

ROLE MODELING IN MUSIC AND GENDER ASSOCIATIONS OF MUSICAL INSTRUMENTS AND CONDUCTORS

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Abstract

The purpose of this study was to investigate gender associations of musical instruments, conductors, composers and to evaluate possible changes in gender associations of musical instruments from earlier research. My monograph is divided into four main sections which are: (a) women composers, vocalists, musicians, music educators, and conductors, (b) a review of previous research on gender associations of musical instruments and conductors, (c) my own research on gender associations of musical instruments and conductors, and (d) compared changes of gender/instrument perceptions between previous research and my own. The results compiled from my survey given to 81 students at a junior high school level revealed that students are strongly influenced by gender role modeling of musical instruments and conductors. In fact the two strongest factors influencing students' gender associations of musical instruments were "who they saw" and "size of the instrument".

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Finally, I wish to thank all the students who took part in the survey for my research. Their responses were very interesting and invaluable in my quest for answers.

DEDICATION

*With love
To my husband,
Benoît Dufresne
and our son,
Patrick*

TABLE OF CONTENTS

CHAPTER 1	1
INTRODUCTION	1
CHAPTER 2	
WOMEN'S ROLE IN MUSIC HISTORY	5
FEMALE MUSICIANS/COMPOSERS	9
Fanny Mendelssohn Hensel (1805-47)	10
Clara Schumann (1819-1896)	11
Ethel Smyth (1858-1944)	13
Amy Beach (1867-1944)	15
Florence Price (1888-1953)	16
Ellen Taaffe Zwilich (1939-)	17
FEMALE VOCALISTS AND MUSICIANS	19
Barbara Strozzi (1619-64)	19
Lil Hardin (1898-1971)	20
Me' Shell NdegéOcello (1969-)	22
FEMALE MUSIC EDUCATORS	23
Nadia Boulanger (1887-1979)	23
Carole Kaye (1936-)	25
Marta Ptaszynska (1943-)	28
FEMALE CONDUCTORS	30
Margaret Hillis (1921-)	30
Catherine Comet (1944 -)	32
Véronique Lacroix (1963-)	34
CONCLUSION	35
CHAPTER 3	37
REVIEW OF PREVIOUS RESEARCH	37
The Sex-Sterotyping of Musical Instruments by Harold F. Abeles and Susan Yank Porter (1978).	39
Sex-Role Associations of Music Instruments and Occupation by Gender and Major by Philip.A. Griswold and Denise A. Chrobak (1981)	43
Gender Association of Musical Instruments and Preferences of Fourth-Grade Students for Selected Instruments by Judith.K. Delzell, and David A. Leppla (1992)	44
Middle School Band Students' Instrument Choice by Patrick M. Fortney, J. David Boyle, and Nicolas J. DeCarbo (1993)	47
CONCLUSION	49
CHAPTER 4	52
PRESENTATION OF CURRENT RESEARCH	52
Procedures for Collecting Data	52
Gender Association of Males and Females	55
Table 1A	59
Males Perceptions of Who Plays Selected Instruments	59
Table 1B	60

Males Perception of Gender Continuum of Instruments	60
Table 2A	61
Female Perceptions of Who Plays Selected Instruments	61
Table 2B	62
Female Perceptions of Gender Continuum of Instruments	62
Combined Male/Female Perceptions of Who Plays Selected Instruments	63
Table 3A	64
Combined Male/Female Perceptions of Who Plays Selected Instruments	64
Table 3B	65
Combined Male/Female Perceptions of Gender Continuum of Instruments	65
Influences on Student's Choices	66
Table 4A	73
Male Comments on Reasons for Gender Association of Instruments	73
Table 4B	74
Female Comments on Reasons for Gender Association of Instruments	74
Table 4C	75
Combined Male/Female Comments on Responses for Gender Association of Instruments	75
CONCLUSION	76
CHAPTER 5	77
CONCLUSION	77
OLD AND NEW PERCEPTIONS	77
Changes in Perception Within Two Decades	77
Table 5A	79
Compared Results of Current Study with Previous Research	79
Table 5B	80
Compared Results with the Original Eight Instruments from Abeles and Porter	80
Choosing Textbooks on Women in Music	81
REFERENCES	83
APPENDICES	86
APPENDIX A	86
Quotations from students	86
APPENDIX B	97
Student Survey	97

CHAPTER 1

INTRODUCTION

As I was reflecting on the sources of inspiration that led me to this particular subject, I kept thinking about instrument choices for students. I originally excluded myself from the subjects under study, but as I reflected on others, it became increasingly evident that I too had a role model for the trumpet. It happened to be my older sister. She played a brass instrument because as a teenager she had been part of an all-female marching band which had no female/male instrumental limitations. She later quit music but I followed in her footsteps and have continued to this day.

The female modeling of the instrument I had chosen seemed increasingly limited as my musical studies progressed. In high school I was one of very few girls to play an instrument which was socially perceived to be a male instrument. At the beginning of my college career, there was a larger number of females playing conventional male instruments, but by the end of my studies only a handful remained. By the time I reached university I was the only female playing the trumpet. The original pride I had felt as the only female trumpet player during my University studies slowly turned into an awareness that something did not seem right. I started to question how this imbalance of males to females in music faculties had

happened. As the only female playing in a big band, I felt like I was attending an all male health center and it became difficult to fit in with the rest of the gang because of the gender issue.

This is how I became interested in the subject of music and gender and in how others perceive instrument modeling. The main focus of this monograph is on the impact of instrument modeling on students in my classes at the high school level. I am interested in knowing how students arrive at their perceptions of others and themselves as instrumentalists.

The purpose of this research is to make music educators aware of the gender bias associated with certain musical instruments at the high school level. These biases cause constraints for both female and males students in the orientation of their own instrument choice. By becoming aware of accumulated evidence through surveys and previous research, I hope that music educators will see the need to present musical instruments using unrestrictive gender role modeling in their teaching approach. Furthermore, I would like to convince music educators to include in their curriculum the study of women musicians and composers so students can learn about the women who have contributed to our musical heritage as well as those who are currently in the music profession.

My assumptions about this subject have been taken from personal observations, discussions with other music educators, and literature on the subject of gender-bias in music performance within education. The conclusions from my readings point to a lack of awareness and understanding of

"genderization" of musical instruments and the consequences this has on both males and females in music education. It seems we have become both victims and perpetrators of learned misconceptions about musical instruments through misrepresentation of gender role modeling. These gender biased instrumental associations have occurred in our own education, and we seem to be inadvertently continuing this pattern in our representation of instrumentalists, composers and educators to today's students. This gender bias is further reinforced through constant exposure to images in popular culture.

By examining the existing problems of gender/instrument associations, I hope to encourage music teachers to rethink how they introduce instruments to students. While researching this topic, it was alarming to see how little has been written about gender issues in music. Much more has been written in the areas of science and mathematics. According to one source:

It is beyond the scope of this article to analyze the myriad reasons behind the lack of awareness of sexism in music education and the related problems that women continue to encounter in their struggle to survive in a profession that routinely discourages their contributions and ignores their achievements. I hail the authors of the few articles surveyed herein, and hope that their consciousness of this crucial problem in music education will prompt other educators to continue their efforts-- in further research. (Pucciani, 1983, p.35)

I have divided this paper into five chapters. Chapter One is an introduction to my arguments. Chapter Two consists of an historical overview of some of the women in music history. It discusses examples of female musicians, composers and educators in our history and reinforces why they should be

included in our formal music history classes as role models for both male and female students. In Chapter Three I will discuss prior surveys on gender/ instrumentation associations which date from 1978 to 1990. Chapter Four contains the analysis of a survey which I conducted in the spring of 1993, showing how students perceive instrument associations and gender in our society. Chapter Five compares my survey results with those of earlier research and presents a brief conclusion of my monograph.

CHAPTER 2:

WOMEN'S ROLE IN MUSIC HISTORY

Music history is very important as role modeling because it is a vital element in the study of music. It enables us to see how music has progressed through the ages and how we have arrived at our present musical culture. The study of music history enables us to understand our origins and how we as individuals are shaped by our past. One problem with music history, as reflected in our music textbooks, is the exclusion of women from the texts. This may lead some to think that women did not help shape music history. Women in music history are consequently viewed as having been insignificant. These inequalities may result in future inequalities simply because women studying music will not be able to identify themselves with female role models which males have in abundance. In the article "Picture This. Sex Equity in Textbook Illustrations" by Julia Eklund Koza (1992), the following statement best summarizes this idea:

Equity in textbook content is also of concern because many children view the information in textbooks as authoritative.... The assumption of truthful reality gives a textbook power not shared by other media, for example, by movies shown at the local theater. If women are stereotyped, under-represented, or excluded from text, young readers may be led to believe that women play only a circumscribed role in society, that there is but one version of reality-- a male version--or that women's roles in the future will be limited. (Koza, 1992, p.29)

Most students studying music history in college or university will at some point read the book A History of Western Music (1980) by Donald Jay Grout. This textbook surveys western music history from the end of the ancient world to the twentieth century. Grout's music history book is recommended by all teachers as excellent, containing all the important facts about our historical music origins. Although we understand why historically there are few women composers and musicians, we cannot ignore Grout's failure to mention the place of good women composers, conductors and musicians who did exist from the eighteenth century onwards. Thus a highly respected musicologist perpetuates the incorrect belief that there were no significant contributions made by women in this field.

After reviewing several articles and music history books, I am of the opinion that we can no longer ignore the omission of women as composers and musicians within textbooks which are used as credible educational sources in our schools. It is crucial that teachers investigate certain facts which have an impact on female music students who, like their male colleagues, need to see positive models as sources of inspiration. With so few positive female musicians and composers written about in most educational textbooks, women cannot identify themselves with a history which names only men as having had talent. If such is the case, both male and female students may believe that men are indeed more musically talented. It is not that the information contained in most of these textbooks is wrong, but the omission of historical facts

may become educationally misleading for both male and female students. The omission of important female composers and musicians perpetuates the image of males owning the right and ability to create music.

In volume II of the Musical Woman, An International Perspective (1985), currently used music history textbooks were surveyed. Jezic and Binder argue that most textbooks do not include women and if they do, only two or three might be mentioned. The article includes a very long list of music history books with the number of pages of each textbook, total number of women composers mentioned, number of music examples composed by women, and the number of complete paragraphs discussing a particular woman composer. The results revealed:

The statistics cannot be ignored: 28 percent of the books published since 1979 mention no women composers. More than 50 percent of the 14 texts published since 1979 mention one or none...When one considers the large number of women composers who might have been mentioned, these are hardly impressive numbers. (Jezic and Binder, 1985, p.451 and 459)

It seems that female music students do not learn about women in music history until, like myself, they initiate personal research. While reading one of the books used for this subject, it was reassuring, but also strange, to share the same thoughts and feelings about this subject with others who also felt it was important to discuss the place of women musicians and composers in history. Although many women expressed the same thoughts differently, these are best expressed in this paragraph:

Bach, Beethoven, Chopin, Bartók--- these are the composers I came to know while taking piano lessons as a young girl. I knew all of them were men, and I wondered why there were no women composers. The truth is that there are many women composers; I had just never heard of them! In writing this book, I discovered many reasons why most women aren't very well known. (Nichols, 1992, p.xi)

Education should be about knowledge, sharing information and finding facts. So in our quest for truth, I propose we take a closer look at historical facts to find models of talented women composers, singers, conductors and musicians so women can identify themselves as part of a dignified musical history which acknowledges their many contributions as important. The balance of this chapter will continue under these sub-headings: 1) Female musicians and composers, 2) Female vocalists and musicians, 3) Female educators, 4) Female conductors, and 5) Contemporary female role models in music. Within each of these sections, I have included only a few examples, but the list of women in music is much longer. I chose these women because they illustrate my point about women being part of our past and current musical heritage. Undoubtedly, there are many other women in music who were equally, if not more famous, and interesting for us to learn about. I hope this brief chapter will inspire teachers and students to learn about women in music.

In my own search for women musicians, composers, conductors, singers and educators, I discovered so many important female role models that it became difficult to choose who to include. This overview is not intended to be comprehensive, but suggestive. Likewise, since many of the

women mentioned in this chapter pursued either compositional, instrumental, educational, or conductor careers at once, the categories are not mutually exclusive.

FEMALE MUSICIANS/COMPOSERS

**Elisabeth-Claude Jacquet de la Guerre¹
(1666-1729)**

Elisabeth-Claude Jacquet de la Guerre is described as a prodigy. She came from a very musical family . Her father was a harpsichord builder and organ teacher. By the age of 7, Elisabeth had made her debut in Versailles and was offered a post to teach music to the King's children. Once married to Marin de la Guerre, she continued her music career and published many works.

Elisabeth's publications include a book of harpsichord pieces; cantatas, violin solos and trio sonatas. According to Barbara Garvey Jackson in the book Women and Music, (1991) there is evidence in Elisabeth de la Guerre's work of innovative techniques which were credited in later years to other famous composers. For a person who was so important in her day, her

¹ Unless otherwise stated, information on this musician/composer is drawn from Jackson (1991).

omission from our music history and the loss of some of her best works is a loss for all. The following quote from Women and Music (1991) exemplifies her forgotten historical importance:

Her last known work (now lost) was a choral Te Deum celebrating the recovery of Louis XIV from smallpox. Such a work would only have been commissioned from a composer of undoubted importance. At her death in 1729 a medal was struck in her honor... Walther's German *Lexikon* (1732) has a longer article for La Guerre than for François Couperin *le grand*. (Jackson, 1991, p.74)

Fanny Mendelssohn Hensel (1805-47)²

Felix Mendelssohn is one of the most respected and well-known composers/musicians from the nineteenth century. He also had a sister named Fanny, who was equally talented and who deserves just as much praise and credit as Felix, for she produced many great works, most of which were published under Felix's name. However, had she not composed music using her brother's name, she would probably have remained unknown to us.

