

Upward Transposition and Boys

Martin Ashley PhD

Hitherto in this series of essays, the falsettist countertenor has been the main focus of attention, and for good reason. His “cut glass” timbre has dictated the sonority of the entire choir and his presence is demanded by the perceptual stereotype, that is to say the sound that most present-day enthusiasts of cathedral music hold in their heads and desire and expect to hear. Yet simultaneously, his absence is insisted upon by those who would have the music performed at the lower pitches that cut across his registration break and are better managed by high modal tenor voices. It is time, finally, to turn our attention to the boys and enquire in which direction we are taken by consideration of their vocal capabilities. If boys are to sing the treble and medius parts, as of course they did, are we taken in the direction of what are now believed to be the



pitch standards familiar to Tallis and Byrd or are we taken in a conflicting direction, the direction of modern high pitch performances? Logic dictates the former. Peter Phillips, however, seems to think that if “modern boys” are to sing a medius part, upward transposition is inevitable and men, who may or may not be falsettists, then need to take the medius part. Indeed, he argues that perhaps the most satisfactory medius line is produced by a combination of modal and falsetto male voices that might also include female voices.ⁱ

Phillips avoids taking sides in the Parrott-Bowers dispute regarding whether the medius line was always or only occasionally sung by boys. Yet he defines parameters for pitch standards by reference to the capabilities of boys’ voices, the very topic of this essay. Frustratingly, he gives no indication of how he supposes modern boys might differ from their sixteenth century forbears. Neither does he address the obvious difficulty that if pitch is transposed upwards so that “modern boys” can sing the meane part, the treble part must also be transposed correspondingly upwards. For that matter, the men’s parts must also be transposed upwards and Phillips does have words to say about bass parts that become baritone.

If we take “modern boy” to mean the kind of boy who might now sing in a cathedral or collegiate choir between the ages of eight and thirteen or so, we at least have a definition from which to work. Aside from possible differences in the timing of puberty, nutrition levels, health and educational regimes, the one clear difference between modern boys and Tudors boys concerns the singing of the meane

part. As Andrew Parrott has observed, “today’s Anglican choirboys are almost invariably required to sing as trebles”.ⁱⁱ This must surely differentiate them quite significantly from sixteenth century boys who were not invariably required to sing as trebles and might very likely have been given a meaner part. Depending on where and when they were born, they might all have sung a simple mean part ranging C4 to D5, or they might have been divided into meanes singing in the range G3 – C5 and trebles in the range E4 – G5. Parrott continues, stating with confidence that “it is undeniable that plenty of boys more naturally sing in a lower range” asking, perhaps tongue in cheek, “are all women sopranos?”. Knowledge of the relevant literature reveals this to be potentially misleading on account of a failure by Parrott to acknowledge the relationship between growth and singing tessitura that so affects boys. John Cooksey recognised only one full singing range for a boy’s unchanged voice, from A3 to F5 or possibly higher.ⁱⁱⁱ Most who have previously examined the question of boy altos are in either complete agreement with Father Finn who stated that “There is no such voice as the true boy-alto”^{iv} or with Duncan McKenzie and others who stated that such voices were exceedingly rare.^v

By the same token, a boy who can sing a medius part untransposed must also be exceedingly rare. Problems arise when we consider that unless something was different, sixteenth century boys could not have sung a medius part either. Of course, as Parrott recognizes, there are plenty of boys who sing naturally in a lower range but these are boys whose voices have started to deepen as a result of their beginning puberty. Cooksey recognised two such deepening ranges associated with the onset of puberty that occur *before* the event commonly called “voice breaking” but expected such voices to be alto in SATB scoring with the proviso that “sometimes the SATB alto part is too low”.^{vi} Such boys are commonly invisible in a modern cathedral choir because, until such time as it becomes too painful or erratic for them to do so,^{vii} they are required to continue on the soprano/treble part, in some cases in a full falsetto voice with their new baritone voice unused.^{viii}

