

# Research on the Psychological State of Brass Instrument Performers from the Perspective of Emotion Regulation

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**Abstract:** This article explores the psychological state of brass instrument performers from the perspective of emotion regulation, focusing on the positive impacts of emotional regulation strategies such as cognitive reappraisal, breathing control, and mindfulness training on performers' psychological well-being. Specific applications of these strategies are proposed for performance preparation, stage performances, and daily practice. Research results indicate that the effective use of emotion regulation strategies can alleviate performers' anxiety, enhance psychological stability, and improve performance quality, providing practical psychological intervention pathways for brass instrument players.

**Keywords:** Emotion regulation; Brass instruments; Cognitive reappraisal; Mindfulness training; Breathing control

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## 1. Introduction

Due to their unique sound production methods and strict physical control requirements, brass instrument performers often face significant psychological pressure. Such psychological states not only affect their musical performance but can also lead to performance anxiety and other psychological disorders over time. As a core concept in psychology, emotion regulation has been proven effective in alleviating anxiety and stress by modulating emotional responses in various performing arts. However, prior research indicates that studies on emotion regulation strategies specific to brass instrument performers are relatively limited. Therefore, exploring effective emotional regulation techniques to address the psychological challenges in brass performance is significant for enhancing performers' psychological states and musical expression.

## **2. Emotion regulation theory and psychological aspects of brass instrument performance**

### **2.1. Concept and theoretical foundation of emotion regulation**

Emotion regulation refers to the process by which individuals actively manage their emotional experiences, expressions, and durations when faced with emotionally triggering events. Gross's 1998 model of the emotion regulation process serves as a foundational theory in this field, positing that emotion regulation is achieved through different stages of emotional generation, including antecedent regulation (such as cognitive reappraisal) and response modulation (such as suppressing emotional expression). Antecedent regulation primarily influences emotional responses by altering individuals' cognitive evaluations of situations, while response modulation occurs after emotion generation, focusing on controlling emotional expression through suppression<sup>[1]</sup>.

In musical performance, emotion regulation is crucial for managing performance anxiety and enhancing expressiveness. Research indicates that cognitive reappraisal helps performers reduce anxiety by reevaluating performance contexts, thereby boosting performance confidence. Techniques such as mindfulness training and breathing control assist performers in effectively managing emotions after they arise, preventing emotional outbursts from negatively impacting performance outcomes.

### **2.2. Psychological characteristics in brass instrument performance**

Brass instrument performance places high demands on the performer's psychological state, particularly during intense rehearsals and performances that require significant psychological endurance. The successful coordination of body and mind is essential during brass performance. Performers must control their breathing and the collaboration of lip muscles while simultaneously maintaining the rhythm and musical expression of the piece. Prolonged tension can disrupt breathing patterns, leading to pitch instability and diminished sound quality. Especially in public performances, persistent high tension can trigger performance anxiety, resulting in symptoms such as increased heart rate, muscle tension, and rapid breathing, which can severely impact musical expression. Therefore, psychological adjustment, particularly the application of emotion regulation strategies for brass instrument performers, becomes especially important.

### **2.3. Relationship between emotion regulation and psychological aspects of music performance**

The role of emotion regulation in the psychology of music performance primarily lies in assisting performers in coping with stress and anxiety during performances. Studies have shown that performers with strong emotion regulation abilities can better control emotional fluctuations in high-pressure situations, maintaining stability and expressiveness in their performances. For brass instrument performers, emotion regulation not only helps improve technical skills but also enhances overall psychological well-being, increasing performance expressiveness and stage confidence.

In music performance, the appropriate expression of emotion is crucial for enhancing musical expressiveness. However, excessive emotional fluctuations or tension can lead to performance issues. Through effective emotion regulation strategies, performers can maintain a balanced emotional activation during performances while avoiding loss of control due to anxiety or tension. For instance, cognitive reappraisal can aid performers in reinterpreting stage situations, reducing fear of failure and thereby alleviating performance anxiety. Mindfulness training and breathing control help performers remain focused during play, reducing psychological burdens. These regulation strategies not only enable performers to maintain psychological

balance in high-pressure environments but also enhance their psychological resilience, improving performance quality and stability <sup>[2]</sup>.

