lisboa, Chaffin, & Logan, 2011).

It has been found that self-efficacy is also linked to performance quality. According to Bandura (1997), self-efficacy refers to one’s beliefs that a certain level of performance can be attained in a given situation. In two studies (McCormick & McPherson, 2003; McPherson & McCormick, 2006), nearly 800 instrumentalists between the ages of 9 and

18 who were completing Trinity College London and Australian Music Examination Board performance examinations were recruited and asked to complete a self-report questionnaire within one hour prior to their examination. The questionnaire explored cognitive mediational processes within the context of music performance examinations. Adapted from studies in academic learning (Pintrich & De Groot, 1990) and previous work by the authors (McPherson & McCormick, 2000), the questionnaire addressed cognitive strategy use, self-regulation, intrinsic value, anxiety, self-efficacy, and information on the participants' practice behaviours leading up to the examination. In both studies, self-efficacy was found to be the strongest predictor of examination achievement, in terms of its effects during the actual examination but also for its motivational impact on practice activities leading up to the examination. Based on their findings, McPherson and McCormick (2006) suggest that future research should investigate the types of self-beliefs that musicians experience before, during, and after musical performances. While this work has provided insight into how self-efficacy has an impact on young musicians' performances, it would seem instructive to explore self-efficacy in older, more experienced musicians (see Ritchie & Williamon, 2011, for discussion).

If music performances took place in sealed, closed environments, adequate preparation of the music to be performed and sufficient levels of self-efficacy might be enough to ensure a successful performance. However, performances do not happen in closed environments; they happen in dynamic, open environments comprising many factors or variables over which musicians exert little or no control. These can include environmental factors such as the lighting or temperature in a venue, the audience, or other performers. When a variable emerges that musicians cannot control, they must respond to it in a manner that is not detrimental to their performance. Furthermore, Bandura (1997) notes that a person's self-efficacy is not constant but can undergo large fluctuations over time. Research in performance anxiety provides an excellent example of the moderating impact of interpretation or perception. Much research has tended to view anxiety negatively given its potentially detrimental impact on performance (Jones & Hanton, 2001) and has focused on methods for alleviating symptoms. Despite proving to be a continuing point of contention among researchers (e.g. Mellalieu & Lane, 2009), research in music (Miller & Chesky, 2004; Roland, 1994) and sport (Jones & Swain, 1992) would suggest that anxiety is multi-dimensional and can be perceived and measured in terms of both its intensity and direction, which refers to the debilitating or

facilitative impact it can have. Research would also indicate that facilitative interpretations of anxiety symptoms, particularly in terms of their direction, can actually have a greater impact on performance quality than the intensity of those symptoms (Hanton & Jones, 1999; Hanton, Neil, & Mellalieu, 2008; Jones & Hanton, 2001). Beyond literature pertaining to the moderating role of the interpretation of anxiety symptoms, however, scant literature exists concerning the potential impact of musicians' perceptions or interpretations upon performance quality and satisfaction more broadly.

Aims of the present study

Given the current state of understanding surrounding musicians' experiences while performing, the present study sought to investigate musicians' thoughts and perceptions during performances and the perceived impact their evaluation of those thoughts and perceptions has on their subsequent musical activities. In particular, those characteristics and qualities present in musicians during *successful* performances, including their thoughts and perceptions associated with the event, contrasted against *less successful* performances were investigated.

Method

Participants

Fourteen male and fifteen female undergraduate and postgraduate classical music performance students and studio professors were recruited from the Royal College of Music (RCM, n=14) and the Royal Welsh College of Music and Drama (RWCMD, n=15). The students were enrolled in BMus, MMus, or DMus classical music performance programmes. Participants were recruited from three groups: pianists, string players, and vocalists. It was felt that these three groups varied sufficiently in terms of their manner of performance and sound production so as to be able to offer a range of performance-related experiences. Table 1 provides the numbers and ages of participants according to experience and instrumental group.

Insert Table 1 about here

Data collection

A semi-structured interview approach was employed to allow for in-depth exploration of performance experiences and perceptions. In particular, an interview topic guide was created that addressed the aims identified above (see Appendix 1 for topic guide). This format enabled all participants to explore the same topics so as to produce a level of consistency across the dataset. This format also allowed for flexibility in the order in which the questions were asked as determined by the flow of the interview as well as the use of probes as necessary (Patton, 2002). The development of the topic guide was informed by a literature review on performance preparation and McPherson and McCormick's (2006) recommendation that research is needed on the self-beliefs that musicians experience before, during, and after musical performances. To determine the suitability of the interview guide, four pilot interviews were conducted with postgraduate students from the RCM. Based on these, minor changes were made to the wording of some questions to enhance their clarity and ease of understanding. The pilot interviews also increased the interviewer's familiarity with the topic guide and the procedure of conducting the interviews.

