

Plangency, Sonority or Sweetness? At what age do boys give their “peak performance”?

There is a belief amongst some choral music enthusiasts that boys’ voices possess a unique timbre that cannot be replicated by females. For those who hold steadfast to the tradition of the all-male choir this may be a crucial argument. Peter Giles enthuses thus: "Girls sing just as well, but the sound is different. Boys of 13 have a stronger voice: more plangent, more sonorous. It's more resonant. Girls at 13 their voices have a sweeter grain."ⁱ Broad brush generalisations such as this are not always helpful. Is Giles serious in singling out the age of 13, or does he really mean “all boys”? Perhaps he means “older boys” in which case is he saying that younger boys and girls (say, 8 – 11-year-olds) have more similar voices? If Giles does mean “older boys”, then there is some evidence to support his position¹. The voices of younger boys and girls are indeed more similar than those attaining adolescent status.

Unfortunately, in arguing for the traditional cathedral choir, Giles neglects a vital point. Traditional cathedral choirs are age stratified. This is illustrated in the figure below, which is taken from my 2014 publication, *Contemporary Choral Work with Boys* (p.117)

<i>Year (age)</i>	<i>Number</i>	<i>Function</i>
Year 4 (8–9)	0–2	The ‘nursery’. May not yet join the choir, but the more advanced ones might become probationers to replace losses.
Year 5 (9–10)	4	On a rapid learning curve. Finding their feet and becoming the next year’s mainstay of the treble section.
Year 6 (10–11)	4	Key year in which the pinnacle of development may be approached. Vital part of the young sound of the choir.
Year 7 (11–12)	4	The second key year in which musical experience is added to voices at their peak. The ‘golden year’. Some voices may become leading soloists, though a minority of others may begin to pass their best.
Year 8 (12–13)	3	At least one Year 8 pupil is likely to be lost to voice change. Others may assume useful leadership roles though their range and quality of their treble voices may diminish. Boys with later puberty may still peak as soloists or leading members during this year.
Year 9 (13–14)	0–2	One or two boys for whom puberty comes later may survive as useful members of the choir, possibly with very powerful top registers—a ‘super nova of the dying treble voice’.

Table 5. An idealised demographic for a treble section of sixteen boys.

A traditional cathedral choir of sixteen treble voices might have only three thirteen-year-olds. Moreover, because boys mature physically at significantly different rates, one of

¹ The literature was extensively reviewed by Graham Welch and David Howard in their paper Gendered Voice in the Cathedral Choir, *Psychology of Music* (2002, 30:102) and again more recently in *ABCD Choral Singing Research* (2021) by Nick Graham.

those thirteen-year-olds might still be a relatively small prepubertal child, whilst another might be physically mature, the size of a small adult and the possessor of a speaking voice that the lay person would call “broken”. School Year 8 (US Grade 7), where thirteen-year-olds are found, is the most diverse year for boys’ physical development. Whilst it is true that the timbre of boys’ and girls’ voices increasingly diverges as puberty approaches and progresses, simple facts such as the above, together with the tendency of a large, resonant acoustic to blend voices, attenuate individual differences and add an acoustic imprint of its own go some way to accounting for the failure of traditionalists to make a convincing case that only boys’ voices will do.

Energy might be better spent comparing the timbre of more age-homogenous groupings such as might be found in youth choir organisations which, for pedagogical reasons as much as any, maintain choirs of young adolescents segregated by gender. Questions might equally be asked about how the timbre of young boys’ voices differs from that of older boys. Giles privileges the qualities of “plangency” and “sonority”. How, exactly, are these recognised in individual voices? Why did so many sixteenth-century writers regard *sweetness* as a desirable quality? Le Hurray’s useful summary² makes such a convincing case that if, as Giles suggests, it is girls that have the “sweeter grain”, older boys might be hastily dispatched for their lack of sweet singing³, lest they be accused by John Dowland of “braying like asses”.

These matters, however, have never excited the kind of passion that has been engendered by the ending of the all-male cathedral choir tradition. The research interest does not seem to be there. It is possible that the passion aroused by cathedral choir traditionalism arises from what Welch and Howard have identified as a “perceptual stereotype”. They write that “the various perceptual studies involving chorister sound stimuli indicate that listeners have a perceptual “stereotype” of the sound of boy choristers to which any incoming sung examples are matched.” Timothy Day, in his analysis of cultural history and singing style suggests that this perceptual stereotype is more like an aesthetic brand, cultivated during the middle decades of the 20th century, than as an expression of an inherent, pristine vocality exclusive to boys.⁴ Listening to old recordings made before the Second World War leads one to conclude that perhaps current “traditions” date only from the 1950s. Listeners can be shocked to hear the entirely different timbre of the “old head tone” associated, for example, with George Thalben-Ball at the Temple Church⁵. How might they be shocked if recordings of William Byrd’s Lincoln Cathedral boys were available?

Longitudinal study of developing young singers reveals the extent to which, at any historical time, boys’ voices, whilst remaining within the (mezzo)-soprano range, change considerably in timbre between the ages of eight and fourteen. Of course, as the voice matures, so does the ability to interpret and perform increasingly complex music with growing confidence. Precisely when the peak of performance is reached is not a simple judgement. I have selected five representative case studies from the thirty longitudinal data sets acquired between 2005 and 2018. The boys were seen every three months for

² Le Hurray, P. (1967) *Music and the Reformation in England*, pp. 118-121.

³ “Music is a science which teacheth how to sing skillfully: that is to deliver a song sweetly, tunably and cunningly.” William Barley, *The Pathway to Musicke*, 1596.

⁴ In the Oxford Handbook of Singing (2019).

⁵ Admirably well documented by Stephen Beet through the *Better Land* series.

measurements of their physical growth and development, and to record parameters such as average speaking voice pitch (SF0), lowest and highest pitches of phonation, total usable singing range, pitch of lift points or registration breaks (if these occurred). They were also given the opportunity periodically to record demonstration pieces and it is these that constitute the interest here.

Each has been involved a commercial CD recording, concert appearance or solo of particular importance and extracts of these are included in the dataset. It is likely that such events coincide approximately with the peak of the career, though they may not invariably represent the voice at its very best. Practical considerations such as the timing of a critical concert tour or recording session, or the time lag between identifying a particularly fine voice and setting up a commercial CD recording could not infrequently result in the voice committed to posterity being arguably of poorer quality than the one that justified the recording contract. It is also possible that the younger voice might have desirable qualities not found in the older voice.

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