The science behind the problem

Many musicians, including horn players, struggle with music performance anxiety (MPA). Through the years, we have heard from many professionals about their individual approaches to dealing with it; however, The Horn Call has not published a review of the scientific literature on this topic.

Dr. Julie Nagel [1], in her recent review of psychological approaches for treating MPA, observes that organic medical conditions and the symptoms they evoke may be exacerbated by psychological factors, complicating both treatment and recovery. She suggests that therapeutic strategies for treating many disorders require acknowledging this, and developing a more holistic approach that includes psychological approaches.

In a previous article on embouchure dystonia ("Embouchure Dystonia: Hope for the Future?" The Horn Call, Vol. 41 No. 3, May 2011), I commented on dystonia's apparent association with anxiety. Though the scientific community is reluctant to attribute anxiety as a cause for dystonia, the association has been made [2, 3]. It is beyond the scope of this article to explore the anxiety/dystonia connection; however, examining performance anxiety applies to all musicians.

This article describes the nature of MPA and samples the current literature for some general principles to understand and cope with it.

The sympathetic nervous system

When we are placed in circumstances we perceive as threatening, we have a built-in mechanism for coping: a branch of our autonomic (automatic) nervous system known as the sympathetic nervous system that prepares us to “fight or flee.”

Our heart beats faster and stronger, the pupils of our eyes dilate, our airways become more open, our muscles tense, and even our salivary glands begin to secrete more viscous saliva that can give us that dreaded dry mouth feeling. While these are changes that prepare us to deal effectively with physical threats, they are counter-productive in performing artists. The fact is, our sympathetic nervous system responds to something that poses no real physical threat to us with physiologic adaptations that are not helpful. Why?

The issue is not whether a set of circumstances (audiences, adjudicators, audition panels, recording) really pose a physical threat, but whether they are perceived by the individual as threatening. What does the scientific literature say about those factors that lead us to inaccurate perceptions of threat? Do we acquire them naturally (by nature), do circumstances in our early development as musicians breed them (by nurture), or is it some combination? What does science say about approaches that are effective in preventing and/or dealing with debilitating MPA? Does it even propose ways to channel this nervous energy in a positive way?

The dimensions of the problem

Paul Salmon [4], in a review of the psychological literature, identifies three general statements about the nature of MPA. First, MPA includes a loosely correlated constellation of cognitive, behavioral, and physiological variables. Fearful thoughts, overt behaviors to perceived threats, and the activation of the sympathetic nervous system all work together to produce MPA to varying degrees. Second, the physiological arousal component of MPA relates to the degree to which this sympathetic nervous system activation has, through conditioning, become disproportionate to the real threat. Salmon makes a point that some degree of arousal is appropriate or even optimal, but that it is the excessiveness of the response that creates the problem. Finally, the anticipation of an event that is stressful can cause as much or more anxiety than the event itself; fearful thoughts of what could go wrong can exacerbate symptoms.

In their study on 238 musicians, Lehrer and others [5] measured state and trait anxiety, and identified some key factors that relate to measures of MPA. State anxiety refers to situations that are highly specific to a particular point in time such as a given musical performance. Trait anxiety indicates the degree to which a person experiences anxiety across a wide variety of situations, which tends to be more generalized and enduring part of an individual's personality and requires a more general psychotherapeutic approach in treatment. Lehrer had his subjects complete several psychological tests: the State/Trait Anxiety Inventory [6], a modification of the Facilitating/Debilitating Test Anxiety Questionnaire [7], and the Music Performance Anxiety Questionnaire [5] (which is made up of 32 items to identify sources of MPA as experienced during a concert, along with coping strategies that are employed).

