

# Small Choirs, Big Boys and Bach

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## Abstract

*Joshua Rifkin's contention that Bach's B minor mass and cantatas were performed by four concertante singers throughout the work with little or no support from a ripieno group remains contentious but has significant support. This paper lends further support to Rifkin's ideas by drawing attention to the fact that Bach's singers in Leipzig were boys and those capable of singing a cantata could not have been very numerous. The popular theory that voice "break" did not occur in eighteenth century Leipzig until age 17 or 18 is critiqued on biological and logistical grounds. Instead, it is proposed that boys regularly sang soprano for some time after their voices had "broken", giving Bach sufficient time to train the most able to the standard needed for a cantata. Such a practice has fallen increasingly out of favour since possible risks to the voice have been demonstrated by phoniaticians. The paper suggests that a modern boys' choir of up to thirty or more sopranos and altos with "unbroken" voices is therefore not a suitable resource for historically informed performance.*

## Introduction

Some years ago, I confidently quoted Sten Ternström in connection with the definition of a choir (Kahlin and Ternström, 1999). The minimum size for a "choir" according to this source on acoustics might be assumed to be twelve singers, that is to say, four parts each with a minimum of three voices. The reasoning was to do with the so-called "chorus effect", identified in music technology as the sound of three similar signals added together, each with a slowly oscillating time delay that is 120 degrees out of phase with the others. Perhaps this is true, perhaps a choir of twelve voices is "small". Is it, though, small enough to perform a Bach cantata?

I did not have the privilege afforded to Nicholas Kenyon of being present when Joshua Rifkin unveiled his theory of Bach performance at an "unusually tumultuous session of the American Musicological Society congress in New York in 1980" (see article in this journal). However, an ever-growing acquaintance with the writings of John Butt and Andrew Parrot as well as the recordings of Paul McCreesh, Sigiswald Kuijken and Konrad Junghänel has caused me to look anew at an issue that has troubled me for some years, the oft-heard belief that puberty came unusually late in eighteenth century Leipzig and that Bach's singers (who were of course nearly all boys) were somewhat bigger than the boys of today.

By any standard, Rifkin's contention that the "choir" performing cantatas in Leipzig's Thomaskirche during the 1730s might consist of only four singers *in total* requires a quite

radical rethink. Not all Bach exponents have been able to make the necessary adjustment. Andrew Parrott writes:

...we ought to be able to assume that our Bach experts know their Bach choir. Yet, for all the recent advances in Baroque instrumental practice, this central vocal medium has rarely received serious attention. Conventional thinking rests content with the idea that a small choir of 12 or 16 fits the historical facts adequately. Unfortunately, it doesn't.

Parrott. (2015: 287)

### **The “Central Vocal Medium”**

Four singers in total, according to the definition in the opening paragraph is not a choir. Neither do eight singers constitute a choir. Perhaps ten might at a stretch. Should the word “choir” be used at all? Perhaps the question arises out of the fact that vocal groups of four males that include a young boy as the soprano are almost completely unknown. A little reflection ought to reveal the significance of this. Bach's singers were all boys and what today we would call “young men”, yet the logical consequence of Rifkin's position is that there must have been such a group to perform cantatas in Leipzig's Thomaskirche. This raises significant questions about the boys who sang soprano and alto.

In 2002, a scholarly CD was produced by the renowned early music group, the Leipziger Concert. This was a CD primarily to demonstrate period instruments, carefully researched reproductions of those that would have been familiar to Bach. Three of the twelve tracks included voices. The historic instruments employed were described in meticulous detail but almost nothing was said about the voices, thus continuing the all too familiar theme introduced by Nicholas Kenyon earlier in this journal.

Johann Schelle was Thomaskantor from 1677 to 1701 and therefore a predecessor of Bach. His cantata *Lobe den Herren, meine Seele* is performed on the CD by the Thomaners, present day successors to Bach's own singers in Leipzig. The alternating tutti and solo sections are taken by the full choir and boy soloists. To all intents and purposes the soloists sound like what they are, children. A child's small voice, apparently, was not considered strong enough for the other vocal works, which include the aria from Cantata 68 (*Mein gläubiges Herze, frohlocke, sing', scherze*) sung by the soprano Dorothee Mields.