According to Nichols, many well known pieces written by Fanny Mendelssohn are still assumed to be written by Felix. Among these are: The Home Spell, Italy, Suleika, Hatem, Sleepless, Forsaken and The Nun. These are included in Felix's opuses and German songs (Lieder). Fanny was not encouraged by

² Unless otherwise stated, information on this musician/composer is drawn from Nichols (1992).

her brother or husband to publish under her own name. Having children, a husband and a house to care for were seen as her primary duties. Although Felix cared a lot about his sister and they were very close, here is what he wrote to his mother about the idea of his sister publishing her own compositions.

Fanny has neither inclination nor vocation for authorship. She is too much all that a woman ought to be for this. She regulates her house, and neither thinks of the public nor the musical world, nor even of music at all, until her first duties are fulfilled. Publishing would only disturb her in these, and I cannot say that I approve of it. (Nichols, 1992, p.26)

Eventually Fanny did publish under her own name and she earned some recognition. One of her compositions included the Piano Trio in D Minor, Opus 11, for violin, cello, and piano. It is said that Fanny was only able to fully enjoy a satisfying musical career towards the end of her life once she had fulfilled her duties as a daughter, sister, wife and mother.

Clara Schumann (1819–1896)³

Clara Wieck Schumann is one of the rare composers/musicians to have been encouraged to succeed in a musical career as if she had been a man. Her father had great musical expectations for his daughter and managed her career while she was very young as if it had been the most important

³ Unless otherwise indicated, information on this musician/composer is drawn from Nichols, (1992) and Reich (1987).

function of his life. Her father tried to control all aspects of her life and he was especially opposed to her marrying Robert Schumann. Clara had easier access to the same musical opportunities as male concert pianists but she still had difficulties accepting her own musical talent and place in a world dominated by men. In the music world of the nineteenth century, as in other fields of endeavour, women were not acknowledged as being capable of having as much (or more) talent as men. According to Historical Anthology of Music by Women (1987):

From her letters to friends, there is evidence that Clara Schumann found composing a source of great pleasure, and she declared more than once that only a composer could achieve true immortality. Yet she herself had grave doubts about her role as a composer and was more comfortable in the world of the interpretive artist. The ambivalence she displayed was due, in part, to the societal attitude toward women composers and was certainly influenced by her position as the wife of a creative genius. (Reich, 1987, p.119)

Clara Schumann's loss of identity may also have been due to an over-controlling father. But living with Robert Schumann, who became mentally ill, and was in fact jealous of Clara's talent, did not help her self esteem. Robert did encourage her to compose and play in concerts for money but his unstable condition did not lead to a balanced family life. According to Nichols, during their life together Clara had eight children, two miscarriages and often played concerts a week before giving birth. The main purpose of her compositions and concert tours as a virtuoso pianist was to make money, while Robert Schumann's purpose was to compose for fame and recognition.

They did compose pieces together and were a source of inspiration for each other, but when Robert was committed to a mental institution, Clara had to compose and play at concerts to pay the institution bills and take care of their children.

Although it is well recognized that Robert Schumann was a brilliant and innovative composer of his time, one should not forget that Clara Schumann surpassed him as a musician and was an excellent composer in her own right. Furthermore, Robert Schumann's compositions did gain popularity and admiration primarily because of the fact that his wife spent her life interpreting (playing) his pieces at concerts. Probably this is why Clara Schumann is best remembered as a concert pianist rather than as a composer. According to Nichols:

Clara also preferred to be an interpretive artist rather than a creative one, and felt that her most important work was to show the world how Robert Schumann's compositions were supposed to sound. (Nichols, 1992, p.63)

Ethel Smyth (1858–1944)⁴

Ethel Smyth distinguishes herself from other women mentioned so far because she had confidence in her abilities and being a woman did not pose limitations on her ambitions. In moments of despair, and when faced with negative criticism,

⁴Unless otherwise indicated, information on this musician/composer is drawn from Jackson (1987).

Ethel Smyth did not dwell on the pain but became even more determined to succeed. This is further elaborated in the book Women and Music (1991):

All in all Ethel Smyth counts as one of the most striking figures in women's history. A pathbreaking composer and feminist, she had the courage to live up to her convictions regardless of consequences. She is the first woman to articulate in so direct a manner the subtle and overt types of discrimination facing women musicians. Even increasing deafness could not dampen the energy and pluck of this iconoclast. (Jackson, 1991, p.140)

Ethel Smyth studied music in Germany at the Leipzig Conservatory and later in private with well known composers such as Reinecke and Heinrich von Herzogenberg. Her musical influences also include Johannes Brahms, Clara Schumann, Antonin Dvorak, Peter Tchaikovsky and Richard Wagner. Among her famous compositions is the Mass in D for Orchestra and Chorus written in 1891. She also wrote six operas, the most famous of which is 'The Wreckers'. Apart from writing music she also wrote ten books on subjects as varied as feminism , the state of the British Empire, to sheepdogs. In 1910 she also participated in the suffragist movement, and after World War I she continued as an activist to help women keep their positions as orchestra musicians which they had held during the war.

Amy Beach (1867–1944)⁵

Amy Beach wrote more than three hundred works in almost every known classical style. Amy Beach was incontestably a musical genius who was self taught, listening to compositions and learning by transcribing these from memory after a concert. Furthermore, she read everything she could about theory, harmony and composition. According to Women and Music (1991):

At four the child played by ear any music she had heard and also composed her first pieces for the piano-- in her head away from the instrument...At sixteen she made an eagerly awaited debut with the Boston orchestra... By the time she made her debut with the Boston Symphony Orchestra in 1885, the critics were calling her a master musician. (Adrienne Fried Block, 1991, p.167)

Amy Beach had an extraordinary amount of musical talent which was recognized by all who listened to her compositions or heard her play the piano. Her mother, who was also an excellent pianist, encouraged Amy by exposing her to music at an early age and providing her with an abundance of musical resources.

At eighteen, Amy married Dr. Henry Harris Aubrey Beach, who was forty-two. During her marriage, which was childless, she continued to publish her compositions. After the death of her husband in 1910 she resumed a career as a concert pianist. Her lifetime production consisted of over 150 pieces of piano and chamber music, as well as a full opera, 'Cabildo'.

⁵ Unless otherwise indicated, information on this musician/composer is drawn from Block (1991).

Florence Price (1888–1953)⁶

Florence Price is a positive role model for women in music and also for minority groups. In her time it was rare for women to be successful in the music profession, and even more difficult for black people to gain recognition. Florence Price was more fortunate than most black children in her community for her family was financially at ease. They eventually left Arkansas when racial tensions made it impossible to live peacefully.

After attending the New England Conservatory she returned to her home town, Little Rock, to teach music. There she married a lawyer, Thomas J.Price. Being married did not stop Florence from pursuing a musical career. Her compositions include the following: Cotton Gin, The Old Boatman, Little Negro Dances, Dances of the Canebrakes. Tropical Noon, Suite of Negro Dances and much more. Throughout her life, her greatest struggle was with racism rather than gender discrimination. For example, she was banned from The Arkansas Music Teacher Association because of her race. The titles of her compositions reflect her Black-American background.

⁶ Unless otherwise indicated, information on this musician/composer is drawn from Nichols (1992).

Ellen Taaffe Zwilich (1939-)⁷

Ellen Taaffe Zwilich is mostly known as the first woman to win the Pulitzer Prize for music in 1983. Although she is happy to be a positive role model to women, she is uncomfortable with the emphasis on placed on her gender rather than talent for winning that prize.

Zwilich was born in Florida and her parents owned a piano even though they had no musical training. As a very young child Ellen felt drawn to play with the piano even before learning how to walk. She began formal piano lessons at the age of five and by the age of ten she started writing her first compositions. Her high school years provided her with encouraging and positive experiences, including behind-the-screen auditions in the school music program which emphasized musical merit rather than gender or any other factor. DeLorenzo (1992) quotes from Ellen Taaffe Zwilich:

School music programs were important in Zwilich's musical development, and she speaks warmly about her high school experience. "For so many of my friends, this was our way into music. For instance, I was a student conductor of the band and the orchestra. I played violin in the orchestra and trumpet in the band. I arranged music for the marching band and wrote little pieces-- all in the context of the school situation. In our high school we had behind-the-screen auditions. It didn't matter whether you were male, female, a tenth or twelfth grader. The emphasis was on musical merit. This, I think, is a wonderful model for everyone, particularly girls." (DeLorenzo, 1992, p.46)

⁷ Unless otherwise stated, information on this composer is drawn from DeLorenzo (1992) and Duncans (1990)

At the age of eighteen, Ellen Taaffe Zwilich was already composing full-scale orchestral works. Upon graduating from high school, she entered Florida State University in Tallahassee in music composition and continued playing violin in the University's orchestra and the trumpet in the jazz band. She also started singing with the Collegium Musicum to gain further practical experience for her compositions. Everything she composed got played, which was a privilege mainly reserved for the University professors. By 1962 she had her master's degree from Florida State University.

After gaining more experience as a violinist in orchestras, and getting married, Zwilich entered the Juilliard School to study composition with Elliott Carter and Roger Sessions. By 1975 she was the first woman at Juilliard to earn a doctorate in composition. Her success as a composer soared from that point on. Some of her compositions include: Symposium for Orchestra, Symbolon, Symphony No.1, Celebration, Prologue and Variation, Concerto for Trombone, Einsame Nacht and so on. She has written mostly for instrumental ensembles. According to the list provided by Duncan in The Musical Woman Vol.III, she has 14 orchestral, 13 solo/chamber and ensemble, 4 vocal and 1 chorus pieces or major published works. At this point in her career, Zwilich is unable to fulfill the demand for her compositions. She is so busy that she refuses more commissions than she can accept.

When asked what she thinks of women in music or her achievements as a female role model, Zwilich answered the following:

"I'd like to think I won my piece, not as a symbol," she said in 1983, shortly after she won the the Pulitzer Prize. "But I wouldn't mind being a positive symbol... I long to live in a time when it is not remarkable for women to do anything, and I believe things are moving in that direction." (Duncan, 1990, p.410 and 411)

FEMALE VOCALISTS AND MUSICIANS

Barbara Strozzi (1619-64)⁸

Barbara Strozzi was a singer who lived a unique situation for her times. Her adoptive father, who was well known by important writers, painters and musicians in Venice, encouraged her to develop her talent as a vocalist and composer. Since women composers were not allowed to have their compositions performed in society, her adoptive father brought society into his home to listen to her music. Her adoptive father even went so far as to create an academy to allow Barbara to advance in

⁸ Unless otherwise indicated, information on this musician/composer is drawn from Jackson (1987).

her musical career, which was unusual for those times. At the age of twenty-five, she published her first book of madrigals, songs set for two to five voices. To avoid harsh criticism, she dedicated her book to a duchess and wrote, "As a woman I publish too boldly." But despite her apology for writing brilliantly, she was not only unjustly criticized but was called a prostitute for writing music, an activity which was perceived as unwomanly.

In all, Barbara Strozzi was a brilliant and imaginative composer whose works were published along with those of her teacher, Francesco Cavalli. According to Nichols, the technical difficulty of Strozzi's compositions indicate that she must also have been an accomplished singer. Many articles support this theory, for she was described as having a beautiful voice. Strozzi composed more than a hundred songs and is described by Nichols as one of the most important Baroque composers of chamber music. Despite her popularity, she was almost completely forgotten after her last volume of songs was published in 1664 .

Lil Hardin (1898-1971)⁹

A well known book used as reference in Jazz history classes is called The Making of Jazz, A Comprehensive History,

⁹ Unless otherwise indicated, information on this musician/composer is drawn from Porter (1984).

by James Lincoln Collier. It was first published in 1978 and names 103 musicians and composers of which 100 are men and 3 women. As in any good Jazz history book Louis Armstrong is frequently mentioned since he was one of Jazz's great musicians. In the process of describing Louis Armstrong's music and life, we also learn that he had a wife who played the piano with him during his time with King Creole Band. His wife is credited in certain Jazz textbooks with teaching Louis how to read music and helping him establish himself in the professional music business. As some historians have argued, she deserves more recognition rather than being vaguely mentioned as only Louis Armstrong's wife who so happened to play the piano. She should also have her name listed along with the other important composers and musicians of early Jazz. According to Porter's "She Wiped All the Men Out":

Lil Hardin Armstrong was indeed, as she put it, "a heavy piano player," in the sense that she had a big, full sound and lots of energy. On the 1923 King Oliver recording of "I'm Going Away to Wear You Off My Mind," she played with a lively sense of swing, and used octaves for textural contrast and blues "crushes."

