FUXX'S ADHERENCE TO THE CONTRAPUNTAL
CONVENTIONS OF THE SIXTEENTH CENTURY

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T. J. S.
CHAPTER I

INTRODUCTION

Probably no other contrapuntal text has enjoyed a greater fame throughout the past 250-odd years than the Gradus ad Parnassum (published 1725\textsuperscript{1}) of Johann Joseph Fux (1660-1741). It was the Traité de l'harmonie réduite à ses principes naturels (published 1722) of Jean-Philippe Rameau (1683-1764), published almost concurrently with the Gradus, that drew the categorical distinction between "counterpoint" and "harmony," but each treatise has collaterally served in giving musicians a diverse approach to the further understanding of their art. In its history the Gradus has educated many fine musicians, included among them Haydn, Mozart, Beethoven, and Brahms,\textsuperscript{2} and has kept alive the polyphonic tradition through the eras in which its appreciation declined.

From the traditional mathematical precursor of the compositional data ("Pars Speculativa"); to the species demonstrating the "correct" manner of writing disjunct phrases ("Pars Activa," I); to the composition of imitation, fugue, double

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\textsuperscript{1}Because the biographical information often differs from source to source, all dates found in this thesis are drawn from Grove's Dictionary of Music and Musicians, 5th ed., 10 vols., ed. Eric Blom (London: Macmillan, 1954-61).

\textsuperscript{2}For a more complete listing of musicians, see Appendix A.
counterpoint, and style ("Pars Activa," II & III), Fux attributes his wisdom "to Palestrina, the celebrated light of music...to whom I owe everything that I know of this art...."³

In 1927, Knud Jeppesen, Ph.D., then lecturer in the University of Copenhagen,⁴ published the following statement:

The publication in 1725 of the famous textbook "Gradus ad Parnassum", by the Austrian Johann Joseph Fux, marks the return to Palestrina as the standard of theoretical instruction...However Fux is under obligations not alone to Palestrina but also to Berardi and Bononcini, from whom he borrows 17th century rules as well as the contrapuntal "species"; these he, with fine pedagogic instinct, firmly and practically systematizes so that they form a pleasant contrast to the circumstantial and planless arrangement of his predecessors. It is therefore all the more to be regretted that he fails to distinguish clearly between the technical idioms of Palestrina's style and the peculiar characteristics of the style of his own contemporaries.⁵

Music theory has undergone many such "revisions" in its evolution. Discussing the various reasons for this, Jeppesen includes the

Inability of the theorists, when describing the practices of past times, to discriminate between these and the elements of style typical of


⁵Jeppesen, Style & Dissonance, 5.
their own contemporaries, (which was the case with Fux). ⁶

Four years later, with the publication of his own text on the "species" counterpoint of the sixteenth century, he continues the premise that

...Fux, who expressly declares in his Gradus that he has chosen Palestrina as his model, stands only in a somewhat remote relation to Palestrina's music. There are three reasons for this: Fux could have known comparatively few of Palestrina's works, for they were not commonly available in the eighteenth century; he was to a considerable degree dependent upon the older Italian theorists, who taught counterpoint more as "harmony" (it was not necessary to dwell especially upon the linear element because at the time, such matters were taken for granted); and he involuntarily allowed the musical idioms of his own time to creep into his style. ⁷

A lack of scholarship on Jeppesen's part was certainly not the case, but a meticulous look at the Gradus does show that Jeppesen's judgment is in error. Not that any single statement is so invariably incorrect in itself, but when sounded by a respected scholar, the majority of readers accept it unchallenged. This often leads to distorted overstatements by others, going far beyond what the original meaning was intended to convey. This seems to be the result here, as illustrated by a contemporary music encyclopedia:

...(1) nota contra nota (note against note), with the added part in semibreves...(2) with

⁶Jeppesen, Style & Dissonance, 2.

the added part in minims, (3) with the added part in crotchets, (4) contrappunto sincopato, with the added part in semibreves but a minim's distance after the canto fermo, i.e. [sic] syncopated... (5) the combination of the four previous divisions]. This system of progressive study was the basis of the five "species" or types of counterpoint established by Fux in his Gradus ad Parnassum (1725). Fux's method, which consisted of adapting 16th-cent. practice to the harmonic conventions of the 18th cent., became widely accepted as the foundation of what is called "strict" counterpoint.8

Fux, however, did not originate this division. Adriano Banchieri's (1567-1634) Cartella musicale (1614) used this arrangement through "Fux's" fourth species, and Ludovico Zacconi's (1555-1627) Pratrica di musica (1622) used the system through all five of the species. And this is not to include the numerous theorists who merely rearranged the pedagogical breakdown.9

The assertion that Fux may have lacked a voluminous collection of material may be accepted. Unfortunately, as the degree of inconsistency between theory and practice increases, the date of origination usually fades away, and with it the opportunity of going back to extant manuscripts. Fux made do with what he had, the same as we would do today in a detailed study of Zarlino, although "few compositions by Zarlino have been preserved besides the examples given in


9Jeppesen, Counterpoint, 40-41.
his theoretical works..."¹⁰ One would not think a study of this sort is impossible. However, if future musicians are fortunate enough to discover and have easily available additional compositions by Zarlinó, we would hope that they be sympathetic to our limitation. Fux was no more dependent upon his predecessors than we all are. And, if Fux was so imbued with "harmony" rather than "melody," the concern of this thesis is to deal with vertical combination. It is true that some difference exists between the practice of Palestrina and the theory of Fux. I believe that most of these instances do not deserve the austere attention they have received. Often there is a large controversy made over a musical judgment based on the ear—a "musical exception" to a fundamental rule with which they both agree. I find the number of variations possible in "pure" sixteenth-century practice greater than the few discrepancies that exist between Fux and the style of Palestrina.

The objective of this thesis is to prove that Jeppesen erred in his judgment that Fux allowed eighteenth-century compositional techniques to enter into the Gradus, and show that Fux did indeed employ "pure" (or nearly so) sixteenth-century mannerisms in the treatise. To meet this goal it is necessary to compare the Gradus to a secondary deduction of "Palestrina." Since Giovanni Battista Palestrina (1525-

1594) wrote no theoretical text, his compositional method can be determined only from an abstraction of "supposed" rules of pitch combination and progression from the score. It is for this reason that primary source material of a contemporary composer-theorist has been used to corroborate these theoretical postulates.

