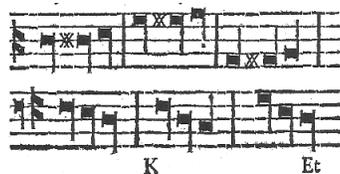


Muris' Italian contemporary Marchetto da Padua confirms that the F must be raised to "perfect" the sixth, even if the result is highly chromatic, and he gives the following examples:⁴



Here, the second measure in particular shows the F being raised.

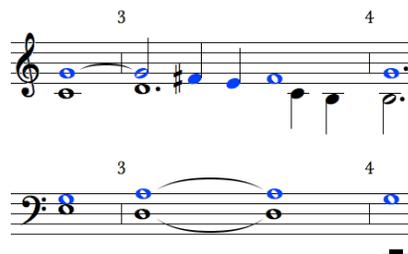
It may be argued that Jean de Muris and Marchetto da Padua both predate Josquin by about 200 years, and are therefore not applicable. We may, however, find some information in more contemporary literature that suggests that their prescripts are still applicable. Pietro of Aaron, for instance states his eighth rule of counterpoint thus: "*La ottava Regola è, che volendo andare a una consonanza, sempre si debbe pigliare quella che allei è più vicina*", or "The eighth Rule is that, when wanting to go to a consonance, you must always take the one which is closest."⁵ Although his meaning is not immediately clear, his following list of possibilities clarifies that he means "Perfect consonances should always be preceded by the closest imperfect consonance". Amongst his examples, he names the following:

- *La sesta minore discendendo alla Quinta* (the minor sixth descending to the Fifth)
- *sesta maggiore inanzi l'Ottava*. (The major sixth before the Octave)
- *La decima minore tornando all'Ottava*. (The minor tenth returning to the Octave).

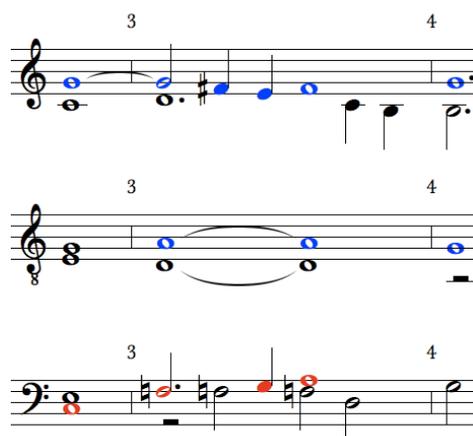
He does not include, for instance, the minor sixth going to the octave because, as his rule states, the major sixth is "*più vicina* [closer]". One may argue that he does not specifically state that such minor sixths should be altered chromatically. The implication, however, is unmistakable. Without chromatic alterations, this rule would considerably limit the use of octaves in counterpoint in general, and implicitly forbid octaves on D or G altogether, because they can only be approached by major tenths and minor sixths. There is no reason to believe that this is what he means. Rather he seems

to mean, amongst other things, that a diatonic minor sixth must be chromatically altered to a major sixth when followed by an octave.

So, on Aaron's advice, seconded by Muris and Marchetto, we will raise the F to F#, which in the 4 voice version produces this:



which is satisfying enough. It is what David Fallows recommends in the 'New Josquin Edition',⁶ and it is what Edward Wickham's ensemble "The Clerks' Group" sings in the four-voice version (sung down a whole step from modern pitch).¹¹ Let us see how this bides in the six-voice version:



Yikes! Now there is an augmented octave between F# in the Superius against F^b in the additional lower parts. Zarlino explicitly forbids this in book three of his treatise "*Istitutione Harmoniche*". He says "...se noi porremo la chorda # posta in acuto tra la c & la d per l'uno dei gli estremi della ottava; & la chorda C posta nel grave per l'altro estremo; averemo una Ottava Dissonantissima", or "if we put the note # between c and d acute [i.e. c# 4] at one extreme of an octave; and the note C grave [i.e. c^b 3] at the other extreme, we will have a Very Dissonant

Octave."⁷ He then goes on to say: "*Questi & tutti gli altri intervalli mostrati disopra sono Dissonantissimi: & non si debbono porre nei Contrapunti; Perche genererebbono fastidio all'Udito*", or "These and all of the other intervals shewn above are Very Dissonant and must not be put into Counterpoint; Because they create annoyance upon being heard." He then gives this table of 'forbidden intervals':



which clearly shews an augmented octave between C \flat and C \sharp in measure 6. This presumably applies to all augmented octaves in general, including the F \flat - F \sharp at hand.

