PSALM 24

Part one

Looking for a four-part writing of a choral in which an intonation problem occurs in two successive tones of the soprano part, I came across the first line of Sweelinck's setting of Psalm 24, in *Opera omnia Vol. II,* p. 5 (internet copy):

It is an extraordinary fragment because the first c^2 in the soprano part is followed by a slightly lower c^2. Why?

  My explanation makes use of tone matrices, a way of arranging tones horizontally into harmonic fifths, and diagonally into, respectively, harmonic major thirds and harmonic minor thirds.

  I will give two tone matrices for the given fragment. In the first matrix every tone of the first two bars occurs, neglecting octave differences:

g		d		a		e	
	bes		f		c		

In the second matrix every tone of the last two bars occurs, again neglecting octave differences:

						fis	
c		g			d		a
	es		bes				

These two tone matrices can be combined into one single matrix:

					fis			
c		g		d		a		e
	es		bes		f		c	

But then we have two c's. What to do?

   Consider the underlying frequency ratios matrix (with values within the range of an octave):

	(400)				450			
320		240		360		270		405
	384		288		432		324	

It follows that the c at the right side of the matrix is slightly – a comma – higher than the other c. Therefore it will be preceded by a plus-sign in the tone matrix of the musical fragment; the same holds for the e, although the lower e does not actually occur in the fragment:

	(e)				fis			
c		g		d		a		+e
	es		bes		f		+c	

As a matter of fact, the tone c at the left side of the matrix, is the 'normal' tone occurring in cadences such as in the two last bars:

This brings me to a discussion of four-part writings of modal melodies, focused on the first line of the Dorian Psalm 24, to begin with in Sweelinck's version with finalis g.

   According to the 'standard' view, the tones are taken from the

corresponding Dorian scale:

g a bes c d e f g

Here is a tone matrix in which these tones occur:

	e					
c		g		d		a
			bes		f	

I consider it the basic tone matrix for the Dorian mode, because it contains three chords that can be easily used in a four-part writing for the first four tones of Psalm 24, for example with the tones of Sweelinck:

or

The given tone matrix is so restricted that usually a fis is added for making full closes:

	e				fis	
c		g		d		a
			bes		f	

There is another possible extension of the tone matrix, without the risk of comma differences, namely by adding a tone es in cadences.

	e				fis	
c		g		d		a
	(es)		bes		f	

Sweelinck gave an example of this practice. The introduction of a tone es in other parts of a Dorian melody is also feasible, as we will see in Part 2. However, in my opinion the Dorian character of Psalm 24 requires the use of a major chord for the fourth tone.

   An old example is the following three-part writing of the first line of Psalm 24, here with the key-note e, by Christian Friedrich Ruppe, who lived from 1753 to 1826, although the second chord already contains a raised tone.

   An explanation for the three-part writing is perhaps that, from 1796 onward, Ruppe conducted a choir for three voices (girls and boys), without tenors. But of course it is very easy to add a tenor voice to this fragment.


The e is indeed the usual finalis of Psalm 24, so the corresponding tone matrix is in this case

	cis			dis	
a		e	b		fis
		g			

It is true that Ruppe's harmonization does not only use harmonic triads, but there are no comma differences.

   The book from which this fragment stems – *De Psalmen Davids door F. C. Ruppe Organist tot Leijden* – is undated, but it presumably dates from about 1800.

   Remarkably, in the course of the nineteenth century the choice of an A major chord is no longer obvious. An early example with an A minor chord is the version by J. H. Hulsken, in his *Volledige verzameling van al de Zangwijzen, zoo der Evangelische gezangen, als der Psalmem, mitsgaders der Lof- en Bedezangen* (…), presumably published in 1839:
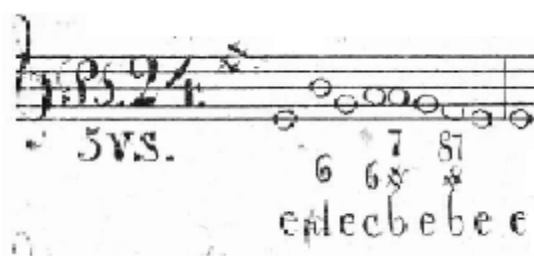
				dis	
a		e		b		fis
	c		g		

J. A. van Eijken gave similar solutions in his harmonizations of Psalm 24 and Psalm 62 in *De melodieën der psalmen en lofzangen* (1853). They are different because of the choice of the key and its 'character'.