Gioseffo Zarlino (1517-1590) was one of the foremost Italian masters of the sixteenth century, and although his compositional output was by no means meager, he is best remembered today for his extensive theoretical treatment of counterpoint.11 Zarlino was a contemporary of Palestrina (as their dates overlap by sixty-five years), and it would not be unreasonable to assume that the practice of each closely parallels the other. Moreover, Zarlino was a conservative, for although Le Istitutioni harmoniche "was printed in the second half of the century, it reflects in many ways the practice of the first half."12 It is through this extensive theoretical writing that we can gain much insight into not only the musical operation of the Prima Pratica, but also suggestions as to where Fux may have deduced some of these differences. For the purpose of this study, I examined


12 Reese, Music in the Renaissance, 377.
also nine of Zarlino's madrigals, as these are not only very similar to the Palestrina style, but can be tested against the composer's theoretical position as well. Although there may be drawbacks in forming conclusions by numeric method, at times these show the common discrepancy between verbal theory and actual practice. Approximation provides a conception adequate for the purpose while still allowing for error in copy, tabulation, and disagreement of analysis technique.

Counterpoint is the art of combining melodic lines in such a way that their uniqueness is preserved, while their combined effect is attractive— in short, it is the artistic combination of the linear elements in music. It is on this basis that the study is approached— listing the verbal position of each theorist and giving statistical data as needed. Two areas are discussed: first, the construction of, and progression to, consonance; second, the introduction of dissonance, both as a primary (deliberately stressed) and secondary (melodically introduced) phenomenon.

Compared with Fux's pedagogical manual, limited here even further to the actual species, Zarlino and Jeppesen go far beyond. Those items not discussed or demonstrated by

13 These madrigals are contained in Joseffo Zarlino, Nove Madrigali a Cinque Voci, collected from various sources & ed. by the Fondazione Giorgio Cini as Collana di Musiche Inedite o Rare, III (Venice: San Giorgio Maggiore).
Fux, however, are ignored, even if useful to the understanding of the style. After all, the criticism of Fux is that he allowed stylistic traits to creep in, not that he was lacking in completeness. Topics such as the transposition of modes, rhythm, melodic figuration, rests, "dead" intervals, breaking from the pedagogical arrangement, etc., are, therefore, either treated superficially or not at all. Rather than viewing each species in relation to the number of voices involved, I have chosen, for convenience, to discuss all densities of a particular species before proceeding to the next division. This departs slightly from the original organization, but presents the basic material in a more homogeneous grouping for comparison, and highlights the dissimilarities of a particular metric organization.
CHAPTER II

CLASSIFICATION AND USE OF INTERVALS

First species, as the initial acquaintance to setting independent lines against one another, is explained by Fux as "the simplest composition of two or more voices which, having notes of equal length, consists only of consonances." 14 At this point in the Gradus, the student has supposedly gained a full authority of the basic precepts affiliated to working within this confine: knowledge of the theoretical data differentiating consonance and dissonance; types of motion; and restrictions in the movement of voices in relation to each other.

According to these pedagogical divisions in moving from the most simple to the complex, composition begins using a one-to-one relation in stationing a suitable consonance either above or below a cantus firmus. Liberties are encountered as the work expands in the number of voice parts and as new metric patterns are involved— that material found as introductory is no longer purely speculative but put gradually into practical usage. The disagreement begins here and continues between Fux, Zarlino, and Jeppesen, before actually proceeding on to the rules of first species.

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14 Fux, Gradus, 27.
To establish the groundwork upon which to build and compare these theoretical differences, a summary and partial discussion of related information found as introductory is given below.

**Interval Classification**

1) Consonances—the perfect prime; major and minor third; perfect fifth; major and minor sixth; and the perfect octave; and any compound with the perfect octave. Those primes, fifths, and octaves, classified as consonances are perfect consonances, the remaining are imperfect.\(^{15}\)

2) Dissonances—all forms of the second, fourth, and seventh; augmented and diminished (and doubly or more) thirds, fifths, sixths, and octaves; the augmented prime (the diminished being a practical impossibility); and any compound with the perfect octave.\(^{16}\)

Zarlino is in agreement with Fux so far as

The consonances will be the third, fourth\(^*,\) fifth, sixth, and octave, with their replicates or compounds. The dissonances will be the second and seventh, and the compounds they form with the octave.\(^{17}\)

\(^{15}\)Fux, *Gradus*, 20.

\(^{16}\)Fux, *Gradus*, 20.

and additionally, that

The dissonances are those which are not contained between the natural steps and are not in the interval's true ratio, although their order [sic, orders] and intervals remain diatonic. These are of two kinds. An interval may be diminished....Or it may be augmented....18

*The difficulty is that Zarlino classifies the perfect fourth as a perfect consonance. He admits his position is somewhat radical to that of contemporary theorists as he states:

To some it may appear novel that I include the [perfect] fourth among the consonances, because practicing musicians have until now relegated it to the dissonances. Hence I must emphasize that the fourth is not actually a dissonance but a consonance.19

But he maintains the service of the interval is available "not only as accompaniment to other consonances but also without support in two-voice compositions [as well]."20

Later, however, though repeatedly labeling the fourth as a consonance in statements regarding the quality, there seems to be a contradiction. Zarlino limits the use of the fourth in two-voice writing that it be employed only in syncopation, and be followed by its closest consonance, the third:

First, the dissonance should be followed by the consonance closest to it. Second, the syncopated

18 Zarlino, Le Istitutioni harmoniche, 45.
19 Zarlino, Le Istitutioni harmoniche, 12.
20 Zarlino, Le Istitutioni harmoniche, 14.
voice should always descend by step, never ascend. When the dissonance [italics mine] occupies the second half of the syncopated semibreve and forms the interval of a second against the subject [cantus], it is best followed by a third as the nearest consonance. The fourth is also followed by a third in similar circumstances.21

The following are two examples from Zarlino's text, illustrating his handling of the perfect fourth in diminished (any discipline beyond first species22) counterpoint:

The fourth, being "consonant," is still prepared by a consonance (here, perfect fifth), and after the bass changes to bring about the dissonance, the other voice resolves downward by step—exactly the handling which Zarlino prescribes for any other syncopated dissonance. Citing its use as a permitted theoret-

21Zarlino, Le Istitutioni harmoniche, 97.

22Zarlino, Le Istitutioni harmoniche, 92.

23Zarlino, Le Istitutioni harmoniche, 98, quotation from example 68, measure 6.

24Zarlino, Le Istitutioni harmoniche, 98, quotation from example 68, measure 11.
ical structure, Zarlino gives:

and as for the practical application, gives this example:

as an allowable progression and handling.

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What might be thought as a "tolerable exception" after reading William Hoehn's examination of Zarlino's *Ecce iam venit plentitude* is not so much the exception as it is Zarlino's use of a structure of his own allowance less often than certain others. Written "to determine if Zarlino adhered to his stated rules of counterpoint when composing."\(^\text{27}\), Hoehn finds that "the fourth is always treated as a dissonance—when a fourth is sounded between bass or tenor (as bass) and a higher voice so that a \(\frac{6}{4}\) (or \(\frac{5}{4}\)) chord is formed....the fourth is approached and quitted by step in the manner of a suspended dissonance."\(^\text{28}\) This is quite the usual case in the analyzed madrigals—that the perfect fourth is handled as a primary (or secondary) dissonance. It is rare that it is used in any other manner and only when the texture expands beyond that of two-voice composition:


\(^\text{28}\)Hoehn, *Examination of Ecce iam venit plentitude*, 16.
Under a special detailed discussion, Zarlino gives his reasoning for not descending stepwise to a unison as one would expect after a syncopated second, for "a unison is only the beginning of consonance or interval; it is neither consonance nor interval..."\(^{30}\) and therefore should be avoided as much as possible in counterpoint.\(^{31}\) In the entire musical score

\(^{29}\)Zarlino, "Cantin con Dolce Graziosi' Accenti," Madrigale, measures 35-36.