### **3. Impact of emotion regulation strategies on the psychological state of brass instrument performers**

#### **3.1. Impact of cognitive reappraisal on performance anxiety**

Cognitive reappraisal is a common emotion regulation strategy that alters individuals' cognitive evaluations of situations, thereby influencing emotional responses. Performance anxiety is a frequent challenge faced by brass instrument performers, particularly in high-pressure environments such as public performances or competitions, where anxiety can lead to mistakes and poor performances. By helping performers redefine and reinterpret performance situations, cognitive reappraisal effectively alleviates anxiety. For instance, performers can view performances as opportunities for self-expression and artistic communication rather than as sources of pressure to evaluate their abilities. This cognitive shift reduces fear of failure and external judgments, consequently lowering performance anxiety.

Research indicates that cognitive reappraisal can diminish negative emotions associated with performances and enhance performers' self-efficacy. By employing cognitive reappraisal, performers can transform anxiety into a manageable sense of excitement, aiding their sense of control on stage and enhancing their expressive performance. Thus, cognitive reappraisal, as a proactive emotion regulation strategy, significantly mitigates performance anxiety for brass instrument players.

#### **3.2. Role of breathing control in stress management**

Breathing control is an effective emotion regulation method, particularly crucial for brass instrument performers, as the quality of breathing directly affects performance stability and quality. Brass instrument performance relies heavily on breath control, so tension or anxiety often leads to rapid breathing and physical tightness, adversely impacting pitch, tone quality, and rhythmic control. Consequently, breathing control is not only a technical aspect of performance but also an important emotion regulation strategy.

By consciously regulating breathing rhythms, performers can relax their nervous systems before and during performances, alleviating tension and reducing physiological anxiety responses. For example, slow and deep breathing can lower heart rates and promote a calm psychological state, allowing performers to focus more on musical expression rather than psychological stress.

Additionally, effective breathing control during performance can enhance breath stability and endurance, thereby improving overall performance quality. Therefore, breathing control not only aids brass instrument performers in managing performance-related stress but also enhances their psychological stability and expressive capability by improving physiological conditions <sup>[3]</sup>.

#### **3.3. Enhancing psychological stability through mindfulness training**

Mindfulness training is a strategy that regulates emotions by focusing on the present moment and reducing worries about the future and past. Mindfulness practices typically include techniques such as breathing meditation and body scans, which assist performers in relaxing their minds and improving emotional regulation abilities. Research indicates that mindfulness training can guide performers to concentrate on the present, enhancing their psychological resilience and effectively reducing performance anxiety.

For brass instrument performers, mindfulness training helps maintain focus during performances, minimizes excessive concern over external evaluations, and boosts confidence in self-control.

In daily practice, mindfulness training encourages brass instrument performers to pay greater attention to the texture of notes, breath usage, and tonal variations, thereby improving their control over the instrument and musical expressiveness. Additionally, it aids in reducing emotional fluctuations, helping performers maintain psychological stability during performances. Thus, mindfulness training enhances performers' self-awareness and psychological flexibility, improving their emotional regulation and expressive capabilities during performances <sup>[4]</sup>.

## **4. Application of emotion regulation strategies in brass instrument performance**

### **4.1. Emotion regulation strategies in the performance preparation stage**

In the performance preparation stage, the application of emotion regulation strategies is crucial for brass instrument performers' onstage performance. These strategies focus on reducing pre-performance tension and anxiety, helping performers establish a solid psychological foundation.