If such boys were to be allocated to medius parts, the need for upward transposition would vanish overnight. Until recently a widespread belief that puberty came significantly later in previous centuries has pointed in the wrong direction, that treble voices lasted longer. The last decade has seen a remarkable increase in bioarchaeological studies from right across Europe that have been able to identify the key milestones of puberty from skeletal and dental remains.^{ix} All of these studies agree on two points. First, that puberty began five hundred years ago at much the same age as it does now (between ten and twelve) and second, that progress through puberty was slower. Credit must go therefore to Roger Bowers for establishing right back in 1975 that fourteen or fifteen, not seventeen or eighteen, was the most critical period for the majority of boys leaving choirs.^x Fourteen or fifteen were not the ages at which voices deepened to medius pitch but the ages at which the new baritone voices began to break through rendering boys useless as meanes as well as trebles.

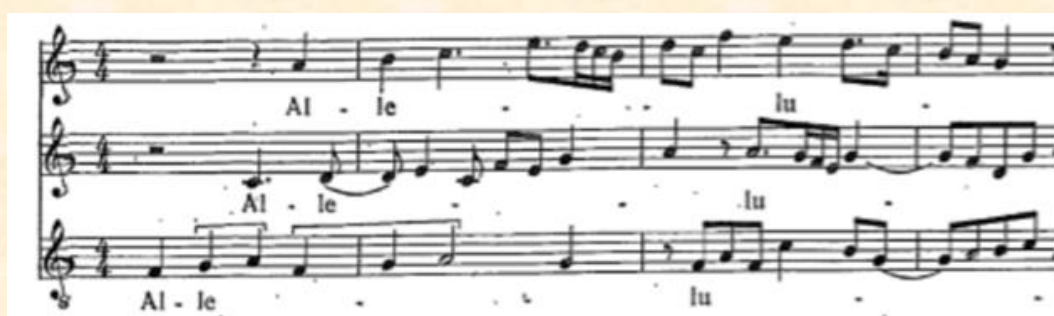
A possible consequence of this slower progress through puberty might well be that a greater proportion of twelve- and thirteen-year-olds alive in the sixteenth century had voices “unbroken” (i.e. pre-baritone) but sufficiently deepened to sing a medius part than would be the case in a modern choir where boys generally pass through this phase rather more quickly – often in as little as two to five months according to Cooksey’s work. Whether it is therefore a realistic possibility for modern boys to split into treble and medius parts as some choirs have attempted is therefore something of a moot point. Unchanged voices, though in theory extending as far down as A3 or even G3 suffer from a rapid fall off of intensity from E4 downwards. The consequence is that when singing even between middle C and E there is a danger of their being masked out by other parts or instruments sounding at similar pitch.

This proved to be an issue in the otherwise excellent recording of Byrd’s Second Service in the Tudor Choir Book series by Romsey Abbey. The boy chosen for the verse was aged 11:10 and had an

unchanged voice, speaking at above 220Hz.^{xi} In my hearing (admittedly subjective) it was overpowered by the organ when the verse descended to middle D and C. A similar issue potentially occurs with Byrd's *O Lord, Make Thy Servant Elizabeth Our Queene* where the meane part similarly descends to middle C or Db on the phrase 'give her her heart's desire'. Numerous recordings of this have been made, most of them at upwardly transposed pitch. Guildford Cathedral under Barry Rose and Westminster Abbey under James O'Donnell go for the full minor third, with the result that the boys' line is clear throughout the phrase. However, the ascent to E5 takes the boys well above the meane range into the treble and lends a certain penetrating brightness that is not present in versions by the Tallis Scholars, the Sixteen, Voces 8 or Stilo Antico and which may not be to every listeners' taste. Were there to be a treble part above the meane, we would then be up in the Wulstan stratosphere so I am not convinced by this transposition.