\(^{30}\)Zarlino, Le Istitutioni harmoniche, 24.

\(^{31}\)Zarlino, Le Istitutioni harmoniche, 90.
examined, there is, above the bass, not a single example of either a dissonant second resolving to a unison or a dissonant second "resolving" to a third. Zarlino, it seems, has avoided the practical answer to a theoretical question. As a suspension involving the bass as dissonance, there is only one occurrence of the second, where it, in its decorated form, resolves to the third. 32

Jeppesen subscribes to Fux's typical classification of consonance and dissonance, as

In chordal combinations one regards as consonances the perfect unison, fifth, octave, twelfth, and so on, which are called perfect consonances, and likewise the major and minor forms of the third, sixth, tenth, and so on, which are called imperfect consonances....33

The remaining intervals are, of course, dissonant.

The oddities of Zarlino's interval classification are not found in either Fux or Jeppesen. The perfect prime is included as a perfect consonance by both theorists, and Jeppesen finds that routine sixteenth-century fashion parallels Fux in the handling of the perfect fourth, as

...the 4th was treated as a dissonance by the practical musicians of Palestrina's time. Palestrina himself was most strict in his treatment of this interval, using it almost exclusively in syncopation or as passing dissonance.34

33Jeppesen, Counterpoint, 287.
34Jeppesen, Style & Dissonance, 211.
Regarding the use of the unison in counterpoint, Fux states that "the unison should nowhere be employed in... [the first] species of counterpoint, except at the beginning and the end." Exceptions are made by all three theorists as composition becomes more involved, though all agree to the basic precept. While leaving the restriction that a unison should not appear on the downbeat except at the initial and/or concluding harmony, Fux will permit its use on the unaccented portions of the metrical unit as can be seen from various second and third species exercises, and his allowance of the 2--1 suspension (see p.129). The usual handling is that the unison is approached by step and left by leap, or vice versa, in the opposite direction.

Zarlino subscribes to the same practice, as he allows

When from necessity or other reason unisons are used, they may be written on the second part of the semibreve, provided the subject and counterpoint do not strike the unison simultaneously whether on the downbeat [already forbidden] or upbeat. Thus placed upon the second part of a note's duration the unison is inconspicuous, which would not be the case if it occurred on the first part of a note.

Also in agreement, Jeppesen says that

The unison on the strong accent is permissible only on the first and last notes of the cantus firmus. In the remainder of the counterpoint, however, it may also be used on the unaccented portion of the measure. It should be noted in

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35 Fux, Gradus, 38.

36 Zarlino, Le Istituzioni harmoniche, 177-78.
this connection that it is best that the unison introduced by skip be quitted by conjunct motion in the opposite direction, although this may not always be possible. 37

Types of Motion

1) Direct Motion—when two voices ascend or descend, moving by either step or leap, in the same direction. 38

Though not discussed as such by Fux, parallel is a subclass of direct motion.

Parallel Motion—when two voices ascend or descend, moving by the same general number of degrees by either step or leap, in the same direction.

2) Contrary Motion—when one voice ascends and the other descends, moving by either step or leap. 39

3) Oblique Motion—when one voice ascends or descends, moving by either step or leap, and the other remains stationary. 40

A slight variance in terminology exists between the three theorists, but these are the only classifications of movement that are possible.

37Jeppesen, Counterpoint, 166-67.

38Fux, Gradus, 21.

39Fux, Gradus, 21.

40Fux, Gradus, 22.
Fundamental Rules of Motion

1) In moving from one perfect consonance to another, the voices must move in contrary or oblique motion.\textsuperscript{41}

For the most part, Zarlino is in agreement with Fux as he states that "we must not write consecutive unisons, octaves, or fifths..."\textsuperscript{42} unless "when writing two consecutive perfect consonances, we are careful to have the parts proceed one by leap and one by step..."\textsuperscript{43} Zarlino thereby still places a built-in avoidance of the forbidden progression by requiring that the individual voice movement be different. Both voices moving by step, or leaping, by the same general interval, in direct motion would cause consecutive parallel consonances except in cases involving alternation of perfect and augmented or diminished intervals. He cautions one, however, to guard against having the "two parts ascend or descend in this way [direct motion, one voice moving by step and the other by leap] from a perfect...consonance of large ratio to a perfect consonance of smaller ratio."\textsuperscript{44}

Zarlino also includes the option

...to write consecutive perfect...consonances of the same ratio....This can be done when the two

\textsuperscript{41} Fux, Gradus, 22.

\textsuperscript{42} Zarlino, Le Istitutioni harmoniche, 61.

\textsuperscript{43} Zarlino, Le Istitutioni harmoniche, 75.

\textsuperscript{44} Zarlino, Le Istitutioni harmoniche, 61.
voices involved exchange pitches, moving in [the only actual possibility] contrary motion. In such an exchange of steps between the voices, the consonance is not raised from a high pitch to a lower one [sic, should read, to a high pitch from a lower one], or vice versa, but remains in its first location, changing neither position nor sound. Therefore no variety of pitch is heard.\textsuperscript{45}

To Fux, the first of Zarlino's statements is partially allowable (see p.21). No mention is made of the second by either Fux or Jeppesen, but presumably the student would have this option as it infringes on none of their stipulatory principles.

Jeppesen's basic premise is compatible with that of Fux, but included here are a few minor variances with the allowable exceptions made in compositions of more than two voices.

Parallel fifths and octaves are forbidden... Hidden fifths and octaves are forbidden in first, second, and third species in two parts. On the other hand, in fourth species in two parts where they are delayed by suspensions, they are permitted... In three part writing hidden fifths and octaves are permissible between outer and inner voices. Hidden fifths may also occur between outer parts, but in such cases it is best for the upper part to move by step. Hidden octaves, on the other hand, are to be avoided so far as possible between outer parts... In four or more parts, hidden octaves can be used between the outer parts, but here too it is best for the upper part to move by step...\textsuperscript{46}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{45} Zarlino, \textit{Le Istituzioni harmoniche}, 71.
\item \textsuperscript{46} Jeppesen, \textit{Counterpoint}, 287.
\end{itemize}
\end{footnotesize}
"""covered" fifths and octaves occur in the music of Palestrina very rarely in two-part writing, and then they are generally used in connection with an imitation....