One might speculate that the problem of the augmented octave could be solved by simply raising the F \flat in the lower voices to F \sharp . It will, however, be noted that the F in the upper Bass part is preceded by a C \flat (shewn in red above). Raising the F to an F \sharp would therefore create a leap of a tritone, which is widely forbidden by theorists. Tinctoris, for instance, says "while the human voice may possibly use a tritone in scalewise progression, to use it, however, in a leap is either difficult or impossible..."⁸ Zarlino, too, explicitly forbids augmented fourths and diminished fifths, both scale-wise and by leap, and includes several examples in his table of "Forbidden Intervals" (above), of which perhaps measure 8 is the most relevant.

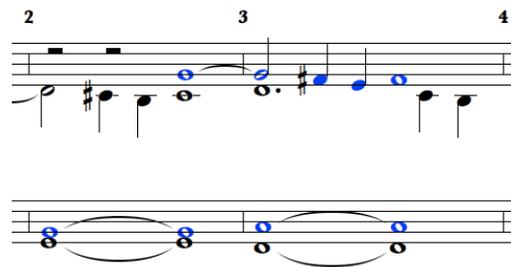
We could continue working backwards, trying to correct these problems with more accidentals, but the further we go, the more problems arise (raising the C to C \sharp , for instance, creates a diminished octave with the low Superius, which is also forbidden by Zarlino). We may, therefore, consider leaving the entire passage unaltered in the six voice version, despite the first rule that necessitated raising the F in the Superius to F \sharp to begin with. This seems like the most satisfying solution,

because it avoids dissonance entirely. Edward Lowinsky confirms this decision. He says "One must distinguish between a grammatical and an ornamental use of musica ficta. Ornamental I would call... the raising of the seventh note in an ornamental clausula:



"Such ornamental use is optional; at times ... C \flat fits better into the context. At any rate, to sing or omit such a sharp will not distort the grammar of sixteenth century harmony."⁹ Even if Lowinsky's views on the subject are generally controversial, this particular view is further confirmed by Dr. Smijers in the the 6 voice version in "Josquin Werken", in which F \flat is suggested (through the omission of editorial markings).¹⁰ This is also what Wickham sings in his recording.¹¹

So, to review the choices in measure 3: In the four-voice version it seems as though the F should be raised; in the six-voice version it seems as though it must not be raised. If it is going to be raised in the *comes* measure 3 of the four voice version, its counterpart in the *dux* (the c in the low cantus in measure 2) may just as well be raised.

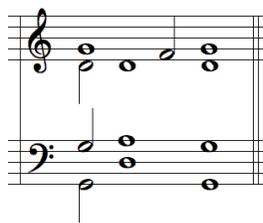


Like this, the passage is replete with major sixths and tritones, which, modern listeners may describe as sounding very 'major', or 'tonal', and the resolutions of the tritones very 'directed'. In the six-voice version, not raising these pitches will create a passage replete with minor sixths and perfect fourths and fifths, which modern listeners may describe as being 'minor' sounding and less 'directed'. Although this language is asynchronous, the aural effect is presumably not: each version has a distinct character. Furthermore, because the piece

is both canonic and repetitious (ABAB), any one alteration is likely to be heard as many as 4 times throughout the piece. Because the piece is brief, the distinct character manifest in a few measures like these quickly becomes pervasive.

Another passage that is nearly identical to measure 3 occurs at measure 37. Because this is effectively the penultimate measure, modern performers are more compelled to raise the F in the Superius in the 6 voice version, because it is like the third of the dominant triad in a V-I cadence. Edward Wickham, for instance, in his recording of the six voice version, has the high Superius sing an F#, against an F \natural in the Bassus parts, despite their F \natural in the analogous place in measure 3.

