Women, Boys, and Castrati:

Vibrato and the Soprano Voice in Renaissance and Baroque Music

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In the past 60 years there has been a growing enthusiasm for early music, and with it, a flurry of research about how best to perform it authentically, honoring both the composer's intent, and the context in which the music was written. Vibrato, in particular, has inspired scholars, performers, and conductors of early music to write extensively, advocating everything from a vibrato-less "white tone" to allowing a performer to have whatever vibrato occurs naturally in the voice. The presence or absence of vibrato in the soprano voice can be regarded as an issue about the music, historical accuracy, audience appeal, or even as a race or gender issue. With so many factors present, how does a singer make a decision about when, or whether, to use vibrato in performing early music?

Grove's Dictionary of Music says that "….vibrato, more commonly called tremolo, seems to be a natural property of some voices…" Researchers such as Carl Seashore and Richard Bethell reveal that even in singing perceived as entirely "straight," a fluctuation of the voice exists. (Seashore 35, Bethell) As voice oscillations exist even when our ears do not perceive them, a definition must be made about what is a healthy and desirable fluctuation of the singing voice. Scientific studies of the twenti-

eth century have proposed physical parameters of healthy, desirable vibrato in the singing voice.

Our modern Western understanding of healthy vibrato is this: a pulsation of voice which occurs between five and eight times per second. A pulsation which occurs more frequently than eight times per second is considered a bleat, and a pulsation which occurs less frequently than five times per second is termed a wobble. Emmons defines a healthy pitch fluctuation “is 4.5 - 6.5 Hz in frequency and 0 - + or - 3 % (+ or - .05 semitone) in extent.”

Carl Seashore, in his 1938 book *Psychology of Music*, determined that a pulsation of between six and twelve times per second to be perceived as healthy, pleasing vibrato (Seashore 52, qtd. by Emmons). Otolaryngologist Friedrich Brodnitz declared in 1953 that A well-trained voice exhibits always a certain amount of vibrato that gives changes, both in pitch and volume. By vibrato we understand small rhythmical changes in pitch and volume. These oscillations are more noticeable in forte than in piano....If the wavering becomes excessive—up to twelve times per second—it is called tremolo.” (qtd by Emmons) Emmons herself, in her 2006 writings on vocal technique from however, recommends a narrower range of acceptability - five to seven pulsations per second are “generally judged as acceptable.”

This very mathematical way of discussing vibrato, while precise, may not be terribly practical for a singer seeking to make performance decisions. In addition to the fact that there is a discrepancy from 1938 to 20o6 in the physical definition of acceptable vibrato, these measurements do not suggest musical uses of vibrato, or give insight on the historical parameters of vibrato. Enrico Caruso, widely regarded as one of the

greatest tenors of the twentieth century, had, at times, a vibrato which varied almost a whole tone in pitch.

There are no available recordings of performances from the Renaissance or Baroque eras, but we do have audio recordings from one hundred years ago. Examining the changes in vibrato styles in just the last century can give an indication of the changes in vibrato styles from earlier times.

Some of the earliest recordings made were of acclaimed sopranos, and a comparison of their singing with more modern soprano voices shows a definite change over time in the speed of vibrato considered desirable. Nellie Melba, Agnes Kimball and Frances Alda, sopranos who recorded in the nineteen-teens, had very fast, narrow vibratos that were very close to twelve pulses per second. Post-WWII operatic sopranos Maria Callas, Leontyne Price and Joan Sutherland have much slower vibratos, closer to five pulses per second. Kiri te Kanawa and Kathleen Battle, sopranos of the latter part of the twentieth century, have vibratos closer to seven pulses per second, which is close to the definition of vibrato suggested by their contemporary Shirlee Emmons.

Classical singers are not the only ones to demonstrate changes in vibrato style throughout the twentieth century. Jazz singers Billie Holiday, Bessie Smith, and Ella Fitzgerald also demonstrate a faster vibrato than fits late twentieth century standards, in recordings of the 1930s, as does Adriana Caseloti, the voice of Disney's Snow White. Ella Fitzgerald's voice in one of her earliest recordings, "I'll Chase The Blues Away," (1935) demonstrates a fairly fast vibrato compared to her recording of "Misty" in 1960. This could be a natural result of a maturing voice, but, although her timbre continues to darken, her vibrato does not widen or slow significantly from her 1960 recording

to her last recording in 1989. This implies that her vibrato change was a stylistic choice, rather than a result of aging.