Magdalen College choir attempt this piece with boys without transposition (key Gb) and succeed in having the boys just audible on the Db. We cannot know, of course, how many of the boys had unchanged voices and how many had passed beyond this but there would need to have been a sufficient number of changing voices that did not weaken below middle E to the extent that most unchanged voices do. Tellingly, the version with the greatest masking issue has no boys. It is that in F by the Kings Singers where the falsettist taking the mean part is overwhelmed on the D4 and C4. Perhaps he needed to change to modal voice, difficult and hardly economic if for only two notes. A post-Reformation meane line (C4 – D5) if it is to be sung more successfully by boys almost certainly requires voices that have recently begun to change. Unchanged voices can also participate, though their potential as trebles is then unused.

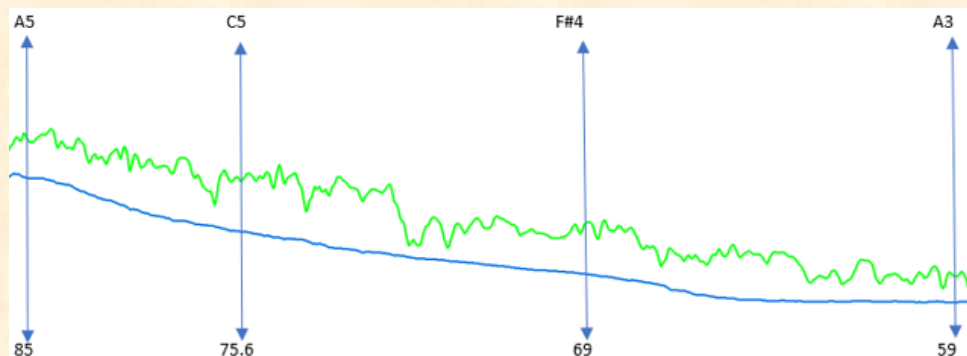
An otherwise excellent recording of Ludford's *Missa Dominica* by the Trinity Boys Choir demonstrates the challenge of achieving consistently good balance and contrapuntal clarity with modern boys. The *Missa Dominica* is one of a cycle of seven three-part Lady Masses which were probably written to be performed one each day of the week in the chapel of St Stephen's Westminster. The original resources for the Lady Masses were unusual and consisted perhaps not infrequently only of Ludford himself who would have sung the tenor part and the boys he had available, possibly around fourteen in number and divided as Ludford thought fit between treble and meane. The difficulty for modern is well illustrated in the Alleluias that follow the Gloria.



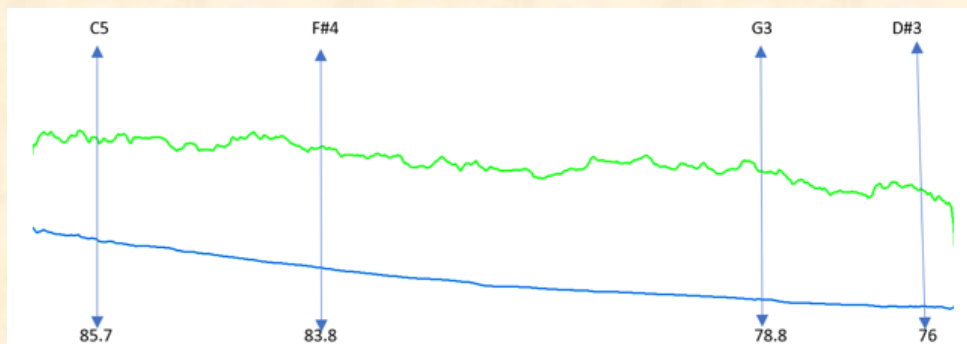
The entry of the meane part at this point in the Trinity recording is masked out by the trebles. This does not occur in a recording by the Estonian *Ensemble Scandicus* where downward transposition of a fifth permits performance by nine adult male voices. Countertenors take the treble part and tenors the mean part and the meane entry at the same point is perfectly clear. However, the Trinity recording nevertheless surely has the stronger claim to be nearer to what Ludford might have heard.