From these measures, five personality factors surfaced that positively correlate with trait anxiety:

1. planning for coping with anxiety
2. judgmental attitudes about one's performance
3. worry about anxiety and its effects on performance
4. concern with the reactions of others to performance
5. concern with distraction during the performance

Lehrer et al also suggest that factor 3 (worry about anxiety and its effects on performance) has the most consistent relationship with state anxiety and with items on the MPAQ related to debilitating anxiety. Factor 1 (planning for coping with anxiety) had the weakest relationship. From these results, it appears that many musicians who experience MPA may benefit from psychological treatment geared toward changing what may be deeply rooted personality characteristics. This is in addition to developing specific strategies for coping with the anxiety incurred during musical performance [1].
What shapes our anxiety about musical performance?

In his review, Salmon [4] states that "... aspiring musicians pursue a highly sophisticated craft under extreme stress associated with the physical and psychological demands of performing, as well as with the tenuous nature of music as a profession." He observes that because of these stresses, some musicians may find their intended fluid expression of music turned into a self-conscious, anxiety-filled challenge. Where does this come from? Is it there from the very beginning of our musical experiences, or is it something that we cultivate through the decades we spend learning our art? While certainly personality traits may predispose us to developing MPA, some writers and researchers feel strongly that much of this angst is learned over many years.

Nagel [1] identifies two unique factors that musicians contend with that make the development of MPA in music different from the anxiety experienced in other professions. First, instrumental music lessons often begin very early in life (90% of professionals begin before the age of 12), and throughout the formative years, individuals go through intense musical training and lessons interacting with teachers who often serve as what Nagel refers to as "metaphorical parental surrogates," i.e., individuals who have a profound influence on personality development and social adjustment. The potential for developing MPA issues is obvious.

Second, the job market for musicians is limited, and unemployment in the arts is rampant. According to Nagel, in 2009, artists left the workforce in higher percentages than any other profession. Thus, the nearly life-long pursuit of a tenuous career involving an investment of personal ego, finances, and time can create an ideal breeding ground for anxiety. In many cases, this anxiety gets to such a debilitating level that careers must be abandoned. As a personal comment, I would interject that to the extent anxiety may amplify physical problems such as those experienced by embouchure dystonia sufferers (and to my knowledge, this is yet to be scientifically confirmed), understanding approaches to managing MPA could be important.

What can be done?

Self-help books in the popular literature address ways of dealing with MPA. Two that come to mind are The Inner Game of Music by Barry Green [8], and Effortless Mastery by pianist Kenny Werner [9]. These books have numerous suggestions for coping that in many cases appear to be well-founded, and I recommend a cautious and critical reading of them; however, what have clinical medicine and science revealed?

Nagel's review [1] includes some helpful ideas. Dr. Nagel is an award-winning clinical psychologist and psychoanalyst in private practice in Ann Arbor, Michigan. He is a graduate of the Juilliard School, the University of Michigan, and the Michigan Psychoanalytic Institute, and has authored numerous papers on this topic.

Nagel's first observation is that any one approach for treating music MPA will not necessarily be applicable to all cases. Though specific therapies may have many varieties, she restricts her comments to two major categories of clinical treatment: 1) cognitive behavior therapy (CBT) and 2) psychoanalytic approaches.

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What can be done?

Cognitive Behavior Therapy (CBT)

Vital to the cognitive behavior therapy approach is acceptance of the idea that "... performance anxiety is conceptualized as a learned behavior that can be modified or extinguished through various techniques of controlling the external environment through rewards and punishments" [1]. Described first by Beck [10], CBT intervention assumes that our thoughts (cognitions) have a controlling influence on our behaviors, and conversely, that how we behave influences our thoughts. Thus, MPA is thought of as the problem rather than the symptom of underlying psychological issues that foster anxiety. This will be contrasted with psychodynamic approaches.