In general, the recording evidence of her pianistic ability suggests that Hardin deserves more recognition than the usual token nod she receives as Louis Armstrong's wife. (Porter, 1984 p.45)

Me' Shell Ndegéocello (1969–)¹⁰

This young female electric bass player is known as an "A-list" musician who has worked with Herbie Hancock, John Mellencamp, and Chaka Khan. She was born in Germany and raised in Washington, D.C. and raised with a father and brother who were accomplished jazz musicians. Her real name is Michelle Johnson but she changed it to Me'Shell Ndegéocello. Ndegéocello means "free like a bird".

Me'Shell credits her musical training to her father who taught her how to read jazz charts and also to her first band called the D.C. Go-Go Band for showing her how to groove in another style of music. Musical professionalism requires a musician to remain within a specific musical context to actually make the music sound good which Me'Shell masters perfectly. With all this musical training and talent, she gained musical recognition with her 1993 debut album called *Plantation Lullabies* which was marketed by Maverick label owned by Madonna. Her incredible electric bass playing has merited her four Grammy nominations.

¹⁰ Cristafulli (1995)

FEMALE MUSIC EDUCATORS

Nadia Boulanger (1887–1979)¹¹

Nadia Boulanger began her career as a composer, conductor and organist. She turned to teaching because she felt that her compositional and instrumentalist careers were not entirely fulfilling. Her ability to inspire her students and instill high musical standards through her teaching have produced such renowned composers as Elliott Carter, Aaron Copland, Thea Musgrave, Philip Glass, and Catherine Comet.

Nadia was fortunate to be part of a very musical family. Like her sister Lili Boulanger, a very well known French composer who died at the age of 25, Nadia also demonstrated early signs of her immense musical talents. As written in Women in Music (1991):

A fluent talent and a penchant for work were evident early: by the age of sixteen Nadia had won every prize available at the Conservatoire. Composition came easily; two years after her first composition, *La lettre de mort* (1906), she won second place in the Prix de Rome competition with *Sirène*. Composition study with Gabriel Fauré, Louis Vierne, Charles Marie Widor, and others was combined with organ lessons. She excelled in the latter as well as in the classroom subjects, and she succeeded the brilliant Fauré as organist at the Madeleine Church after his death in 1924. (Zierolf, 1991, p.190)

Pursuing a career as a music pedagogue, Nadia obtained simultaneous teaching positions at the American School at

¹¹ Unless otherwise indicated, information on this musician/composer is drawn from Zierolf (1991).

Fontainebleau, Paris Conservatoire and l'Ecole Normale. Despite her full time teaching positions she also managed to combine performing, touring and writing musical critiques. During the war years Nadia taught in the United States at prestigious music institutions such as the Juilliard School.

Most textbooks acknowledge that she is less well known than other famous composers, educators and conductors of her time. But they attribute this to her personality rather than to her gender. They describe her as less flamboyant. However, had she been as flamboyant as the French composers of her time, the society she lived in would have condemned such behavior from a female. There is also a certain amount of speculation that her male colleagues were envious of her success abroad. In reference:

Perhaps because she was not a composer in her later years, or perhaps because she was not flamboyant or eccentric, Boulanger was more highly regarded by composers outside of France than by those in her native country. Rosters of students show far fewer French than other nationalities, a curious fact given the nationalistic enrollment policies of the Paris Conservatoire. It can be said that the American School at Fontainebleau was where she ruled; in Paris she was overshadowed first by Fauré and Ravel, then by Olivier Messiaen and Pierre Boulez. It probably did not help that Boulanger promoted American music, especially that composed by former students, but it seems also that many were jealous of her reputation and talents. (Zierolf, 1991, p.191)

Nadia Boulanger also worked for the French government during World War I with her sister Lili Boulanger. During World War II, Nadia also helped her country by conducting concerts and performing in the United States for the French Relief Fund. She was also an activist in the French League of Womens' Rights. In

addition to maintaining her own career she also preserved and disseminated Lili's music.

One often thinks of music educators as 'not quite good enough' to be performers in their own right. Nadia Boulanger defies that negative and erroneous stereotype, and demonstrates a woman's ability to excel in all areas of musical production.

Carole Kaye (1936-)¹²

One of the great studio musicians of the 50's 60's and 70's is Carol Kaye who played both guitar and bass. In a time when women instrumentalists were rare, Kaye was considered the #1 call bassist in L.A. in the 60's. She recorded many hit songs such as the Beach Boys' "Good vibrations", the Righteous Brothers', Ike and Tina Turner, and the Ronettes songs which are still popular today. Her television works include Mission Impossible, Ironside, Bonanza, M.A.S.H., Hawaii Five-O, and the list continues.

Born in Everett, Washington, Kaye's parents were professional musicians. Her father was a Dixieland trombonist and her mother played the piano. Her family was poor and Kaye was also lonely as a child. However, with such a musically rich environment, Kaye found comfort and joy through learning music. At age 13 she was playing the guitar and doing music instrument demonstrations for a music store. Later she joined a big band and made a living doing gigs.

¹² Unless otherwise indicated, information on this musician/composer is drawn from Brown (1993).

Kaye's switch from guitar to electric bass occurred by accident. According to Bass Player:

For the next six years, Kaye was continually on call, playing acoustic and electric guitars, mandolin, and banjo on dozens of recordings. She soon found herself a solid member in the clique of top studio musicians. One day in 1963, the bassist didn't show up on a date for Capitol records. Carole played bass-- a Fender Precision--and liked it. "I thought, 'Four strings, easy enough...and only one thing to carry in'. It was easier to specialize. I practiced fiercely at first. I considered myself a jazz guitarist who picked up the Fender bass, as it was called then. The challenge of inventing a line and helping to make a hit happen was fun." (Brown, 1993, p.33)

Although Kaye is not as active as a musician today, she remains a source of inspiration as a music educator. In 1969 Kaye formed her own music-publishing firm. She wrote 10 instructional books and wrote her first book called How To Play the Electric Bass. Her music methods form the basis of many electric bass lessons. Some of her students include: Jim Hughart, John Clayton, Putter Smith, Reinie Press, Richard Maloof, Tony Sales, David Hungate and Chas Meeks.

"She's proud when Sting (famous pop star and bass player) mentions on the Arsenio Hall Show that he got his musical start from her books and when David Hungate (well-known bass player) states, in a Bass Player interview (March '92), that she was his only teacher." (Brown, 1993)

Kaye mentions in the same article that she was not concerned about being a woman musician. Back in her professional playing days when someone dared point the fact out or make silly remarks, she was quick to put them back in their place. In other words, she did not let people intimidate her

nor did she make an issue of it. She has been defined by other musicians and friends as having a fast wit and a good sense of humor when expressing her opinions.

Carol Kaye likes to be regarded for what she was, one of the best bass players of her time and not marginalized as only an excellent woman bassist. Kaye was interviewed in the February 1993 issue of Bass Player magazine and made this interesting comment on "The Gender Thing":

According to Kaye, no one looked down on her because she was a woman. "I've dealt with the question of being a woman in the music business more since I quit than I ever did while I was in action," she muses. "The gender thing became critical in the rock era because of showmanship. I never felt I was a rock player at all. There has been a long line of women who played jazz--back in the 30's and 40's, there were both white and black all women bands that were fabulous. I believe it's harder for women these days, although there are a lot more opportunities." (Brown,1993, p.34)

Yet Kaye does not explain why she thinks it is more difficult for women these days nor does she seem aware of the fact that women in jazz are not included in textbooks with "the boys." She is extremely modest about her personal achievement in the competitive and rough world of L.A. music studio work and admired by both male and female musicians. Undoubtedly, she has the right to be remembered as a musician and not only as a female bass player.

Marta Ptaszynska (1943-)¹³

Marta Ptaszynska is known as a prominent virtuoso solo percussionist of contemporary music and an excellent composition teacher. Born in Warsaw, Poland during the city's devastation during World War II, Marta Ptaszynska came from a musical family. Her father was not only an engineer but also a violinist and composer. He wrote a cantata, The New Spirits, which was dedicated in 1980 to Pope John Paul II. It is not surprising that Marta's talent was discovered when she was a young child. From the age of seven Marta received a very rigorous and complete musical training which is typical in the Polish educational system. According to Women Composers, Conductors and Musicians of the Twentieth Century:

The academic requirements were rigorous, for the Polish tradition of musical training is superior. She had thorough training in piano (every music student was required to study this instrument), harmony, theory, music history, analysis, and solfège as well as the required history, science, literature, philosophy, art history, and gymnastics. (Lepage, 1983, p.221)

Although I have placed Marta Ptaszynska under the educator heading, she is also famous for her performances and compositions. As all music educators, composers and conductors, Ptaszynska learned to play music. She specialized in solo performances of percussion instruments with avant-garde music which included her own compositions and works by Schäffer,

¹³ Unless otherwise indicated, information on this musician/composer is drawn from Lepage (1983).

Serocki, Stockhausen, Moszumanska, Meyer, Bargielski and many others. In 1972 Marta Ptaszynska came to America to do postgraduate work at the Cleveland Institute of Music. Ptaszynska is renown for the excellence of her master classes on composition because she is able to foster creativity while imparting knowledge. Ptaszynska is described by Lepage:

She is a master teacher and able to impart knowledge and encourage creativity without taking away the individuality of young composers. Her teaching is never academic, but nurtures the entire spectrum of compositional modes. Invitations from universities and international organizations are abundant and often she must refuse them because of an already demanding schedule. (Lepage, 1983, p.228)

Marta Ptaszynska's compositions are numerous. She is mostly known for her percussion composition Siderals which has won her two prizes (1974 and 1976) at the American Percussive Arts Society Competition in Indiana. This piece has also been described as an excellent work of major musical importance. Siderals is basically a percussion piece scored for two percussion quintets with light projections (visual animation). It is a gigantic showpiece which uses 117 different percussion instruments.

Marta Ptaszynska is a great source of inspiration to young musicians, composers and educators as well. As an educator, Ptaszynska has encouraged others to be creative and to challenge the imposed limits of compositional rules. She has furthered our musical education by challenging our minds with her compositions, taught us the possibilities of percussion

instruments by playing them and inspired students through her master classes.

FEMALE CONDUCTORS

Margaret Hillis (1921–)¹⁴

Born in Kokomo, Indiana, Hillis came from a musical family. Her mother was an organist and pianist who instilled a love for music to her children by having them listen to broadcasts of orchestral and operatic performances. The family also traveled far to hear live performances. Hillis's musical training, which started at the age of eight, included piano, oboe, French horn, and string bass. She continued her orchestral training throughout college. All this instrumental experience led Margaret Hillis to dream of becoming an orchestral conductor.

She received an undergraduate degree in composition from the University of Indiana. Although she was determined to continue a conducting career, her teacher Bernard Heiden suggested she continue in composition or choral conducting but

¹⁴ Unless otherwise indicated, information on this musician/composer is drawn from Lawson (1990).

not orchestra conducting. According to Musical Women Vol. III, Hillis recalled from her conversation with Bernard Heiden;

I conducted a chorus for Sigma Iota's contemporary music concert. [Heiden] came back stage afterward and said, "You are a conductor, but there is no place for a woman in orchestral conducting." It never occurred to me because I had been brought up believing I could do anything. Heiden advised me to go into choral conducting. "There a woman is acceptable. Otherwise, you are going to go down the drain." He said I could probably get through the back door, then to the orchestral field. So, I always kept watching that back door. (Lawson, 1990, pp.199-200)

Hillis continued her career as a choral conductor. She entered Julliard in 1947 to study choral conducting. To gain experience as a choral conductor she organized her own choral called the Tanglewood Alumni Chorus. Their performances included a whole year of broadcast on the WNYC New York radio station. From this group she reorganized other choral groups and acquired a good reputation as a choral conductor. However, Hillis still dreamed of becoming an orchestral conductor.

Finally after 36 years of being director of the Chicago Symphony Chorus and making them into a world-class chorus, she was invited to conduct the Chicago Symphony. She has been a guest conductor for the Cleveland, Minnesota, Columbus and National symphonies. Although Hillis has more than proved her abilities to conduct and bring out the best in an orchestra, she remains a substitute. As written in the Musical Woman Vol. III, critics praised her performances as an orchestral conductor;

On occasion, she has substituted for conductors of the Chicago Symphony. On one notable occasion during the orchestra's 1977 New York City tour, Hillis conducted Mahler's Symphony No.8 with

two days' study and rehearsal. Her performance was greeted by the critics with acclaim. The senior critic for the New York Times noted in his review that "by the last ecstatic pages she had her forces working for her and Mahler with burning enthusiasm that radiated a fine glow over Faustian finale... she conducted a triumphant performance that [won] her a standing ovation." (Lawson, 1990, p.201)

Margaret Hillis believes that the prejudices she faced as an orchestral conductor have dissipated over the years. Although women like herself helped make women conductors more acceptable today, the fact remains, they are few and not very well known to us.

Catherine Comet (1944 –)¹⁵

Born in Fontainebleau, France, Catherine Comet was fortunate to be immersed in a musically rich environment. As early as five years old, Catherine's mother took her to orchestral concerts and she also began piano lessons which she later continued at the Paris conservatory. A major influence on her musical career was Nadia Boulanger with whom she studied. Comet attributes her major musical influences and development to both her mother and Nadia Boulanger.

¹⁵ Unless otherwise indicated, information on this musician/composer is drawn from Lawson (1990).

