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The Connections Between Musical and Athletic Performance Psychology

Many of us have been there before, sitting on the couch watching a favorite sports team play in a highly contested match. The match comes down to one final play, whether it be a free throw, field goal, penalty shot, or one final strike to win the game and you are sitting on the edge of your seat anxiously waiting that one player on the team to come through and win it all. However, much to your shock and dismay, that player does not come through in the moment and loses the game for the entire team.

Musicians and athletes often have to overcome very similar challenges when it comes to performing in stressful situations. Even after thousands or tens of thousands of hours of preparation, the most talented musicians and athletes can succumb to the stresses and demands of having to perform at a high level on a routine basis. But why does this happen? Even after dedicating so much time to practicing, rehearsing, and perfecting their technique, even the most highly trained performers can simply fail to come through when they are needed the most. Is there anything that musicians and athletes can learn from each other in terms how to execute at a high level in the most intimidating situations?

In this essay, I will examine several different aspects of stress and performance psychology. I will define what stress is, discuss why performers can get nervous in high-pressure situations, the origins of performance psychology, examine the study of various psychologists and researchers such as Tim Gallwey, Dr. Don Greene, Dr. Bob Rotella Dr. Leif Smith/Dr. Todd Kays, and Dr. Noa Kageyama, and detail the relationship and similarities between musical and athletic performance psychology.

It has been known that many people will feel some kind of nervousness and/or anxiety when it is time to go and put yourself out there in front of others. Stress is your body's way of responding to any kind of demand or threat; it releases hormones as a survival tactic to deal with any kind of stressful or potentially harmful situations. There are generally four different elements that can factor into performance anxiety: cognitive, psychological, physical symptoms, and behavioral changes. Cognitive elements have to do with thoughts, worries, lapses in concentration, and dwelling on negative thoughts. Psychological elements can involve feelings of inadequacy, fear of disapproval, fear of fear itself, irrational exaggeration of performance situation, determining self worth, or treating a performance as if a life or death situation. Physical symptoms can include a rapid heart rate, trembling, shortness of breath, dry mouth, sweating, increased muscle tension, dizziness, and nausea. And resulting behavioral changes are all a response to all of the above.

As a result of having a less than ideal performance, our minds tend to cognitively distort our perceptions of what actually happened during a performance and lead to even more anxiety during later performances. Some examples of ways that our body can cognitively distort events include: all-or-nothing thinking, overgeneralizing, mental filtering (dwelling on small, negative details), disqualifying positives (rejecting positive experiences to maintain negative beliefs), jumping to conclusions, magnification or minimization, emotional reasoning, "should" statements, labeling and mislabeling, and personalization (seeing yourself as the cause of a negative external event that you are not primarily responsible for). Many different performers will experience at least some of these symptoms and distortions over the course of their career, which is why the field of musical

and sports psychology has become so popular over the past few decades. With the rise in high-pressure situations that many performers are reporting, it is important for those who want to make a career in music or athletics to be able to deal with these naturally occurring reactions that our bodies have, in order to become successful.

Performance and sports psychology as a whole has been a rapidly growing field for the last 100 years, but aspects of performance psychology dates all the way back to the Greeks. Around 200 A.D., there are several scattered references to a concept called the “tetrad system.” The “tetrad system” was referred to as the gold standard for optimizing athletic performance during this time period. It is considered to be a precursor to the modern day concept of “periodization” where you train for major competitions and events in planned phases. In more recent times, there was little documentation of sports psychology until 1871 when scientists Hermann von Helmholtz and Peter Tait “engaged in scientific discussion in the intervals of exercise.” This however would not amount to much until 1898, when Norman Triplett experimented with cyclists and found that they tended to have faster times when riding along with other people than when they were riding alone. This is considered to be the first formal experiment in sports psychology. Sports psychology became a more established field of science when Dr. Coleman Roberts Griffith studied at the University of Illinois as a doctoral student and was appointed to serve on faculty soon after he graduated. Griffith taught a course entitled, “Psychology and Athletics” and with the help of his mentor, George Huff, established the Athletic Research Laboratory in 1925.

The mental side of sports psychology started to appear in the Soviet Union shortly after World War II, where yoga techniques were used to train cosmonauts as well as

Olympic athletes. In the mid-1960's, in preparation for the Olympic games in Mexico City, Dr. Miroslav Vanek developed a psychological and psychomotor screening program for the Czechoslovakian Olympic team and would soon go onto establish the International Society of Sport Psychology (ISSP). It was around that time in the United States, that the growth of physical and mental sports psychology was becoming more prominent as a result of physical education departments that were rapidly starting to appear throughout the country.

Two important journals were launched during the 1970's. They signified that the science behind sports psychology was becoming a more prominent field of study. The Internal Journal of Sport Psychology was launched in 1970 and the Journal of Sport Psychology was launched in Columbus, Ohio in 1979. It was not, however, until 1986 that the American Psychological Association finally recognized the difference between sports and exercise psychology.

Since that time, many different psychologists, athletes, and musicians have been extensively researching the science behind performance psychology and what separates the most consistent performers from those who seem to falter during the most crucial situations. I will now discuss some of the most notable names in both music and sports psychology and the details of their work.