But such fifths and octaves can also occur—even in two-part writing—without any imitation. In such case, however, one generally finds that one of the voices moves by step...."" 47

There is no disagreement between Fux and Jeppesen in the basic precepts of consecutives in the voice-leading, but present here is a myriad of "musical exceptions," some of which Fux accepts, others declines, and still others devises for himself:

A) Parallel fifths and octaves are forbidden by the basic rules of progression, with no verbal or musical exception given in the text.

B) Hidden fifths and octaves are forbidden by the basic rules of progression, although "in three part composition one may depart from the rigorous observance of the rules in leading the other voices above the bass if there is a serious reason for doing so." 48 I understand this to mean any progression which includes the bass, as Fux makes no exception to this in three-voice writing. 49 In every departure from the basic rule, where one of these "permitted infractions" occurs, the top voice moves by step.

47 Jeppesen, Counterpoint, 100-01.
48 Fux, Gradus, 76.
49 Fux, Gradus, 72-85, figures 90-119.
C) Fux discusses under four-voice composition those progressions which come about "not only when reckoning from the bass to the other voices but also from any one voice to any other."\(^5\) In such a situation, "one is sometimes forced to accept a hidden succession of fifths or octaves..."\(^5\) for various reasons. In every example of four-voice writing\(^5\) the top voice moves by step when one of these "exceptions" occurs, although no longer must the bass be involved.

D) In regard to the ligature, Mann is somewhat inaccurate as he states that "in the case of fifths...the retardation can mitigate the effect of parallel motion. Successions of fifths may therefore be used with syncopations (see p.95)."\(^5\)

Pages 94-95 read:

Here one has to call to mind what has been said concerning the ligatures in two part composition. The way in which they were used there is not changed in three part composition and should be strictly followed...the ligature is nothing but a delaying of the note following...one has to set the same consonance in the third voice that one would have used if the ligature had been omitted...The same thing

\(^5\)Fux, Gradus, 109-110.

\(^5\)Fux, Gradus, 110.


\(^5\)Fux, Gradus, 57.
holds true of ligatures used in the lowest voice, or bass...the nature of consonances is not changed by the ligatures; it remains exactly the same.\textsuperscript{54}

Fux here has allowed neither progression to occur! It is only further that he states that "just as...the ligature cannot make the bad succession of two octaves less noticeable, so it will not be able to amend that of the two fifths..."\textsuperscript{55}, and that

In order to dispose of this rather important objection one must realize that much is prohibited in the upper register—being there more perceptible and more obvious to the ear—that may be tolerated in the lower register, because there it becomes somewhat blurred on account of the lowness and does not strike the ear so sharply.\textsuperscript{56}

By any stretch of the imagination, Mann's statement should not permit a succession of fifths (or octaves) used in syncopation unless the syncopation is present in the lower voice of the two creating the succession. Even this condition is questionable.

The one exception Fux presents to this, allowable even in two-voice writing, is that the succession of like perfect consonances may be permitted when these dyads are a melodic third distant from each other:

\textsuperscript{54}Fux, Gradus, 94-95.

\textsuperscript{55}Fux, Gradus, 96.

\textsuperscript{56}Fux, Gradus, 97.
Zarlino, while not specifically stating that
the voice-leading must be according to the previous
rules of consonance-approach if the ligatures are
removed, demonstrates this to be the case by his
examples throughout the text.

Fux gives an explanation as to the origins and "why nots"
of "concealed," "covered," or "hidden," parallel perfect
consonances by referring to certain improvisational additions
to the score, specifically, to diminution, or the "filling out"

57Fux, Gradus, 61, quotation from figure 75, measures 1-2.

58Fux, Gradus, 101, quotation from figure 147, measures 1-2.
of melodic intervals by subdividing the larger note values and the intervals between into smaller components. The danger would be that the performer might realize the score in the following manner:

and thereby create the forbidden succession.

Zarlino offers a similar explanation by his description of the term "melodic interval," by which "is meant the silent passage made from one sound or step to the next; it is intelligible though inaudible." Unfortunately, this is made audible by the singer who does not

...aim diligently to perform what the composer has written. He must not be like those who, wishing to be thought worthier and wiser than their colleagues, indulge in certain divisions (diminutioni) that are so savage and so inappropriate that they not only annoy the hearer [to say nothing of the composer!] but are ridden with thousands of errors, such as many dissonances, consecutive unisons, octaves, fifths,

59 Fux, Gradus, 32.
60 Fux, Gradus, 32, figure 7, markings mine.
61 Zarlino, Le Istituzioni harmoniche, 2.
and other similar progressions absolutely intolerable in composition. 62

Salzer and Schachter offer a similar explanation in that "the origin of this term lies in the assumption that the listener mentally fills in the melodic skip, thus creating the prohibited parallel succession..." 63 as:

Fux does not mention the phenomenon of antiparallel consecutives in this portion of the Gradus. These would appear as a numerically reduced succession, however, in the primary analysis above the bass (in two-voice writing), and would therefore be incorrect between any pair of voices.

Zarlino dispells the possibility by saying that "the ancient composers prohibited a succession of two perfect consonances of the same genus or species whose extremes are in the same ratio [italics mine], when the parts moved one step or more." 65

62 Zarlino, Le Istitutioni harmoniche, 110.
64 Salzer & Schachter, Counterpoint in Composition, 17, example 1-36.
65 Zarlino, Le Istitutioni harmoniche, 59.
Jeppesen does allow the possibility, if these consecutive parallels

...are avoided by crossing the voices...[making] little difference whether or not they are present in the sounds actually heard [!]. A good example is found in the following passage from the Credo of the four-part mass of Palestrina, *In te Domine speravi*, which would sound as follows on the piano:

![Musical notation image]

but which in reality does not have parallel fifths, since it is noted as follows:

![Musical notation image]

Presumably, Jeppesen applies this also to both the unison and octave.

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2) In moving from a perfect consonance to an imperfect consonance, the voices may proceed in any of the three types of motion.67

Zarlino limits this movement by allowing that "a perfect consonance may go to an imperfect consonance with parts ascending or descending together, if [italics mine] one part moves by step and the imperfect consonance is of larger ratio than the perfect."68, though it is "permitted to write two consecutive consonances with leaps in both voices if one voice moves by a semiditone."69 There is a contradiction between this latter exemption and the preceding confinement. The rule should state, and is exemplified by Zarlino's own example70: It is permitted to write two consecutive consonances with leaps in both voices if:

A) the first dyad is a perfect consonance and of smaller ratio than the second, which must be imperfect and of larger ratio than the perfect

B) the leap in one voice (either) must be no greater than that of a semiditone, the other voice being free to move by step or leap (not limited by a semiditone) and "both voices may move in the same direction when the upper

67 Fux, Gradus, 22.
68 Zarlino, Le Istitutioni harmoniche, 76.
69 Zarlino, Le Istitutioni harmoniche, 76.
70 Zarlino, Le Istitutioni harmoniche, 77.
leaps a third [both semiditone and ditone given in examples illustrating proper progressions\(^{71}\)] and the lower a fifth [only perfect illustrated\(^{72}\)] to go...from a fifth up to a third.\(^{73}\)

Jeppesen makes no particular point concerning the movement from a perfect consonance to one that is imperfect. Presumably, all classifications of movement would be acceptable.