During her work with Boulanger, Comet studied score analysis, score reading, harmony writing, and counterpoint. Because the only conducting class at the Conservator had an audition age of 21 and Comet was only 17 at the time, Boulanger suggested that she enter the Julliard School. (Lawson, 1990, p.207)

Upon finishing high school at age fifteen, Comet auditioned for Juilliard and was accepted and subsequently studied with Jean Morel. Within three years she obtained her bachelor's and Master's degrees in orchestral conducting. Her biggest challenge as a young conductor was getting the necessary conducting experience to obtain a conductor position. She accumulated conducting experience by assisting Pierre Boulez (her teacher) with the BBC Symphony. Her first professional conducting experience was with the Paris Opera National Ballet Company. She went on to conduct many Orchestras and Symphony Orchestras such as: Madison, Baltimore, Grand Rapids, Atlanta, Boston, Chicago, Honolulu, New Orleans, Quebec, Raleigh, and San Antonio. She also conducted the Bay Area Women's Philharmonic, and toured the Soviet Union and the United States as co-conductor of the Soviet American Youth Orchestra.

Catherine Comet married sociologist Michael Aiken and had a daughter. Comet took a few years away from a full time conducting career to mainly take care of her daughter. Later when her daughter was old enough, Comet resumed her career as an orchestra conductor. She is admired and respected by many as an important orchestra conductor. After her debut with the Chicago Symphony Orchestra on January 10, 1991, John von Rhein, a critic from the Chicago Tribune wrote;

The Chicago Symphony Orchestra podium, which has functioned as a men's club for the better part of its' 100 year history, made a rare brake with precedent and admitted a female member at Thursday night's subscription concert in Orchestral Hall. Catherine Comet proved to everyone's satisfaction that being able to produce alert, firmly shaped symphonic music has nothing to do with gender but everything to do with talent. (Scanlan, 1992, p.43)

Véronique Lacroix (1963-)¹⁶

Véronique Lacroix started conducting symphonic orchestras at the age of seventeen. She is now thirty-one years old and has directed symphonic orchestras in Saskatoon, Lac-Saint-Jean, Nova-Scotia, New-Foundland, and Les Grands Ballets Canadiens orchestra. She is presently the artistic director for both the Scarborough Philharmonic Orchestra and West-Island Youth Symphonic Orchestra.

Born in Chicoutimi (Quebec, Canada), Véronique started her music education as a flute player in high school. At the same school, her teacher showed her how to conduct the band. From this first conducting experience Véronique knew that she wanted to become a music conductor. Since then she has been extremely busy conducting various ensembles and orchestras while gaining recognition as a professional conductor.

She does not perceive her being a female conductor as an obstacle. However, she mentions that she will undoubtedly have

¹⁶ Unless otherwise indicated, information on this conductor is drawn from Laurier (1995)

to sacrifice having children of her own in order to pursue her career. A woman who wants a career will often perceive a family life as an obstacle. This is not an issue for a male who wants both a career and family life. Here is a quote from an interview of Lacroix in Musicien Québécois:

Et quand on lui demande ce qui a été le plus formateur dans sa carrière, elle répond bien honnêtement: "mes erreurs." Difficile d'être une femme et jeune? Non, elle n'y voit pas de problème.

Mais encore, elle doit bien avoir quelques desiderata? Peu, sinon une certaine mélancolie, pour les enfants qu'elle n'aura peut-être pas. En aurait-elle le temps? Elle en doute. Difficile, avec trois orchestres à diriger... (Laurier, 1995, p.31)

CONCLUSION

Most of the music of the women I have cited is silent. Their manuscripts collect dust and the memory of their talent dead. Their many contributions to music history are never spoken of or included in books with those of their male contemporaries. To learn about women in music and listen to their music we must buy books or recordings which lists them in a separate category such as Women in Music. The exclusion of women from our textbooks and courses is not only a problem which existed in the past, but is also one that persists and is perpetuated in all our schools.

Before researching this topic, I rarely included women in music as part of my own teaching. My history courses included Bach, Beethoven, Haydn, Chopin, Mozart, Louis

Armstrong, Duke Ellington, and other male musicians and composers. I was not aware of the great achievements of female musicians and composers. In reality, after all my studies in music throughout college and university, I had never learned about women in music until this research. My ignorance about women musicians, composers, conductors and educators led me to unknowingly exclude women in my high school music curriculum. Had I never questioned the reasons that lead students to associate gender with instruments, I would still continue to impose a gender-biased music curriculum on my students.

Now I believe we must acknowledge the existence of women in music history and include them in our music curriculum starting from elementary and secondary education. This can only occur if college and university music education integrate the study of music by women as part of their curriculum. In doing so, music graduate students will view the study of music by both women and men as an important part of learning and teaching music. Since some of these music graduates will become music teachers, it is essential that they do not perpetuate an unreal and biased image of women in music.

CHAPTER 3

REVIEW OF PREVIOUS RESEARCH

The last chapter argued that the omission of women from music history can influence student's perception of gender in relation to instruments, conductors and composers. In this chapter, I propose to explore other influential factors which determine student's perceptions of gender and music. To conclude that only music history books are the cause of student's gender views in relation to instruments composers and conductors, is to believe that students are only exposed to books. Other possible influences include; popular culture, school, educators, family views, culture, and peers. To know which of these factors are the most influential we must seek the answers from students themselves. This chapter will enable us to examine how other researchers have accumulated pertinent evidence from student responses on gender bias in music education.

In my search for relevant information for this paper, I was at times discouraged to find so few studies which related to my topic. In other areas such as mathematics and sciences, there is more than enough documentation on gender-bias to refer to. In time I accumulated a lot of data, but most of my findings dealt with women in history. Unfortunately, some documentation for this chapter became irrelevant because I needed surveys to be congruent with each other to eventually compare results with

my own research. I am not the only one to have noticed the lack of literature in this area of study. In the article "Sexism in Music Education" by Pucciani (1983), the following statement best explains:

Our colleagues in math and science education, physical education, social studies, reading, vocational guidance, and English literature are far more aware of the problems of sexism in education, if we are to judge by the many research studies and 'grass roots' articles appearing in their professional journals. In contrast, music education apparently considers sexism a nonissue. (Pucciani, 1983, p.73)

In reviewing the analysis of previous studies selected for this research, we will gain some insight into how students conclude that certain instruments are more suitable for one gender than the other. The studies selected are:

- THE SEX-STEREOTYPING OF MUSICAL INSTRUMENTS by Harold F. Abeles and Susan Yank Porter (1978);**
- SEX-ROLE ASSOCIATIONS OF MUSIC INSTRUMENTS AND OCCUPATIONS BY GENDER AND MAJOR by Philip.A. Griswold and Denise A. Chroback (1981);**
- Gender ASSOCIATION OF MUSICAL INSTRUMENTS AND PREFERENCES OF FORTH-GRADE STUDENTS FOR SELECTED INSTRUMENTS by Judith.K. Delzell, and David.A. Leppla (1992);**
- A STUDY OF THE MIDDLE SCHOOL BAND STUDENTS' INSTRUMENT CHOICE by Patrick M. Fortney, J. David Boyle, and Nicolas J. DeCarbo (1993).**

The Sex-Stereotyping of Musical Instruments by Harold F. Abeles and Susan Yank Porter (1978).

The research conducted in 1975 by Abeles and Porter sought to prove how the opportunities of individuals can be constricted by the association of gender with musical instruments. The subjects of the research included: 1) children from kindergarten through grade five, 2) adults between the ages of 19 to 52 from public high school and church related activities, 3) college music and non music majors, and 4) children ages 3 to 5 from a daycare center. The research was divided into 4 studies, each focusing one of these subject groups.

The study focused on 8 instruments: flute, violin, clarinet, cello, saxophone, trumpet, trombone and drums. Abeles and Porter contended that the sex-stereotyping of musical instruments limited instrument opportunities for both male and female students.

Aside from proving that sex-stereotyping of musical instruments does exist, the main purpose of the research was to gain a better insight into how people arrive at musical instrument gender-bias conclusions. Information Abeles and Porter gathered from previous data indicated that both parents and music educators are an influential factor on students' perceptions of gender associations with musical instruments. Abeles and Porter also emphasize that "associating a gender with musical instruments prior to the time of instrumental

selection (usually between the ages 8 and 12) seems to be a critical factor regarding which instrument a child selects." (p.66)

Study 1 used adults whose ages ranged from 19 to 52 from public school and church related activities. Depending on the survey the subjects received, they were asked to imagine they had either a fifth grade son or daughter. Subsequently, they were asked to choose which of the eight mentioned instruments they would like their hypothetical son or daughter to play. The data from the survey indicated that, "respondents preferred clarinet, flute, and violin for their daughters and drum, trombone and trumpet for their sons. The cello and saxophone produced non significant differences due to the sex of the child." (p. 67)

Using music and non music majors at the college level in study 2, a masculine-feminine continuum of gender perception of instruments was derived from data that was accumulated by asking the students to indicate which instruments they thought were most masculine and which were most feminine. The findings indicate that the flute, violin, and clarinet were considered most feminine whereas the drums, trombone and trumpet were perceived as most masculine. The cello and saxophone were considered gender neutral. Abeles and Porter conclude further in their research that both musicians and non musicians have similar instrument gender associations.

Study 3 focused on children from kindergarten through grade 5. Abeles and Porter wanted to know at what age sex-stereotyping of musical instruments begins. In order to determine this, they used both visual and aural musical material

to help the students determine which instrument they wanted to play. The visual material included pictures of the instruments without male or female representations in order to avoid influencing students' choices. When using aural recordings of the instruments, special attention was given to playing the instruments in various playing ranges, hoping students would not associate an instrument's playing range with one gender more than the other. The research reveals that boys' gender perceptions of the instruments remains stable at the typically masculine end of the scale throughout grade school. However, females' gravitate consistently towards the typically female end of the scale. Most striking is the difference between male and female choices, peaking around the third and fourth grades.

Finally, study 4 was constructed to determine if the type of presentation (gender-related or gender-free associations) of instruments to day care students would exert an impact when these same children would choose an instrument to play. Three student groups were formed with the daycare children, and the instruments were presented using different instrument presentation methods. Group 1 was presented the eight instruments through the RCA record Instruments of the Orchestra (1962). Group 2 was introduced to the instruments by both aurally and visually by playing each instrument in a variety of playing ranges. However, as musicians and music teachers, we know that the size of an instrument generally restricts the instruments to a certain range which makes it impossible to present all instruments within the same range without resorting

to the use of a synthesizer. For instance, flute and tuba have unique playing ranges in which a flute can not be aurally demonstrated in the same playing range as a tuba.

The 3rd group was introduced to the instruments through the Bowmar Meet the Instruments (1961). This type of instrument presentation consists of an instrument shown with a child playing it. For many years it was the most used method of instrument presentations in music classes. [Instruments are presented on over sized pieces of colored cardboard, which even today are very often used as visual reminders to students and are found on classroom walls.] Abeles and Porter conclude that this method is very gender-biased.

The results of this study indicated that "young girls were generally not affected by the mode of presentation, whereas young boys were" p.74. Abeles and Porter also concluded from these findings that sex-stereotyping of musical instruments can be lessened if care is taken when presenting the instruments to children. The new version of Bowmar Meet the Instruments currently published and used in most schools now shows only the instruments with no one playing them.

Sex-Role Associations of Music Instruments and Occupation by Gender and Major by Philip.A. Griswold and Denise A. Chrobak (1981)

Griswold and Chrobak extended the scope of the Abeles and Porter research by including more instruments and by adding a conductor category. Another focus of their study, like Abeles and Porter, was to see if college non-music and music majors are influenced by sex-stereotyping related to musical instruments. They used 89 subjects, of which 50 were females (25 music majors and 25 non-music majors) and 39 were males (15 music majors and 24 non-music majors). Their results were the following:

The harp was rated as having the most feminine connotations, followed by the flute, piccolo, glockenspiel, cello, choral conductor, clarinet, piano, French horn, and oboe. A definite separation of feminine and masculine ratings was noted. The names guitar, cymbals, instrumental conductor, saxophone, bass drum, trumpet, string bass, and tuba were rated as having masculine connotations. (P.A. Griswold and D.A. Chrobak, 1981, p.58)

These findings confirmed the results reported by Abeles and Porter (1978). The similarity of the results can also be attributed to the fact that both studies were done between 1975 and 1980. However, the Griswold and Chrobak findings differed from Abeles and Porter's in how music majors and non-music majors associate gender with instruments. Griswold and Chrobak have concluded that music majors are more prone to gender bias than non-music majors. Griswold and Chrobak mention the following:

The reason for these differences is not clear, but one explanation might be that music majors, having closer exposure to the music occupations, have a better vantage point to see the sex-role distinctions among musicians and music educators and adopt these social norms... this study suggests that gender connotation distinctions made between music instruments and occupations are not sex-related. Sex stereotyping appears to be related to exposure to study of music, to professionals, and to music educators, that is, the state of social reality in the profession. (Griswold and Chrobak, 1981, p.61)

Gender Association of Musical Instruments and Preferences of Fourth-Grade Students for Selected Instruments by Judith.K. Delzell, and David A. Leppla (1992)

Delzell and Leppla studied particular situational variables that might account for students' instrumental preferences. A situational variable includes influences from culture, friends, parents and other sources of values that shape and have an effect on an individual's own perception of his or her world. The following example of the impact of a gender/instrument situational variable has been extracted from the Delzell and Leppla study: "A boy who is attracted to a given instrument may choose not to play it if he believes that it is considered a 'girls instrument' and vice versa." (Delzell and Leppla, 1992 p.93.) Furthermore, these situational gender variables may also vary depending on culture. For instance, the flute is considered a

"male instrument" in New Guinea whereas research demonstrates that the flute is considered a "female instrument" in North America.

