### FLORIDA STATE UNIVERSITY

### COLLEGE OF MUSIC

## DEVELOPMENT OF MUSICAL PREFERENCE: A COMPARISON OF PERCEIVED

### INFLUENCES

By

ROGER P. PHELPS, III

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ProQuest LLC. 789 East Eisenhower Parkway P.O. Box 1346 Ann Arbor, MI 48106 - 1346 Roger Phelps defended this Thesis on April 4, 2014. The members of the supervisory committee were:

> Clifford Madsen Professor Directing Thesis

Steven Kelly Committee Member

Paul Ebbers Committee Member

The Graduate School has verified and approved the above-named committee members, and certifies that the Thesis has been approved in accordance with university requirements. This work is dedicated to my parents and my fiancé, Alex, without whom I would not be

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### ABSTRACT

The purpose of this study was to investigate the sources of variation in music preferences as defined by Leblanc (1980, 1982), provide a comprehensive review of literature as it relates to the variables under investigation, and make recommendations for future research in the field of music preference. Participants (N=420) were undergraduate students (n=354) at a large southeastern university and high school students (n=66) in the southeastern United States. A questionnaire was used to collect demographic information and data for this study. Using a Semantic differential, participants indicated the influence of twenty-one variables on their musical preferences and an open-ended question at the end allowed them to mark any important influences that may have been left off of the questionnaire. Using demographic information participants were placed in unmatched groups for comparison.

Results showed stark differences between the groups' responses of certain variables. The most salient of comparisons was made between the groups of Music Major and Non-Music Major, and Musician and Non-Musician. The Music Major and Musician groups rated the variables of Teachers, Quality, Musical Ability, and Musical Training significantly higher. This may be due to the groups' development as musicians, creating a paradigm of influence that is based on musician-oriented variables. Alternately, Non-Music Majors and Non Musicians rated the variables of Mood, Personality, and Incidental Conditioning higher. Unlike the musician-centric paradigm, these groups seemed to base influences on self, social interaction, and emotion. Future research should investigate the relationship of the hierarchy of influential variables between the population of Musician and Non Musician.

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## CHAPTER ONE INTRODUCTION

The field of music preference is a vast and complex area of study because preferences are unique to each individual. The "Sources of Variation in Music Preference" by LeBlanc (1980, 1982) stresses the interaction of variables at eight different levels. These interactions help develop an acceptance or rejection to a musical stimulus and are the key to understanding the vast number of ways a preference can be constructed. His model for music preference is the cornerstone of a vast amount of research in this field and has helped propel the understanding of how preferences are developed.

### **Universality in Music & Aesthetic Experience**

Music preferences stem from a human predisposition to music. Therefore, in order to fully investigate music preference, it is important to try to understand why humans have a proclivity towards music. Why music? Researchers are still trying to figure that out and there are various theories of how and why music developed to become such a powerful and omnipresent aspect of most people's lives. What we do know is that as far back in history as we can trace, music has been a part of the social structure (Yarbrough, 2009). Although the music itself may sound different there are similarities between the use of music of different cultures and time periods. It has been used in social contexts to celebrate weddings, for entertainment, for religious activities, and for funerals.

The structure of music is based on the twelfth root of two or the octave, which is the foundation of the equal temperament system of tuning in Western Music. Two

notes that are an octave apart sound remarkably similar. This is because of a perceptual phenomenon that has to do with the doubling or halving of a note. The octave is a basic aspect found throughout nature. Male and female voices are pitched roughly an octave apart and children generally speak an octave higher than adults. It is also a part of musical culture around the world; music from every known, past and present society around the world is based on the octave, even though little else may be the same from culture to culture.

Although the octave may not be a strong reason for humans' propensity toward music, the emotional reactions music can elicit may be. Still, the question remains, how is music so closely tied to humanity? One field of emotional response theories purports that our emotions are a product of physiological responses to stimuli (Lang, 1994). "We don't cry because we feel sad, we feel sad because we are crying." Still, other theories suggest that emotion happens in conjunction with physiological arousal and neither is the genesis of the other. Researchers have taken measurements of various physiological reactions, including heart rate and muscle tension, in order to find why certain physiological responses are elicited by certain musical stimuli. Dainow (1977) found that tense music tended to induce a corresponding muscle tension in the listener. Similarly, Bartlett (1996) observed reduced muscle tension when participants listened to relaxing music.