The choice of a soprano is, of course, a significant deviation from the kind of voice Bach would have been obliged to use. Modern boys were perhaps acceptable for the Schelle because there were many of them, much as there are today in an English cathedral choir where there are rarely fewer than twelve and sometimes more than sixteen. This is, of course, the issue tackled by this paper. Whereas today the full and extensive resource of the Thomasschule is available to perform in the Thomaskirche (or on tour), in Bach's day the more limited resource was carefully graded between four churches. The least able boys who sang at the Petrikirche were musically illiterate and could barely manage a chorale. Those who sang at the Neue Kirche could manage a straightforward motet though these were old style motets and emphatically not what is understood as a “Bach motet” today. Certainly nothing like a cantata could be attempted.

Only the most able boys ever came to perform a cantata, and even then, there were two grades of cantata. At the Nikolaikirch, easier cantatas were attempted only on high feast days when perhaps there could have been some preparation and testing out of more promising boys who might eventually make the Thomaskirche itself. Of the very few boys who did make this final grade, Parrott questions the received wisdom that they were invariably poor.

It is worth noting that, whatever the limitations and difficulties of his job, Bach claims that he selects the cantata - at least for his second choir - primarily 'according to the capabilities' of the available performers, rather than, as the received Romantic notion would have it, being forced by circumstance to tolerate weekly travesties of music beyond their grasp. (Parrott, 1996: 556)

Thus any notion derived from our present-day conception of an all-male choir, whether English or German, must be discarded and the only viable conclusion would seem to be that we cannot have twelve or more soprano boys. Somehow, for an historically informed performance that is as true to the original as possible, an all-male, four strong concertante with perhaps just one or two ripienists on the soprano line must be found.

The German boys' choirs, excellent though many of them are, seem reluctant to participate in the research necessary to solve this really quite fundamental conundrum. Interest seems to have waned somewhat since the landmark Teldec Cantata project was completed in 1990. Nikolaus Harnoncourt and Gustav Leonhardt have achieved lasting recognition as the first to use entirely period instruments with boys' choirs and boy soloists. They have left an enduring legacy of considerable significance, but matters have progressed little subsequently. Bernard Labadie, in a recent blog recognises the significance of their project but is ultimately unimpressed by the results, which he describes as "mixed".

A large number of these recordings include passable singers, an annoying number include really bad ones, and once in a while these feature exceptional young singers... Over the years, the inconsistent quality generated a lot of negative comments and opinions. The combination of singing by technically overwhelmed young boys and rather rustic period instrument playing of the early years has done a lot to fuel significant resistance to the performance practice movement amongst 'non-believers' (Labadie, undated).

Parrott's 1984 B Minor Mass with the Tolzer Knabenchor and the legendary boy alto, Panito Iconomou is arguably more than "passable". More recently another boy from the Tolzer, Elias Mädler has rendered the aria from Cantata 68 in a manner which, if not directly on a level with Dorothee Miels, surely deserves a higher accolade than "passable".

The key to understanding this conundrum lies in Labadie's recognition that it is only "once in a while" that such "exceptional young singers" come along. The result is that when they do, they tend to be overused and when they do not, "really bad" performances can result. Perhaps the ultimate case is not Cantata 68 but Cantata 51. Not insignificantly, Cantata 51 was sung in the Teldec series by the Dutch soprano Marriane Kweksilber. Scholars have put forward the view that this cantata must have been written for a woman

since it is too difficult for any boy. The date of composition has been debated mainly on stylistic grounds, but no conclusive documentary evidence has yet been found other than that the first known performance was in Leipzig in 1730. Friddle (2021) discusses who could have performed it then and is forced to conclude that if it were performed in Leipzig in 1730, there could be “simply no other option” that there existed “at least one boy who was able to sing BWV 51 in September 1730” (Friddle, 2021: 476).