Their research is also based on the findings of Abeles and Porter (1978), and Griswold and Chroback (1981) to which Delzell and Leppla wanted to compare results. They concluded that educators, administrators, writers, publishers and the general public's sensitivity to gender instrument association was a factor in changing students' instrument/gender association since the Abeles and Porter study. To further prove their point, they used a paired comparison survey of eight instruments: flute, clarinet, saxophone, trumpet, trombone, drums, violin, and cello. The results indicated that the degree of gender association is lessening but the masculine-feminine continuum remains the same, with the clarinet shifting from third to second most feminine.

Delzell and Leppla conducted a second study to determine if the student's actual association of instrument corresponded to their perception of instrument/gender choice. The data revealed an important contradiction about student's instrumental choices. The flute was the fourth most popular choice of boys , whereas it was the second most popular choice for girls. This demonstrates that what students actually chose is in conflict with what they want to play due to situational variables which affects their choices. Delzell and Leppla state that actual instrumental choices made by boys and girls were significantly different from what they really wanted to play, suggesting that

instrumental choice is related to instrument/gender association. As was found in the Abeles and Porter study, girls in the Delzell and Leppla research tend to choose from a wider variety of instruments. The boys are more restricted in their choice of instrument than girls since boys choose from a relatively restricted group at the masculine end of the scale.

To determine why the students chose an instrument, Delzell and Leppla developed typologies from answers given. They arrived at a categorization of types of answers by reviewing the answers accumulated in their survey. However, some of these reasons such as "It's awesome" or "I like it", do not help us understand why the student actually liked the instrument. Here is the list that Delzell and Leppla derived from their data.

Students indicated they chose the instrument because: (a) "It's awesome" or "I like it," 35.7%; (b) "I like the sound of the instrument," 35.5%; (c) "It would be easy or fun to play," 24.2%; and (d) "I have a friend who plays it," 8.7%. Reasons for not wanting to play a certain instrument were: (a) "Because I don't like it," or "It's dumb or stupid," 23.6%; (b) "The instrument is too big" or "weighs too much," 18.7%; (c) "I don't like the sound," 14.5%; and (d) "The instrument is boring," 7.3%." (Delzell and Leppla, 1981, p.99)

Delzell and Leppla conclude that while the masculine-feminine continuum of instrument/gender position has remained relatively the same since the Abeles and Porter research, gender association of musical instruments has declined but is still strong. Like Griswold and Chroback, they have also observed that boys choose from a more limited variety of instruments than girls.

**Middle School Band Students' Instrument Choice by:
Patrick M. Fortney, J. David Boyle, and Nicolas J.
DeCarbo (1993)**

In this study the main purpose was to investigate what influenced junior high school band students in their instrumental choice. The procedures consisted of a sample study using 990 sixth, seventh, eighth, and ninth grade students from 13 schools. Important aspects of the study included ethnic and socioeconomic diversity of the subjects and sociocultural influences as factors in gender instrument associations. For the purpose of my own research, I will only discuss the sociocultural aspects of their research.

Fortney, Boyle and DeCarbo's data-gathering consisted of a survey which included both closed-response and open-response items. The students were required to give some background information pertaining to their instrumental experiences, their gender, grade level and family member's instrumental music experiences. Students were also asked to rate how specific factors such as media, peer group, family, educators and authority figures and other social conditioning and pressures may have influenced their own choices. The research indicates that students are mostly influenced by people and then by practical choices.

Following the people influences were some practical influences: instrument availability and size. Other factors that the responses suggest have less influence than instrumental sound, certain people, or perceived practical considerations were given in this order: television, elementary music teachers, cost of instrument, other teachers, and a variety of "other" influences,

many of which were not stated by the individual respondents.
(Fortney, Boyle and DeCarbo, 1993, p.34)

They also noted few differences in the responses of males and females as to the influences of instrumental choice. However, they observed the following:

Male students' responses indicated more influence by television than did females' responses, whereas size of instrument was reported as more important by females than by males. (Fortney, Boyle and DeCarbo, 1993, p.34)

Other findings included a list of least-preferred instruments: flute for males and the tuba by both male and females students while the saxophone was the least preferred instrument for females.

Response to the question asking why an instrument was least preferred yielded reasons that were essentially of five types: (a) perceived difficulty in playing the instrument (22%), (b) the size of the instrument (22%), (c) the sound of the instrument (16%), (d) a general dislike of the instrument (13%), and (e) gender associations (4%). (Fortney-Boyle-DeCarbo p.34)
The survey indicates that music teachers, parents and friends have a major influence on the student's instrumental choice.

As a result of their research Fortney, Boyle and DeCarbo conclude that social influence is a strong factor in gender/instrument association preferences. They believe that it is unlikely that it is just a coincidence that most females just happened to like the sound of a particular instrument and males preferred something else just because of sound, timber or for whatever answer given. Despite the many reasons given by

students to support their choices, outside factors have stronger influences. For instance, the researchers in this study have noted:

Regardless of what students say in response to questions about the influence of various factors, males tend to choose to play instruments that are considered masculine, and females tend to play instruments that are considered feminine. (Fortney-Boyle-DeCarbo, 1993, p.38)

Responses also indicated that instrument size, cost, availability and perceived difficulty in learning to play are listed as being fairly important when a student selects an instrument. Although gender/instrument association was not the basis of the research, they conclude their study by indicating that gender/instrument associations were strongly influenced by sociocultural factors.

CONCLUSION

As I gathered information on the subject of gender-bias in music, a lot of material was very interesting and contributed to forming my own research questions. I focused on choosing research material that had similar research questions since I needed evidence from previous studies to compare with my

own. The Abeles and Porter study which was done in 1975 enabled me to compare changes in student perceptions on musical instruments and gender bias with subsequent studies. Although the Abeles and Porter study focused on only 8 instruments, it initiated others and myself to further pursue this type of research. Delzell and Leppla also used the same 8 instruments as Abeles and Porter but they focused on the causes which influence students' perception of gender-bias and instruments. What I further describe in this paper as "influences", Delzell and Leppla refer to as "situational variables" which are caused by: culture, parents, peers, educators, and popular culture. They also revealed how male students are more restricted in their choice of instruments than females. I also noted the same tendency when studying the data extracted from my students' surveys which will be described in the next chapter.

Just like the Griswold and Chrobak research, I decided to add more instruments and a conductor category. The results of their research on how music majors are more prone to gender bias than non-music major only reinforces the conclusion from Chapter 3 that music faculties and music education faculties must include female musicians, composers, and educators in their courses.

The reasons for my own addition of more instruments was to find out if the instrument size or family is influential on students' gender/instrument perception. The student's answers provided very interesting information which at times correlated

with the research in this chapter but also yielded interesting and unexpected data. This leads us to the findings of my own research.

CHAPTER 4

PRESENTATION OF CURRENT RESEARCH

The idea for conducting my study stems from the articles mentioned in Chapter Two. I have added more instruments to my study to explore if other influences occur within a same instrument family, such as size or weight of an instrument. The purpose of the study was to understand how students form a perception of who (male, female, either) should play particular instruments. Therefore the survey included 17 instruments and a conductor category. The instruments I used in this study were: flute, oboe, clarinet, bass clarinet, bassoon, alto saxophone, tenor saxophone, baritone saxophone, trumpet, trombone, tuba, electric guitar, bass guitar, and drums. The conductor category was comprised of: symphonic orchestra, choir and band conductors. Students were also asked to complete a short answer section explaining their reason for choosing male, female or either for each instrument or conductor. (See annex A for an example of the survey).

Procedures for Collecting Data

Of the 85 music students who answered the survey, 41 were male and 44 female. Students answering the study were

part of the high school music program where I teach. I asked them to answer the survey (shown in Annex B) clearly explaining to them that their answers would help me complete my research and that it had no effect on their course grade. Almost all the students in my classes participated and answered the best they could. Grade levels ranged from secondary I to secondary III in a public high school in the suburbs of Montreal. All students had been exposed to the instruments and those who needed to be reacquainted with particular instruments had pictures to refer to. I chose pictures of instruments that were not represented by either male or female players to avoid influencing the students' choices when answering the survey. The survey was also designed so that the short answers would provide me with more insight into students' gender preferences for each instrument.

Unlike the previous studies mentioned in this paper, I chose instruments from the same family, such as alto saxophone and tenor saxophone, to determine if the size and different range of the instruments would influence students' preferences. The findings of survey are presented in this chapter using five basic tables under the following headings: 1A) Males Perception of Who Plays Selected Instruments, 1B) Males Perception of Gender Continuum of Instruments, 2A) Females Perception of Who Plays Selected Instruments, 2B) Females Perception of Gender Continuum of Instruments, 3A) Combined Male/Female Perceptions of Who Plays Selected Instruments Presented by Instrument Family, 3B) Combined Male/female Perceptions of

Gender Continuum of Instruments, 4A) Male Comments on Reasons for Gender Association of Instruments, 4B) Female Comments on Reasons for Gender Association of Instruments, 4C) Combined Male/Female Comments on Responses for Gender Association of Instruments, 5A) Compared Results of Current Study with Previous Research, 5B) Compared Results with the Original Eight Instruments from the Abeles and Porter Research.

I designed the survey to obtain statistical information which would enable us to understand how students arrive at gender instrument associations. Most instruments listed in the survey are currently played by the students in the school bands. However, the bassoon, not a popular choice, was not played in the bands during the year this study was conducted. Other instruments such as the violin, viola and cello are not part of the band program at this school. Within this music program, students become acquainted with all the instruments by a general instrument introduction at the beginning of their first year of music. I teach my students about musical instruments through either showing the instruments themselves or through pictures showing only the instrument without a male or female playing. I present the instruments in this way to prevent gender associations of instruments. Even though special attention is given to encourage students to chose an instrument without sex-bias, I have continually observed that most students' first choices gravitate towards traditionally female or male-associated instruments. The choices they make always depends

on their own gender and the instrumental choices offered to them.

The survey was answered by five classes over the period of two days. Students had one hour to complete the questionnaire. I also asked them to write what they really felt and told them that their answers would not affect their grades. In reviewing the completed questionnaires, I feel that the students responded as honestly as they could. Later in this section I will show that the information gained through the survey gives an interesting insight into gender-association of instruments and conductors at a junior high school level.

Gender Association of Males and Females

Tables 1A, 1B, 2A, and 2B represent male and female perceptions of who (male or female) should play which specific instruments or conduct a particular type of ensemble. Tables 1A and 2A were designed to show how males and females "genderize" instruments. Tables 1B and 2B show the identical results as 1A and 2A but placed in continuum charts to identify any emerging patterns from student answers.

Tables 1A and 1B indicate patterns similar to anterior studies referred to in the previous chapter. Males associated the following instruments or conducting positions as more

appropriate for males in this order: drums, electric guitar, bass clarinet, baritone saxophone, bass guitar, tuba, tenor saxophone, alto saxophone, bassoon, symphonic orchestra conductor, and trumpet. The viola, choir conductor, violin, clarinet, concert band conductor, oboe and flute were associated as most feminine instruments by males. The male students also rated the viola, trumpet, trombone, and concert band conductor in the middle of the male-female continuum scale.

In comparison, tables 2A and 2B refer to whether the female students in my study visualized a male, female or either one playing the instruments or conducting a given ensemble selected for this study. Although both male and female groups have similar associations of gender and instruments, some differences in my research have emerged. I noticed that the bassoon, bass clarinet, alto saxophone, and trombone are perceived a little different between the male and female groups. As illustrated in Tables 1B (Male Perception of Gender Continuum of Instruments) and 2B (Female Perception of Gender Continuum of Instruments), I propose we compare male and female continuum of instruments. For the male group, the order of most often to least often perceived masculine instruments were: drum set, electric guitar, bass clarinet, baritone saxophone, bass guitar, tuba, tenor saxophone, alto saxophone, bassoon, symphonic orchestra conductor, cello, trumpet and trombone. For females the order of most to least masculine was: drum set, electric guitar, baritone saxophone, bass guitar, tuba, bassoon, tenor saxophone, trombone, bass clarinet,

symphonic orchestra conductor, and alto saxophone. The trumpet was the midpoint for both males and females but the males still rated the trumpet higher on the masculine end of the continuum scale than did the female group. In the case of least to most perceived feminine instruments/ensemble/ conductor, the continuum charts for male was: viola, choir conductor, violin, oboe, clarinet, concert band conductor and flute. For the female group it was: trumpet, cello, concert band conductor, viola, clarinet, choir conductor, oboe, violin and flute.