Procedure

Potential candidates within the student and staff populations at the two institutions were identified via recommendations from department heads and studio professors, presentation at classes, and personal contacts. Candidates were then contacted by email, provided with a brief description of the project, and invited to participate. For those wishing to participate in the study, a time and location for the interview was agreed. Before the interview commenced, the participants received an information letter and written consent was obtained. All participants were assured of confidentiality and anonymity, following Smith's (1995) suggestion that rapport and trust are important issues in qualitative interviewing.

Data treatment and analyses

As the goal of this investigation was to establish a contextualized perspective of musicians' subjective experiences with performing, the analysis procedure was data-driven rather than theory-driven (Charmaz, 2003). The interviews were recorded digitally using a Sony IC Recorder and transcribed verbatim by the first author. The transcripts were then read so as to familiarize the researchers with their content. Content analysis involved identifying and dividing the transcripts into meaning units: parts of text

representing a single idea (Côté, Salmela, Baria, & Russell, 1993). Meaning units were labelled and grouped into categories and themes with other similar meaning units. The themes were then grouped together into general dimensions and placed into hierarchical trees. Finally, frequency counts were calculated based on the number of citations for each theme in order to identify themes of greater importance or concern for the participants. No software was employed in any stage of the analysis; instead all coding, grouping, and frequency counts were conducted by hand.

It should be noted that the categories and dimensions of the hierarchical tree are not mutually exclusive as some overlapping did occur. For instance, musicians commonly described mental states or events that occurred immediately prior to performing to which the success or outcome of that performance was also attributed.

Validation and triangulation procedures

Several procedures were employed to help establish the validity of the findings. In order to prevent researcher bias, one of the final questions on the topic guide asked the participants whether they felt their responses were led or influenced in any way by the interviewer. As well, member checking procedures (Miles & Huberman, 1990) were employed in which all transcripts were returned to the participants who were asked to verify content accuracy prior to the analysis being conducted. During content analysis, discussions between the authors scrutinized the meaning units in order to ensure that they each contained a single idea and that they had been appropriately named. The arrangement of the meaning units into hierarchies was discussed and debated throughout the process. Finally, to ensure that the researchers' interpretation has not gone beyond what was actually said by the participants, quotes are provided throughout the results section below so that the reader might make his or her own judgement on their meaning (Shaw, 2001; Sparkes, 1998).

Results

Figure 1 presents the main categories and themes that emerged from the content analysis. Following recommendations by McPherson and McCormick (2006), and for simplicity, they are presented according to performance type as perceived by the participants (successful versus less successful) and by timeframe (prior to, during, and following the performance).

Insert Figure 1 about here

The musicians were asked to discuss two specific performance experiences: one in which they were pleased with their performance and felt it was successful and one with which they were less pleased.

Contributing factors in the successful performance

To begin, the participants were asked about factors that they perceived as having contributed to or facilitated a successful performance. Many spoke of how they felt thoroughly prepared going into the performance (n=5 E, n=10 LE):

The scene lasted maybe two or three minutes...and we'd rehearsed it for four hours in the morning...and then an hour and a half in the afternoon.... That scene, I have to say, went awfully well, we knew exactly who we were. And it's the same for the whole opera. There was never one moment in that opera when I did not know who I was or why I was there (E_V3).

Factors relating to the music performed were also identified (n=8 E, n=4 LE), such as a love of the music (n=5 E, n=4 LE), feeling positively challenged by the music (n=4 E), and feeling that the music was well suited to them (n=2 E):

It was a wonderful role for my voice.... So, it was God-given really, and it went awfully well (E_V3).

A number of facilitative views surrounding the performance were also discussed, including a sense of confidence and comfort with either the venue or others involved (n=1 E, n=6 LE):

The director was...truly a great director, one of the greatest I've ever worked with in my life (E_V3),

For a number of the musicians (n=5 E, n=4LE), the audience served a facilitative role, as a result of the energy they received from them and the rapport they were able to form:

There was this feeling, this energy within the hall which I can feel when the audience is with me, and I can feel when they're against me. I remember walking on stage and after the second step I was just thinking... "nothing could possibly go wrong." The safety net is there, and I can do anything I want and they'll be there (E_P1).

Other facilitative views included a sense of control (n=2 LE) and excitement about playing in that particular venue and wanting to enjoy the performance (n=3 E, n=1 LE). Two of the less experienced musicians attributed their performance to their positive mental state prior to performing.

The situation that most of the musicians chose to discuss was one involving a high level of challenge. For two experienced vocalists, this came in the form of new and demanding roles and productions:

Because it was so dramatically new and difficult, and there were lots of things that I had never done before that I had to, which was a real challenge, I felt it was one of the best things that I've ever sung in my whole life.... It was challenging vocally, and it was challenging dramatically, and musically.... I was absolutely 200% sure of what I was doing, musically. So I was very comfortable (E_V1).