The possibility that an exceptional boy existed in 1730 is supported by the fact that an exceptional one existed in 1993 when a somewhat more than “passable” recording of this cantata was made by the Drakensberg Boys Choir with the fifteen-year-old Clinte van der Linde. What is being missed here, though, is that in all these instances, these boy soloists do not sing entire cantatas as the only soprano in a concertante group, they sing with a whole choir that sustains the ripieno sections. Even if two or so other boys of similar ability joined them as ripieno, that is not the same as upwards of thirty small boys in sailor suits. It is at this point that the work of Harnoncourt and Leonhardt comes to an end. It was a landmark in its time but the project has not progressed to keep pace with Rifkin.

### Entwurff Woes

Various explanations might be put forward for the apparent lack of enthusiasm to continue the Harnoncourt and Leonhardt project to what might be its ultimate conclusion, a series of cantatas performed by as few as four boys, one to each part. The first is that such a performance simply might not be very good, even if it were possible at all. By a similar token, if it could be done once, it might be some time before it could be done again. How far should we go in our attempts to recreate the sounds the composers might actually have heard?

Andreas Glöckner wrote that “no interpreter today would be able or willing to reproduce the presumed or documented inadequacies of earlier performances (such as problems in vocal or instrumental execution, acoustic problems or deficits in personnel)” (Glöckner 2010: 215). He notes that editors of Bach's obituary, writing probably towards the end of 1750, reported that Bach only rarely had at his disposal musicians capable of performing his compositions adequately. Perhaps that might be an explanation for the small forces? Constant shortage of suitable singers left Bach with little choice other than perhaps one concertante boy soprano with maybe two ripienists in a good year?

Andrew Parrott refers to Andreas Glöckner as the de-facto spokesman against Rifkin for the Bach-Archiv Leipzig. The attitude of the Leipzig authorities, academic and choir management, is of course a significant factor in determining whether a project to recreate historic male voices might ever take place. Bach's complaints about his singers are well known, not least through the much-cited *Entwurff einer wohlbestallten Kirchen Music*. Rifkin himself has found it necessary to draw attention to certain aspects of Glöckner's writing about the Entwurff. He draws attention to a section headed ‘Bach's own specifications’, where Glöckner quotes some familiar words.

Every musical choir should contain at least 3 sopranos, 3 altos, 3 tenors, and as many basses.

It would be better still if the group were such that one could have 4 subjects on each voice and thus could provide every choir with 16 persons.

Rifkin accuses Glöckner of setting out deliberately to mislead the unsuspecting reader by substituting a full stop for a comma and omitting a crucial point of Bach's argument (Rifkin, 2010). The full passage, after the comma, reads:

so that even if one should fall ill (as very often happens, particularly at this time of year, as the prescriptions written by the school physician for the apothecary must show) at least a double-chorus motet may be sung.

If this is not academic malpractice it is an act not far short of it. It is, to say the least, unfortunate and serves only to undermine the case for larger vocal forces of twelve or more. Malpractice is regrettable. The perpetuation of half-truths and myths by journalists, though perhaps slightly more excusable, is equally regrettable. It was disappointing to find the following recently in the BBC Music Magazine:

Aged between 12 and 23, with voices that didn't break until they were 17 or 18, Bach had time to mould his trebles and altos into accomplished and sometimes exceptional singers. On their days off, the boys earned extra money for the school by singing in the streets and accompanying criminals to their place of execution with solemn chorales. (Heighes, 2022)

The idea that puberty came late in seventeenth century Leipzig and that boys' voices did not therefore "break" until the late teens has been around for a long time. Superficially, it provides a plausible explanation for the problem that a small boy of only twelve or thirteen cannot possess the vocal strength and physical stamina to sustain an entire cantata on his own. Unfortunately, it is an idea that relies on now rather dated research that hardly anyone seems to have thought necessary to question. In 1970, after a search of the Thomasschule archives for leaving ages, the late Bach scholar Stephen Daw concluded that the average age of "mid-break" was between 17 and 17¼ years, a figure he contrasted with 13.3 years for "London boys in 1959".