Firstly, cognitive reappraisal serves as an important strategy during the preparation phase. Performers can reassess the performance context, viewing the event as an opportunity for self-expression and artistic sharing rather than as an evaluation of personal ability or a standard of external judgment. This cognitive shift effectively reduces performers' fear of failure or mistakes and alleviates pre-performance anxiety, promoting a calm mindset. For example, performers can tell themselves, "This is an opportunity to showcase my musical understanding, not a stage for others to judge my abilities," thereby easing psychological pressure. Through cognitive reappraisal, performers enhance their sense of control over the upcoming musical performance, approaching challenges with a more positive mindset.

Secondly, breath control techniques are vital for emotion regulation during the preparation stage, especially for brass instrument performers, as breath management directly influences sound quality, intonation, and breath stability. Tension and anxiety often lead to rapid breathing and muscle tension, which directly affect musical expressiveness. Therefore, performers can use techniques such as deep breathing and diaphragmatic breathing to adjust their breath rhythm, helping relax their bodies, reduce heart rate, and lower blood pressure, thus alleviating physiological tension <sup>[5]</sup>.

Additionally, mindfulness meditation is also an effective emotion regulation strategy during the preparation stage for brass instrument performers. Through meditation, performers can concentrate on their present sensations, reducing excessive focus on external distractions or future performance outcomes. Specifically, performers can meditate by focusing on their breath or the sensations in a specific body part, training themselves to remain calm in the face of stage pressure. Thus, mindfulness meditation helps brass instrument performers enhance self-awareness, better understand their psychological responses, and effectively cope with anxiety.

In summary, by combining cognitive reappraisal, breath control, and mindfulness meditation, brass instrument performers can establish a strong psychological foundation during the performance preparation stage. This ensures that they enter the stage with a more stable and composed mental state. Such strategies not only facilitate optimal performance but also reduce mistakes and psychological imbalances caused by tension, providing comprehensive psychological support for their stage presentations.

## **4.2. Instant emotion regulation in stage performance**

During actual stage performances, emotional fluctuations and unexpected situations are inevitable, requiring performers to regulate their emotions instantly to maintain optimal performance states. This immediate regulation necessitates that performers quickly restore a calm mental state while maintaining a high level of concentration on the music.

Firstly, breath control is one of the most direct and effective methods for emotion regulation. Research indicates that deep breathing can regulate the autonomic nervous system, reducing stress responses and helping performers regain a stable emotional state, thereby improving their instrument control and musical expression<sup>[6]</sup>. When brass instrument performers experience sudden anxiety, it can lead to rapid breathing and physical tension, affecting instrument manipulation and pitch stability. In such instances, deep diaphragmatic breathing allows performers to quickly relax their nervous systems and reduce physical tension.

Secondly, cognitive reappraisal plays a significant role during stage performances, particularly when facing mistakes or external distractions. Cognitive reappraisal helps performers manage unexpected situations more effectively and quickly. For instance, when brass instrument performers encounter unforeseen events during a performance, rapidly adjusting their perceptions can prevent anxiety from escalating. When a performer makes a mistake, cognitive reappraisal allows them to view the mistake as a typical stage experience rather than a sign of total failure. This perspective helps performers maintain composure and focus on their current musical execution despite heightened tension.

Furthermore, mindfulness techniques also demonstrate significant effectiveness in instant emotion regulation on stage. The core of mindfulness lies in guiding performers to focus on their current sensory experiences, redirecting attention to the instrument and the music itself while minimizing concerns about external distractions. Brass instrument performers can concentrate on the tactile sensations of the instrument, the flow of notes, or the rhythm of their breath during a performance. This nuanced sensory experience helps them “return to the present”, alleviating worries about future outcomes or external evaluations. Such focus training aids performers in reducing excessive reactions to performance pressure, preventing distractions caused by external factors.

Thus, through the immediate emotion regulation methods of breath control, cognitive reappraisal, and mindfulness techniques, brass instrument performers can quickly address tense situations or unexpected issues on stage, maintaining psychological and emotional balance. This ensures continuity and consistency in their musical performance, allowing them to showcase their best musical expressiveness even in complex stage environments.