CBT, in the context of treating MPA, works to modify inappropriate thoughts that lead to anxiety in order to prevent discomfort during performance. In a study by Kendrick et al [11], something called cognitive restructuring was employed over three, two-hour training sessions to elicit anxiety reduction in 53 highly anxious pianists. This technique involves a five-step process:

1) monitoring one's thoughts
2) considering how these troublesome thoughts contribute to dysfunctional symptoms
3) developing helpful counter-thoughts or coping strategies
4) rehearsing those strategies in practice
5) incorporating the strategies into performance-related activities

Those who have read The Inner Game of Music may recognize some of these ideas. Compared to pianists in a control group receiving no treatment, pianists who employed cognitive restructuring showed significantly reduced anxiety and were more confident in their ability to effect positive change. Sweeney and Horan [12] conducted a similar study that in addition to CBT also employed relaxation techniques. The authors suggest that both relaxation and CBT therapy lead to reduced anxiety scores greater than control subjects, but the combination of both relaxation and CBT appears to be more effective than either by itself.

More literature is available than can be reviewed in this article; for example, Nagel [1] cites at least five studies that showed CBT to be effective in reducing MPA to varying degrees. The point is to emphasize that CBT has been shown to be effective and might be considered by those dealing with MPA. For more information on the specifics of this technique, I refer you to both the Nagel and Salmon papers [1, 4] and to the March 1990 issue of Medical Problems of Performing Artists.

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Psychodynamic Theory Treatment (PTT)

In some individuals, MPA is thought to be symptomatic of deeper, unconscious, unresolved conflicts that lie within the mind. For these people, CBT may not be effective in alleviating their troubles, and psychodynamic theory-based treatment (PTT) presents another option. Psychodynamic theory assumes that symptoms of anxiety are determined by multiple factors and may be due to repressed issues that lie outside of an individual's awareness. Further, performance anxiety may be symptomatic of unresolved conflicts "... buried deeply in the unknowing, outside-of-awareness part of the mind" [1]. It is thought that defending one's ego at this subconscious level may increase anxiety and physical discomforts. (This is somewhat consonant with ideas put forth by Joaquin Fabra of Madrid, Spain, who has shown remarkable results working with musicians with focal dystonia.)

These deep-rooted sources of tension may in fact be rooted in childhood, an observation that is particularly relevant for musicians who typically begin performing at very young ages. Additionally, these feelings may be closely related to self-esteem, and PTT involves exploring one's character and identity in an attempt to uncover the source of this anxiety. Patients treated with PTT are helped to "access inner strengths, examine self-doubts and fantasies, and strengthen self-esteem in a number of ways that affect performance"[1]. However, Nagel asserts that performance anxiety experienced early in musical training often carries over into adulthood and may be resistive to treatment. More could be said about psychodynamic theory, but for such detail, I refer you to Nagel's review. The bottom line is that PTT has been shown to be an effective strategy in treating performance anxiety in general [13] that may be applied to MPA in specific, and is a complex technique that should be carried out under qualified professional psychotherapy.

Some practical suggestions

While in some cases it may be advisable for a musician affected with MPA to seek professional counsel, I would like to share some practical implications as described by Dr. Nagel [1] for horn players as well as for teachers. Nagel provides two useful lists (below), reproduced with permission of the publisher. The first relates to what she refers to as self-coaching and self-appraisal, while the second pertains to more formal approaches to treating MPA. Hopefully, you will find them helpful in your teaching and practice.

Table 1. Self-coaching and Self-appraisal for the Performance-Anxious Musician

- Think of anxiety as “eagerness/excitement” — positive energy
- Visualize performing when on stage
- Think of your instrument as your friend
- Breathe deeply and slowly
- Expect to feel anxious
- Visualize a comforting image or place
- Accept yourself
- Enjoy yourself

Table 2. Structured Approaches for Treating Performance Anxiety

- Think in positive terms about your performing and challenge negative self-statements
- Analyze some underlying reasons for your affects and anxiety that are not specifically performance-related
- Accept the idea that seeking professional help is a strength
- Exercise
- Yoga, meditation
- Diet (limit caffeine)
- Biofeedback
- Medication
- Cognitive behavior therapy
- In-depth psychotherapy/psychoanalytic treatment

References


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