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Author: PATSY BAXTER ROWE

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A Dissertation
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ABSTRACT

AN INVESTIGATION OF THE RELATIONSHIP OF RHYTHM ACHIEVEMENT IN AFRICAN-DERIVED MUSIC PERFORMANCE TO THE RHYTHM APTITUDE AND OVERALL RHYTHM ACHIEVEMENT OF FOURTH GRADE STUDENTS

by Patsy Baxter Rowe
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Major Advisor: Dr. Edwin E. Gordon

The purpose of this study was to gather information about the nature of traditional African-derived rhythm abilities. The African concept of music is a holistic one, coordinating mental, physical, and spiritual elements as one. With the interrelationship of those elements in mind, essential components of African-derived rhythmic expression (spirituality, syncopation, polyrhythm, and rhythmic flexibility in conjunction with movement) were examined.

The specific problems of the study were to investigate the difference between ethnically-diverse high- and low-scoring children on an African-derived rhythm performance test in relation to their

scores on 1) a standardized test of rhythm aptitude and 2) a standardized test of rhythm achievement.

One hundred twenty-five children enrolled in six intact 4th-grade classes from two schools served as subjects for the study. The children were examined first on the rhythm portions of two tests, the Intermediate Measures of Music Audiation (IMMA), a published music aptitude test and Level One of the Iowa Tests of Music Literacy (ITML), a published music achievement test. Four criterion songs containing rhythmic elements that are characteristic of African-derived music were taught to the children. All children were tape-recorded individually performing the four songs. Three judges rated the children's recorded performances using a two-dimensional rating scale. The three judges' overall total scores were combined to make a composite score for each subject. The composite scores were divided in half. The top 40% constituted the high-scoring group and the bottom 40% constituted the low-scoring group. The test results of the middle 20% were eliminated to avoid overlapping.

As shown by analysis of variance results, there was a significant difference between high- and low-scoring groups on IMMA means. There was not a significant difference, however, between high- and low-scoring groups on ITML means.

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CHAPTER ONE

INTRODUCTION

Background

Combating the negative effects of physical rigidity and tension in music students has been and remains a major concern of music educators. Physical rigidity caused by tension can be an insurmountable stumbling block to music achievement; especially with regard to rhythm achievement and musical expression. In the last decade alone, there has been a marked increase in public discussion of the problem among music educators, psychologists, and performing musicians. Sandra Harris, a clinical psychologist reporting on the results of a survey she undertook in 1988, found that 30% of the music professors responding to her survey felt that more than 50% of their students had significant levels of tension that interfered with performance. Twenty percent reported significant tension in 25 to 49% of their students while another 25% reported that 10 to 24% of their students experienced significant tension.[1]

The difficulties created by tension are being addressed with increased concern by the medical and psychological professions. Harris says, "The problem of musical performance anxiety and its

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[1] Sandra R. Harris (1988). "A Study of Musical Performance Anxiety." *The American Music Teacher*, 37(4), p. 15.

debilitating effect on the quality and enjoyment of performing is receiving increased recognition by mental health professionals."[2] Various organizations have been formed and conferences have been held to address the problem of tension in musicians. A journal entitled Medical Problems of Performing Artists was introduced in 1986. According to Harris, the American Psychological Association has established a separate division called Psychology and the Arts to deal with the problem.

The First International Conference on Tension in Performance took place at Kingston Polytechnic in England in 1981;[3] the second conference was held in 1983.[4] Those conferences brought together musicians, music teachers, actors, dancers, public speakers, physicians, psychiatrists, psychologists, and psychotherapists from different countries to share ideas, findings, and concerns about the effects of anxiety and tension in performance. Due to overwhelming concern, the International Society for the Study of Tension in Performance was established at Kingston Polytechnic after the first conference. Performers who, according to Minuetta Kessler,

> May have hitherto been secretive about their problems of stage fright or physical ailments such as tendonitis or carpal tunnel syndrome, are now coming out of hiding, sharing their frustrations with their colleagues in an effort to learn how to

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2 Ibid.

3 Minuetta Kessler (1982). "Tension in Performance." *The American Music Teacher*, 32(4), p. 46.

4 Minuetta Kessler (1985). "Second Conference on Tension in Performance." *The American Music Teacher*, 34(4), p. 48.

prevent these incapacitating conditions from occurring, for themselves and their students.[5]

Despite years of recognizing the negative effects of tension in student musicians, teachers are still struggling to find solutions for their students' tension-related physical and musical shortcomings. Such problems show up in various forms: physical ailments, improper technique, musical inaccuracies, rhythmic inflexibility, poor intonation, and lack of expression and sensitivity.