Arguably the issue with the Trinity recording might have as much to do with the trebles being too bright in the strong part of their range. The overall difficulty is illustrated by the pitch/intensity curves shown below. This is not a problem that could be corrected by upward transposition since taking the

meanes to a stronger point in their voices would take the trebles beyond a point where they might overpower not just the meanes but come to dominate all the parts.



Unchanged



Changing

For the lower pre-Reformation medius lines ranging from G3 to C5 a greater proportion of the second above profile than modern choirs such as Trinity are able to muster is surely required, but then a different problem is encountered. Voices in early change such as the one shown above are only good for the G3 – C5 range until the first falsetto notes begin to appear anywhere above E4, which may occur all too soon. The problem of an unfortunate and comical break will then afflict boys towards the top of the G3 – C5 range much as it can afflict adult falsettists. The difference is simply that it occurs both higher up and less predictably for boys whose tessitura drops on average from B3 – G4 to Ab 3 - F4 after only a few months as potential meanes.^{xii} Paradoxically such boys might be better off as falsettist trebles (as they are in some choirs), though a good many singing teachers would frown at any such suggestion.

What can we take away from all this? It is in my view unfortunate that boys whose voices are just beginning to change are so seldom identified as a discrete group by the kinds of choir that sing Tallis. They are, of course, in secular choirs where they might be called “cambiata”^{xiii} but those choirs do not sing Tallis. Boys’ voices in their current state, then, give us no certainty with regard to pitch standards but the uncertainties considered by this essay surely justify higher levels of research and experimental performance with “modern boys” who may or may not require upward transposition if they are to sing medius parts.

ⁱ Phillips, P. (2005) Treble or Soprano? Performing Tallis, *Early Music*, XXXIII (3): 495 – 502, p.497.

ⁱⁱ Parrott, A. (2015) *Composers’ Intentions? Lost traditions of musical performance*. Woodbridge: Boydell Press, p49.

-
- ⁱⁱⁱ Cooksey, J. (1992) *Working with the Adolescent Voice*. St. Louis MO: Concordia Publishing, p55.
- ^{iv} Finn, J. (1960) *The Art of the Choral Conductor*. Evanston ILL: Summy-Birchard.
- ^v McKenzie, D. (1956) *Training the Boys Changing Voice*. New Brunswick NJ: Rutgers University Press
- ^{vi} Cooksey, J. *ibid.* p56.
- ^{vii} Williams, J., Welch, G. and Howard, D. (2020) Which Sung Pitch Range is Best for Boys During Voice Change? *Journal of Voice*, 35 (4): 581– 588. <https://doi.org/10.1016/j.jvoice.2019.12.002>.
- ^{viii} Ashley, M. (2018) Beautiful swansongs of English cathedral music: adolescence and the boy treble voice, *NATS Journal of Singing*, 76 (2): 141 153.
- ^{ix} Blom et al (2020) Coming of age in the Netherlands: An osteological assessment of puberty in a rural Dutch post-medieval community, *American Journal of Biological Anthropology*. Also Lewis, M., Shapland, F. and Watts, R. (2016) On the threshold of adulthood: A new approach for the use of maturation indicators to assess puberty in adolescents from medieval England, *Annals of Human Biology*, 28(1): 48– 56. doi: 10.1002/ajhb.22761.
- ^x Bowers, R. (1975) Choral Institutions within the English Church:- their constitution and development 1340 – 1500. PhD thesis, University of East Anglia, p2024.
- ^{xi} Ashley, M. (2024) *Dead Composers and Living Boys*. Pressbooks.pub, pp. 231-235.
- ^{xii} Cooksey, J. (2000) Voice transformation in male adolescents. In: L. Thurman and G. Welch (eds) *Bodymind and Voice— foundations of voice education*. Iowa City, IA: The VoiceCare Network. 718-738.
- ^{xiii} Ashley, M. (2018). What voices have emerged? Lessons on boys' vocal dispositions and choral tone from a new choral leaflet series. *Music Education Research*, 21(2), 135–149. <https://doi.org/10.1080/14613808.2018.1534819>