While these variations in vibrato styles of the classical soprano over the twentieth century can be attributed to many factors (technology, changing roles of women in the world, increasing presence and influence of popular styles of music), the fact remains that the vibrato considered attractive and acceptable in voices changed over the course of the twentieth century.

A soprano wishing to use a historically accurate vibrato style for music of 1914 would be able to both listen to recordings and consult writings of the time. Recordings of singers are available, as are scientific studies of the voice from that time, and so the challenge would lie in execution, not understanding, of the sound. A soprano wishing to sing accurately in the vibrato style of 1514, or 1714, has a more difficult time determining, both musically and scientifically, what the vibrato sound should be. The music itself creates some performance parameters, but an understanding of the historical context of the music, and of the use of vibrato, must inform an accurate, pleasing performance.

Writing about vibrato prior to the twentieth century had little scientific content, instead relying on descriptions and opinions. Even in the twentieth century, with scientific research on the subject available, there is a wide variety of understanding of vocal vibrato. The Harvard Dictionary of Music says of vibrato: “In singing, there is some uncertainty as to what vibrato actually means, as well as some confusion of it with tremolo.” The first sentence of the definition of Vibrato - Vocal in Grove’s Dictionary is this: “This vibrato, more commonly called tremolo, seems to be a natural property of some voices, and has been cultivated (often with deplorable results) in others.” Even an authoritative

reference such as Grove's Dictionary cannot seem to help opining about vibrato in singers.

Until the nineteenth century the term tremolo referred interchangeably to both vocal and instrumental vibrato. Opinions by musicians can be found both advocating and disparaging "shaking," "trembling" and "wavering" of the voice. Praetorius discusses the use of healthy vibrato in singing properly, requiring that "a singer posses a beautiful, lovely, trembling, and wavering voice." (qtd. in Neumann 18) Seventeenth century lute players were described in an instruction book by Basset as playing with a "violent shaking of the hand while not allowing the finger to leave the string. " He admonishes players to avoid both a previous trend of too much "shaking," and the resultant backlash of favoring a perfectly straight tone, encouraging them instead to find a pleasing mean. This is "evidence of a fashion swing." (qtd. in Neumann 20) Giulia Frasi, a favorite soprano of Handel's, being the primary soprano soloist for his oratorios during the last ten years of Handel's life, was described as having a "well-toned voice, a good shake and perfect intonation," and "a smooth and chaste style of singing." (Burrows 584)

The term "vibrato" as it applies to singing seems to appear in the mid-nineteenth century, initially interchangeably with the earlier term "tremolo," which is also used to describe pulsation of instrumental playing. Early nineteenth-century reviewers of singers also describe "tremulousness," or "trembling." A review from 1852 of the contemporary tenor Tamberlik, refers to "vibrato", implying that this is a new sound, previously not in style.

> [The Times] The romance in the first scene, 'Quando il cor', at once showed that Signor Tamberlik's voice was in excellent condition, while the richness of his tones, accompanied by that peculiar 'vibrato', which, after some discussion, has been accepted not merely as a peculiarity, but (when under entire control, as

> now) a beauty, gave additional effect to his large and finished style of phrasing, leaving the ear and judgment equally satisfied. (Reviewer, Times, Roy al Italian Opera, Donizetti's Maria di Rohan 1852) (Bethell)

A later review differentiates between “tremolo” and “vibrato,” using the more modern distinction of the two terms:

> Many singers, especially young singers, fall into the habit of using the ‘tremolo’ or ‘vibrato’. The former is, as the word implies, a trembling of the voice, and may be dismissed as simply vulgar and offensive. The ‘vibrato’ stands on a different foot ing. It is impossible to pass a sweeping condemnation upon it, seeing that it is adopted by nearly the whole Italian school— that school to which we are accustomed to look for the proper production of the voice. (Murray’s Magazine, Ingleby 1888) (Bethell)