It became clear when I compared the male and female continuum charts that some instruments are viewed differently by male and female groups. For example, the bass clarinet is the third most masculine for males (f=1, m=29, e=11) but ranks nineth for females (m=3, f=16, e=23). The alto saxophone is also ranked higher on the masculine end of the males' continuum scale than it is for females. One obvious explanation from the data reviewed is that the males have 13 instruments (including conductor) at the masculine end of the continuum scale whereas the females have 11. Finally, at the feminine end of the continuum scale, the violin is considered more feminine for females as compared to the male continuum scale. The difference of opinion between the male and female groups in this study is concordant with results found in prior studies. Delzell and Leppla report:

The preferences of boys in the current study were very limited, with the majority of boys wanting to play either drums (51.7%) or saxophone (31.5%). The preference of girls were somewhat broader as follows: flute 30.4%, drums 21.4%, saxophone 21.3%, and clarinet 15.0%. Contrary to perceived

gender associations, flute was the fourth most popular choice (though by a small percentage), and the drums were the second most popular choice of girls. (Delzell and Leppla, 1992, p.98)

The Abeles and Porter study also discloses congruous results;

The boys' selections remained relatively stable at the masculine end of the scale from kindergarten through the eventual selection of an instrument. The girls' selections consistently moved towards traditionally feminine instruments, the difference between the sexes maximizing around third and fourth grades. The girls also had consistently larger standard deviations than the boys, indicating that even when the average instrumental gender score preferences were similar, the girls chose a wider variety of instruments, whereas the boys chose from relatively restricted group at the masculine end of the scale. (Porter, 1978, p.75)

I suggest the following theory which explains this wide discrepancy in choice of instruments between males and females. Students' instrumental choices are parallel to choosing what clothing they wear in order to comply to social norms. Although both groups can either potentially play the same instruments or wear the same clothes, peer pressure and social conditioning may dictate more restrictive limits to males. Just as it is socially more acceptable for females to wear pants in recent years and not acceptable for males to wear dresses, females can try more instruments on the male end of the instrument continuum scale than males can at the female end of the instrument continuum. The choices depend on how they and their social group perceive the instruments. Their perception of the instruments can be influenced by different factors.

Table 1A
Males Perceptions of Who Plays Selected Instruments
(Grouped by instrument family)

	FEMALE	MALE	EITHER
WOODWINDS			
FLUTE	30	1	10
OBOE	15	4	19
CLARINET	13	0	28
BASS CLARINET	1	29	11
BASOON	4	17	20
ALTO SAXOPHONE	6	18	17
TENOR SAXOPHONE	3	21	17
BARITONE SAXOPHONE	1	27	9
BRASS			
TRUMPET	3	12	24
TROMBONE	5	11	21
TUBA	1	24	11
STRINGS			
ELECTRIC GUITAR	1	33	5
BASS GUITAR	2	24	13
VIOLIN	14	4	22
VIOLA	8	1	26
CELLO	4	12	19
PERCUSSION			
DRUM SET	0	37	2
CONDUCTOR			
CHOIR CONDUCTOR	18	5	15
CONCERT BAND CONDUCTOR	11	2	25
SYMPHONIC ORCHESTRA CONDUCTOR	5	13	19

Table 1B
Males Perception of Gender Continuum of Instruments

	FEMALE	MALE	EITHER
DRUM SET	0	37	2
ELECTRIC GUITAR	1	33	5
BASS CLARINET	1	29	11
BARITONE SAXOPHONE	1	27	9
BASS GUITAR	2	24	13
TUBA	1	24	11
TENOR SAXOPHONE	3	21	17
ALTO SAXOPHONE	6	18	17
BASSOON	4	17	20
SYMPHONIC ORCHESTRA CONDUCTOR	5	13	19
CELLO	4	12	19
TRUMPET	3	12	24
TROMBONE	5	11	21
VIOLA	8	1	26
CHOIR CONDUCTOR	18	5	15
VIOLIN	14	4	22
OBOE	15	4	19
CLARINET	13	0	28
CONCERT BAND CONDUCTOR	11	2	25
FLUTE	30	11	0

Table 2A
 Female Perceptions of Who Plays Selected Instruments
 (Grouped by instrument family)

	FEMALE	MALE	EITHER
WOODWINDS			
FLUTE	32	0	12
OBOE	23	2	17
CLARINET	14	0	29
BASS CLARINET	3	16	23
BASSOON	0	23	17
ALTO SAXOPHONE	1	14	26
TENOR SAXOPHONE	4	18	17
BARITONE SAXOPHONE	0	30	11
BRASS			
TRUMPET	2	6	35
TROMBONE	0	16	24
TUBA	2	28	9
STRINGS			
ELECTRIC GUITAR	1	33	9
BASS GUITAR	1	29	11
VIOLIN	25	2	14
VIOLA	14	6	18
CELLO	81	11	15
PERCUSSION			
DRUM SET	0	36	7
CONDUCTOR			
CHOIR CONDUCTOR	16	0	25
CONCERT BAND CONDUCTOR	7	2	33
SYMPHONIC ORCHESTRA CONDUCTOR	1	15	24

Table 2B
Female Perceptions of Gender Continuum of
Instruments

DRUM SET	FEMALE 0	MALE 36	EITHER 7
ELECTRIC GUITAR	1	33	9
BARITONE SAXOPHONE	0	30	11
BASS GUITAR	1	29	11
TUBA	2	28	9
BASSOON	0	23	17
TENOR SAXOPHONE	4	18	17
TROMBONE	0	16	24
BASS CLARINET	3	16	23
SYMPHONIC ORCHESTRA CONDUCTOR	1	15	24
ALTO SAXOPHONE	1	14	26
TRUMPET	2	6	35
CELLO	8	11	15
CONCERT BAND CONDUCTOR	7	2	33
VIOLA	14	6	18
CLARINET	14	0	29
CHOIR CONDUCTOR	16	0	25
OBOE	23	2	17
VIOLIN	25	2	14
FLUTE	32	0	12

Combined Male/Female Perceptions of Who Plays Selected Instruments

Male and female students generally associated gender and instruments quite similarly with a few exceptions mentioned above. When I combined the results of male and female groups I noticed a similar pattern arising from each instrument family. The smaller instruments of each instrument had a much higher female instrument association rating than medium and large size instruments. Instruments which rated very strongly "female" were: flute, oboe, clarinet, violin and viola. The trumpet was ranked an instrument for either male or female. My being a trumpet player may have influence my students perception on this instrument. In other studies the trumpet is consistently perceived as more masculine even though it is a smaller size instrument. In the conductor category, choir conductor was rated very feminine. Again my students seeing me in a daily concert band conducting position may have influence their gender perception of who should conduct a concert band. The results for concert band conductor were: f=18, m=4 and either=58.¹⁷ The symphonic conductor is perceived more as a male position. Since the conductor category gender association can not be related to size of instrument or ensemble, students are influenced by other factors which leads us to my next section called Reasons for Gender Association of Instruments.

¹⁷ refer to table 3A for further details

Table 3A
 Combined Male/Female Perceptions of Who Plays
 Selected Instruments
 (Grouped instrument family)

	FEMALE	MALE	EITHER
WOODWINDS			
FLUTE	62	1	22
OBOE	39	6	36
CLARINET	27	0	57
BASS CLARINET	4	45	34
BASSOON	4	40	37
ALTO SAXOPHONE	7	32	43
TENOR SAXOPHONE	7	39	34
BARITONE SAXOPHONE	1	57	20
BRASS			
TRUMPET	5	18	59
TROMBONE	5	27	45
TUBA	3	52	20
STRINGS			
ELECTRIC GUITAR	2	66	14
BASS GUITAR	3	53	24
VIOLIN	39	6	36
VIOLA	22	7	44
CELLO	12	23	34
PERCUSSION			
DRUM SET	0	73	9
CONDUCTORS			
CHOIR CONDUCTOR	34	5	40
CONCERT BAND CONDUCTOR	18	4	58
SYMPHONIC ORCHESTRA CONDUCTOR	6	28	43

Table 3B
 Combined Male/Female Perceptions of Gender
 Continuum of Instruments

	FEMALE	MALE	EITHER
<u>PERCEIVED AS INSTRUMENTS MOSTLY FOR MALES</u>			
DRUM SET	0	73	9
ELECTRIC GUITAR	2	66	14
BARITONE SAXOPHONE	1	57	20
BASS GUITAR	3	53	24
TUBA	3	52	20
BASS CLARINET	4	45	34
BASSOON	4	40	37
TENOR SAXOPHONE	7	39	34
ALTO SAXOPHONE	7	32	43
SYMPHONIC ORCHESTRA CONDUCTOR	6	28	43
TROMBONE	5	27	45
CELLO	12	23	34
TRUMPET	5	18	59
<u>PERCEIVED AS INSTRUMENTS MOSTLY FOR FEMALES</u>			
VIOLA	22	7	44
VIOLIN	39	6	36
OBOE	39	6	36
CHOIR CONDUCTOR	34	5	40
CONCERT BAND CONDUCTOR	18	4	58
CLARINET	27	0	57
FLUTE	62	1	22

Influences on Student's Choices

Tables 4A, B, and C explore the explanation for gender associations given by the students. For simplicity, I have summarized student comments under ten headings. The purpose of categorizing types of answers in this way was to evaluate what were the most influential factors from their responses. since some of the comments contained more than one factor, all individual factors within an answer were counted separately in the analysis. Some answers yielded a lot of information, and others none at all.

For the sake of clarity, I will explain briefly here how I arrived at some of the headings. For instance "Personality Associations" contain answers which associate an instrument as either delicate, beautiful, gentle, quiet, and other social constructs of femininity or masculinity. "Seeing mostly M or F as role models", refers to students who have been primarily exposed to only one gender playing a particular instrument or conducting an ensemble in a school situation, from concerts on television and from seeing music videos. "Easy to play" and "Difficult to play" indicate that the students felt that a particular gender would likely play an instrument or conduct a particular ensemble depending on their intellectual or/and physical abilities. "Media" generally describes television and magazine influences whereas "School" encompasses music

education, school as a whole, school music program, and books used in classes.

From Tables 4A (Male Comments on Reasons for Gender Association of Instruments) and 4B (Female Comments on Reasons for Gender Association of Instruments) I compared the results from the male and female groups. I noticed that both males and females perceived "seeing M or F" and "size" as the two most important factors, but males viewed "difficulty" as their third factor whereas females chose "personality". Although the frequency of types of answers differ somewhat between the male and female groups, the significant factors with the highest percentages remained seeing males or females playing the instrument, and the size of an instrument. Other factors, including school, did not receive very strong responses.

From the male and female answers in Table 4c, influential factors from most to least important were as follows: seeing mostly male, female or both (32.5%); size of the instrument or ensemble (21.6%); personality associations (8.3%); range (6.8%); difficult to do or play (6.7%); school influences (5.6%); easy (5.6%); sound (5.3%); media influences (3.9%); volume of instrument or ensemble (2.6%).

When I combined the information on all tables from my data analysis, I noticed that the size of the instrument is one of the predominant factors in gender association of instruments for my students. Notice in charts 1B (Males Perception of Gender Continuum of Instruments), 2B (Females Perception of Gender Continuum of Instruments) and 3B (Combined

Male/Female Perception of Gender Continuum of Instruments) how the small instruments rate very highly at the feminine end and larger instruments rate very highly at the masculine end. In my view this confirms the importance size of the instrument has on determining how males and females perceive who should play what instrument. In fact, when examining tables 1A, 2A and 3A, I was hoping to see a relationship occur between instrument family and gender association. This was not the case. Instead it was the size of the instrument within an instrument family which became the predominant factor influencing students' choices. As for the conductor category, it was mainly "Who they most frequently saw" rather than "size" which influenced their answers.

In my study, I grouped television and video influences under "media". The tabulation of my results derived similar results as Fortney, Boyle and DeCarbo study. Tables 4A (Male Comments on Reasons for Gender Association of Instruments) and 4B (Female Comments on Reasons for Gender Association of Instruments) show the following results from information based on the student surveys: "media" males (4.8%) females (3.1%), and "size" males (18.3%) and females (24.4%). When reading the answers given by the students in my data, I was astonished to see how much females think they can not hold a heavy instrument whereas males rarely mentioned this about females. Here is what one female student wrote about who should play the bass clarinet: "I think that males will play (bass clarinet) because the weight of the instrument will be too heavy to hold

and to play at the same time." The female's general perception of themselves is that of being physically weak and not as likely to persist at something challenging which they assume the males would. The following comment best exemplifies this point about a female gender association on who should be a symphonic orchestra conductor: "I feel this is more suited for a male because it seems to be more demanding." There were many interesting comments which provided me with a good insight on how students perceive gender and music.

In the appendices there is a list of some student answers from the survey. Most female responses indicate low self estimate of their physical and intellectual capacities to perform the same tasks as males. Male students on the other hand rarely mentioned female physical or mental inability as a major influence. The male responses from my survey reflect "who they saw as role models" as a predominant gender association influence.

In concordance with the findings in the current data, Fortney, Boyle and DeCarbo also noticed a discrepancy with the effect of size of the instrument between male and female groups. Fortney, Boyle and DeCarbo state this observation:

With the exception of television influences and instrument size, there seemed to be few differences in the responses of males and females regarding influences on instrument choice. Male students' responses indicated more influence by television than did females' responses, whereas size of instrument was reported as more important by females than males. (Fortney, Boyle and DeCarbo, 1992, p.34)

One of my major findings from tables 4A (Male Comments on Reasons for Gender Association of Instruments), 4B (Female Comments on Reasons for Gender Association of Instruments) and 4C (Male/female Comments on Reasons for Gender Association of Instruments) was that both male and female students are greatly influenced by who they see as role models.