The first line of Psalm 24 according to van Eijken:

				e	
bes		f		c		g
	des		as		

A similar setting was given by B. de Vries, in his book *De melodieën der Psalmen, Lof- en Bedezangen* (second edition 1896, third edition 1903).

The first line of Psalm 62 according to van Eijken:

				dis	
a		e		b		fis
	c		g		d	

De Vries's version is even simpler; he used primary chords in bar 2.

Such four-part writings are meant for organ or piano. This is completely clear for the following setting by W. F. G. Nicolai, taken from his *Koraalboek*, published in the time that he was head of the Koninklijke Muziekschool in The Hague, that is, after 1865:
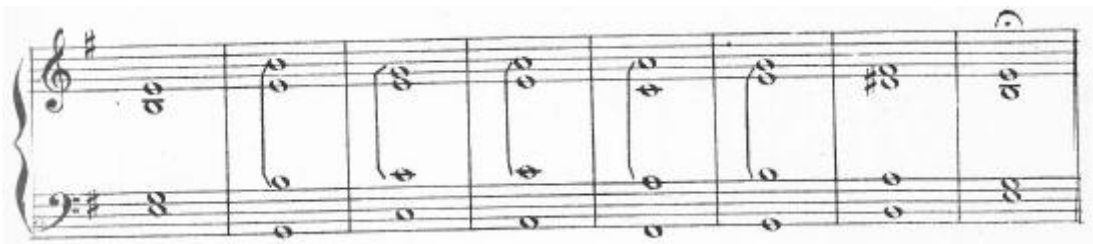
				dis	
a		e		b		fis
	c		g			

We see how easy it is to write a tonal harmonization without comma differences.

In his edition of *De melodieën der Psalmen, Lof- en Bedezangen* – undated – Jan W. F. Brandts Buys , as well, gave two different four-part writings of Psalm 24 and Psalm 62, just as Nicolai. His version of the first line of Psalm 62 uses only the basic chords of D minor, G minor, and A major, but his first line of Psalm 24 is remarkable, because it contains a comma shift in the bass of bar 2: a lower *g* is directly followed by a *g* of the Dorian scale:

This lower g is preceded by a minus sign in the corresponding tone matrix, because the other g is regarded as the standard tone:

-g		d				e	
	bes		f		c		g
				as			

The first edition of G. B. van Krieken's edition of *De melodieën der Psalmen, Lof- en Bedezangen* appeared in 1888. It ran to many editions, and is still widely regarded as a beautiful collection. A reprint by J. de Koning appeared in 1993, with a preface by Willem Hendrik Zwart. (The editor gave me permission to reproduce some fragments. Nevertheless the following quotations are taken from the sixth editon, Rotterdam: J. A. Daamen, undated.)

   Van Krieken was fond of dissonants and surprising moves. He gave two versions of Psalm 24:

					dis	
a		e		b		fis
	c		g		d	

				e		
bes		f		c		g
	des		as			

However, a manuscript, probably dating from the end of the nineteenth century, still starts with tones of the original Dorian scale, but thereafter strange things happen:

The Bes major chord is followed by an Es major chord, before it returns to F minor. Assuming that the key tone f^1 remains the same in the transition from the third to the fourth chord, and that the same holds for the *bes*[1] in bar 2, the tone matrix will be as follows:

	-g		d			e		
-es		bes		f		c		g
					as			

It seems as if hereafter more composers tried to give a modal four part writing in the sense that they harmonized the first four tones of the first line of Psalm 24 with finalis e with the three basic chords e g b, b d fis, and a cis e.

This is the solution by Samuel de Lange, taken from *Psaumes et Cantiques pour le culte public des Eglises Wallonnes* from 1891:

As we know, Psalm 62 has the same melody as Psalm 24. This brings us to the four-part writing by Adr. C. Schuurman, *Vierstemmige uitgave van de Liederenbundel van de Nederlandse Protestantenbond* (1949), Lied 81:

Johanna Wagenaar introduced a new idea in her harmonization of Psalm 62, in *Psalmen en Gezangen voor den Eeredienst der Nederlandsche Hervormde Kerk* (1938):

At first sight (!) the fourth chord is almost the same as that of Schuurman's. However, the third and the fourth chord have a common tone e^1 in the four-part writing of Schuurman, whereas there is no tone e at all in the third chord in Wagenaar's version. Instead, there appears a d^1. This means that it is plausible to locate the transition $B\ g\ d^1\ g^1 - A\ e\ c^1\ a^1$ outside the Dorian mode, with a temporary key-note d.