He wrote without justification that "the sopranos were those whose voices were still unbroken" (Daw, 1970: 87). Moreover, he made the bizarre assumption that what he assumed to be "unbroken" voices, existed in the proportion of 8:5:16 to "breaking alto" and "broken" voices throughout Bach's time at Leipzig when "estimated numbers in the choirs" varied from 17 to 47. He also appeared to think that Bach's altos were "those whose voices were in the transitional stage of breaking". Some may well have been, but to suggest that all were was a dubious assumption to say the least, the more so given that Daw based much of his calculation upon the "possible maximum and minimum ages of the alto fraction at the close of each year".

Daw was working during the 1960s. John Cooksey did not begin to publish his seminal work on adolescent voice change until 1977, so the ignorance is perhaps forgivable. Perhaps less forgivable is the hastiness of journalists who fail to consult more up-to-date texts. A substantial 2007 treatise on the topic by Anne-Christine Mecke argues that now dated work such as Daw's is based more upon ideology than established findings (Mecke, 2007). Mecke suggests that through the combination of omitting inconvenient

inaccuracies in the choir data and failing to understand the underlying biology Daw may have overestimated the average mutation age by approximately two years.

If we read the age of 15¼ for Daw's 17¼ we have a result much more in keeping with present day understandings of the "secular trend" in puberty (Cole et al, 2014). Daw's most significant error, however, was his assumption that Bach's sopranos had "unbroken" voices. A boy of fifteen might well be able to sing soprano, but he would not necessarily have an "unbroken" voice. He would in all probability speak in the baritone range but sing in the new falsetto voice he would have acquired, according to Cooksey (2000), at the "high mutation" stage of voice change which occurs towards the *end* of puberty (Harries et al, 1988).

The understandings of more recent Bach scholars such as Martin Geck and Andrew Parrott are aligned with this. Geck is confident that Bach almost never had an unchanged voice available as a soprano. In a good year he might have had a voice that, although changing, was still at a stage where soprano was possible in the modal (i.e. non-falsetto) voice. In a less good year, he would have had none at all.

Bach would from time to time have singled out individual St Thomas students to train them to become proficient singers; ideally these boys would have been identical with his copyists, for that would have greatly relieved the rehearsal work. Yet if this assumption is plausible, it must also include the possibility of years in which Bach in spite of all his efforts, had no single capable soprano singer at his disposal, and thus was committed to using falsettists (Geck, 2003 : 563).

Parrott also writes that:

we may conjecture that the increasing value of keeping boys singing for as long as possible led to an adolescent falsetto technique which some then retained and developed into adulthood as falsettist sopranos... Revealingly non-child sopranos, many of them described as youths, were often taken on for only as long as their voice shall last. (Parrott, 2015: 23).

On this matter, Geck and Parrott are both almost certainly correct. Accounts of Bach's boys that might throw light on this question are rare. Ravens (2014) notes that Bach himself complimented one Johann Gottfried Neucke, listed as an alto at fourteen years of age. The boy was said to have "a strong voice and quite fine proficiency". At fourteen this boy would probably have begun puberty, but probably not have progressed to the stage where falsetto began to appear (Cooksey, 2000: 726). His alto voice would have been modal and clearly a good one. It appears from the *Entwurf* that Neucke did not sing cantatas at fourteen in either a concertante or ripieno group. He was simply at that age a singer of the old-style motets who particularly pleased Bach. Unfortunately, we do not know if he progressed to cantatas but if he had done, he would almost certainly have attained a baritone speaking voice by the time he had become capable of singing the soprano part of a cantata.

Another "boy" about whom we have some records was Christian Friedrich Schemelli who attended the Thomasschule from 1731 – 1734 when he was aged between 18 and 21. The ages of Thomasschule pupils at that time extended up to 23, so at 21 Schemelli could still be regarded as a "boy". Later to become a court kantor and poet in Leitz, Schemelli was a

pupil of Bach during his time at Thomasschule and by all accounts Bach would have invested considerable energy and skill in developing his voice. This may have been more out of necessity than a liking for the youth as he was described as a “ne’er-do-well”. Crucially, Schemelli’s soprano voice was falsetto and there is no reason to suppose it “broke” unusually late by modern standards.