The presence of vibrato in a performance can be an effective indication of the emotional presence of the performer, and enhance the emotional appeal of a performance. Jeffery Kite-Powell discusses the use of vibrato to convey emotion, in his book “A Performer’s Guide to Renaissance Music:”

> Vibrato can warm the tone, adding direction and shape to long notes. It can convey a sense of urgency in the text, when combined with heightened dynamics and bright vocal color. With a dark and warm vocal color, it can communicate passion, tenderness, or grief. Staring a note with vibrato and then gradually smoothing it out can create a plaintive, poignant sound. Starting a note without vibrato and then adding it can have the effect of a crescendo without the change in dynamics. (Kite-Powell, 6)

Neumann references writers of the sixteenth century regarding vibrato use for string instruments:

> Martin Agricola in 1545 said that vibrato "sweetens the melody"; Ganassi in 1543 recommended a combined left- and right-hand vibrato "in order to achieve an expression appropriate for sad and aggrieved music";

A nineteenth century critic remarks on the effect of a soprano’s singing style:

> Miss Tree thrills through florid notation, like the soaring lark, which has just now, by its song of extacy [sic]…filled him with some of her own delights, and

> furnished him with a similitude. (Reviewer, London Magazine, Review of Anna Maria Tree 1820) (Bethell)

Carl Seashore devotes several pages of his book on the psychology of music to the emotional effect of vibrato in music on the listener. He asserts that “the vibrato in both voice and instrument is a means for the expression of musical feeling of the first order, and is even essential to the expression of feeling.” (47) As with any useful tool, it is possible to misuse or overuse vibrato for this effect, as a singer is described doing by this reviewer:

> …and the feeling and tremulous fervour which occasionally delight us in his voice, are apt to be followed by such a heap of common-place quavers and ornaments, such a scatter of base coin to create a scramble among the galleries, as becomes the more offensive from the true wealth that precedes it. (Reviewer, Examiner, Reason for omitting John Braham from the singers who "shine at Oratorios" 1820) (Bethell)

Removal or reduction of vibrato from a performance can also be an effective tool. There are several reasons a performer may wish to do this: to enhance choral intonation and blend, to create a particular effect, or to remove or reduce emotion or sensuality from a performance.

In a choral piece which contains more than four distinct vocal lines, harmonies of tritones, minor seconds and ninths, and/or large sections of polyphony, a pitch variation of a quarter tone in an individual voice can create intonation problems. Much of that can be colored by matching vowel shape exactly, but, particularly in polyphonic sections, the clarity of each line can be lost with pitch oscillation. Removing, or at least reducing, individual vibrato makes blend and intonation much clearer in an intricate vocal jazz or Renaissance piece, or any vocal piece with these characteristics.

It is certainly possible, however, to have pleasing choral blend when vibrato is present in choral singing. Gospel choirs, for example, typically encourage its choral singers to use strong vibrato, particularly when accompanied by an organ with dramatic vibrato, such as the Hammond B-3. Gospel music, with its roots of European and American Hymnody, African-American Spirituals, and American Rhythm and Blues, typically has harmonies which do not often move closer in pitch than a third, and resolves suspensions of a major or minor second relatively quickly. Skilled singers of choral music using these kinds of traditional harmonies are perceived as singing in tune, even when those singers have vibratos with fairly wide pitch variation.

While the authentic use of vibrato is a common area of historical dispute, debate about the proper presence of vibrato in early music seems to fall disproportionately to the soprano line, whether as a choral or solo line. This can be attributed to a combination of factors: the natural tendency of treble line to be the most audible within a choir, and whether these lines, and solo soprano lines, are performed by adult women, or preadolescent boys. As music has historically been the domain of men, disputes over performance styles and practices can sometimes be just as much matters of gender and power as musical performance.

Katherine Wallace suggests, for example, that the desire on the part of both early musicians, and current music historians, to remove vibrato from the female voice when performing early music is a desire to remove all trace of the feminine from music.