Out of all of the psychologists I will discuss, Tim Gallwey is arguably the most well known and influential of them all. Gallwey co-authored the *Inner Game* book series that includes books on tennis, golf, skiing, music, and work. Gallwey is widely considered to be the "godfather of the current coaching movement." He got his start while was studying and playing on the tennis team at Harvard. Gallwey discovered that meditation enhanced his

powers of concentration in a manner that improved his game while playing for the Harvard Tennis Team. The *Inner Game* series is based upon certain principles in which an individual will use non-judgmental observations of critical variables, with the purpose of being accurate about these observations. If these observations are accurate, the person's body will adjust and correct automatically to achieve the best performance. Each of his books offers similar points but rewrites them to fit the need of each individual topic: every activity involves an outer game and an inner game – and the inner game is played in the arena of our minds, performance equals potential minus interferences, many of the sources of interference have to do with internal communication and the judgments we make about ourselves based on our past performance, we can avoid self-interference by giving our conscious minds things to do, and if we learn to harness our natural ability and to trust ourselves we can achieve a lot more in everything we do than when we struggle with ourselves. Gallwey currently resides in California and travels all over the world and gives talks about his books and ideologies regarding performance psychology.

Dr. Robert, "Bob" Rotella is a sports psychologist that specializes in golf and is on faculty at the University of Virginia. Dr. Rotella has worked with some of the greatest players that golf has ever seen including Rory McIlroy, Padraig Harrington, and Darren Clarke. Dr. Rotella wrote a book entitled *Golf is Not a Game of Perfect*, and is one of the best selling sports psychology books of all time and one of the three best selling golf books in history. He specializes in mental focus and relaxation while playing golf and sums up much of his ideology into the "Ten Commandments of Golf": 1. Play to play great. Don't play not to play poorly. 2. Love the challenge of the day, whatever it may be. 3. Know that nothing will bother or upset you on the golf course and you will be in a great state of mind for every

shot. 4. Know that nothing will bother or upset you on the golf course and you will be in a great state of mind for every shot. 5. Playing with a feeling that the outcome doesn't matter is almost always preferable to caring too much. 6. Believe fully in yourself so you can play freely. 7. See where you want the ball to go before every shot. 8. Be decisive, committed, and clear. 9. Be your own best friend. 10. Love your wedge and your putter. The work of Dr. Rotella has gone onto work with many other successful athletes, and psychologists continue to follow in his footsteps of his research.

Dr. Don Greene has worked with people from many different walks of life including police SWAT officers, professional athletes, Wall Street executives, musicians, actors, and many more. He has written several books including: *Performance Mastery: Reach Your Peak*, *Audition Success*, *Performance Success*, and *Fight Your Fear and Win*, as well as a workbook called *11 Strategies for Audition and Performance Success*. In his workbook, Dr. Greene focuses on: energy (controlling performance energy), preparation (developing better practice habits, improving your learning, and memorizing music), confidence (improving self talk and mental rehearsing), courage, concentration (strategies for concentrating on demand), focus (focusing away from past distractions), and resilience (recovering from your mistakes, and becoming mentally tough). Dr. Greene has gone on to become a very prominent teacher and speaker all around the world, though he currently works primarily with musicians within the performing arts.

Dr. Leif H. Smith and Dr. Todd Kays are very prominent sports psychologists at The Ohio State University and have their own private practice specializing in sports psychology, business performance, professional coaching, training and development, and counseling. Their book, *Sports Psychology for Dummies*, aims to help people “[perform] better and more

consistently in numerous aspects of their lives.” Their book goes in depth about the fundamentals of sports psychology and building a mental toolkit to help aid in success. The primary focus in the book is broken down into several different chapters: mental strengthening, setting goals, effectively using motivation, building confidence, mastering focus, imagery, self-talk, and scheduling. Dr. Smith and Dr. Kays include stories and well-documented topics in sports psychology as well as cover actual techniques and strategies that athletes can use. The goal of their book gives the public the exact same information that they teach to elite athletes for a fraction of the cost.

Dr. Noa Kageyama is arguably the most famous psychologist that almost exclusively focuses on musical performance psychology, though he has featured in several media outlets ranging from The Wall Street Journal to Lifehacker. After taking a class taught by Dr. Don Greene at the Julliard School, he then went to pursue a doctoral degree in psychology at Indiana University. He currently serves on faculty at the Julliard School where he specializes in teaching artists how to utilize sports psychology under pressure. Dr. Kageyama will start his clients off by assessing their mental strengths and weaknesses and will then help to develop personalized skills that helps to strengthen their abilities in each area. He also writes a very popular online blog called “The Bulletproof Musician” that explores several different aspects musical performance such as concentration, confidence, courage, determination, energy, focus, preparation, and resilience. Dr. Kageyama’s work has been regarded as very influential within the realm of music performance and continues to pioneer various studies on the various aspects of musical performance.

Generally speaking, almost every approach in performance psychology that has been discussed thus far can be traced back to how you approach something from a mental

standpoint to be able to achieve it physically. A lot of the research from these prominent psychologists have similar ideas in terms of how to execute in high stress situations. Effective planning and scheduling, mentally preparing yourself beforehand, being able to focus your energy in the moment, and maintaining a positive attitude are all crucial aspects of being able to control a performer's fears and anxieties. Many of these topics go beyond the concert hall or the playing field and have proven to be useful in many different capacities. It is important to note, however, that there are many psychologists that are also researching various aspects of performance psychology and that we still have a lot to learn about how our bodies react in stressful situations. With technology aiding our advancement in understanding of how we function as humans, there will be plenty more research in the future that will help both musicians and athletes perform for many people all around the world for years to come.

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