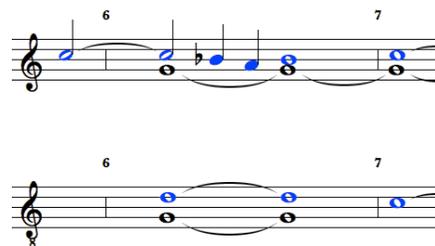
Although this satisfies our modern expectations of cadences, there does not seem to be anything in the contemporary literature that makes the case for raising the F at final cadences more compelling than raising it at any other location within the piece. In fact, Aaron, in a chapter entitled "About the Termination or Cadence Ordained for the Soprano", gives an example of possible cadences which contains the following:¹²



which is very similar to measure 37. On the one hand, his aforementioned "Eighth Rule" implies that the F should be raised here. On the other hand, he says "...because the tones [i.e. modes] are composed of various species of intervals, ...it follows that different cadences or terminations must be found in them." This comment seems to indicate that a cadence on G is expected to have a different interval structure ("species of interval") than a cadence on, say, C, so that the leading F in the former should not be raised to match the leading \flat in the latter. Either way, chromatic alterations are not mentioned explicitly at all in this chapter, which at the very least suggests that there is nothing special about chromatic alterations in cadences.

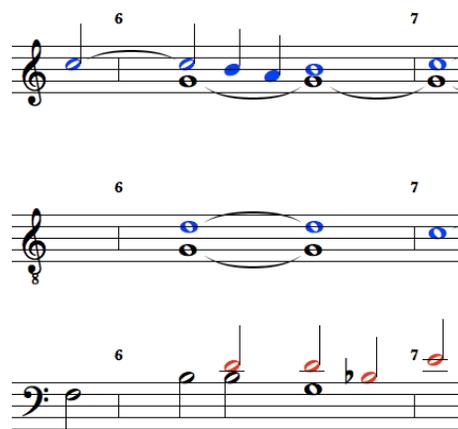
Modern scholars agree that it is a "common but anachronistic and essentially mistaken assumption that it is a cadence... that requires chromatic alteration of a 'leading tone'"¹³. Thus if the F is not to be raised in measure 3 of the six-voice version, nor should it be raised in measure 37 of the six-voice version. It should, of course, probably still be raised in both places in the four-voice version, which, again, produces a very aurally different final cadence.

A completely different set of theoretical issues is raised by a similar passage at measure 6, which in the four voice version is thus:



Here, the initial question is similar to above. The sixth between D and B \flat (both shown in blue) must be 'perfected', by raising the B \flat to B \natural ¹⁴. Both Fallows¹⁵ and Smijers¹⁶ confirm this in the 4 voice version (despite very different treatments of \flat and \natural in general), and this produces a satisfying cadence.

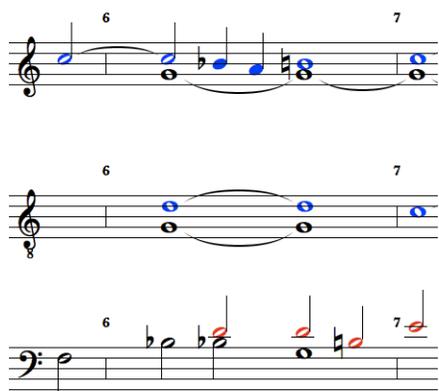
These measures, with the B accordingly raised in the Superius, look like this in the six voice version:



Here there are several problems, primarily pertaining to Musica Recta, rather than Musica Ficta. Notice, for instance, that the low Bassus leaps a tritone from F to \flat . Aaron tells us that the \flat here must be lowered to \flat : "...the signs of \flat molle and \flat duro ... this usage is intended solely for the mitigation and temperament of the tritone. Even if \flat molle is not shown... it is understood that this harshness is never to be tolerated. ... Many composers have observed this rule... Josquin also confirms... this."¹⁷ Notice that the high Bassus also leaps a tritone, from $B\flat$ to E between measures 6 and 7. If this tritone is also to be "mitigated and tempered" according to the above rule, then the $B\flat$ will have to be raised to \natural . Correcting both tritones results in this rather chromatic passage:

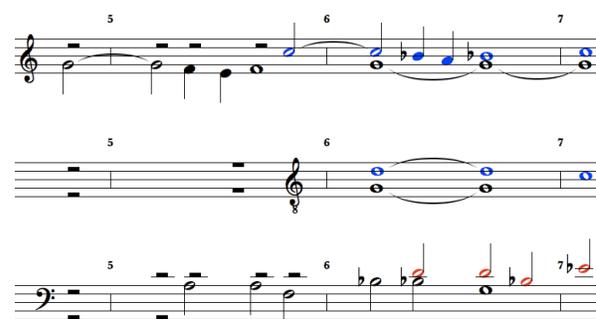


which is what is given by Smijers, and what is sung by Wickham. This mixture of \natural and \flat , of course, confounds the high Superius. On the one hand, singing the notated \flat would create a diminished octave (also forbidden by Zarlino along with the augmented octave) against the high Bassus. On the other hand, singing the necessary alteration of \flat to \natural , as previously discussed, would produce a forbidden augmented octave with the low Bassus. Wickham took the latter solution, and sang the augmented octave. Smijers, on the other hand, gives this mixed solution, containing both \flat and \natural in the superius:



The mixture of \flat and \natural has, however, been forbidden since time immemorial. Pseudo-Odo of Cluny, for instance, says that "...una earum semper superflua est, & in quoquumque cantum unam recipis, aliam contemnis, ne in eodem loco, quod absurdum est, tonum & semitonum facere videaris" or "...one of these is always superfluous, and in any song one is accepted, the other contemned, as it would be absurd for a tone and semitone to be seen in the same place."¹⁸ Of course, this may not be as literally applicable in 1502 as it was in c902. Nonetheless, altering one note and not the other seems to undermine the first B's function as an embellishment of the resolution on the second B. Here, it does seem a little "abfurdum" to see both "in eodem loco [in the exact same place]".

Another solution for this passage may be obtained by considering the canonic structure of the work. Niccolo Vicentino talks about canonic imitation, and suggests that the *comes* should preserve the interval structure of the *dux*. He says "If I wish to start the imitation, I shall choose such a passage as will permit the other parts to say [that is solmize] it the same."¹⁹ Applied to Josquin, this would give the following solution:



Here, the high Superius sings two \flat s as an exact intervallic repetition of the low Superius, and the high Bassus leaps from $B\flat$ to $E\flat$ as an exact intervallic repetition of the low Bassus. This solution avoids both tritones and augmented/diminished octaves entirely.

To recapitulate the choices for measures 6 and 7: In the four-voice version, it seems as though the high Superius must sing a $B\flat$. This produces a very diatonic cadence in C Lydian that sounds like a V-I cadence in C Major to modern ears. In the six-voice

version, either B \natural s will be mixed with B \flat s, producing a highly chromatic cadence in an ambiguous mode, or all B \flat s will be sung with an E \flat at the end, producing the effect of a sort-of weak 'modulation' to an ambiguous 'key'. Either way, the six-voice version will sound much different and much more chromatic than the 4-voice version.

In summary, contemporary literature indicates many places in the four-voice version of Josquin's 'Basies Moy' that must be altered chromatically. In some cases, the alterations are made to perfect sixths preceding octaves, and in other cases to prevent melodic tritones. Many of these chromatically altered notes conflict with the additional voices when applied to the six-voice version. The altered notes either make augmented/diminished intervals with the bassus, force melodic melodic tritones in other parts, or otherwise break other rules of counterpoint in the contemporary literature. This means that chromatic alterations must be used differently in each version. These differences are extensive enough (because of the form of the piece) and at structurally-important enough places (like the final cadence) that the general, overarching character of each piece is unique.