Tension-related problems are not limited to student performers. Many professional musicians in major opera companies, symphony orchestras, and other performing groups are also plagued with physical ailments and disabilities. Though highly trained professionals, many are performing with tension that can be detected through factors such as rhythmic inflexibility, rushing of tempo, and lack of musical nuance.

The International Conference of Symphony and Opera Musicians (ICSOM) sponsored an extensive study to investigate the medical problems among ICSOM musicians in 1986. Two-thousand two-hundred twelve musicians from around the country, representing 47 of the 48 ICSOM orchestras, responded to the survey. The results, reported in Senza Sordino in August of 1987, showed that the prevalence of medical problems among ICSOM musicians is

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[5] Ibid.

very high.[6] The researchers concluded that there "is an urgent need for techniques to treat and prevent a variety of occupation-related medical problems."[7]

Currently, many techniques are being used to ease the tensions of musicians. Some of the techniques include

1. Beta Blockers -- drugs used to ease stage fright.[8] The drugs prevent the negative effects of adrenaline on the body when under circumstances of high arousal.[9] One beta blocker, Inderal, a drug widely used to control hypertension, is being used by musicians to control trembling.[10]

2. Imagery/Visualization -- imagining or visualizing positive conditions or more relaxing situations (e.g., pretending to be playing for friends at home instead of on stage).[11]

3. Relaxation Techniques -- (e.g., breathing exercises, Yoga techniques, or progressive muscle relaxation through all parts of the body).[12]

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6 Martin Fishbein and Susan E. Middlestadt (1987). "Medical Problems Among ICSOM Musicians: Overview of a National Survey." *Senza Sordino, 25*(6), p. 5.

7 Ibid., p. 8

8 Kessler (1985), p. 48

9 Leopold LaFosse (1989). "Sports Psychology, Mental Training and Music Performance." *American String Teacher 39*(1), p. 45.

10 Stephen S. Meharg (1988). "Help For The Anxious Performer." *Music Educators Journal 75*(2), p. 36. Also see *Senza Sordino*, p. 4.

11 Harris, p. 16.

12 LaFosse, p. 45.

4. Biofeedback -- tools that provide feedback about body functions such as skin temperature, electrical activity in the muscles, or level of sweat gland activity.[13]

5. Self-Hypnosis -- a strategy to control performance anxiety; usually involves aspects of mental imagery.[14]

6. Physical Care -- physical therapy and training in the Alexander Technique are often suggested along with a good diet, exercise, and rest.[15]

Movement, as a skill to be learned in conjunction with musical training, is a technique that has long been advocated by many music educators for reducing tension-related problems. The Alexander Technique, mentioned above, is one popular approach. Such systematic training in movement and dance is believed not only to decrease tension and enhance relaxation, but also to contribute to music understanding, skill, and performance.[16] Conversely, problems in movement show up in performance. Upon observing the problems of musicians, Dalcroze replied, "Not a single musician hindered by some fault in his bodily expression of musical rhythm fails to demonstrate that fault in a bodily way."[17]

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[13] Meharg, p. 37.

[14] Harris, p. 16. Also see Meharg, p. 37.

[15] Harris, p. 16.

[16] Phyllis S. Weikert (1982). *Teaching Movement and Dance.* Ypsilanti: The High Scope Press, p. xi.

[17] Marie-Laure Bachmann (1991). *Dalcroze Today: An Education Through and Into Music.* Great Britain: Oxford University Press, p. 15.

Research has shown that children move naturally in response to music. Dalcroze, Laban, and others have attempted to accommodate that natural inclination in their pedagogical systems. As Jack Neill points out, "a truly child-centered teaching approach must attempt to develop skills, concepts, and aesthetics in students by drawing upon this constant impulse for movement."[18]

Yvonne Cheek advocates the teaching of psychomotor skills in the curriculum for their therapeutic value as well as for their impact on musical elements. Defining psychomotor as "voluntary, purposeful movement that involves the mind,"[19] she says psychomotor experiences have "strong mental health overtones"[20] and make a "significant impact on self-concept."[21]

Joy Yelin, acknowledging that every child has a natural sense of rhythm, asks "Why then do children struggle to learn the basics of rhythm when this subject is taught by music educators? More importantly, how can the natural sense of rhythm that is in every child be enhanced through education, rather than stifled?"[22]

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[18] Jack Neill (1990). "Elementary Music Con Moto." *Music Educators Journal 75(5)*, p. 29.

