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PER-GUNNAR ALLDAHL

Choral intonation

GEHRMANS MUSIKFÖRLAG

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TABLE OF CONTENTS

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INTRODUCTION

A CHOIR THAT SINGS a cappella[1] cannot, in the same way as an instrumental ensemble, orient itself among the tones with the help of keys, valves, open strings, etc. Most of us do not have perfect pitch and so we must rely on our relative pitch, our tone memory and our muscle memory – how the tones "feel in our throat".

All choristers know how hard it is to stay in tune. The problem is mainly a lowering of pitch, but a strained use of the voice might press the pitch upwards. An unsatisfying intonation will easily arise if the choristers are tired and poorly concentrated. Alternating slow and fast songs or standing up when singing are well-tried remedies, as well as occasional singing in a different key.

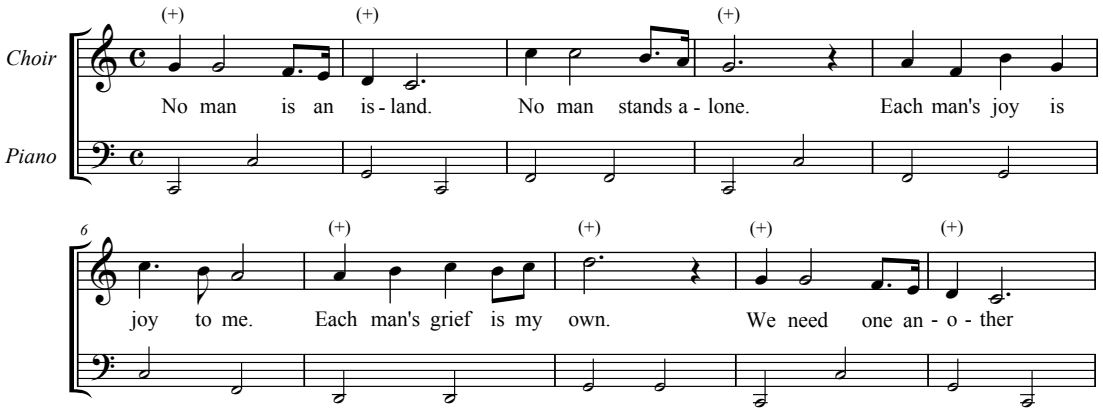
However, an excessive focusing on intonation can give rise to vocal tensions and thus work against its purpose, while attention to, for instance, pulse, rhythm, text or tone quality in many cases also improves the intonation. A functional singing technique – awareness of breathing, support, air flow, resonance, vowel colours, etc. – is of fundamental importance and cannot be stressed enough.

This book presents some ways for choirs that aim to

- stay in tune, i.e. start and end a piece on the same pitch
- sing purer harmonies than those offered by the piano
- use a conscious intonation for the purpose of increasing the musical expression.

Let´s start with a practical example. Sing in unison without accompaniment some well-known melody such as *No Man Is An Island* (give the tone from the piano, but do not play the piano part):

EX. 1



[1] Without instrumental accompaniment.

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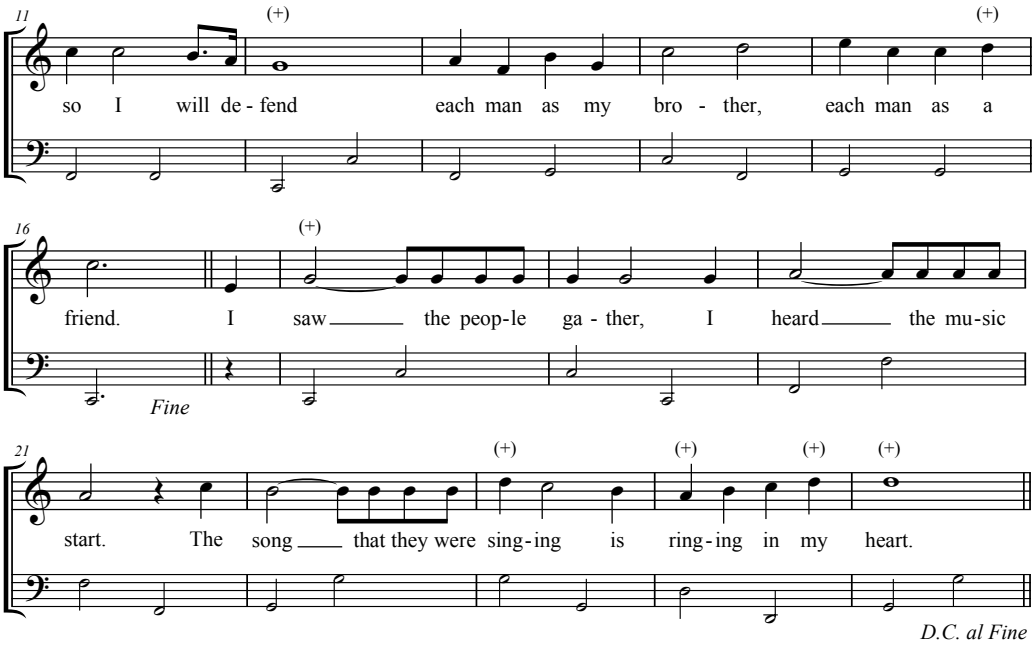