> With the aid of feminist theory, musicologists have been asking new kinds of questions, moving issues like race, gender, sexuality and the body to the centre of musicological inquiry, and these same issues and questions have begun to be enacted in early music performance…
> So often in the production of music the body is deemed not only irrelevant but also potentially subversive - both to music's transcendent power and patriarchal

> hierarchies. Early epistemologies of music were heavily influenced by the Cartesian view of knowledge that associates the body with woman and the mind with man, thus, a denial of the body is in essence an exclusion of the feminine. …The adoption of a static, homogenous sound, which mirrors a boy treble's voice and effectively ignores the gender of the soprano or alto singer, also ob scures the female body in performance and reinforces the nineteenth-century concept of music as a transcendent creation, detached from human physicality. (256, 257)

It is certainly true that the role of women in Renaissance and Baroque church music was minimal at most, and was only slightly more present in secular music.

Women of nobility performed as amateurs in a court setting, such as the trobairitz of 12th century Provencal France, and the *concerto della donne* at the Este court in late sixteenth century Ferrara. However, women were forbidden to sing in a church setting in Europe until well after the Reformation. The basis for the church's edict can be found in two Biblical verses, 1 Timothy, 2:11, and 1 Corinthians 14:34-37, both of which can be interpreted to dictate that women be silent in church. Whenever possible, the church filled the need for treble voices with boy sopranos, and, at times, castrated adult males. As the boys sopranos who were trained within the church matured, those who showed musical promise (but not castrated) were trained as choir masters, composers and accompanists, "perpetuating the male-only domain." (Clutterham 1) In an online forum discussion as recently as 2010, these two verses were still being quoted as reasons why women should not be allowed to sing in church, under any circumstance. (Online Baptist) Three pages follow of contributors, both men and women, in agreement with the idea that women should not have any voice within the church. While this view is not mainstream in twentieth century America, it certainly was in fifteenth and sixteenth century Europe. It stands to reason then therefore, that the authentic vibrato sound of treble

lines in scared music from that time is “a vibrato-less tone [resembling] a boy soprano’s tone, where absence of vibrato is natural.” (Heffernan 114)

However, as sacred choral music became more complex, from the sixteenth century forward, both rhythmically and melodically, the musical lines became more sophisticated than the musical skills of most young boys could sing. The practice of castrating boy singers became an unsanctioned method of addressing this issue, prolonging their careers as treble singers in order for them to gain the musical skills necessary, while retaining their treble voices. Though this practice was officially outlawed by the church, the preference of several popes for the castrato sound made sure that this canonic law was ignored by many choir masters. Some Protestant churches allowed women to perform the treble lines, but the Catholic church remained unchanging in its policy until 1911. (Geitmann)

Castrati have vibrato in their voices, as can be heard on the recording of Allesandro Moreschi, a castrato recorded in 1902, and so soprano lines in sacred music from the sixteenth and seventeenth centuries can reasonably be expected to have contained vibrato in some performances of the period. Boy sopranos remained, however, the preferred musicians for the treble line of church choral music. In the late eighteenth century congregational singing became a part of church services in both the Catholic and Protestant churches, but the chancel choir continued to be made up primarily of boys and men. As late as 1911, the Catholic Church, while reluctantly admitting that it may be permissible for a woman to sing in church, expresses a preference for boys to sing the soprano and alto lines in choral music, and finds female soloists “all the more questionable,” as both situations may lead to “indecorousness in the church.” (Gietmann)

Women who were cloistered sang, and often composed, music for their own worship. Their segregation from communities containing male voices may have allowed a more mature feminine sound to fill their monasteries, and it is likely that, without the strictures of gender, the natural mature female voice, which usually includes vibrato, was used for singing. Groups who perform such sacred music primarily written by and for women, such as Trio Medieval and Anonymous 4, generally adhere to a straight tone in ensemble singing, but allow vibrato to help shape solo lines.

Secular choral music of the Renaissance and Baroque eras was often written for noble amateurs, and treble lines were usually written for adult female sopranos. Women in Queen Elizabeth's court were expected to be musically literate, as she was, and her court composers such as Thomas Morley wrote music for mixed voices. An accomplished lady of the court was expected to be able to sing, and also to accompany herself on the lute. Baroque composers such as Handel, and Bach wrote both secular oratorios which included solo roles written specifically for adult female singers.