Other theories suggest that physiological responses are a product of a psychological construct of emotion. In order to investigate the psychological aspect of music response, researchers developed a list of adjectives (Hevner, 1935, Farnsworth, 1954) used to describe and organize musical stimuli. Yet for some, music is a completely intellectual process. The theories that may come the closest to answering the questions

of why and how are those that suggest it may be the combination of emotional and cognitive responses. Damasio (1994), for example, maintains that the human experience in music is the combination of emotion and cognition. This phenomenological experience in music is termed aesthetic response and may be part of the answer to why people have come to incorporate music in so many aspects of their lives. Yarbrough (2009, p. 26) defines aesthetics in music by examining the root of the word, which comes from the Greek word "aesthesis" that means the perception of sense. Madsen and Madsen (1970) define the aesthetic experience as "*composite emotional and intellectual responsiveness to music which is modified and reinforced through time and always defined as good*" (p. 44). From this definition, it is possible to separate the idea of perception into two areas: that of emotional response and that of intellectual response.

There is a great deal of research that has sought to quantify and track aesthetic response in music. Nielsen (1983, 1987) attempted to quantify what is thought to be an important aspect of one's aesthetic response in music by measuring what he termed tension. He asked participants to squeeze a pair of tongs that had been fitted with a potentiometer in continuum with their perception of tension in Haydn's "Symphony 104," first movement, and Richard Straus' Also Sprach Zarathurstra," measures 1-75. Measurements were graphed and results showed significant differentiation between points of tension and an extremely high degree of agreement from first to second listening of the musical stimulus. In an attempt to partially replicate Nielsen's findings, Madsen and Fredrickson (1993) used a continuous response digital interface (CRDI) to track the perceived tension responses of participants in the first movement of Haydn's "Symphony 104." One of the main tenets of this investigation was to explore the

potential universality of the perception of tension among listeners. Findings revealed a strong similarity between the results of this study and those of Nielsen's, suggesting that a given musical passage or piece will elicit certain similar reactions from listeners.

In a quasi-behavioral study (Madsen, Brittin, & Capperella-Sheldon, 1993), researchers attempted to quantify aesthetic experience across time. In doing so, they used the CRDI to measure responses. A questionnaire, post-hoc, revealed that all participants experienced at least one aesthetic experience and that the movement of the CRDI dial corresponded with the experience. Examination of the data showed aesthetic experiences clustered in certain areas with one large peak represented by the highest and lowest dial responses. This is the first study that attempts to quantify the phenomenological idea of aesthetic response to music across time.

Another study (Fredrickson, 1995) based on the replication of Nielsen's findings (Madsen, & Fredrickson, 1993) used the CRDI to compare the aesthetic responses of participants to the tension responses in a previous study. Findings showed a definite covariation between tension and aesthetic responses; however, findings also showed places where tension and aesthetic curves were in opposition. Although tension and aesthetic responses didn't always match, there were significant agreements in the increase and decrease of responses by participants. In a study measuring the effect of rehearsal and performance on perceived tension in music (Fredrickson, 1999) the researcher had high-school, and college band and choral students listen to and record their perceived responses to tension before and after the treatment. Findings did not show a significant difference between pre- and posttests; however, responses among a high-school band, university choral ensemble, and university wind ensemble strongly correlated. These studies help show a correlation between what is termed tension and

aesthetic response as well as validating the universality of the phenomenological idea of aesthetic response. This universality in music supports several theories of why music developed as it did.

#### **Need for Study**

It is important that we distinguish aesthetic response from preference. A person may have a strong aesthetic response to a piece of music but develop no preference for that music and vice versa. Reimer says of aesthetic response:

"The most fundamental value of music is its ability to give aesthetic insights through a particular kind of experience of music: aesthetic experience. The primary function of music education is, therefore, to develop the ability of every child to have aesthetic experience in music." (1968, p. 28)

It is the role of the music educator to provide this "aesthetic education" (Reimer, 1970) to every student. In order to provide these experiences, educators must be able to understand their students' musical preferences. They are an important and ever-changing factor faced by music educators at every level.