It took weeks of rehearsal to be able to coordinate everything, but we had to be so focused in the part, to make it believable, that it gave it an extra dimension in terms of energy and meant that if I wasn't totally convincing and didn't throw myself completely into it, then it just didn't work. But thankfully it did! (E_V2).

In what might be felt to contrast with the thorough preparation cited by many of the musicians mentioned above, for one less experienced pianist this challenge came in the form of a limited amount of preparation time:

I wasn't really given that long to learn the piece, and it's very difficult... and I found myself enjoying the experience of it as well. I mean, I was horrendously nervous the three weeks before because it still wasn't anywhere near the concert standard at all.... I actually went through some injuries in the process, pains in my arms because I was practising it a lot (LE_P8).

One less experienced vocalist was ill leading up to and during the performance:

I was sick, I had a chest infection, so I couldn't really sing. My vocal ability was 50% of what it usually is, but I was really happy with the performance. I think that may have had to do with that my voice wasn't there, and I had to focus on performing it because that was the only thing that I could really do. I think I gave a good performance (LE_V4).

Immediately prior to the successful performance

In the minutes before the performance began, the musicians reported feeling excited (n=3 E, n=5 LE), confident (n=2 E, n=5 LE), and relaxed (n=2 E, n=5 LE). In addition, some spoke of being determined and having high expectations for themselves (n=2 E, n=3 LE). During these final minutes, the musicians actively sought to get themselves focused on the character of their music (n=2 E, n=4 LE) and on staying positive (n=1 LE). While some of them indicated that they felt nervous in the final minutes (n=3 E, n=4 LE), for some this was coupled with a facilitative view of their arousal (n=3 E, n=2 LE):

If I feel I've got butterflies in my tummy, that's always a good sign, just sort of half an hour before I go on. Gets the old fight or flight drug up and running.... It energizes, it really helps me to focus myself on what I'm doing. On the times when I haven't felt that, I've often made mistakes (E_V3).

During the successful performance

When reflecting on their perceptions from during the performance, a number of the musicians spoke of characteristics associated with the experience of the state of flow (n=7 E, n=12 LE). For one experienced pianist, this involved a sense of complete control and trust:

There are moments...on stage when I feel as if I have a safety net underneath me and that nothing can possibly happen, nothing can go wrong.... I can trust my instinct, I can trust my physical capabilities, and at the same time I can allow control to be put to the side and to let myself run without control, but at the same time knowing that I'm safe and that no matter what I do it's going to sound good.... [In one performance] I distinctly remember the whole time having this big grin on my face...because I felt like there was absolutely nothing wrong with the world, and the music that I was creating had no boundaries, I was in touch with what I'd always wanted to get in touch with. So I can only describe it as one of the happiest experiences (E_P1).

A less experienced string player spoke of experiencing a heightened sense of awareness while on stage:

Just very aware. In chamber music you have to react so quickly.... [I felt] absolute confidence in everybody else, and trusted them.... I remember being just really aware, and concentrating. But actually enjoying it! Being very aware and reacting (LE_S3).

Being appropriately focused and concentrating while performing was mentioned by many of the musicians (n=5 E, n=10 LE). For some, this appropriate focus involved being in the moment (n=4 E, n=5 LE), communicating with the audience (n=5 LE), and focusing on their own sound and that of other performers on stage with them (n=1 E, n=1 LE). For the experienced and less experienced musicians, their time on stage during these performances was one of enjoyment (n=3 E, n=5 LE), in which they felt relaxed (n=3 LE), confident (n=2 E, n=1 LE) and in control (n=2 E, n=1 LE).

Responses to the successful performance

At the conclusion of their performances, the musicians reported feeling happy and that they had enjoyed the experience (n=6 E, n=10 LE), together with a sense of accomplishment (n=1 E, n=2 LE) and relief (n=2 LE). Two of the experienced musicians also mentioned that they felt an enhanced level of confidence following their successful performance.

Contributing factors in the less successful performance

In contrast to the successful performance, inappropriate preparation was cited as the leading factor contributing to performances with which the musicians were not as pleased (n=6 E, n=10 LE). For some, this involved what they felt to be a general failure to prepare adequately (n=7 LE), while others felt hindered by a lack of time to prepare sufficiently (n=6 E, n=4 LE), either in terms of themselves learning the music or being able to rehearse with others. A number of situational factors and perceived demands were identified as well. While the music performed appeared to play a role in facilitating successful performances, it also seemed to contribute to less successful performances (n=4 E, n=5 LE). Participants noted perceptions that the music was too difficult or, in the case of vocalists, not suited to their voice type:

The piece isn't something that I would have chosen to do myself... It's nothing that I would like to do, I don't feel like I'm up for it yet, it's too difficult for my level (LE_V4).