Compare the final tone with the corresponding tone on the piano. Is the pitch flat, and if so what is the reason? It is often advisable to first observe some factors other than just the intonation. How do the choir members look? Do they seem tired? Are they standing stiffly or are they sitting back too comfortably? Can you read from their facial expressions that there are tensions in their tongues and jaws? Does their vocal sound bear witness to a limited space for resonance or a high larynx? Is the totality clouded by diffuse vocal timbres?

Have the choir *sing the song without a conductor,* but still keeping to *rhythmic simultaneity.* The concentration and sensitivity that is now demanded, e.g., the transitions from a long tone to a new phrase (bars 4-5, 8-9 etc.), also further the intonation.

The next step on the way to improved intonation might be to pay special attention to *the 2nd and 5th degrees of the key in question*, in the example above marked with (+). These tones are especially sensitive in respect to intonation and appear, furthermore, in just this song often in connection with *descending melodies* or *dark vowels (No man, island, alone, own …)*, factors that easily contribute to an excessively dark intonation[2]. With the help of the played piano tones – always a perfect fifth below the respective tones sung – we can more easily perceive any false tones that may occur through the beats[3] that then arise.

Now give the tonic from the piano and sing again without accompaniment. Use your "inner ear" both to remember the tonic and to recognise it every time it recurs, but also to intonate the tones marked with (+) as perfect fifths above the "imagined" piano tones. Check the final tone against the piano.

The insight that all tones are not equally sensitive in respect to intonation can perhaps reduce the apprehension of "false singing" and afford the possibility of focusing on the real pitfalls. Our tonal system encompasses many

[2] When singing descending melodies and dark vowels we easily let our vocal chords relax too much, and this gives a lower pitch. The intonation sign (+) reminds us that every time we must "lift" our vocal tone a bit for it to sound pure (cp. pp. 11 – 12). Regarding the expressions "light" and "dark" intonation instead of "high" and "low", see p. 10.

[3] See also pp. 51–52.

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irreconcilable oppositions, e.g., between melodic and harmonic intonation[4], and knowledge of music´s building blocks can be a powerful tool that helps us handle some of the problems and make conscious choices.

The piano as a rehearsal tool

In choral singing the piano is often used as a rehearsal tool, something that offers many and obvious advantages. This also means, however, that we adapt ourselves to the piano´s tuning and, owing to that, we are not always aware of the rich palette of colours that other intonation principles – in theory well known for a long time – offer a cappella singing.

That the piano´s tuning can influence the choir´s intonation in a way that is not always desirable does not mean that we should stop using the piano´s advantages, but we should rather reflect on how we can best avoid its disadvantages. Use the piano effectively but not unnecessarily – never replacing the choir members' own sense of hearing. Think about the purpose of the piano playing, e.g.

– to give an idea of the current composition
– to convey timbre
– to give rhythmic impulses
– to serve as a model for parts and their entries
– to give harmonic support
– to provide references for the intonation.

Some possibilities of utilising the piano together with the choir:

- Play *as much as possible* of the score.
  Provides considerable support for the singers, but makes it more difficult for the choir conductor to perceive both the totality and the details. Leads the intonation to equal temperament[5].

- Play a *harmonic reduction* of the choral setting.
  Provides harmonic and rhythmic support, but still steers the intonation towards equal temperament[5].

- Play only *counter-parts*.
  Promotes active music-reading and permits a more independent intonation. It is often easier to intonate against *another* tone than the one you sing yourself. Those choristers who are not singing can listen for their parts from the piano.

- Play only *the root and the fifth* in the chords.
  By excluding the thirds from the piano playing the choir can sing each chord with a juster intonation, but every chord change still implies some adaptation to the piano's tuning.