The transition from the A major chord to the D major chord – first inversion – is, in a sense, prepared by the preceding G major chord – first inversion. It has drastic consequences for the intonation of the tones of the fourth chord:

The reason is that it seems to require the following tone matrix:

e		b		fis		cis	
	g		d		a		+e

Fortunately, Johanna Wagenaar's version proceeds with a harmonic mirror image of the beginning, and everything will resolve itself:

From the version by Schuurman it may be concluded that the transition from an A major chord to a D major chord is obvious. But here a comma shift lies ahead, assuming that the e^1 in the third chord remains the same in the fourth chord:

	cis				dis		
a		e		b		fis	
			g		d		+a

A natural way of performing this line is to take a caesura between the fourth and the fifth chord:

	cis			
a		e		b
			g	

|					
			dis		
e		b		fis	
	g		d		+a

Unfortunately, only the Dutch text of the second verse of Psalm 24 – *Wie klimt den berg // des Hee-ren op* – and, with some reserve, the French text of the third verse – *Cet hom-me, Dieu // le bé-ni-ra* – allow such a break.

   This reminds me of the first example of a four-part writing of a Dorian melody by Johann Joseph Fux in his *Gradus ad Parnassum* of 1725. (I studied this work more than fifty years ago, when I was still a student ...)
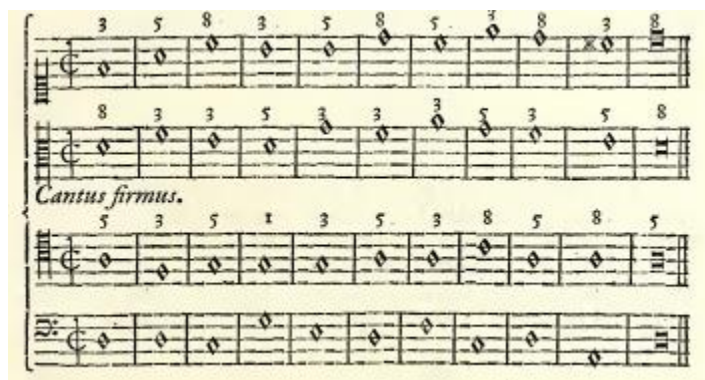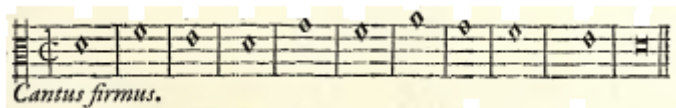

The first six bars, ending on a D minor chord, have the following tone matrix:
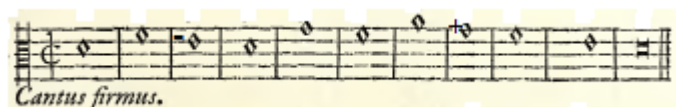
	e		b			
c		g		d		a
				f		

The last six bars, beginning with the D minor chord just mentioned, agree with the following tone matrix:

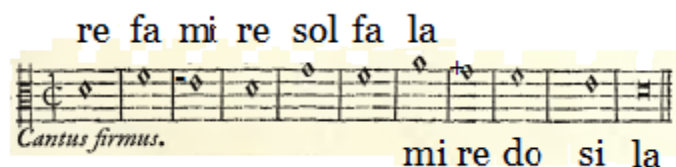|					
			cis		
d		a		e	
	f		c		g

The consequences for the intonation of the cantus firmus

can be visualized as follows:

The reader may sing it with the corresponding solmization:

re fa mi re sol fa la

mi re do si la

The first line of Psalm 24 is so short that it is possible to harmonize it with a limited number of harmonies, comparable with these first or last bars of Fux's cantus firmus, that is, without comma differences. For example, the harmonization by Claude Goudimel:

		dis		
e		b		fis	
	g		d		a

This is also the case in a Swiss *Psautier Romand* (1962):

e		b		fis	
	g		d		a

It is followed by the same harmonies in reverse order.

But as long as we stick to our starting point, the Dorian tone matrix,

	cis					
a		e		b		fis
			g		d	

it seems wise to go back to the complete first line of Psalm 24, for example the harmonization by Samuel de Lange:

Assuming that the tone matrix of the first four chords is our starting point, how do we then choose the tones of the fifth chord?

The answer is simple, there are only A major chords available, such as *A cis¹ e¹ a¹*:

Or, using only tones from the restricted tone matrix:

It is also easy to change Schuurman's harmonization in this way:

	cis				
a		e		b	fis
			g	d	

Here Part one ends. In Part two theoreticians will be heard.