I just felt totally out of my depth. When I'm in control, I feel that everything I've got to do is on a level below my eyes, or I feel this way, and that I'm above it and totally in control, there's never any problem. In that particular situation, I felt that I was reaching up all the time. And, I'm never in control; it's just the most horrible thing. And my focus was on, "okay, can I do the coloratura, can I do the production, will I hit the high notes, will my character be any good, God this is hard to sing in German" and nothing on the character, and nothing on enjoying the music. So, you know, the focus was never going to be good, there was never the belief that I could do it (E_V2).

Similar to the music performed, audiences also impacted positively as well as negatively upon performance quality. The musicians noted that while the audience could help them to perform better, in some instances the audience could also serve as a source of stress and detract from their ability to perform. One experienced musician spoke about how moving and talking members of the audience would occasionally affect him, while another sometimes felt disheartened by an audience that was smaller than expected. Playing in front of fellow professors and students was an area of concern for a musician who also taught at one of the conservatoires. The less experienced musicians mentioned feeling nervous upon seeing teachers or friends in the audience (n=4), feeling pressure to impress their colleagues (n=4), and how they were frustrated by what they felt were often overly critical audiences at their conservatoires (n=3).

In a situation when I'm a performer and I see my peers it's so much about the criticism and the negative... In a conservatoire everyone is picking at the things that aren't good about my playing... My colleagues...are more likely to go "oh she didn't do that right" or "that was wrong" (LE_S2).

Unlike the successful performances where the musicians spoke of possessing a number of facilitative views concerning the performance and situation, the opposite was often the case for the less successful performance. A few of the musicians mentioned a negative connection with the venue or the performance (n=1 E, n=5 LE). Two experienced musicians spoke of conflicts with other performers, with another experienced vocalist acknowledging that he let a difficult rehearsal and staging process get the better of him.

Pianists mentioned how a poor-quality piano contributed to their performance (n=1 E, n=3 LE). Two less experienced musicians revealed that they were not doing any other performing at the time, which they felt contributed to their inability to perform well on this occasion. Four less experienced musicians each identified a factor which they felt had negatively affected them: one lacked a teacher at the time, one was just returning from time off due to injury, one had chosen to change her programme order moments before going on stage, and one felt that she had been rushed while tuning and warming up and was never able to settle into the performance.

Additionally, playing in evaluative situations was of considerable concern, for the less experienced musicians in particular, with conservatoire exams eliciting the strongest response as evidenced by this one pianist: “I hate playing exams; I absolutely despise exams” (LE_P8). Elaborating as to why he felt this way, he continued:

Last night [Perahia] played the Bach I’m playing for my summer recital here. He played a wrong note in the last chord, and I thought if I’d have done that in my exam I wouldn’t get a good mark at all, but his performance was absolutely incredible despite the slips. The musicality and everything was absolutely phenomenal. I always feel like I’ve got to hit the right notes, and that affects the way I play. I always play on the safe side. I never really go for anything. I just feel a sense of freedom is completely gone when I’m being examined (LE_P8).

While eight of the less experienced musicians expressed negative views of being evaluated, some also spoke of feeling preoccupied with needing to prove themselves when performing, feeling pressure not to make mistakes, and that they had only one chance to prove themselves as a musician.

Immediately prior to the less successful performance

In the few minutes prior to the performance, the musicians spoke of having a negative mental state and focus (n=2 E, n=5 LE):

When it came to the performances, I was thinking that if I never did the opera again it wouldn’t be too soon. I had no love for it, no interest in it (E_V3).

Rather than getting into the mood and character of their music some participants spoke about being unable to control negative thoughts (n=3 E, n=2 LE), were concerned about

potential poor evaluations resulting from the performance (n=1 E, n=1 LE), and were just generally nervous about the upcoming performance (n=1 E, n=2 LE). However, not all of the participants reported negative or debilitating perceptions prior to the performance. Some spoke of feeling confident (n=1 E, n=1 LE) and excited (n=2 LE) about the event.

During the less successful performance

Reflecting upon when they were on stage during a less successful performance, the participants spoke of having what they felt was an inappropriate, scattered, or negative focus (n=4 E, n=6 LE), with a pervasive feeling that things could be going better (n=6 LE). A few commented on how they felt that fixating on specific, inappropriate aspects of the performance experience, as well as their thoughts and mood, were hindering their ability to perform. Aspects of the performance experience which were the focus of inappropriate concentration included evaluations (n=2 LE), mistakes (n=1 E, n=2 LE), basic technical issues as opposed to performing (n=2 LE), and audience members (n=1 E, n=1 LE). This resulted in frustration (n=1 E, n=3 LE), wanting the performance to be over (n=2 LE) and a lack of enjoyment (n=1 E, n=1 LE). Four of the less experienced musicians mentioned that they struggle to maintain their focus while performing. Along with this, one also mentioned that she feels she is unable to let go of mistakes and they often result in further errors:

If one thing goes wrong then it affects the rest. For example, if I am starting to think about anything else but what I am doing I start to go wrong and then it's a question of how do I stop that happening, how do I stop thinking about what I am having for dinner later? (LE_P3).