After this important discovery of how students are influenced in their gender/instrument/conductor associations, my attention turned to the causes. I assumed that the home, school, media or social environment might lead to role modeling influence. My data from Table 4C (Combined Male/Female Comments on Reasons for Gender Association of Instruments) indicates the following order of social structures which influence students' choices of role models: school (5.6%), and media (3.9%). It is interesting to note from Tables 4A (Male Comments on Reasons for Gender Association of Instruments) and 4B (Female Comments on Reasons for Gender Association of Instruments) that males are slightly more influenced by school than females (males=6.8%, females=4.8%). Some typical male responses were: "Never seen too many girls play it until I came to this school." another male response: "Because of our class. Most of the alto sax players were female."

A similar pattern as above also emerged from media influences (males=4.8%, females=3.1%). However, as I learned from all my Tables, females are more preoccupied by the size of the instruments than males.

In Table 4A (Males Comments on Reasons for Gender Association of Instrument) it is interesting to note that 7.9% of males think that the perceived difficulty of an instrument or conducting is relevant when associating gender/instruments and conductors. This was in fact the 3rd highest influential factor on their list. Some male students wrote in the survey that only males are fast enough with their hands to play drums or guitar. Females often mentioned personality associations to an instrument as a strong influence on their choices. In Table 4B (Female Comments on Reasons for Gender Association of Instrument) "Personality of Gender Associated with an Instrument" was the 3rd highest of influences for females.

I decided to include sound, pitch, volume or playing range of an instrument in my study because a number of students mentioned these as an influence to their responses. The volume of an instrument was ranked by both male and female group as the lowest influence (males= 3.1%, females= 2.2%). Some students did not define what they actually meant by sound, so these were listed under a general heading called "Sound of the Instrument" which received similar results from both groups (males=5.9%, females=4.8%). The only divergent point between males and females can be seen under the heading "Range", which means the playing range of an instrument. The female groups ranked "Range" higher on their list of influences than the male group (males=5.9%, females=7.5%). A possible explanation for this discrepancy between the two groups can be attributed to the size of the instruments. The playing range of an

instrument is related to its size. Since females rated "size of the instrument" very high as an influence, the relationship between "size" and "playing range" of instruments are related to each other. These two factors were strong influences in their gender/instrument association.

Other types of influences were not as significantly influential in students' preferences as were "size" and "seeing M or F or both" categories. As an educator when I reviewed the figures from my data analysis I was discouraged that the school category seemed to indicate that education had little influence on students' perceptions. However, I believe the "seeing mostly male, female or both" category is influenced by the students' surroundings which in turn is mainly composed of school, home and media. Even though students do not directly mention these factors, we know that seeing someone play an instrument, sing or conduct must occur in their daily environment. Therefore, the figures obtained as school (5.6%) and media (3.9%) influences are according to what the students wrote on the surveys. These figures do not take into account that the students who mentioned "seeing mostly M or F or both" are primarily related to another cause such as school, home, media or other.

Table 4A
Male Comments on Reasons for Gender Association of
Instruments

<u>TYPES OF ANSWERS FROM MALES</u>	<u>Number of answers¹⁸ from 601 ANSWERS</u>	<u>%¹⁹</u>
Seeing M or F or both as role models	200	33.2
Size of the instrument or ensemble	110	18.3
Difficult to play or do	48	7.9
Easy to play or do	44	7.3
School influences	41	6.8
Sound of the instrument	36	5.9
Range	36	5.9
Personality of gender associated with an instrument	29	4.8
Media influences	29	4.8
Volume of the instrument or ensemble	19	3.1

¹⁸ A total of 601 reasons for gender/instrument associations were given by the male group since some students provided no reasons and some gave more than one.

¹⁹ The total given for a type of answer divided by the total of all answers. For example: Seeing role models yielded 200 answers divided by 601 of total answers = 33.2% . Therefore, 33.2% reasons given by males in the study pertained to seeing role models as an influence to their gender/instrument association.

Table 4B
Female Comments on Reasons for Gender Association
of Instruments

<u>TYPES OF ANSWERS FROM FEMALES</u>	<u>Number of answers ²⁰ from 699 ANSWERS</u>	<u>%²¹</u>
Seeing M or F or both as role models	223	31.9
Size of the instrument or ensemble	171	24.4
Personality of gender associated with an instrument	80	11.4
Range	53	7.5
Difficult to play or do	40	5.7
Sound of the instrument	34	4.8
School influences	33	4.7
Easy to play or do	30	4.2
Media influences	22	3.1
Volume of the instrument or ensemble	16	2.2

²⁰ A total of 699 reasons for gender/instrument associations were given by the female group since some students provided no reasons and some gave more than one.

²¹ The total given for a type of answer divided by the total of all answers. For example: Seeing role models yielded 223 answers divided by 699 of total answers = 31.9%. Therefore, 31.9% of reasons by females in the study answered seeing role models as an influence to their gender/instrument association.

Table 4C
 Combined Male/Female Comments on Responses for
 Gender Association of Instruments

<u>TYPES OF ANSWERS FROM STUDENTS</u>	<u>Number of answers</u> ²² <u>from 1300 ANSWERS</u>	<u>%</u> ²³
Seeing M or F or both as role models	432	32.5
Size of the instrument or ensemble	281	21.6
Personality of gender associated with an instrument	109	8.3
Range	89	6.8
Difficult to play or do	88	6.7
Easy to play or do	74	5.6
School influences	74	5.6
Sound of the instrument	70	5.3
Media influences	51	3.9
Volume of the instrument or ensemble	35	2.6

²²A total of 1300 reasons for gender/instrument associations were given by males and females since some students provided no reasons and some gave more than one.

²³The total given for a type of answer divided by the total of all answers. For example: Seeing role models yielded 432 answers divided by 1300 of total answers = 32.5% . Therefore, 32.5% of reasons given by males and females in the study pertained to seeing role models as an influence to gender/instrument association.

CONCLUSION

I've learned from compiling all the data into these tables that students are acutely influenced by role modeling. From early childhood they are naturally inclined to imitate the adults in their surrounding and learn how to conform to both spoken and unspoken social rules. They role model from what they read in books and from "who they see". As educators we must assume some responsibility in the material or role models we present to our students. Students have voiced that role modeling is very important in forming their gender associations of who plays an instrument or conducts an ensemble. In the appendix there are many responses that confirms the importance of role modeling as a major influence on students' ideas.

The second major influence, which was size of an instrument, is also a perfect example of social conditioning. Many females believe that they are not physically strong enough to play large instruments or that it does not suit a female to play a "masculine" instrument. In a time when more women are doing more sports once perceived as only for males, I was disappointed to learn how these young women perceive themselves. But the fault is ours because we have not help persuade them of their full potential. We have continued to foster gender limitations.

CHAPTER 5

CONCLUSION: OLD AND NEW PERCEPTIONS

Changes in Perception Within Two Decades

In order to compare how students' perceptions of the instruments in relation to gender have changed since the Abeles and Porter study, I have prepared transformation charts from Abeles and Porter, Griswold and Chroback, Delzell and Leppla and my own study. These studies cover a period of eighteen years (1975-93). Table 5A (Compared Results of Current Study with Previous Research) shows research results in chronological order of the studies. In table 5B (Compared Results with the Original 8 Instruments from Abeles and Porter) the number of instruments on the chart has been reduced to the original ones from the Abeles and Porter study to focus on any changes in perceptions of instruments and gender which have occurred since 1975.

From the analysis of table 5B (Compared Results with the Original 8 Instruments from Abeles and Porter) we can observe that there has been no change in student perception for drums. Positive change in perception is noticeable for the clarinet, trombone, flute and violin. Even more encouraging is the significant change in perceptions for the cello and trumpet. I was very pleased to see the cello and trumpet have moved from

being perceived as male instruments to being perceived a suitable instrument for both male and female. However, the saxophone has also significantly changed on the perception scale but has been perceived as a much more masculine instrument since the 1970's. The following quote offers some insight into this discouraging change of perception.

Reasons for the current popularity of the saxophone are difficult to discern from the data, but it is speculated that the use of the saxophone in contemporary rock music, in performances seen and heard in the media, and in school jazz/rock ensembles could be an important factor. (Fortney-Boyle-DeCarbo, 1992, p.38)

The above example reinforces how role modeling can change people's perceptions. The saxophone, which used to be in the middle of the Abeles and Porter continuum chart, (5th) has shifted to being strongly perceived as a male instrument in my survey. In table 5B (Compared Results with the Original Eight Instruments from Abeles and Porter), the saxophone was 7th on the same continuum scale as used in the Abeles and Porter study. Role modeling, or the frequency of seeing an instrument presented more frequently by one gender, seems to have an effect on how students will perceive instruments later on.

Table 5A
 Compared Results of Current Study with Previous Research

Abeles & Porter 1975 (n=58) ²⁴	Griswold & Chrobak 1980 (n=89)	Delzell & Leppla 1990 (n=222)	Dupuis 1993 (n=81)
flute n=0 ²⁵	flute n=2.7	flute n=0	flute m=1 ²⁶ m/f=22 ²⁷
violin n=1.518	piccolo n=3.4	violin n=0.82	choir conductor m=5 m/f=40
clarinet n=1.949	glockenspiel n=4.2	clarinet n=0.78	violin m=6 m/f=36
cello n=2.643	cello n=4.9	cello n=1.28	oboe m=6 m/f=36
saxophone n=3.182	choral conductor n=4.3	saxophone n=2.26	clarinet m=0 m/f=57
trumpet n=3.261	violin n=4.9	trumpet n=2.41	concert band conductor m=4 m/f=58
trombone n=4.143	clarinet n=5.1	trombone n=2.68	viola m=7 m/f=44
drums n=4.195	piano n=5.2	drums n=2.98	trumpet m=18 m/f=59
	French horn n=5.3		cello m=23 m/f=34
	oboe n=5.3		trombone m=27 m/f=45
	guitar n=6.3		symphonic orchestra conductor m=28 m/f=43
	cymbals n=6.5		alto sax m=32 m/f=43
	instrumental conductor n=7		tenor sax m=39 m/f=34
	saxophone n=7.3		bassoon m=40 m/f=37
	bass drum 7.6		bass clarinet m=45 m/f=34
	trumpet n=7.7		tuba m=52 m/f=20
	string bass n=7.9		bass guitar m=53 m/f=24
	tuba 8.7		baritonesax m=57 m/f= 20
			elec guitar m=66 m/f=14
			drum set m=73 m/f=9

²⁴n= represents the number of students who participated in a study

²⁵n=0 indicates in this study how many students perceived this instrument as a masculine instrument

²⁶m= males, which indicates how many out of the 81 students perceived a male playing a particular instrument

²⁷m/f= males and females, which also indicates how many out of the 81 students perceived either male or females playing a particular instrument.

Table 5B
 Compared Results with the Original Eight Instruments
 from Abeles and Porter

Abeles & Porter 1975 n=58²⁸	Griswold & Chrobak 1988 n=89	Delzell & Leppla 1998 n=222	Dupuis 1993
flute n=0 ²⁹	flute n=2.7	flute n=0	flute m=1 ³⁰ m/f=22 ³¹
violin n=1.518	violin n=4.9	violin n=0.82	violin m=6 m/f=36
clarinet n=1.949	clarinet n=5.1	clarinet n=0.78	clarinet m=0 m/f=57
cello n=2.643	cello n=4.9	cello n=1.28	cello m=23m/f=34
saxophone n=3.182	saxophone n=7.3	saxophone n=2.26	alto sax m=32 m/f=43 tenor sax m=39m/f= 34
trumpet n=3.261	trumpet n=7.7	trumpet n=2.41	trumpet m=18 m/f=59
trombone n=4.143		trombone n=2.68	trombone m=27 m/f=45
drums n=4.195	bass drum 7.6	drums n=2.98	drum set m=73 m/f=9

²⁸ n= represents the number of students who participated in a study

²⁹ n=0 indicates in this study how many students perceived this instrument as a masculine instrument

³⁰ m= males. which indicates how many out of the 81 students perceived a male playing a particular instrument

³¹ m/f= males and females. which also indicates how many out of the 81 students perceived either male or females playing a particular instrument.

Choosing Textbooks on Women in Music

We have come to the point when we must ask ourselves what can be done to remedy this vicious cycle of women's exclusion from our textbooks and therefore from our minds. According to a few sources, since current books used in music education are missing some valuable facts, we must supplement the student's musical education with other books. Contrary to current belief, credible books on women music educators do exist. The only problem is that not many schools have acquired these books or invested time, money or interest in the purchase of books that would help include and provide female models for music students. The second problem is that music educators, both male and female, having had no female music models to study from, may have come to believe that women did not play a significant role in music history. The only way to reverse this ideology is to provide and promote books which include women of the past and present. This is best described in the article, "Picture This, Sex Equity in Textbook Illustrations:"

Feminist scholars have taken a particular interest in textbook content because these works contain what the publishers (and tacitly, purchasers) consider worth acquiring. When the lives, experiences, and traditional interests of women are excluded, the message is sent that these topics are inconsequential. (Koza, 1992, p.29)

Some available literature on women in music history includes: International Encyclopedia of Women Composers. Vols.

1 and 2, (1988) by Aaron Cohen, A Historical Anthology of Music by Women (1987) by James R. Briscoe, Women Making Music (1987) by Jane Bowers and Judith Tick, Women Music Makers (1992) by Janet Nichols, Women Composers conductors, and musicians of the Twentieth Century (1980, 1983) by Jane Weiner Lepage, and Stormy Weather: The Music and lives of a Century of Jazzwomen (1984) by Linda Dahl.