Postscriptum

The foregoing analysis was inspired by a conversation with David Schiller, in which he asserted that "The a6 version... requires B \flat s so consistently that it is actually in a different mode, G Dorian, not G Mixolydian." This is part of what this paper was originally intended to explain. It turns out that the answer to this was not within the scope of my thesis, but nonetheless, I will make a brief attempt to explain it here. The problem, as I see it, is not that the six-voice version is replete with B \flat s, but rather that the four-voice version is replete with B \natural s. The reason for the B \natural s is primarily editorial (and thus out of scope for my thesis). In the four-voice

version, Petrucci writes out all four parts. The *dux* parts have no key signature, and, since it is a canon at the fourth, the *comes* parts both have a key signature of one flat. This accords with Vicentino's remark that "One should observe that when the tenor will make the canon at the fifth with the alto, if the tenor will be by the soft \flat , the alto will go by the hard \flat ."²⁰ The four-voice version in "Josquin Werken" also gives the same key signatures as Petrucci. Although I have pointed out some situations where these B \flat s need to be altered, there are many other situations where they are fine in both the four and six-voice version, like here:

For reasons that I don't understand (access to other sources, perhaps), the four-voice version in NJE, to which Dr. Schiller was referring in his comment, has edited these out and gives all B \natural s in these measures. Notice however, that in Wickham's four-voice recording, they sing all B \flat s (sounding modern A \flat s because they are transposing), while in their six-voice version (contrary to Dr. Schiller's observation) they sing B \natural s in measure 14 and B \flat s in measures 15 and 16. The point is that here, either flats or naturals could be sung in either version without breaking any rules. There is certainly nothing in the substance of these measures that forces naturals in the four-voice version or flats in the six-voice version. So, throughout much of the piece, whether one or the other version sounds like G Mixolydian as opposed to G Dorian just depends on what the editor gives or what the performers decide to sing.

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Notes

1. If this is not self evident, it is made clear, for instance, by Johann Fux, *The Study of Counterpoint*, 62. Figure 49 shews:

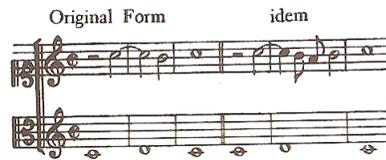


FIG. 79

Here, Fux says: "From this one can see clearly that first ... examples represent the original form; the ones respectively following where *idem* is added are variants used in the interest of the melodic line..."

2. Coussemaker, *Scriptores*, v.3, 73.
3. Coussemaker, *Scriptores* v.3, 73.
4. Gereberto, *Scriptores* v.3, 73.
5. Pietro Aaron, *Compendolo*, chapter 66, "Del Canto Figurato".
6. David Fallows, *New Josquin Edition*. v.28 p11.
7. Zarlino, *Istitutione Harmoniche* Book III, pp196-197.
8. Johannes Tinctoris, *Concerning the Nature*, p.14
9. Lowinsky, "Musica Ficta in the Josquin Edition", p.780.
10. *Josquin Werken*, 3(2):51.
11. Edward Wickham, *Missa Malheur me bat*, Track 7 (a6), Track 4 (a4).
12. Pietro Aaron, *Toscanello*, v.2 pt.1, chapter XVIII: 30-31.
13. Here, the scholars are Margaret Bent, *Counterpoint, Composition and Musica Ficta*, 13. Although squabbling, she is agreeing with Lucy Cross, *Chromatic Alterations and Extrahexachordal Intervals in Fourteenth-Century Polyphonic Repertories*, (PhD. Dissertation, Columbia University, 1990).
14. I must argue with myself on this point. I'm not actually so sure that the rule of perfecting the sixth applies to the interval D-B. The examples in the literature that I have seen all show exclusively F G and C being raised to F#, G#, and C#, respectively. Furthermore, the interval F-F# is a semitone, and the interval Bb-B is a diesis, which is larger than a semitone by a comma of Didymus, so it might not be treated the same as a semitone. This topic needs more research. Either way, here, I just wanted to point out that Bb is the common solution, and the six-voice version will require a unique treatment in any event.
15. *New Josquin Edition*. v.28 p11.
16. *Josquin Werken*, 3(2): 53.
17. Pietro Aaron, *Toscanello*, v.2 pt.2: 12-13.
18. Gereberto, *Scriptores*, v.1, 254.
19. Unfortunately, our copy of *L'Antica Musica Ridotta alla moderna prattica* is at the bindery, so I took this from a secondary source. Nicholas Routley, *A Practical Guide*, p.67.
20. Again, a secondary source. Karol Berger, *Musica Ficta*, 158. from Pietro Aaron *L'Antica Musica*, ch.33, fol 89r-90v;