While one of these musicians reported thinking about her music as a means of regaining or maintaining focus, the other three were unsure of what they could do to address the problem. Even the musician who did report having a strategy for regaining her focus did not appear to have much faith in it working:

Just try and think about the stupid music. I just don't know how to do it. There is so much to learn in this subject isn't there? How will I ever get it right? (LE_P3).

Together with aspects of focus, six of the less experienced musicians also discussed issues concerning self-talk, and in particular how the nature and content of the things

they say to themselves differs depending on whether or not they are pleased with how a performance is going. When performances do not go as well as hoped, the musicians spoke of how their self-talk involved negative evaluation and focused on how things could be going better:

I remember thinking “I am not doing anything here.” I just remember playing the notes, but I wasn’t really doing anything with them and I was aware of that because I was thinking about how there was nothing I could do to repair it.... Because I was too busy thinking about something else again, I was thinking “right, I have to get it technically right,” and it wasn’t (LE_P3).

Some of the musicians also felt that their negative self-talk contributed to further mistakes and problems:

Increasingly throughout, I was getting really annoyed with myself, and I think that led it to get worse in some places (LE_P8).

These self-talk experiences contrast with those that occur during more successful performances. The musicians reported that their self-talk during performances that went well focused on the upcoming music with little negative evaluation:

When it’s going well, obviously I’m thinking what is the next line that I’ve got to sing, but there’s that little voice in my head. There’s no sort of, “oh you really should be doing this better.” There’s none of that.... I’m just up on the stage singing when it’s going well (LE_V2).

Responses to the less successful performance

Following the performance, the musicians spoke predominantly of negative emotional responses. They were disappointed and annoyed with how it went (n=2 E, n=7 LE), and some spoke of embarrassment (n=1 LE) and feelings of hopelessness (n=1 E). However, some of the musicians did talk about having positive responses to the performance. Two less experienced musicians spoke about how not playing as well as they could have increased their determination to be more prepared in order to play better in subsequent performances. One experienced musician sought to assess why

things had turned out the way they did, while one less experienced musician coped by reminding herself: “I have to recall how much I love [the piece]” (LE_S2).

Discussion

The present study sought to investigate musicians’ thoughts and perceptions during performances and the perceived impact of those thoughts and perceptions. Successful performances were often connected with feelings of sufficient preparation and positive mind-sets, and presented a high yet attainable level of challenge. The presence of a sense of adequate preparation and a challenging situation mirror research into flow, which posits that a high level of personal skill coupled with an equally high level of situational challenge are necessary in order to facilitate flow states and peak performances (Csíkszentmihályi, 1990). Flow has been defined as, “the state in which people are so involved in an activity that nothing else seems to matter” (Csíkszentmihályi, 1990, p. 4), and many of the participants’ perceptions of their experiences during successful performances would speak to this definition. For the musicians, the performances they were pleased with were associated with enjoyment and feeling relaxed and in control. Less successful performances, on the other hand, were typically linked with inadequate preparation, negative mental outlooks, frustration, and lack of enjoyment during the performance itself. Additionally, some of the less experienced musicians described how they felt they struggled to maintain an appropriate focus during less successful performances, while others mentioned occasionally having difficulties controlling negative self-talk. Together with these concerns was a lack of uncertainty from the same musicians as to how they might effectively regain or control their focus and concentration.

It was interesting to observe such variability in the factors that the participants associated with successful performances. This begs the question as to the extent to which such factors actually affect performance quality. It is entirely possible that rather than the presence of such factors, it is a musician’s perception of and response to those factors that has a significant impact on subsequent performance quality. As was discussed above, such is increasingly becoming the view held in relation to performance anxiety.

Either way, this variability highlights the idiosyncratic ways in which musicians respond to, and are affected by, potentially challenging situations as part of performing. In line with work from sport psychology (e.g. Loehr, 1984), the present findings reaffirm the importance of each musician seeking to develop an awareness and understanding of his or her responses to performance situations. Musicians need to be cognizant of how they feel when performances go well, together with developing an understanding of the strategies they can employ to get themselves to that point.

Beyond these general findings, the interview results brought to light a number of specific points of interest. These will be discussed in greater detail below.