By providing a working diagram of the developmental, personal, and musical processes that influence a person's preferences of music, educators will better be able to understand what influences their students. This can be used to help shape lessons and provide an effective music education of affect to all students through the development of music curriculum, recruitment and retention of students, and expansion of meaningful music education to all areas of the school. The information in this study may provide a base for further research regarding music preferences and how they may be developed and implemented in the classroom.

This study neither aims to develop a new model for musical preference nor takes a strict experimental approach in designing observations. The purpose of this study is three-fold: 1) to compile an up-to-date review of literature of previous research in the field music preference, 2) to use existing models of music preference to investigate perceived influences on music preference, and 3) to provide recommendations for future research in related areas.

### **Research Questions**

Music preference is multidimensional but there are tangible sources of influence that help develop, define, and evolve musical preference. These sources of influence as defined by LeBlanc (1980, 1982) can be measured and defined in order to construct a comprehensive model of the effect these sources of influence currently have on the development and evolution of students' musical preferences. Specifically, this study will investigate:

1) What Developmental Characteristics are perceived as important to musical preference?

2) What Musical Characteristics are perceived as important to music preference?

3) What Enabling Conditions are perceived as important to music preference?

4) What Personal Characteristics are perceived as important to music preference?

5) What correlations or differences are found between variables of participant groups?

6) What other variables--Musical Characteristics, Developmental Characteristics, Enabling Conditions, or Personal Characteristics--may be important in influencing music preference?

### **Operational Definitions**

In dealing with field of Music Preference, it is important to determine what is meant by this word. Is it defined as the music to which one is currently listening? Is it the

music a person prefers at a certain period in time (because preferences continually change)? Is it a characteristic of a person's convictions that helps to shape a preference decision? Or is it an inherent, long-term proclivity that has developed over a long period of time? One important distinction must be made and that is the difference between preference and taste. Abeles (1980) suggest that taste is a long-term commitment to a variety of things that define a value or personal view while preference is a short-term or more immediate value choice. The distinction between taste and preference may be of little importance other than semantic differing because each is integral in the development of the other and they only differ in relation to time. For the purposes of this no distinction will be made between taste and preference; long-term, developmental and short-term, changing characteristics will be examined. While preference implies a more immediate value choice, it is not without the development of the long-term commitment to a value that the short-term preference was constructed, and it is not without the many short-term value choices that the long-term commitment was developed. Without a foundation on which to base preference decision (e.g., I like the clarinet and not the tuba; therefore, I will listen to Mozart "Clarinet Concerto in A"), there would be no way to define or develop preferences. Similarly, without changing preferences, such as current affective state, it is not as likely that one would be able to connect in extra-musical ways to the music. For example, without a fondness for Thai food, one may never come across Pad Thai, which many consider a delicious noodle dish, and develop a preference for it and other noodle dishes. Therefore, as we explore musical preferences, many variables and aspects that define a preference also define a person's musical taste, and vice versa.

# CHAPTER TWO REVIEW OF LITERATURE

#### **Models of Music Preference**

Sources of variation in music preference. There are several theoretical models of how a person develops a preference for music. Although they vary, one principle they share is the development of a preference decision is complex. It is made up of many different interactions and is unique to each person. Albert LeBlanc (1980, 1982), over years of research and discussion, defined his theory through variables that interact with each other to develop preferences. His model contains eight different levels of interaction, each of which is unique in function. The first level or input level is categorized as Musical Characteristics (Physical Property of Stimulus, Complexity of Stimulus, Referential Meaning of Stimulus, Familiarity, Performance Quality, and Media) and Developmental Characteristics (Peers, Family, Authority Figures, and Incidental Conditioning). Initial screening for preference decisions are based on the interactions of Musical Characteristics and Developmental Characteristics of the listener. The variable of Media is placed in between the Developmental Characteristics (on the right) and Musical Characteristics (on the left) on the chart because it is a subset of both (see, Figure 1). The next three levels, 7, 6, and 5 can be seen as a filter behind the initial screen of the input variables. These are immediate or current physical and psychological states that affect (interact with) the more long-term, conditioned value choices that were made in level 8.