3) In moving from an imperfect consonance to a perfect consonance, the voices must move in contrary or oblique motion.\(^{74}\)

Placing a wide variety of conditions on the movement to a perfect consonance, Zarlino will allow

A) "a large imperfect consonance followed by a smaller perfect one when the parts ascend together, provided that the upper part moves by step and the lower by leap."\(^{75}\)

B) a "move from a smaller imperfect consonance to a larger

\(^{71}\)Zarlino, *Le Istitutioni harmoniche*, 77, example 59.

\(^{72}\)Zarlino, *Le Istitutioni harmoniche*, 77, example 59.

\(^{73}\)Zarlino, *Le Istitutioni harmoniche*, 76-77.

\(^{74}\)Fux, *Gradus*, 22.

\(^{75}\)Zarlino, *Le Istitutioni harmoniche*, 76.
perfect consonance when the lower voice moves up by step and the upper voice leaps up, or vice versa."76, and even that "both voices may move in the same direction when the upper leaps a third [both semiditone and ditone given in examples illustrating proper progressions77] and the lower a fifth [only perfect illustrated78] to go from a third down to a fifth...."79 This "leap of a ditone [however,] especially descending, sounds somewhat bitter and is better avoided...."80

C) "for an imperfect consonance of smaller ratio than the interval that follows to go to the octave in similar motion, if one voice moves conjunctly by a large semitone...."81

but not

A) "an ascending progression from an imperfect consonance to a smaller perfect consonance with the voices leaping."82

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76 Zarlino, Le Istitutioni harmoniche, 76.
77 Zarlino, Le Istitutioni harmoniche, 76, example 59.
78 Zarlino, Le Istitutioni harmoniche, 76, example 59.
79 Zarlino, Le Istitutioni harmoniche, 76-77.
80 Zarlino, Le Istitutioni harmoniche, 77.
81 Zarlino, Le Istitutioni harmoniche, 76.
82 Zarlino, Le Istitutioni harmoniche, 75.
B) "two parts [to] ascend or descend together in this way [leaping] from...[an] imperfect consonance of large to a perfect consonance of smaller ratio, such as third to unison or tenth to octave."\(^{83}\)

C) "the sixth preceding the fifth with the voices moving up or down together, even with one voice moving conjunctly and the other leaping..."\(^{84}\)

Jeppesen makes no specific statement regarding the movement from an imperfect consonance to one that is perfect, except for the discussion concerning "hidden" consonances (see p.20).

4) In moving from an imperfect consonance to another imperfect consonance, any classification of movement is acceptable,\(^{85}\) though "ascending sixths [in example, of different variety,\(^{86}\) and by inference, also thirds] on the downbeat sound rather harsh. If they occur on the upbeat...they are more tolerable since they seem to be less distinct..."\(^{87}\)

Zarlino again limits the movement, as "two or more [similar] imperfect consonances...should not be written con-

\(^{83}\)Zarlino, *Le Istitutioni harmoniche*, 75.

\(^{84}\)Zarlino, *Le Istitutioni harmoniche*, 76.

\(^{85}\)Fux, *Gradus*, 22.

\(^{86}\)Fux, *Gradus*, 76.

\(^{87}\)Fux, *Gradus*, 77.
secutively, such as two major thirds, minor thirds, major or minor sixths. ..."\textsuperscript{88}, for "since...it is forbidden to place two perfect consonances of the same species consecutively, it is the more forbidden to write two imperfect ones of the same proportion, because these are not so consonant as the perfect."\textsuperscript{89}

Yielding slightly, Zarlino grants that

It is true that two consecutive minor thirds, ascending or descending one step (so-called conjunct or continuous movement), or two consecutive major sixths are tolerable....But when the parts move more than a step (which we shall call disjunct or separate movement) under no circumstances may we use two or more similar consonances in succession.\textsuperscript{90}

One may, however, use consecutive imperfect consonances if they are of different species, for

After the major third or sixth may be written the minor, or vice versa. After the major third will come the minor sixth or vice versa. The major sixth will follow the minor third, and vice versa.\textsuperscript{91}

The restrictions that Zarlino places on these have little to do with the involved species or ratio, but deal wholly with their variety, allowing that a major/minor quality of third/sixth cannot progress in direct order to a major/minor quality of third/sixth.

\textsuperscript{88}Zarlino, Le Istitutioni harmoniche, 62.

\textsuperscript{89}Zarlino, Le Istitutioni harmoniche, 63.

\textsuperscript{90}Zarlino, Le Istitutioni harmoniche, 63.

\textsuperscript{91}Zarlino, Le Istitutioni harmoniche, 62.
Jeppesen allows a little more freedom than Zarlini concerning the matter of consecutive imperfect consonances.

The counterpoint and cantus firmus must not move in parallel thirds or sixths for too long a time, since the independence of the counterpoint is thereby destroyed. It is, to be sure, hard to fix a definite limit; but more than four such parallels are not good where the voices...move in whole [here, equal-value] notes.\textsuperscript{92}

Fux gives no maximum number of allowable imperfect consonances, but considering his statement,

Pleasure is awakened by variety of sounds. This variety is the result of progression from one interval to another, and progression, finally, is achieved by motion.\textsuperscript{93}

it appears that a limited number of these is expected also by Fux. Mann, in footnote of the translation, sets as the limit "not more than three or four..."\textsuperscript{94} in parallel succession.

It seems that the mixing of thirds and sixths, of whatever quality, is too free a situation to warrant special analysis by either Fux or Jeppesen in regard to general voice movement. These are discussed further only in the avoidance of certain cross-relations (see p. 43).

5) Oblique motion is permitted in all basic progression,

\textsuperscript{92}Jeppesen, \textit{Counterpoint}, 112.

\textsuperscript{93}Fux, \textit{Gradus}, 21.

\textsuperscript{94}Fux, \textit{Gradus}, 21.
provided that in itself it creates no new problems. 95

By giving no specific requirement concerning this matter, it is assumed that both Zarlin and Jeppesen are in agreement with Fux.