[19] Helen Yvonne Cheek (1979). The Effects of Psychomotor Experiences on the Perception of Selected Musical Elements and the Formation of Self-Concept in Fourth Grade General Music Students (Doctoral dissertation, University of Michigan). *Dissertation Abstracts International, 40/05*, 2530A, p.21.

[20] Ibid., p. 10.

[21] Ibid., p. 138.

[22] Joy Yelin (1990). *Movement That Fits* . Secaucus, NJ: Summy-Birchard, Inc., p. 15.

If in all stages of their musical development, children were taught to associate and correlate music performance with relaxed, flexible body movement, many problems with tension in later years might well be avoided. The methods of Dalcroze, Alexander, and Laban have all been used to enhance music performance. Though varied in technique and approach, all three methods stem from the premise of unifying the workings of the mind and body. Such a unifying concept is the basic, underlying element in African music as well. The African concept of music is a holistic one, coordinating mental, physical, and spiritual elements as one. It is a recognized fact that African-derived music and dance emphasize rhythmic and expressive qualities. Because they are based on a relaxed, freely-moving, flexible approach to rhythm and movement, African-derived musical styles (whether African, African-American, Caribbean, etc.) are an excellent source for training in all aspects of rhythm and musical expression. It follows that performance skills in African-derived music may be a valuable asset for students preparing for performance in any music tradition.

Dalcroze, Alexander, and Laban all acknowledged the superiority of the African concept of mind-body coordination even though in their writings they paradoxically referred to African traditions variously as "primitive," "savage,"or "uncivilized." In conjunction with other efforts to discredit those of African descent, it was the practice in the 19th (and even 20th) century to use degrading terms, such as savage or uncivilized, when referring to African

phenomena, even when one was describing the superiority of that phenomena.

Hecht, interpreting Dalcroze philosophy, says, "One of the primary goals of eurhythmic training is to revive a kind of natural rhythm in the individual. . . . Primitive man possessed these rhythms."[23] According to Hecht, Dalcroze eurhythmics "return man to his primitive basis and re-educate him in physical and mental coordination, restore to him the instinctive capacity for expressive movement evidenced in the ceremonial dances of the black African and the tribal rituals of the American Indian."[24] According to Dalcroze, "The majority of mankind (referring to Western man) have lost their instinctive rhythms; they will never recover them by the technique of the traditional choreographic art." Music can, however, "arouse in man certain latent rhythms, through its great power of exciting, magnifying, and regulating muscular dynamic forces."[25]

The Alexander Technique, which is being used as a method for relaxation and body control by musicians and other performing artists, does not address music-making specifically. Although the technique centers on mind-body coordination, it can be applied to any of the performing arts. Alexander felt that modern, "civilized"

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[23] Patsy Ann Clark Hecht (1971). Kinetic Techniques for the Actor: An Analysis and Comparison of the Movement Training Systems of Francois Delsarte, Emile Jacques-Dalcroze, and Rudolf Laban (Doctoral dissertation, Wayne State University). *Dissertation Abstracts International*, 32, 6598A, p. 157.

[24] Ibid., p. 159.

[25] Emile Jacques-Dalcroze (1976). *Eurhythmics, Art, and Education*. New York: Arno Press, p. 209.

(Western) man was inferior in sensory powers and physical abilities. "We are well aware of the higher standard of sensory appreciation (associated with all the sensory experiences involved in the general psycho-physical activities essential to a healthy existence) in the uncivilized as compared with the civilized state."[26]

Likewise, Laban, observing "primitive tribes" in Africa, marveled at the rhythmic complexity of their movements performed in conjunction with drumming. "Modern European races," he wrote, "seem totally lacking in the intelligence capable of grasping the meaning underlying primitive rhythmic movements. . . . We have lost this language of the body and there is little probability that we can rediscover it, or at least, make it practicable for use on the stage."[27]

Despite contradictions in their terminology, many early researchers observed and drew from African music practices in forming their methods. They had difficulty understanding and analyzing the music, however, and had trouble putting the subtle intricacies of African music (rhythmic elements in particular) into objective theories.[28] It is instructive, therefore, to consider why these techniques continued to elude them.

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[26] F. Matthias Alexander (1989). *The Alexander Technique.* New York: Carol Communications, p.66.

[27] Rudolf Laban (1988). *Mastery of Movement.* United Kingdom: Northcote Publishers Ltd., p. 82.

[28] Ruth M. Stone (1985). "In Search of Time in African Music." *Music Theory Spectrum, 7,* p. 139. Also see James Koetting (1986). "What Do We Know About African Rhythm?" *Ethnomusicology 30* (1), p. 58.