Level 7 is comprised of the Physiological Enabling conditions that allow or do not allow a person to sense a sound stimulus. For example, a person may have a torn

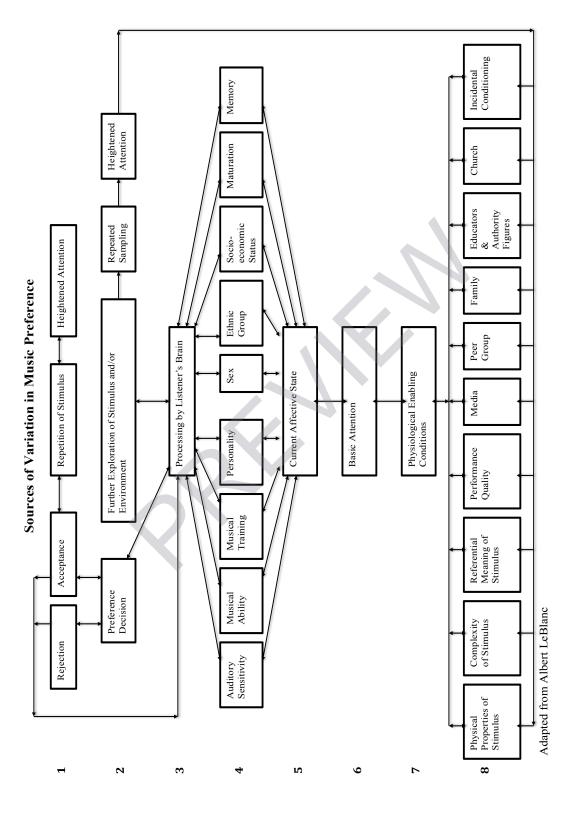
tympanic membrane, while repairable it can significantly affect the conduction of sound through the Ossicle chain and affect perception of the sound stimulus, thus potentially affecting preference. Similarly, a person may have lost all hearing above a certain frequency, not allowing them to perceive the overtones in a particularly rich section of music and affecting the potential preference for that particular piece. Level 6 is that of Basic Attention, it occupies a level unto itself because it is a profound and extremely important aspect of preference development. Without basic attention, nothing past this level matters and there will be no preference choice. It is such an important aspect that other theories of music preference are partially based on the listener's attention. Also, there is a great deal of research regarding attention and its affect on preference. Madsen & Geringer (2000) found that basic attention is a vital aspect of music listening. In a study empirically measuring aesthetic response (Madsen, Brittin, & Capperella-Sheldon, 1993), researchers found peak aesthetic experiences were preceded by a period of attention. Level 5 deals with the Current Affective State or mood of the listener. This variable, like all Enabling Conditions interacts with lower variables and is intimately related to Basic Attention.

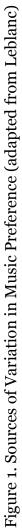
Level 4 comprises the Personal Characteristics of the listener. These include Auditory Sensitivity, Musical Ability, Musical Training, Personality, Sex, Ethnic Group, Socio-Economic Status, Maturation, and Memory. These variables interact directly with the Enabling Condition in level 5 (Mood) and vice versa. Level 3 is Processing by the Listener's Brain and can include formulation of expectations, the development of salient visual depictions, and psychomotor functions. At this point, the listener either decides to further explore the stimulus or make a preference decision. Further exploration of the stimulus and environment includes repeated sampling and heightened attention. If

a preference decision is made, the listener will either reject or accept the stimulus. If accepted, repeated sampling and heightened attention often occur. If the stimulus is rejected then repeated sampling occurs until satiation.

In this model, repeated sampling is not one of the variables through which the stimuli process, this is because of the importance it has in making a preference decision. Repetition is the glue that holds LeBlanc's model of interactions together. It is assumed, within this model there are countless repetitions of various aspects of the stimulus as they related to each variable. It is through the cycle of repeated interactions, recurring sampling, and further exploration of the stimulus that preference decisions are formed.

Although, his model stresses the importance of interactions, not all variables have to interact in order for the development a preference to occur. Some variables may be relevant to a certain musical stimulus while others are not. For example, a preference for a popular song may elicit an interaction with the variable of Incidental Conditioning because the music reminded the listener of a dear friend. Alternatively, a preference for a concerto may elicit an interaction with the variable of Performing Media of music because the listener is a tubist and the concerto, a tuba concerto. LeBlanc's chart of interaction in the sources of variation in music was taken and adapted to suite the purposes of this research.