- Play only *referential tones*[6], mainly the key's 1st, 5th and 4th – possibly also the 2nd – degrees.
  Provides good support for the intonation, almost without any of the drawbacks of equal temperament.

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[4] See also pp. 27–28, 36.
[5] See also pp. 33–35, 53.
[6] See also p. 38.

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Here are some rules of thumb in choosing suitable referential tones:
- keep the *same referential tone* as long as possible
- change referential tone preferably through *leaps of fifths/fourths*[7]
- *whole-tone steps* in the "referential part" will also work
- use *tritone* or *semitones* only if absolutely necessary
- avoid *thirds* and *sixths*!

When all parts sing together, the referential tones are best played in two octave positions: with *the left hand in the middle register*, but they will be still more audible if played also *with the right hand one or two octaves higher.*

- Don't play at all.

The accompaniment in ex. 1, reduced to a few chordal roots, can be seen as an example of piano playing that is supportive but not intonation-inhibiting.

Here are some more suggestions on how the piano can be used:

When rehearsing homophonic[8] *texture, it might be advantageous to begin with the bass part. To start with one can – if it is needed to get the right tone – play the bass part distinctly in the left hand while the right hand more discreetly hints at the harmony. Another way would be for the basses to sing their part while only the tenor, alto and soprano parts are played. Since the bass part, which is of course the harmonic foundation of the musical texture, is immediately focused, the intonation is promoted from the very beginning and one can avoid the voices of the bass singers making the sonority too heavy and putting the brakes on the rhythmic energy.*

And then we add the tenor part: both men's parts are sung while the alto and soprano parts are played. The tenor part's intonation is focused and the basses execute their part further. Altos and sopranos are at the same time given the possibility of listening to and following their respective parts.

In the next step the altos get to temporarily play the role of "melody part" above the tenor and bass parts, with the possibility of active intonation. The only piano accompaniment now is the played soprano parts, preferably doubled at a higher octave, as a treble part.

The sopranos have now had the opportunity to successively hear their part and there would hardly be a need for further practise of this part. Before the choral piece is sung entirely a cappella it can be accompanied by a "referential part".

N.B. In the text that follows we will successively encounter a number of concepts from the field of music acoustics. These will be further explained in the concluding chapter of the book, "Acoustics" (p. 50). The reader is recommended to start by familiarising himself/herself with this chapter and then to use it as a reference in his/her continued reading.

[7] A shift of referential tone on the piano always entails some pitch deviation, but the cents of the fifths/fourths are negligible in practice. (See also p. 36, footnote 6)

[8] Homophonic = chordal texture, mainly with melody, bass and accompaniment (cf. polyphonic texture, with parts of more or less equal importance).

[9] A succession of referential tones.

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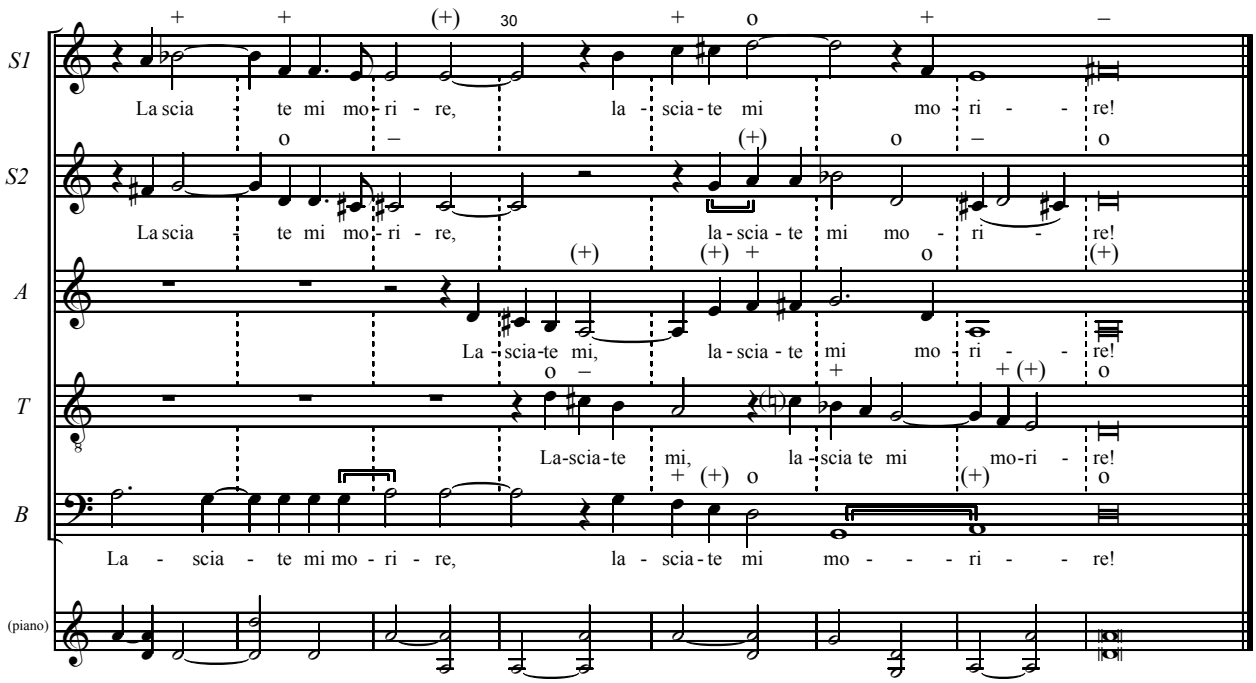
The piano's equal temperament does not give a correct representation of the sound of early music, for example, Claudio Monteverdi's *Lamento d'Arianna*. Yet, a piano accompaniment may give a good intonational support if reduced to a referential part consisting of the 1st, 5th and 4th degrees of the key:

EX. 67



To stay in tune one has to listen even here extra carefully to the 5th and 2nd degrees[95], especially in connection with a descending melody, dark vowels *("la-scia-te", "mo-", "-re")* or repeated tones with changing vowels *("-ri-re")*.

Bright 3rd and 6th degrees[96] make staying in tune easier and the chords purer as well. In the F major chord[97], which opens the 4th bar from the end, an *A* (= 5th degree of D minor) is still played as referential tone. This tone sounds as a dark major third because the *F* and *C* in other parts are brightly intonated[98]

F# and C# must be dark to generate pure chords, to which above all the sopranos and the tenors – with their lighter voices – have to pay extra attention, and especially where the vowel is bright *("-ri-")*.

Depending on the musical context, one and the same vowel might require different handling. The final chord's rather dark vowel *("-re")* helps the bright 1st sopranos to create a pure, dark major third, but at the same time there is a risk that the dark altos might lose pitch at their 5th degree.

Chromaticism and modulation

Let's study Giuseppe Verdi's *Ave Maria*[99]. It could be debated whether the chromaticism and colourful modulations of Verdi's musical language require equal temperament[100]. Whatever the choice of intonation may be, referential tones and consciousness regarding scale degrees, even in this music, will increase the blend of the different voices and contribute to an intonational stability.

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[95] Here: *A* and *E* (the root = *D*).
[96] Here: *F* and *Bb*.
[97] Relative major chord to D minor.
[98] Cp. p. 28, ex. 49 b-c.
[99] No. 1 from *Quattro pezzi sacri*.
[100] The composer himself stated that an organ may be added at a performance of this composition.

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WHY IS IT SO HARD to keep in tune when singing in a choir? Why does the chord sound false? What are melodic and harmonic intonations? What are large and small whole tones? Are not all semitones equal in size? How does one differentiate between F sharp and G flat? Can the piano be put to a wrong use?

CHORAL INTONATION gives answers to such questions – and contains in addition other practical tips on how one can get the choir to intonate with awareness.

CHORAL INTONATION is a book for choirs that would like to

- begin and end on the same pitch
- sing more purely than the piano
- utilize intonation as a means of musical expression

P-G ALLDAHL is professor of ear training at the Royal College of Music in Stockholm, where he instructs aspiring conductors and teachers of choral singing. He has been the conductor of the choral ensemble Happy Singers and of the Lidingö Chamber Choir and the Stockholm Youth Choir. He has won a number of prizes in international competitions. P-G Alldahl has taken a special interest in the intonation of choirs and instrumental ensembles. Ever since the first edition in 1990, the ideas of the book have been applied in cooperation with many choirs of various kinds, from beginner groups to professionals. As a result P-G Alldahl has become a much appreciated and sought-after lecturer in Sweden and elsewhere in the world. P-G Alldahl is also a composer and his choral music includes works such as Tre svenska trollformler (Three Swedish Magic Spells), Ljudens dikt (The Poetry of Sound), Pax (?), Jag ville måla (I Want to Paint) and Vinterhat (Hating Winter).

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9