95 Fux, Gradus, 22.
CHAPTER III

THE FIRST SPECIES OF COUNTERPOINT IN TWO-VOICE WRITING

It is in this order, after the student has digested the theoretical data of the "Pars Speculativa," that Fux lays the groundwork for actual composition. Beginning each of his chapters with a definition, Fux then proceeds through dialogue and example to lead the student forward. To facilitate the comparison of the various precepts and exceptions found in the text, the specific areas have been codified into "rules" comparable to those in Jeppesen's own counterpoint text. This procedure enables the reader to grasp a particular conception as a unit without having to search out the remaining conditions. The areas to be immediately encountered concern: the proper sequence of consonance and dissonance (rule number 1), beginning and ending the exercise (rules 2, 3, and 9), preferred manner of voice movement (rule 4) and vertical combination (rule 5), the *octava battuta* (rule 6), cross-relation (rule 7), and voice-crossing (rule 8). Having committed these to memory, the student is then able to both add and make exceptions to the fundamental precepts.

**Rule 1** Fux, by way of definition, says that this "is the simplest composition of two... voices, which, having
notes of equal length, consists only of consonances."^96

Concerning the matter of dissonance in note-against-note composition, "the attitude of the theorists upon this subject was quite simple; almost without exception, from the time of 'Ars nova' up to Fux and Bellermann, they forbade every form...."^97

Zarlino maintains a similar position while speaking of his own "species" arrangement:

There are two kinds of counterpoint: simple and diminished. The simple is composed solely of consonances and equal note-values—whatever these may be—placed against one another. Diminished counterpoint has dissonances as well as consonances, and may employ every kind of note-value, as the composer wishes.^98

Jeppesen, too, is in agreement as he finds that Palestrina "felt the necessity of shunning dissonant note-against-note [combination]...[even] in the circumstance that he does not even flinch from a break in the imitation when needed to avoid this undesirable effect.^99 There is an exception, however, though beyond the actual pedagogical reign of Fux and excluded by both him and Zarlino:

^96 Fux, Gradus, 27.

^97 Jeppesen, Style & Dissonance, 140.

^98 Zarlino, Le Istituzioni harmoniche, 2.

^99 Jeppesen, Style & Dissonance, 141.
Dissonance in note-against-note may—provided the notes that stand in mutually dissonant relationship have the same value [how else?], and none of these are repetitions of the immediately preceding notes—occur only when the notes in question are crotchets. In cases where note-against-note parts occur coincidentally with greater note-values in the other voices, the parts that progress in crotchets can either be consonant or dissonant as it may chance, provided each of these parts (when compared with each individual part that has greater note-values than crotchets), is properly treated with regard to dissonance. If all the parts at a given musical moment are used in note-against-note, each and every single part must progress correctly with respect to every other part, so far as the dissonance is concerned.100

Rule 2 "...the beginning and end must be made up of perfect consonances."101

Subscribing to the same standard, in speaking of simple counterpoint, Zarlino agrees "the first note of the counterpoint should make a perfect consonance against the first note of the subject."102, and also that "we shall conclude the counterpoint on a perfect consonance."103

Throughout the text, however, Zarlino makes statements which point to a freer treatment of the initial interval in actual composition:

100 Jeppesen, Style & Dissonance, 153.
101 Fux, Gradus, 28.
102 Zarlino, Le Istitutioni harmoniche, 86.
103 Zarlino, Le Istitutioni harmoniche, 86.
Musicians in the past, as well as the best of the moderns, believed that a counterpoint or other musical composition should begin on a perfect consonance, that is, a unison, fifth, octave, or compound of one of these. But they did not believe the rule to be inviolable, that no composition could ever begin with an imperfect consonance... So we must not interpret this rule too simply, for when the counterpoint begins to sound at the same time as the subject, one of the perfect [sic, imperfect?] consonances mentioned [earlier] may stand at the beginning.104

It seems that Zarlino is undecided about the theoretical versus practical application, as he states that "perfection is characteristic of the end and not the beginning..."105, while heading the discussion: "A Composition Must Begin with a Perfect Consonance."106 The latter statement must be his true feeling as to how one should begin a composition, because all of the selected madrigals, whether the voices begin together or apart, begin with both (where applicable) a harmonic and melodic perfect consonance. Zarlino is merely conceding here the possibility of a rare modification.

Jeppesen, without exception, declares that "one must begin and end with a perfect consonance..."107

104 Zarlino, Le Istituzioni harmoniche, 55.
105 Zarlino, Le Istituzioni harmoniche, 55.
106 Zarlino, Le Istituzioni harmoniche, 55.
107 Jeppesen, Counterpoint, 112.
Rule 2 "...the counterpoint must be in the same mode as the cantus firmus..."\textsuperscript{108}

When the cantus firmus is below the counterpoint, the exercise may begin with any perfect consonance. If the cantus, however, is above the counterpoint, the possibility of beginning the exercise with any other perfect consonance than the unison or octave is nonexistent. The exercise would be forced out of the mode by the undue emphasis affixed to the lowest voice which would not be the "final" or "keynote." For the same reason, this condition applies also to the final harmony.\textsuperscript{109}

Maintaining a similar view, Zarlino says that "a composition [must] be ordered under a prescribed and determined mode, or tone, as we like to call it. It must not be haphazard."\textsuperscript{110} and that,

This is judged by the last [and by inference, also the first, in the lowest voice] note, or, better, the chord based on it. If the last chord [two-note dyad] is not an octave or unison, it would be easy to mistake the mode by assuming the top or bottom note of the chord to be the final.\textsuperscript{111}

Jeppesen also states that a composition "must begin and end with a perfect consonance...."\textsuperscript{112} with the further

\textsuperscript{108}Fux, \textit{Gradus}, 31.

\textsuperscript{109}Fux, \textit{Gradus}, 31.

\textsuperscript{110}Zarlino, \textit{Le Istitutioni harmoniche}, 52.

\textsuperscript{111}Zarlino, \textit{Le Istitutioni harmoniche}, 85.

\textsuperscript{112}Jeppesen, \textit{Counterpoint}, 112.
restriction that when "the counterpoint lies in the lower part...only the octave or unison may be used at the beginning and ending."\textsuperscript{113}

Rule 4  "Contrary and oblique motion should be employed as often as possible..."\textsuperscript{114}

Zarlino, while speaking only of contrary motion, observes the following:

It was said above that harmony is made of opposites or contraries. This applies also to the simultaneous movement of several parts. Whenever possible--and this conforms to ancient practice--when the part on which the counterpoint is written, that is the subject, ascends, the counterpoint should descend, and vice versa.\textsuperscript{115}

Also excluding any discussion of oblique motion, Jeppesen states that "the type of motion that produces the most beautiful effect and is most in accordance with the nature of polyphony is contrary motion."\textsuperscript{116}

Since the repetition (or continuation) of a tone accompanying the moving voice is the only way for oblique motion to occur, the repetition must be in the counterpoint as "the requirements of the cantus firmus exclude the im-

\textsuperscript{113}Jeppesen, \textit{Counterpoint}, 112.

\textsuperscript{114}Fux, \textit{Gradus}, 27.

