

Notes from NEPTA speaker series, October 24, 2016

Speaker: Patrick Gannon

Topic: "Musicians are Athletes Too: Lessons from Sport Psychology"

Also see handout "New Thinking about Music Performance Anxiety" and website: [www.PeakPerformance101.com](http://www.PeakPerformance101.com)

#### PREFACE:

New model for optimizing performance (peak performance training), incorporating neuroscience research findings

Today's presentation: Overview of techniques from sport psychology, applicable to musician performers

(Dr. Gannon referred to *The Psychology of Music Performance Anxiety*, book by Dianna Kenny)

Anyone who must perform on demand and under pressure and wants to perform optimally may be subject to performance anxiety

There's a difference between *learning* skills vs. *deploying* skills in specific setting

#### INTRO:

Musicians are athletes, too

Similarities:

- Both are performance driven
- Both involve mix of physical and mental functioning
- Technical skills learned over time
- Competitive performance environment
- On-demand peak performance

Differences:

- Playing sports involves more gross motor activity; musicians use more fine motor activity
- Athletes thrive on high activation level (heart rate); musicians need to lower activation level
- Athletes can physically discharge activation level playing sport [release tension]; musicians carry the anxiety on stage
- Playing music is FAR MORE mentally demanding than playing sports
- Musicians more vulnerable to (mental) performance anxiety

#### Fitness:

High fitness builds muscle strength, cardio capacity, self-confidence, self-agency

Customized conditioning program promotes learning, memory, skill acquisition

Do exercise in morning -- provides "platform" for the rest of the day -- about 40 minutes

Cardio exercise is best to minimize anxiety

Minimize physical asymmetries/injury associated with playing instrument

[If you back away from something because of fear, or procrastinate facing a challenge, you feel disempowered]

[Two major problems that musicians report are muscular-skeletal problems and performance anxiety.

He mentioned Dr. Bronwyn Ackermann, U. of Sydney, physiotherapist interested in performing arts health.]

#### **Five Key Mental Skills of Sport Psychology**

- Goal setting
- Imagery
- Self-Talk
- Concentration and Focus
- Relaxation

3 more points:

- Pre-performance routines
- Deliberate practice
- Mental toughness

## I. GOAL SETTING:

### Purpose:

Direct attention to task

Mobilize effort to engage

Sustain effort over time to meet goals

Develop new learning strategies by evaluating goals (e.g., as athletes age, must adjust goals, strategies)

### Types of Goals:

Process - how to optimize functioning in the moment

Performance - how you want the performance to go

Outcome (e.g., winning a competition or audition) [Don't focus on outcome. Be in the moment.]

### Goal-setting Tips:

Set moderately difficult but realistic goals

Set process and performance goals

Set goals for practice time and performance

Set positive goals, not negative

Provide for goal evaluation

As teachers, we should reinforce the idea of goal-seeking

[Dr. Gannon described an image of a "performance bubble" or self-created performance environment]

### Deliberate Practice:

Practice what needs to be learned

Requires high motivation and effort

Build skills from pre-existing level

Requires specific and immediate feedback

Requires repeated [**spaced, not massed**] practice until mastery is achieved

\*Important distinction: Spaced practice (practice with breaks and other activities in between) vs. focusing on one thing over and over at one session (massed)

Spaced-practice results stay with a person longer; go into long-term memory. If you repeat same thing over and over at one sitting, will give a short-term sense of progress, but does not stick.

Deliberate practice requires self-observation and reflection to correct, adapt, and reinforce learning

Post-practice and post-performance evaluation

### More tips:

Don't practice when tired

Mornings are best for practice

Have separate warm-up before starting practice routine

Try to exercise 1-2 hours *prior* to practice

Pumps blood to brain; activates calming neuro-transmitters. Exercise primes brain for learning.

Try to have practice plan for day worked out ahead

## II. IMAGERY

Using senses to recreate experiences in the mind; also called mental rehearsal

Brain responds to mental image as being same as physical act

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Mental rehearsal:

Creates/reinforces neural circuits to support optimal performance

Saves wear and tear on body

Mentally embodying physical performance is half the challenge

### Imagery Tips:

Picture what you want to happen; must be vivid, detailed realistic

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Use imagery to create a performance mindset

### III. SELF-TALK

Key to cognitive control

Positive - cues optimal performance

Negative - reinforces negative beliefs

Can help regulate arousal, stay focused, and enhance skill-acquisition (self-instruction)

Use key words, trigger for memory, such as "step into it" (e.g., in tennis)

[Mentioned breathing deeply in belly; breathing into any tense area -- (yoga-like techniques)]

Thought-stopping for any negative thoughts

Reframing negative into positive

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### IV. CONCENTRATION AND FOCUS

Ability to selectively attend to appropriate cues in task at hand

Goal: Total absorption in task (see "flow state" below)