Facilitative versus debilitating perfectionism

As mentioned, a variety of differences emerged between the participants' successful and less successful performances. Good performances were associated with determination and high expectations, together with a focus on performing and communicating while on stage. Less successful performances, meanwhile, were often associated with performers feeling the need to prove themselves to the audience and to deliver a technically perfect performance with no mistakes. Here, the focus while on stage shifted to evaluations, mistakes made, and basic technical issues as opposed to performing.

A number of the musicians also expressed particularly high personal standards and perfectionist tendencies. While perfectionism can be thought of as striving for flawless performances, having excessively high standards and being overly self-critical, facilitative dimensions of perfectionism have also been proposed (Stoeber, Otto, Pescheck, Becker, & Stoll, 2007). Facilitative dimensions of perfectionism include setting high, yet achievable, personal standards and a self-oriented striving for excellence, with these dimensions having been shown to be unrelated to performance anxiety (Stoeber & Otto, 2006). This is in contrast to reported associations between debilitating dimensions of perfectionism and anxiety (Hill et al., 2004). Furthermore, use of these positive dimensions has been demonstrated to enhance motivation and achievement (Stoeber & Eismann, 2007). Consequently, musicians should aim to avoid developing or nurturing perfectionist thinking that prevents them from ever being pleased with their performance (Mor, Day, Flett, & Hewitt, 1995).

Locus of control

Comments related to feeling either in or out of control of the performance situation were expressed by a number of the participants in reference to both successful and less successful performances. For example, with less successful performances in particular, the participants spoke of feeling limited in the amount of time they had to prepare, having the performance repertoire selected against their wishes, and playing on a poor-quality piano. The sensation of feeling out of control and the impact that it had on his ability to perform was especially well summed up by one experienced vocalist (For quote from E_V2, see above section: Contributing factors in the less successful performance). Control is sometimes defined as the cognitive appraisal of the degree of certainty that performers are able to exert over both their environment and their self (Jones, 1995). Including professional musicians, actors, and dancers, Mor et al. (1995) explored the interactions of perfectionism and personal control with performance anxiety, distinguishing between self-oriented perfectionism and socially prescribed perfectionism. They found that high personal and social standards combined with perceptions of low personal control were strongly correlated with debilitating performance anxiety. As well, socially prescribed perfectionism, such as the belief that others expect a performance to be perfect, was more strongly related to debilitating performance anxiety than self-oriented perfectionism. These findings, together with the results of the present investigation, implicate self-control and determination as playing key roles in moderating performance anxiety and, quite likely, performance quality and satisfaction.

Interpretation of anxiety symptoms

As discussed above, research now suggests that anxiety is multi-dimensional, meaning that the intensity and direction of anxiety symptoms are distinct entities (Jones & Swain, 1992; Miller & Chesky, 2004; Roland, 1994). Furthermore, there is indication that the interpretation a performer makes of their anxiety symptoms has the greater impact upon performance quality, as opposed to simply experiencing anxiety symptoms (Hanton & Jones, 1999; Hanton, Neil, & Mellalieu, 2008; Jones & Hanton, 2001).

Such a distinction appears to have been supported by the interview results. When viewed as facilitative, nervousness experienced in the final minutes before stepping on stage often preceded successful performances. In fact, one experienced vocalist mentioned that he considers experiencing anxiety symptoms prior to a performance to be a good sign. Surveying and interviewing 244 undergraduate and portfolio musicians, Papageorgi (2008) identified a series of variables perceived to moderate the extent to which

musicians experience performance anxiety. Among the variables, the impact of differing interpretations of anxiety symptoms emerged. Musicians who viewed anxiety symptoms as facilitative interpreted their symptoms as helping improve concentration and stamina, signalling their motivation and passion to do well, and ultimately beneficial to the quality of their performance. Inversely, musicians who viewed their anxiety symptoms as debilitating stated that their symptoms contributed to reduced enjoyment of playing, contributed to practical problems, decreased control over their body, and that physiological arousal was a threat to their performance quality. Although the participants in the present study did not all draw the same causal links between perception of their anxiety symptoms and any subsequent impact upon performance quality, the present findings do concur with the connections discussed by Papageorgi (2008). All of this would suggest that, in addition to providing musicians with training in arousal control strategies, assisting musicians to develop facilitative perceptions of arousal symptoms could prove advantageous in terms of the impact of anxiety symptoms on performance quality.

Interaction between self-talk, self-efficacy, and performance quality

Self-talk proved to be an area of particular interest to many of the participants. Self-talk has been found to have motivational and cognitive functions (Hardy, Gammage & Hall, 2001) and has proven to be an effective strategy for coping with debilitating levels of anxiety in music (Roland, 1994; Stanton, 1994) and sport (Hanton & Jones, 1999). In the present study, many of the less experienced musicians spoke of their inability to control negative self-talk when performances were not going as well as hoped. One of the points of interest that arose when discussing performances with which the musicians were happy, contrasted against ones with which they were less happy, was the clear difference in the nature and content of their self-talk prior to and during the performances. When the participants felt that a performance was going well, self-talk would typically remain focused on the upcoming music and on communicating with little negative evaluation. When performances were not going as well as hoped, however, self-talk was reported to involve negative evaluation and was focused on how things could be going better. In fact, some of the musicians felt that their negative self-talk contributed to mistakes and performances not going as well as they should have.