In the Baroque era, a trend came about of what are known as "pants" or "breeches" roles, for which mezzo sopranos are cast to play the part of young males. Examples of these roles inclue Ruggiero in Handel's *Alcina,* Cherubino, Nero in Monteverdi's *L'incoronazione di Poppea*, and, in the Classical era, Cherubino in Mozart's *Marriage of Figaro*. Audiences of the baroque and classical eras perceived the slightly darker timbre as that of adolescent males, though Elizabeth Howe suggests the popularity of women in "pants" or "breeches" roles had more to do with the audiences enjoyment of women on stage in rather more revealing clothes than generally worn by women of the time than the musical or dramatic appropriateness of the female voice for the roles. (56)

Whatever the reason for the casting of this type of role, there is nothing to indicate that these musical roles were performed without vibrato.

In his paper on vibrato in early music to the National Early Music Association in 2011, Richard Bethell presented an compelling study. He recorded a single soprano singing the same piece, “Lascia ch'io pianga,” in three different styles: Operatic (fairly wide continuous vibrato, as heard in singers such as Cecilia Bartoly), Early Music Mainstream (limited and narrow vibrato, as heard in recordings of Dame Emma Kirkby), and Clear Smooth Sweet Chaste (perceived straight “white” tone, as heard in recordings of the Hilliard Ensemble.) He then played these recordings for three groups of early music enthusiasts: professional musicians, semi-professional musicians, and amateur musicians, and asked each of them to determine which vibrato type they preferred for the piece. A clear majority preferred the Early Music Mainstream sound, with the Clear Smooth Sweet Chaste sound coming in second, and a very small percentage preferring the Operatic sound.

Audience preference is not an indication of authenticity, but it can be an indication of a successful performance. This particular audience was comprised of people likely to be educated about historical authenticity, and yet, preference was based on historical accuracy, but on simple aesthetic preference. That preference could have been driven by current trends in historical interpretation, by scholarship about historical performance practices, or by the musical parameters of the piece itself. Whatever the factors behind the survey respondents’ choices, one of the factors which makes this survey significant is Bethell’s assertion that the majority of recordings of Baroque music feature Operatic sopranos. This implies that performing groups who record Baroque music are

ignoring both scholarship available about historic musical practices for vocalists, and audience preference among those most likely to buy early music recordings.

Writers such as Ellen Hargis, Greta Moens-Haenen, and Neal Zaslaw have written extensively advocating a sparing, at best, use of vibrato in string instruments in Baroque music in order to create an authentic sound. It has become a fairly standard understanding among instrumentalists that vibrato style needs to change according to the historical period of the piece. If, as Bethell puts forward, this flexibility is not the standard for singers, this is unlikely to be a result of a lack of scholarship on the subject. Why are singers different?

Vibrato must be carefully cultivated and practiced by instrumentalists, while it is naturally present in all mature voices, to some degree. Choral conductors disagree about whether to ask singers to "take out" vibrato from their voices, as there is evidence that vocal harm can result. Singers are often reluctant to address the technical aspects of vibrato, having an understandable aversion to creating an unnatural sound. This is discussed by W. A. Mozart, in a letter to his father, decrying artificial as opposed to natural pulsation of the voice:

> Meissner, as you know, has the bad habit of purposefully pulsating the voice, marking on a long-held note all the quarters and sometimes even the eighths — and that manner of his I have never been able to tolerate. It is truly abominable and such singing runs counter to nature. The human voice vibrates by itself, but in a way and to a degree that is beautiful — this is the nature of the voice, and one imitates it not only on wind instruments, but also on strings, and even on the clavichord but as soon as one carries it too far, it ceases to be beautiful, because it is unnatural.8

A soprano with a naturally Operatic vibrato may be able to sing a piece of Baroque or Renaissance music with a reduced vibrato, and she may even be able to do so convinc-

ingly and pleasingly, and without harm to her voice. However, each performer must balance the factors of the music and its historical context with those of her her voice, and her audience.

As with any standard of beauty, the range of or presence of desirable vibrato in a soprano performance changes over time. Vibrato frequency in sopranos changed over the twentieth century, the presence of tremolo in singers changed over the nineteenth, and the use and occurrence of tremolo in lute players in the seventeenth century followed an ebb and flow. The common thread of all of the writing about vibrato is the emphasis on the beauty of a natural sound. A soprano wishing to honor her audience, her own voice, and the historical context of the music she is performing, must, above all, understand all three, and allow the music itself to inform her performance of it.

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