However, not only is it important to include music history books which include women and their recordings in our libraries, but we must also avoid using material which excludes women or which uses stereotypical images such as male drummers or female flute players. Teachers can help change perceptions by making students aware of the facts through properly assessing teaching and learning material. The following suggestion is given in the same article mentioned above:

They [music teachers] can help counteract sexism in the pictures by teaching in resistance to the text and by teaching resistance to the text. Texts are conflicted products of a conflicted society, not unerring repositories of unquestionable truth; teachers can emphasize this point by encouraging children to be critical analysts of what they read and see. (Koza, 1992, p.33)

Change will not occur without our effort and part of this process includes what we as music educators say and do in our classes. But even that is not enough for there is a silent and yet a very strong message imposed on the minds of our students when they are exposed to repeated ideas in the textbooks assigned by us.

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APPENDICES

APPENDIX A

Quotations from students

Females' Comments

(responses indicating how females' perceive size of instrument in relation to physical strength)

Bass Clarinet

Because men think they're more powerful and stronger than females and could handle larger instrument. (F 14)³²

Because the bass clarinet is harder to play and the boys seem to have more and stronger air. (F 19)

Because it's big and huge and you have to put more air into it. So, it's easier to play for a boy. (F 23)

I think that males will play because the weight of the instrument will be too heavy to hold and to play at the same time for women. (F 29)

I think the male should play this instrument as it is larger and looks masculine. (F 35)

Flute

I feel strongly that a flute is a female instrument because females don't really care what they play. Just as long as the sound is beautiful to their ears and they get satisfaction out of it. (F 13)

Because it is the easiest instrument to play for a girl. (F 23)

Tuba

Because it's easier for a boy to carry. (F 5)

³²(F 14) identifies the female questionnaire #14, subsequently (M) represents Male

**Because the size of the tuba is big and easier for males to play.
(F 14)**

Most females think it's too heavy for them. (F16)

I feel the heavyness and the mouthpiece seems able to be handle by a huge man. The sound, it sounds like something only a man can make. (F 18).

**A boy because a girl may think that it's too heavy and too big.
(F 21).**

Cause it's big and a guy can put more air into it. (F23)

Because it's heavy to carry around. (F 24).

I think that males should play... because they're big and massive instruments. (F 25).

Because it's very big and hard to handle instrument and has a deep pitch. (F 27).

I would think male because you need to be big and have a lot of air to play. (F 28).

**Unfortunately, here I have given into a stereotype. I feel this instrument is more for a man because of it's size and weight.
(F 30).**

Because it's too big for a woman to play. (F 33).

The tuba can be played by the male as it is a big instrument, has a deep sound and is a hard instrument to hold up. (F 35).

Definalely male because it is huge. (F 38).

I think a male would mostly play this because the instrument is very heavy. (F 41).

Baritone Saxophone

**I beleive that men have more air to put into this instrument.
(F1)**

Male mostly play because it is easier for them to handle. (F 2)

It's too big for a girl to carry (well, in most cases). (F 5)

(male) They can work at it and make it sound good, if they make an effort and do it. (F 7)

Most are male cause most females think it's hardto play. Cause it's too big. (F 16)

The baritone sax is hard and strong sound. Reminds me of a wrestler, strong men are made out to be like this. It sounds like a male instrument. (F18)

**Again because it is a big instrument and demands more air.
(F40)**

Tenor Saxophone

Because it's heavy and easy for a guy to handle. (F 23)

The males would also like to play this instrument because it is bigger and more noisy. (F 26)

I prefer to see it played by a boy because it is so big. (F 28)

Because most people that play the sax are male so people would think that girls can not play as well as men and men would get more of an advantage. (F41)

Electric Guitar

(male) Well imagine a girl playing heavy metal. You see. (F 5)

Because when you watch music videos the girls are dancing around and the men are playing the instruments. (F22)

(male) Because they have more talents towards it. (F 31)

Drums

I've seen very few women play drums. You need a lot of energy (most of the time) and women tire easily. (F14)

(male) Because they got great speed with their hands. (F 11)

(male) They're quicker at reflexes and movements so it's easier (for males) to play. (F 14)

The drums should be played by males because if you want to make it louder you need more muscles. It would hurt women after a while. (F 35)

(male) There is a lot of movement and male's hands are bigger so the sticks wouldn't fall out. (F 44)

Symphonic Orchestra

I feel this is more suited for a male because it seems to be more demanding. (F13)

Orchestra conductor. I've never seen a female symphonic conductor. I don't mean to be sexist but I find males can handle the stress. (F20)

It looks stronger as compared to when a female conducts the orchestra. (F 3)

Because it's easier to conduct for a guy. (F 23)

They can take perspiration easily. (F 24)

Males' Comments

(responses indicating how males' perceive size of instrument in relation to physical strength)

Flute

I think that females should play the flute because it is easier to carry. Also, I have seen girls and boys play the flute and girls play it better. (M 1)

A female would find it light, and it has a good sound. (M 12)

Because it is small and it is very easy to blow and light. (M 20)

Because it's a small instrument. (M31)

Clarinet

Because it's small with a high pitch. (M 30)

Because it's a small and not so heavy and it doesn't have a loud or low sound. (M 31)

Bass clarinet

For a female it would be too heavy, but a male would like the low tone, for a male the notes would be easier to read. (M 12)

It is a harder instrument to play than a clarinet. The bass clarinet is heavier and a woman might not be able to handle it. (M 14)

Basoon

A person that I know plays this instrument. It's a bit too cumbersome for a girl. (M 1)

I think the male would like it better because it is bigger. (M 10)

It's big and heavy and some girls don't like playing big heavy instruments. (M 12)

I guess a male could play this because it's really big and it looks heavy. (M 21)

Alto Saxophone

Because people enjoy playing it. It is not too heavy. (M 23)

Because it's smaller in size. The kid must be weak. (M 29)

The alto sax is a small enough instrument but still needs enough air power. (M 35)

Tenor Saxophone

Male because it's big. (M 38)

Male because it's a very heavy instrument and hard to play.
(M 45)

Baritone Saxophone

I think this instrument should be played by a male because a baritone sax is heavy and big and most females can not pick it up. (M 43)

Bass Guitar

Because the size of the instrument again. (M 14)

Drums

Cause it's big and has a loud sound. (M 31)

Male & Female Comments

("Seeing mostly Male, Female or both Male and Female" as Major Influence)

Flute

I chose females because most of them play it in elementary and in high school. (M 13)

I would see a female playing a flute cause I watch show and women would play and I wouldn't see a guy playing it. (M 15)

I've seen males and females play it. (M 16)

The majority of people seen playing the flute are mostly female. Because I see most girls playing it. They are much better than boys. (M 19)

I think females would play the flute because they would like the sound besides I saw more girls play it in other classes. (M 21)

I think a flute is more a female instrument because more girls play this instrument. (M 22).

I have seen a lot of flute players that were female in the concerts and all that. (M 24)

Because I know male and females that play the flute. (M 34)

Because of the books I've read where the men play and the women dance (M 40)

I have seen both male and female play this instrument and they're both good. (F 1)

I say either because we have some really good male flute players and females flute players in this school. (F 5)

I think that it would be a female because of our school band, and not many guys would and can play the flute. The majority of flute players are female. (M 19)

The flute is a small instrument and very light. I've seen more women play it. (M 45)

Oboe

I've seen a lot of girls play the oboe, so I think girls should play it. (M 1)

You always see females playing it on t.v. (M 4)

Cause I've only seen females playing this instrument in concerts and on t.v. (M 11)

I've seen females and males play it. (M 27)

I've seen a band with a man and woman play it. (M 34)

I never saw a man playing it before. (F 2)

Because in our school it's only girls that play the oboe. (F 6)

Because I've only seen a few oboe players and they all have been females. (F 19)

I think that an oboe is more an instrument a female would want to play. Maybe that is because I've never seen a male play it. (F 34)

Because the oboe is an instrument that you see more women than men at concert. (F 40)

It's a small light instrument and more women play it. (F 45)

Clarinet

Because there are male and female clarinet (players) in our class. (M 2)

Because it's not that hard to play and in our band they're about the same amount of boys and girls. (F 5)

I mainly see females play it. (M 16)

I say female because I see lots of girls play it in school. (M 21)

I think the clarinet is for either because the girls and boys both play this instrument. (M 22)

Because I've seen lots of guys and girls playing the clarinet. (M 36)

Because I've only seen girls play the clarinet. (M 37)

I've seen boys play this and girls and it doesn't make a difference. (F 4)

It's like the oboe, average and both sexes play it. Although from what I've seen about 1 out of 20 boys play the clarinet. (F 14)

Most female and male play the clarinet in concert bands. (F 16)

I just see a clarinet played by both genders. This was brought on by all the bands I've seen. (F 17)

It seems in our music class females play more. I've seen males play but once again women are more elegant to play this instrument. You must have pose like sitting, your posture. (F 18)

Because most of the boys and girls in my class play it. (F 23)

Because at school both male and female play the clarinet. (F 32)

Because in our school band you see that it's practically all girls that play the clarinet. (F 37)

Bass Clarinet

I think boys should play the bass clarinet because I've seen a boy in my class play it and he is good. (M 1)

Because you have to blow harder and because there's not any girls except one in the concert band. (M 5)

I've seen Elvis, Roger and other boys play it, but I've never seen a female play it. (M 16)

Because two members of my school band play it and they are male and female. (M 34)

Because I've only seen guys playing it so I can't picture a girl playing it. (M 36)

Because it needs a lot of air and because I've only seen guys play it. (M 37)

Because usually when you go to a concert, you see women playing the clarinet. (F 6)

I usually see females playing this kind of instrument. (F 10)

Because it seems that you see males and females playing them all over the world. (F 36)

Bassoon

On t.v. I've seen an orchestra with both of them (male and female) playing it. (M 9)

I've only seen males. I personally am not interested in playing low (pitch) instruments and think a lot of girls prefer high pitch instruments. (F 1)

Because I have never seen a female play a bassoon, only a male. (F 22)

Alto Saxophone

I've seen both boys and girls play it. (M 1)

A guy because you have to move your fingers fast and all I see are guys play it in movies. (M 5)

Because I play it and when I think of the alto sax I think of a guy playing it. (M 6)

I've seen mainly men playing this instrument but I have seen lots of women too, so it relates to both. (M 11)

Because there are and were lots of great sax players and they were mostly male. (M 13)

This instrument is for both genders. I've seen women and men who've played this instrument and they enjoy it. (M 14)

I've seen a boy and a girl play the alto sax on the school band. (M 16)

Male because you see more males using it. (M 20)

I picked males because I see mostly males with it and they can play it too. (M 21)

The saxophone players are mostly male. (M 24)

When I think of the alto sax I see Charlie Parker and other great sax players. (M 26)

I think male because I heard mostly males. (M 32)

I've never seen too many girls playing it. (M 36)

Never seen a girl play it until I came to this school. (M 39)

Because of our class. Most of the alto sax players were female. (M 40)

APPENDIX B

Name: _____.

Grade level: _____.

Date: _____.

Student Survey**Musical Instruments
and
Gender Association**

This survey will be part of a study I am doing at McGill University on musical instruments and gender association. Your answers and especially the comments will help me understand why certain instruments are more strongly associated with males or females. All answers, including those you might think are obvious, are valuable for my research.

INSTRUCTIONS

Please answer each question by indicating the first person (male/female) you imagine playing the following instruments. There are no right or wrong answers. Circle (a) or (b) or (c) as the response which you find most appropriate.

In the comment section for each instrument, explain in detail why you think an instrument would be played more by a male, a female or by either sex. For example, have you been influenced by videos, books, the school band, other bands you have seen or from other sources. If you need more space for your answer, please use the other side of the paper.

- 1) Flute
a) female
b) male
c) either

Explain: _____

- 2) Oboe**
a) female
b) male
c) either

Explain:_____

- 3) Clarinet**
a) female
b) male
c) either

Explain:_____

- 4) Bass Clarinet**
a) female
b) male
c) either

Explain:_____

- 5) Bassoon**
a) female
b) male

c) either

Explain: _____

6) Alto Saxophone

a) female

b) male

c) either

Explain: _____

7) Tenor Saxophone

a) female

b) male

c) either

Explain: _____

8) Baritone Saxophone

a) female

b) male

c) either

Explain: _____

_____.

- 9) Trumpet**
a) female
b) male
c) either

Explain: _____

_____.

- 10) Trombone**
a) female
b) male
c) either

Explain: _____

_____.

- 11) Tuba**
a) female
b) male
c) either

Explain: _____

_____.

12) Electric Guitar**a) female****b) male****c) either****Explain:**_____

13) Bass Guitar**a) female****b) male****c) either****Explain:**_____

14) Violin**a) female****b) male****c) either****Explain:**_____

- 15) Viola**
a) female
b) male
c) either

Explain: _____

_____.

- 16) Cello**
a) female
b) male
c) either

Explain: _____

_____.

- 17) Drum Set**
a) female
b) male
c) either

Explain: _____

_____.

- 18) Choir Conductor**
a) female
b) male
c) either

Explain: _____

_____.

19) Concert Band Conductor

a) female

b) male

c) either

Explain: _____

_____.

20) Symphonic Orchestra Conductor

a) female

b) male

c) either

Explain: _____

_____.