Sustain concentration

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Concentration tips:

Direction - Use the music to tell a story [narrative line can help sustain focus]

Control - Use most difficult part to build drama

Plan - Use imagery to anticipate how performance will go from beginning to end

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### V. RELAXATION

Performance Anxiety and Peak Performance are two sides of same coin

\*Pre-performance jitters are NOT the same as Performance Anxiety (PA) [See PA checklist on Gannon's website; over 50 different symptoms of PA]

\*Everyone gets pre-performance jitters

Primacy of physiological anxiety

\*New approach to treating PA is reduction of physiological activation (not cognitive symptoms, as in past)

Exercise, breathing, imagery, meditation, centering, exposure techniques

Brain-based techniques of treating PA

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Five Source Model of Music Performance Anxiety (MPA)

Anxiety is unique among affects. [It's a red flag, signaling other problem(s) in system. Performance anxiety is tip of iceberg.]

Anxiety aggregates from different sources

People project their insecurity and self-judgment onto the audience

Underlying sources:

Classical state/focal anxiety (situational anxiety)

High trait anxiety/anxiety sensitivity (secondary reaction)

Anxious, avoidant, or disorganized attachment

[If someone had secure attachment (e.g., with parent), secure upbringing, during first five years of life, forms basis of sense of security, self-worth, etc.]

Presence of co-morbid anxiety disorder  
Past performance traumas

[Dr. Gannon referred to documentary about Seymour Bernstein called "Seymour, An Introduction.]

#### TREATMENT of MUSIC PERFORMANCE ANXIETY (MPA):

Standard CISI (?), autogenic, centering  
Beta-blockers (Inderal)  
Life-style techniques (exercise, yoga, meditation)  
Psychotherapy  
Brain-based technique EMDR (eye-movement desensitization reprocessing) [related to REM - rapid eye movement]  
Bio-/neuro-feedback, exposure therapy, virtual reality

[Dr. Gannon mentioned that after only eight weeks of meditation, the brain changes. Evidence of neuro-plasticity of brain. Must sustain the activity, of course.]

Centering technique:  
Form a clear intention - process goal  
Pick external focal point (below eye level)  
Concentrate on breathing  
Scan body for tension; breathe into that part  
Find your center  
Embody your clear intention through five senses  
Direct your energy

Gannon showed a video of case study using EMDR treatment for MPA; uses bi-lateral stimulation

Therapist wants to target upwelling of physical sensation  
Trying to reprocess emotional level of anxiety  
EMDR "metabolizes" emotional trauma

#### How to Reduce MPA at Student Recitals:

Normalize pre-performance jitters  
Early performances (first experiences) MUST be safe, supportive, and non-traumatic  
Make it safe to talk about musicians' experience  
Give tips about managing anxiety  
Encourage group support before performing [Athletic teams do this]  
Debrief performance afterward  
Reframe mistakes as opportunities for improvement  
Performers should not perceive bad performances as "failures"

#### New Model of Peak Performance Training:

Can we activate the "flow state" on demand  
Target Alpha/Theta brain state with Gamma waves rising

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Clear anxiety sources  
Identify process and performances goals  
Optimal performances scripts via EMDR  
Reinforce scripts w cardio imagery and rehearsal (7-10x before performance)  
Identify new goals, repeat cycle  
Perform frequently  
Merger of action and awareness

Flow State:

No fear  
 Calm alertness  
 Sense of effortless control  
 High self-confidence  
 Low self-consciousness  
 Fully engaged in present moment  
 Time distortion

[Extracted from Gannon's website: "There has long been awareness that performers in all disciplines are capable of entering a particular mental state that yields optimal performance. Typically referred to as "flow" or "being in the zone" or just "going unconscious," performance psychologists prefer the term "flow"...The flow state involves total absorption in the task at hand, and the creation of a state of mind where optimal performance is capable of occurring."]

Cardio Imagery and Rehearsal:

Combines moderate cardio exercise with mental imagery/rehearsal; for example, exercising on elliptical trainer or stationary bike, while "mentalizing" the imagery for 30 minutes every other day  
 Builds new neural circuits that support new performance behaviors; neuro-plasticity  
 Use for learning, memorization, mental rehearsal, problem-solving

Instilling Confidence:

*Learning* a skill and *performing* a skill in public are two separate challenges  
 Confidence is like the stock market; it goes up and down  
 Set goals for both learning and performing  
 Simulate performance situations in practice  
 Look for mastery opportunities in practice and performance  
 Emphasize proper practice and preparation for performance  
 Emphasize pre-performance routine

Tips Used by Olympians (editor: incomplete list):

Ignore the competition  
 Focus on what YOU can control  
 Reframe anxiety as excitement/opportunity  
 Create a performance bubble (environment)

Notes compiled by Barbara Engel