\textsuperscript{115}Zarlino, \textit{Le Istituzioni harmoniche}, 74.

\textsuperscript{116}Jeppesen, \textit{Counterpoint}, 112.
mediate repetition of a tone...."117 This repetition, however, in striving for a continuous-flowing melodic line, would seem better avoided in first species. Neither Zarlino nor Jeppesen mention "oblique" motion as a fundamental type of movement, though both employ its use in syncopation and even, in various examples, with repetition of a voice.

Rule 5 "...more imperfect than perfect consonances should be employed."118

Since Zarlino recommends that the student should "place an imperfect consonance after a perfect one and vice versa...."119, we find him in only partial agreement with Fux. Using this alternation we would come out with a relatively even ratio between the number of imperfect and perfect consonances.

Jeppesen allows a succession of imperfect consonances with much less restriction than Zarlino, though he says "more than four such parallels are not good where the voices move...in whole notes [in one-to-one relation]."120 The opportunity of writing consecutive like perfect consonances having already

117 Salzer & Schachter, Counterpoint in Composition, 8.
118 Fux, Gradus, 28.
119 Zarlino, Le Istitutioni harmoniche, 73.
120 Jeppesen, Counterpoint, 112.
been discounted in the Palestrina style, the result will probably be that more imperfect than perfect consonances will be used.

Rule 6 "...[the] octave, which is called battuta by the Italians and thesis by the Greeks--because it occurs at the beginning of the measure--is prohibited."\textsuperscript{121}

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Fux admits to be at a loss for an explanation as to "the nature of the mistake or the difference....\textsuperscript{125} that makes example A above, acceptable, and B, unacceptable, since in both figures the octaves are similarly approached in contrary stepwise motion. C is acceptable, but the unison is restricted at this point to the beginning and the end. Here, however, Fux neglects to alter the C-natural by a cipher for the example to comply with his own rule that the penultimate harmony be either

\textsuperscript{121} Fux, Gradus, 37.

\textsuperscript{122} Fux, Gradus, 37, figure 16.

\textsuperscript{123} Fux, Gradus, 38, figure 17.

\textsuperscript{124} Fux, Gradus, 38, figure 18.

\textsuperscript{125} Fux, Gradus, 37.
a major sixth or minor third (see p. 49). Leaving this matter up to the individual composer's discretion of the octava battuta's acceptance or avoidance when both tones are approached by step, he does forbid the approach to an octave or unison from a consonance with a leap in even one voice. 126

Neither Zalino nor Jeppesen make any specific statement regarding this form except for the discussion concerning the movement from a perfect/imperfect consonance to one that is perfect (see p. 19).

Rule 7 Mann, in translating and editing the Gradus, explains the rhyme of "mi against fa is the devil in musica" as:

Mi (the third tone of a hexachord) and fa (the fourth tone of a hexachord) occur in most combinations of the different hexachords in the interval of a tritone or of a chromatic step, which makes their use in strict counterpoint impossible in these cases. 127

To avoid these relations, chromatic alteration, although its use is somewhat limited, may be used to avoid an augmented/diminished dissonance or chromaticism between a tone and its augmented prime in both a single melodic line and/or between


127 Fux, Gradus, 35.
one line and another. Fux, while speaking of melodic progression and tendency of direction, demonstrates this by example:

These modifications may have arisen to avoid the chromatic, augmented, diminished intervals "considered too striking modifications of the simpler, diatonic intervals in course since the time of plainsong."\(^{129}\)

As these horizontal and vertical alliances must be avoided, the passage suggests that care, too, must be taken that these are not formed melodically between closely offset individual lines.

Zarlino, although arriving at the particular issue from a different direction, advises that "when it is necessary to write consecutive thirds or sixths, to avoid errors we should write the major one first and then the minor, or vice versa."\(^{130}\), though "it is true that two consecutive minor

\(^{128}\) Fux, *Gradus*, 39, quotation from figure 21, measures 11-14.


\(^{130}\) Zarlino, *Le Istitutioni harmoniche*, 64.
thir thirds, ascending or descending one step...or two consecutive
major sixths [with the same qualifications] are tolerable."131
He does not offer a reason for this allowance, though this
might be due to the fact that only the true species of the
intervals are formed between these latter successions.
Ascending or descending stepwise major thirds/minor sixths
produce cross-relations which are not included in the harmonic
numbers:

\[
\begin{align*}
\text{minor thirds} & \quad \text{major sixths} & \quad \text{major thirds} & \quad \text{minor sixths} \\
C & \quad D & \quad A & \quad B & \quad A & \quad B & \quad F & \quad G & \quad F & \quad G \\
A & \quad B & \quad A & \quad B & \quad A & \quad B & \quad A & \quad B & \quad A & \quad B \\
D & \quad C & \quad D & \quad C & \quad D & \quad C & \quad D & \quad C & \quad D & \quad C
\end{align*}
\]

cross-relations:
1) perfect 4th 1) minor 2nd 1) augmented 4th 1) major 2nd
2) minor 2nd 2) perfect 5th 2) major 2nd 2) diminished 5th

This rule of alternating variety cannot be observed in
mixed species of intervals where one voice remains stationary,
because of the dissonance which would result in the melodic

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131Zarlino, Le Istitutioni harmoniche, 63.
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If encountered, the student has the possibility of correcting these forbidden intervals by alteration, as

...the effect of these ciphers or signs [sharp, flat, and natural] is to add or subtract a small semitone from a whole tone, and to make smaller certain large consonances [or dissonances] or make larger small ones [these would, of course, apply to both melodic and harmonic intervals]. Although this [small] semitone is not used in making melodies in the diatonic genus, it is nonetheless occasionally employed by composers. 133

These alterations, however, are "used mostly when the two parts ascend or descend together in thirds."134

Jeppesen, in agreement with Fux, states "that parallel

132 Zarlino, Le Istituzioni harmoniche, 48.
133 Zarlino, Le Istituzioni harmoniche, 48.
134 Zarlino, Le Istituzioni harmoniche, 48.
fifths and octaves are not permitted, whereas parallel thirds and sixths may very well be used.  however,

major thirds...are used with certain cautiousness. where two voices move in parallel thirds, generally a major third is followed by a minor third because two successive major thirds always produce the tritone effect if the lower part moves by a whole tone....

but it would be too strict to forbid the succession of two major thirds entirely. palestrina himself fairly often uses two and sometimes even three such thirds in direct succession....

if, through the principle of intervallic inversion, a succession of major thirds produces this dissonant effect, a succession of two minor sixths will produce the same, with the only difference being the terminology in calling the former relationship a tritone, and the latter a diminished fifth. neither fux nor jeppesen mention this phenomenon, but an implication for caution against these offset dissonances is also sensed. zarlino, on the other hand, directly forbids all of these relationships when "between the notes of one part and those of the other are found the augmented and [sic, or] diminished diapason, semidiapente, and [sic, or] tritone."137, for "whenever such an interchange of parts does not produce true, legitimate, and singable intervals, the

135 jeppesen, counterpoint, 12.