## **4.3. Emotion regulation training in daily practice**

Emotion regulation training is not only applicable in performance contexts, as emotion regulation strategies during daily practice are equally crucial. Such training helps brass instrument performers gradually enhance their emotional management abilities, enabling them to cope with high-intensity performance tasks and long-term professional stress.

Firstly, systematic breath exercises should become a routine part of daily practice. Performers can enhance their breath control through regular deep breathing and breath management exercises, ensuring stable and sufficient breath even under pressure. For brass instrument performers, breath control directly influences pitch, tone quality, and the coherence of musical phrases. Therefore, daily breath practice not only improves

performance skills but also helps them quickly restore psychological balance when facing tension or fatigue, preventing the accumulation of anxiety. By establishing a consistent breath training habit, performers can maintain smooth and stable breathing under any performance pressure, thereby enhancing their confidence and control in performance situations.

Secondly, applying mindfulness training during daily practice positively impacts performers' concentration and psychological endurance. By engaging in brief daily mindfulness meditation or focus training, brass instrument performers can gradually increase their sensitivity to and control over their emotional responses, reducing feelings of frustration and mental fatigue during long practices or when facing challenging techniques. Mindfulness training also enables performers to focus on present sensory experiences, such as the texture of each note, breath usage, or the tactile sensations of the instrument. This training not only enhances concentration but also minimizes the impact of external distractions, helping brass instrument performers maintain a stable psychological state during prolonged practice. Furthermore, mindfulness training can bolster performers' psychological resilience, allowing them to remain composed in the face of challenges during performance.

Finally, cognitive reappraisal is an indispensable emotion regulation strategy in daily practice. By changing their perceptions of mistakes or setbacks, performers can enhance their self-regulation abilities and maintain a positive practice mindset. For instance, brass instrument performers can view mistakes during practice as opportunities to improve their skills rather than as evidence of inadequacy. This cognitive shift reduces anxiety and self-doubt during practice, fostering patience and motivation for the learning process. Additionally, cognitive reappraisal encourages performers to adopt a more constructive and positive attitude toward difficulties and challenges in practice, improving their psychological endurance for long, intensive practice sessions while continuously enhancing their technical skills and musical expressiveness.

By consistently applying and reinforcing these emotion regulation strategies in daily practice, brass instrument performers can gradually improve their ability to cope with performance pressure and psychological fluctuations. Throughout their careers, such training helps maintain mental health, preventing psychological fatigue and burnout due to prolonged high-intensity performances. Moreover, systematic emotion regulation training allows brass instrument performers to perform more confidently and steadily on stage, ensuring they demonstrate high-level performance in various performance settings. Ultimately, these emotion regulation methods in daily practice provide brass instrument performers with a comprehensive psychological adjustment plan, enabling them to maintain psychological balance and professional expressiveness throughout their extended performance careers.

## **5. Conclusion**

This paper analyzes the relationship between emotion regulation theory and the psychological state of brass instrument performance, proposing that emotion regulation strategies such as cognitive reappraisal, breath control, and mindfulness training positively impact performance anxiety, stress management, and psychological stability. The research results indicate that appropriate emotion regulation strategies not only help brass instrument performers effectively alleviate tension but also enhance their overall psychological resilience, boost performance confidence, and improve focus. Furthermore, the specific applications of emotion regulation strategies at different performance stages—such as the preparation phase, real-time adjustments during stage performances, and emotional management during daily practice—provide practical psychological adjustment

pathways for brass instrument performers. Future research should further explore the application of emotion regulation in performers of other types of instruments and investigate the differences in the effectiveness of emotion regulation strategies across various instruments and performance contexts. Additionally, it is recommended to conduct larger-scale empirical studies to analyze the long-term effects of different regulation strategies on individual psychological state improvement.

## Disclosure statement

The author declares no conflict of interest.

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