Expanding upon this connection between self-talk and performance quality as raised by the participants, self-talk has been linked to self-efficacy in attempts to understand more

clearly how self-talk can influence performance (Hardy, 2006). According to Bandura (1997), verbal persuasion is one source that contributes to the development of self-efficacy beliefs. While verbal persuasion is often provided by significant others, Hardy (2006) notes that verbal persuasion can also be self-directed in the form of self-talk which can then impact significantly upon efficacious beliefs. This link has been confirmed in numerous studies (i.e. Hardy, Hall, Gibbs, & Greenslade, 2005; Hatzigeorgiadis, Zourbanos, Goltsios, & Theodorakis, 2008; Johnson, Hrycaiko, Johnson, & Hallas, 2004). Quotes from the participants in the present study confirm both the potential facilitative and debilitating functions of self-talk. Given the significant links between self-talk, self-efficacy, and performance quality, together with the perceived lack of control over their self-talk expressed by some of the participants, providing musicians with training on how to control their self-talk would appear advantageous.

Conclusions

In considering the results discussed above, it is important to note that when the participants were asked to comment on a successful performance, there was no objective rating as to *how* successful those performances may actually have been. An objectively assessed “good” performance was not what was of interest in this study, however, but rather a performance that the musicians themselves perceived as successful. The participants chose a performance with which they were happy, and this may have been for any number of reasons. It is clear that success means different things to different musicians, which may result, at least in part, from different goals for performance. Additionally, any causal links that were mentioned were based solely on the participants’ perceptions and not on empirical fact. Also, given the retrospective design of this study, it is not possible to verify the extent to which the participants’ responses accurately represented their performance experiences. Further prospective research conducted within naturalistic performance settings could address this issue. Nonetheless, the present investigation generated a wealth of information concerning musicians’ experiences with performing, highlighting the role of their own perception and interpretation. This was strongly evident when the musicians discussed factors that they felt contributed to successful and less successful performances. Together with the idiosyncrasy observed, this suggests that a musician’s response to a situation, rather than the situation itself, may have a stronger influence on the resulting quality of the performance.

Beyond broadening our understanding of musicians' experiences with performing, these results have pedagogical implications as well. Much of student musicians' training focuses on the craft of playing their instrument and appropriate interpretation of standard repertoire. In addition to learning to play, however, musicians must also learn the craft of performing. Within this, young musicians should be encouraged to understand that they will respond to and function within performance situations differently from their teachers and peers. Indeed, Paris and Paris (2001) recommend that regular self-assessment of learning processes and outcomes promotes greater monitoring of progress, stimulates repair strategies, and enhances feelings of self-efficacy. The results of the present investigation point to further areas warranting inclusion within musicians' training: the development of facilitative dimensions of perfectionism while avoiding debilitating dimensions; the development of facilitative perceptions of arousal symptoms; the importance of possessing a sense of self-control and determination where possible; and facilitative uses and control of self-talk. Further investigations exploring the most efficacious methods of providing such training to musicians are now required. The implications of such research promise significant outcomes for music learning, teaching, and performing.

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Aaron Williamon is Professor of Performance Science at the Royal College of Music, where he heads the Centre for Performance Science. His research focuses on skilled

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Table

Table 1.

Number of participants from each group, with mean age and standard deviation (in years) shown in brackets.

Group	Experienced	Less experienced
Pianists	6 ($M=41.0$, $SD=16.53$)	8 ($M=20.9$, $SD=2.32$)
Strings	2 ($M=47.5$, $SD=3.54$)	6 ($M=22.3$, $SD=1.97$)
Vocalists	3 ($M=51.7$, $SD=10.12$)	4 ($M=20.8$, $SD=1.50$)

Note: The label “experienced” (E) refers to both professors and postgraduate students while the label “less experienced” (LE) refers to undergraduate students. The quotes provided are further coded according to instrument (P=piano, S=string, V=voice). For the purposes of citing individuals’ comments, participants were numbered alphabetically within the experience and instrumental groups (e.g. E_P1, E_P2, etc.; LE_P1, LE_P2, etc.).