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OSOJOU BASSIEZ MOI A 4

PERUCCI, OTTAVIANO

CANTI B

NUMERO (MADAMA)

DE VICE, 150/12

FAESIMILE

BRUCE BRONNER,

NY

Sifce moy
 .Gofqum
 12

Tenor Altus Bassus

JOSEPH BAISSEZ NO 1 A 6, 1850

REBUCCI, OP. 111

ACT I B

NUMERO CUNDIANA

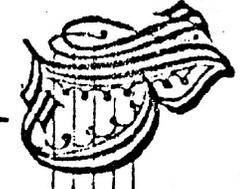
VENUE 1501/02

FAIRMILE NY

RAVDE BROTHERS

N.Y.

Singt in cisternon



Elisemoy

First musical staff with notes and rests, including a 'Singt' instruction.

Tenor

Singa

Second musical staff with notes and rests, including a 'Singt' instruction.

Bassus

Singa

Third musical staff with notes and rests, including a 'Singt' instruction.

БАСІЭС МОГ АЧ

A non-edición based on Pechrucci's "Cantata B"
unedited by Mihai Krzyżaniak

Josquin Des Prez

Fuga in Diatessaron

1 2 3 4 5 6 7 8

9 10 11 12 13 14 15 16

17 18 19 20 21 22 23 24 25

Musical score for measures 26 through 34. The notation is in a single system with a treble clef and a key signature of one flat. Measures 26-27 show a melodic line with eighth notes and a bass line with quarter notes. Measures 28-30 feature a melodic line with eighth notes and a bass line with quarter notes. Measures 31-33 show a melodic line with eighth notes and a bass line with quarter notes. Measure 34 shows a melodic line with eighth notes and a bass line with quarter notes. Blue highlights are present on several notes in measures 28, 29, 30, 31, 32, 33, and 34.

Musical score for measures 35 through 39. The notation is in a single system with a treble clef and a key signature of one flat. Measures 35-36 show a melodic line with eighth notes and a bass line with quarter notes. Measures 37-38 feature a melodic line with eighth notes and a bass line with quarter notes. Measure 39 shows a melodic line with eighth notes and a bass line with quarter notes. Blue highlights are present on several notes in measures 36, 37, 38, and 39.

Basies moy as

A non-edition based on pebruct's "can'ti B"
unedited by mihē krzyżaniak

Josquin Des Prez

Fuga in Diatessarion

1 2 3 4 5 6

7 8 9 10 11 12 13 14

Musical score for measures 15 through 21. The score is written on three staves: Treble Clef (top), Bass Clef (middle), and Bass Clef (bottom). Measure numbers 15, 16, 17, 18, 19, 20, and 21 are indicated at the end of each measure. The notation includes various note values, rests, and accidentals. Some notes are highlighted in blue or red. A double bar line is present at the end of measure 21.

Musical score for measures 22 through 29. The score is written on three staves: Treble Clef (top), Bass Clef (middle), and Bass Clef (bottom). Measure numbers 22, 23, 24, 25, 26, 27, 28, and 29 are indicated at the end of each measure. The notation includes various note values, rests, and accidentals. Some notes are highlighted in blue or red. A double bar line is present at the end of measure 29.

Musical score for measures 30 through 37. The score is written on three staves: a top staff with a treble clef, a middle staff with an alto clef, and a bottom staff with a bass clef. The music features a variety of note values, including quarter, eighth, and sixteenth notes, as well as rests. Blue and red dots are placed above certain notes, likely indicating specific fingering or articulation. Measure numbers 30, 31, 32, 33, 34, 35, 36, and 37 are printed at the end of each measure.

Musical score for measures 38 and 39. The score is written on three staves: a top staff with a treble clef, a middle staff with an alto clef, and a bottom staff with a bass clef. The music continues with similar notation to the previous system, including blue and red dots above notes. Measure numbers 38 and 39 are printed at the end of each measure.