**Hedgehog theory and inverted U.** Repetition and attention have been the basis for other models of musical preference (Walker, 1980, Berlyne, 1971, McMullen, 1980). The hedgehog theory, developed by Edward Walker (1980) got its name because of its reference to a saying by the Greek poet Archilochus that says, "The fox knows many things, but the hedgehog knows one big thing." Like a hedgehog, which has one trick (it curls up in a ball) for every situation, Walker's behavioral theory has one principle. It is the idea that the complexity of a stimulus determines a person's preference. The preference choice is made in terms of ideal complexity, not too complex that it is overwhelming, or too simple that it is boring. This relationship between complexity and preference can be seen in the inverted-U, which is utilized in other theories of preference (Berlyne, 1971, McMullen, 1980).

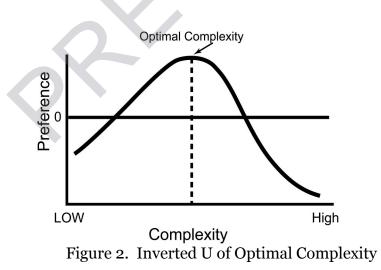


Figure 2. illustrates the relationship between complexity and preference. As the complexity of a stimulus approaches a person's optimal level of complexity, preference

for the stimulus increases and as the complexity of the stimulus passes a person's optimal level of complexity, preference for the stimulus decreases. Walker states, "Psychological events nearest optimum complexity are preferred. Occurrence produces simplification..." (p. 471). The variable Walker added to his theory that makes it so comprehensive is repeated sampling and the effect it has on preference and complexity. As a person repeats a complex stimulus, the response to the stimulus will become simpler, thus, becoming more enjoyable, until it reaches the listener's optimal level of complexity. However, if repeated sampling continues, it may pass the threshold of optimal complexity and the music will eventually becoming boring for the listener. This theory could help explain why some musicians prefer certain styles of music to others. A piece of music that has one instrument performing repetitive parts may not be as enjoyable to a musician as a piece that has several intricate instrumental parts. Alternatively, a non-musician may find the intricate music overwhelming and prefer a musical stimulus that has fewer instruments and less intricacy.

#### **Reviews of Music Preference Research**

In an attempt to standardize terminology regarding affective response to music, Price (1986) compiled a comprehensive set of terms and their intended functions. This standardization has helped researchers interested in the field of taste and preference to align and standardize the wording of their research so that it can be compared to a variety of research in the same field. There are several comprehensive reviews of literature in the field of music preference. Of them, Radocy and Boyle (2012) provide a detailed over-view of music preference and taste. In a comprehensive review of research Finnäs (1989) concludes that a broad musical taste is desired and that function is intimately tied with education. He cites the complex character of music preference as a

reason for more case studies, qualitative research, and interdisciplinary studies in order to open a forum of discussion from various viewpoints on the topic.

Droe (2006) uses music preference research to outline important areas in music education that can be controlled by the educator. He maintains that music educators should have a goal of expanding the exposure students have to a variety of different music, so when students graduate, they have developed a broad base of music and musical styles. He argues that through studying music preference research, it is possible to aid in the recruitment and retention of students. Understanding their students preferences make it easier to get students into music programs and to stay in music programs. Anthony (1974) suggests the majority of students cited the enjoyment of the music as the major reason for staying in band and by understanding how to sculpt preferences, educators can provide an enjoyable and meaningful time for all of their students.

Wapnick (1976) cites the variables of intelligence, personality, musical aptitude, sex, and age as important aspects in making music preference decision in the music classroom and reviews research where the manipulation of each of these variables was used to influence preference. However, the issue, he concludes, is that the attitudes and values that are brought into a classroom may limit a student's musical development. Therefore, as music educators, it is important to help expand these values and attitudes. If it is, as Wapnick maintains, the values and attitudes of students that are the key to expanding preferences, then how does an educator decide what music will best influence students? Wapnick argues that it may not be the music that is key but the method,

"Regardless of decisions concerning what is actually taught, the development of effective teaching methods is of great importance. For