Figure

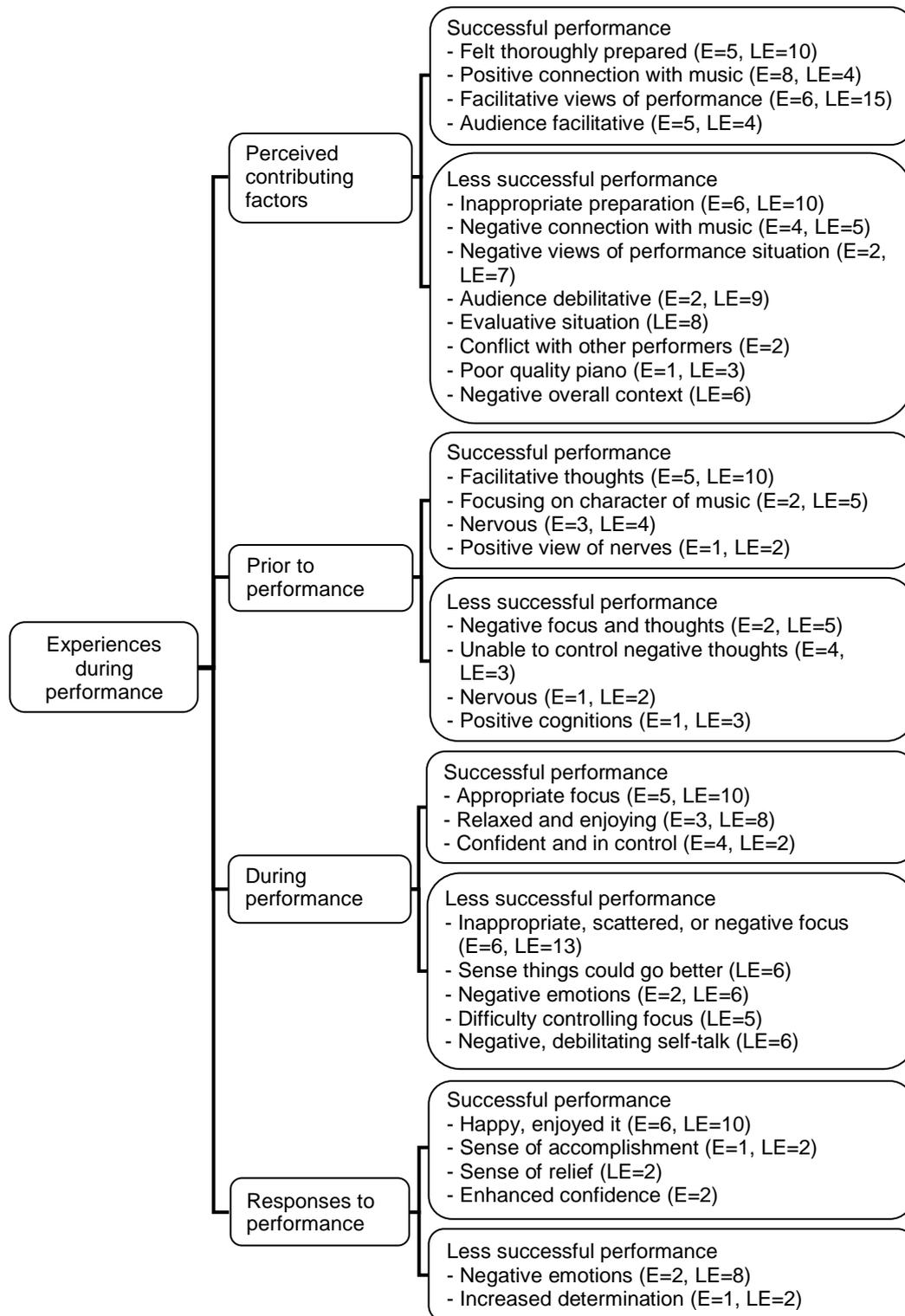


Figure 1. Categorisations of interview data themes.

Note. Categories are not exclusive.

Appendix

Appendix 1: Interview topic guide.

- I would like to explore your experiences with two contrasting solo performances: one that you felt was successful and one that you felt was less successful.
- To begin, think about a particular solo performance that you were pleased with and felt went successfully.
- Please describe the performance. Why do you feel it went well/not well?
- Think about the few minutes backstage just prior to the performance and explain the situation.
 - *Thoughts and emotions*
 - *Psychological state*
 - *Physiological state*
 - *Where is your attention focused, what things are you most concerned with*
- As you step on stage to begin the performance, what are you aware of, what are you thinking about?
 - *Mental and physiological state*
 - *The audience*
 - *Layout of the stage*
 - *The piece – (memory, difficult parts, adjustments, communication)*
- As you begin to play, what are you focusing on or aware of during the performance?
 - *Does point and type of focus vary throughout piece*
 - *expressive or interpretive aspects*
 - *technical aspects*
 - *mental or physiological state*
 - *audience*
- When you finish the performance, what sort of thoughts, emotions, or feelings do you experience?
- Go through the same process again, this time thinking about a particular performance that you were not as pleased with.

Note: Text in italics were prompts and only used when required.