Since Mecke’s thesis, further information has come to light and continues to do so. Most recently, the difference between the onset of puberty and the *tempo* or rate of progression through puberty has become clearer (Cole et al, 2014). The onset of puberty is an endocrinal event not triggered by environmental factors and therefore can be expected to vary little across centuries. The extent to which onset might be influenced by environmental cues, if at all, constitutes the current cutting edge of endocrinal research (Argente *et al*, 2023). Meanwhile, a large, groundbreaking bioarchaeological study by Lewis et al (2016) suggests that the onset of puberty between the tenth and seventeenth centuries did occur at much the same age as it does now – between ages ten and twelve. However, the same evidence also shows that environmental factors including nutrition, disease and stress resulted in different tempi through puberty at archaeological sites differentiated by the health and prosperity of the inhabitants.

It is important to appreciate that “completion of maturity” described by Lewis et al occurs some years after the “voice break” event of coming to speak in a baritone range. It refers to the final fusion of all bones, that of the iliac crest not occurring until the early twenties. Lewis and colleagues give the age span of 16 – 18 for this stage of development in modern males, whilst citing evidence from excavations in their least wealthy sites that the same level of maturation occurred in medieval times as late as age 21. Daw was probably not entirely wrong, therefore, to cite the Prussian occupation of Leipzig as a possible factor in delaying the completion of adolescent maturation and giving Bach longer to work with at least some of his most able boys. His error was to assume that this extended period occurred before voice “break”.

How many of these most able boys there might have been at any one time is clearly a significant question and this is more than a matter of conjecture. The year 1730 is one for which we have records of Bach’s own notes on the names and ages of the school’s best singers, those who populated the first choir largely responsible for the cantatas sung in the Thomaskirche. Three boys were aged under 15, one aged 15, two aged 16, three aged 17, three aged 19 and six aged 20 or over. Fifty-five boys in total were enrolled in the Thomasschule at this time. The majority would have been the “unproficient and musically quite untalented boys” of which Bach complained (Parrott, 2000).

Some might not have sung at all. Geck (2003) relates that a good number were not so much musicians as church functionaries. A “Chorknabe” might be simply a lacky who fetched the warming pan to the organ loft. Equally he might be an instrumentalist or music copyist, positions essential to the efficient functioning of the establishment. The eighteen remaining who did not exhaust Bach’s patience or offend his ear intolerably would have to have covered at least three of the four parts and possibly the bass as well, so the older ones would probably not have been sopranos or altos unless falsettists (Parrott, 1996).

Also often overlooked is the difference in layout and disposition of the performing space. It has been suggested that a small group of singers should stand in front of the instrumentalists, not behind as is the case with choirs of today. This is apparently not the disposition with which Bach worked. Boren et al (2019) describe complex acoustical modelling of the Thomaskirche they have undertaken and reveal that the acoustic space familiar to Bach did not lend itself to a large choir standing behind an orchestra. The church was subject to considerable internal remodelling by the Lutherans. By the time of Bach's appointment in 1723, all catholic trappings, including rood screens had been removed and replaced by a dense network of tiered galleries. The aim was to pack the church with as many congregants as possible to hear the Word. Some of these galleries remain today. Others have been removed and the significance is considerable. Bach's forces were dispersed, the strings being located in the south gallery, the winds in the north, the continuo, trumpets, and drums around the organ's Ruckpositiv and probably a necessarily small number of singers in a west gallery. Bach perhaps directed the whole from his position as a violinist in the south gallery.

### **The new imperative of vocal health**

We have seen that the belief that Bach's sopranos were older and trained for a longer period than present day Knabenchor sopranos is not without foundation even if some of the details need to be amended. It is more the case that a better understanding of the process of adolescent voice change still needs be gained by journalists and social media pundits. A good place for them to begin would be to understand that the term "voice break" is increasingly avoided by those with good knowledge of the process of adolescent voice change. If the term must be used, it needs to be appreciated as not necessarily the end of a boy's career as a soprano, but more as a mid-point when what is now called the "M2" register (usually understood as "falsetto") comes into use. There are some young men of eighteen as capable of using such a vocal register for the soprano range now as there were in Bach's day. Their voices will be stronger than those of twelve- and thirteen-year-olds and of course both their stamina and musical knowledge considerably greater.

Why then is it not a simple matter for the work begun by Harnoncourt and Leonhardt to continue through the engagement of such young men in the exploration of Rifkin's ideas? One possible reason is that nobody has ever suggested it or considered it worth doing. There is another, however, which would exclude from participation the successors to Bach's own boys in Leipzig, the Thomaners. A consequence of the Thomanerchor's evolution into a modern boys' choir quite unlike that which existed in Bach's day has been an entirely different approach to boys' welfare. The Thomanerchor has become, amongst other things, a global leader in vocal health for boys. In recent years, it has been under the watchful eye of Michael Fuchs, an alumnus of the Thomasschule and an expert phoniatician who has been consultant to the choir for some time. Although there are some important differences between Fuchs' approach and that of English voice consultants following the work of John Cooksey, there is growing agreement that for a boy to sing soprano once a falsetto voice begins to appear is potentially injurious.

Fuchs published in 2007 a detailed paper describing how analysis of the jitter and shimmer content of voices allowed "restricted vocal function" to be identified between



five and seven months before mutation onset (Fuchs et al, 2007). By mutation he meant, not the onset of puberty which he described as the “premutation” but the midpoint, the “specific period of vocal instability” when a marked decrease in phonational efficiency was also identified in England by Williams et al (2020) as potentially harmful to young, developing voices. This midpoint of puberty, the period of specific instability, can be recognised by falsetto notes appearing for the first time. Exactly this criterion was employed as the indicator of “voice break” in an important paediatric study of the Copenhagen Royal choir (Juul, 2007).

Both the Copenhagen Royal and the Thomanerchor are, rightly, now protective of their boys’ welfare. One consequence of this new concern with vocal health is that the balance between changed and unchanged voices in these choirs is reported to have shifted over the last three decades. *The New York Times* reported in 2020 that only eleven out of 106 Thomaner boys were soprano (Birnbaum, 2020). Were the choirs prepared to have their boys sing soprano after the “voice break” indicator of first falsetto notes as some English cathedral choirs still do (Ashley, 2018), they would have less difficulty in maintaining their soprano numbers. Meanwhile, it is sobering to reflect that the ratio of 11:106 is not so very different from 3:55 in Bach’s day.

## Conclusion

The key point in all this is that if an historically informed performance of Bach is to be given by male voices alone, it cannot be given by a modern boys’ choir where the soprano line is rendered by children. Such choirs have evolved to be quite different to the groups of older voices Bach would have assembled. Their very nature supports the large choir principle and the established practice has become to select one or two soloists to stand out from a chorus line which of course replicates the way things are done in modern choral societies and chamber choirs. Whilst unusually capable twelve and thirteen-year-olds able to give at least “passable” performances as soloists do materialise from time to time, it is too much to ask of them to perform an entire cantata without the support of the choir through which they likely emerged.

This paper has made the case that for a typical cantata performance Bach’s choir could have had at the most three sopranos, perhaps only one, because that was all that was available. It would have taken Bach several years to train them, the process lasting well beyond so-called “voice break”. Considerations of ethics and vocal health as well as ideas about the more developmental and pedagogical purpose of modern boys’ choirs mean that the world’s best choirs are unlikely to be interested in a project to encourage older teenagers to develop as sopranos. This does not necessarily “prove” Rifkin’s argument, but it certainly does not undermine it. What Bach might make of twenty or more small boys with “unbroken” voices performing a cantata as a choir, and whether he might prefer a small adult concertante group are fascinating thoughts upon which to conclude.

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