136 jeppesen, counterpoint, 100.

137 zarlino, le istitutioni harmoniche, 65.
progression should be avoided, especially if we wish to compose correctly and without error."\textsuperscript{138} These are to be avoided

Especially when we compose for two voices, \[\text{for}\] it is very annoying to sensitive ears, inasmuch as such intervals are not found among the sonorous numbers, and are not sung in any genus despite the contrary views of a few.\ldots So these intervals, which are not admitted in melodic motion, must also be avoided in the relations between parts.\textsuperscript{139}

\textbf{Rule 8} To both demonstrate the relative independence of each melodic line and avoid errors, Fux shows by example as Mann states, that "voice crossing will prove to be a very important expedient, especially in three and four part writing.\ldots\textsuperscript{140} Here, the lowest voice at the moment "takes the place of the bass\ldots\textsuperscript{[and]} This part\ldots whichever it may be, must be taken as a basis and from it one has to reckon."\textsuperscript{141} Zarlino concedes this issue as a theoretical possibility, but makes little comment toward the actual use:

Whenever parts exchange pitches, ascending or descending, and vary their melody by this contrary motion, their sounds are unchanged. Of course

\textsuperscript{138}Zarlino, \textit{Le Istitutioni harmoniche}, 66.

\textsuperscript{139}Zarlino, \textit{Le Istitutioni harmoniche}, 65-66.

\textsuperscript{140}Fux, \textit{Gradus}, 36.

\textsuperscript{141}Fux, \textit{Gradus}, 100.
there may be a difference audible when a low voice sings a higher part and vice versa, but not a difference in the sense that concerns us now.142

As to when this may occur, Zarlino states that

A voice may cross above or below the other as is convenient, with one condition: they should not separate [when crossed] by more than a third. But when the parts stay within their own registers, they may be separated by a twelfth.143

Jeppesen, however, not only admits the possibility but advocates the use:

To "cross" the parts (occasionally to let the lower part go above the upper or vice versa) is a technique which cannot be recommended sufficiently. One may say that without this no real polyphony is possible.144

Rule 2 "...in the next to the last bar there must be a major sixth if the cantus firmus is in the lower part; and a minor third, if it [the cantus] is in the upper part."145 This simplifies the cadential technique down to two invariable forms:

142 Zarlino, Le Istitutioni harmoniche, 72.
143 Zarlino, Le Istitutioni harmoniche, 162.
144 Jeppesen, Counterpoint, 113.
145 Fux, Gradus, 28.
The approach to the cadence "by step from above and below... was called clausula vera (true cadence)."146, and is the only type described here by Fux.

Because of the restrictions limiting both harmonic and melodic intervals, it is not possible to approach this penultimate harmony as in example A below, but an acceptable approach is made in example B.

Fux is making a differentiation here between the half-step progression of C-natural--C-sharp--D-natural and D-natural--C-sharp--D-natural. The unacceptable feature found in example A is that the C-natural--C-sharp progression is of a chromatic half-step, or augmented prime, and the others remaining are diatonic half-steps, though Fux does not verbally discuss this concern in this portion of the Gradus.

Fux also fails to mention the fact that, in the Aeolian mode, when approaching the cadence through tones 6, 7, and 9 of the mode, as it is necessary to raise the 7th degree by a half-step to conform to the required cadential-penultimate harmony, one must also raise the 6th tone by a half-step if proceeding directly to the raised 7th. This is needed to eliminate the melodic interval of an augmented second:

The opportunity for demonstration by example is avoided in every exercise in the Aeolian mode. It seems, however, the usual case in sixteenth-century practice to avoid this situation whenever possible, where one would have to alter
both of these tones. Perhaps Fux wanted to limit the amount of "alteration" of the mode by the student. In the remaining modes in use, either no alteration is needed (in either position above or below the cantus), or the alteration causes no melodic dissonance (in either position):

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<td>F#</td>
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<td>A</td>
<td>B</td>
</tr>
</tbody>
</table>

Zarlino's procedure of the close parallels that of Fux, for he states that a cadence

[A]...which concludes on a unison--consists of a progression in which two voices move in contrary motion; one voice...descends...by step, and the other...ascends by step. The interval between the two voices...[at the penultimate harmony] is a minor third, and at the [ultimate harmony]...a unison. While this cadence may be written in different ways [i.e., positions on the staff, embellished, etc.\textsuperscript{147}], and it does not matter much which manner we select, the terminal chord and its antecedent must always conform to this pattern....\textsuperscript{148}

\textsuperscript{147}Zarlino, \textit{Le Istitutioni harmoniche}, 143-47.

\textsuperscript{148}Zarlino, \textit{Le Istitutioni harmoniche}, 142-43.
whether originally standing as diatonic in the mode or artificially construed, as

...the regulation...requiring progression from an imperfect consonance to the nearest perfect consonance must be observed. Thus the minor third must be the penultimate interval of this cadence [meaning alteration of the 7th degree when using certain modal scales], for it is always the interval to precede the unison when two voices move into it by contrary motion, one by a whole tone, the other by a large semitone. It may always be written on any pitch without the need of an accidental to change the whole tone to a semitone, because the voice that ascends to the final [the counterpoint] is intended to have the semitone, unless the other voice descends by the same interval [as in the Phrygian mode].

[B]...terminating on the octave is organized in this way; the two voices move in conjunct, contrary motion, forming a major sixth as the penultimate interval [meaning, again, alteration of the 7th degree when using certain modal scales] and an octave as the final.

Jeppesen, too, is in agreement, though not specifically laying out the data in such a precise, pedagogical manner:

In the transition to polyphony, the chief modification in the ecclesiastical modes was the introduction of the leading-tone cadence (the half-tone step between the seventh and eighth degrees) in almost all modes [Phrygian excluded]. Although the Gregorian modes used the flat...as...[the] only ...sign of alteration, nevertheless some of these modes (the fifth and sixth) had a half-tone step below the principle tone and thus the possibility of leading-tone cadences [clausula vera]. But appreciation of this effect, which we call the full close, came only with polyphonic music....To this

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149 Zarlino, Le Istitutioni harmoniche, 144-45.

150 Zarlino, Le Istitutioni harmoniche, 145.
end different chromatic signs for raising a tone were introduced that were foreign to the Gregorian modes.\textsuperscript{151}

This formula, when applied to a cantus descending stepwise to the final, produces the same penultimate and ultimate harmonies that Fux recommends.

\footnote{\textsuperscript{151}Jeppesen, \textit{Counterpoint}, 71.}
CHAPTER IV

THE FIRST SPECIES OF COUNTERPOINT
IN THREE- AND FOUR- VOICE WRITING

Having mastered the basic skills in the most simple of combinations, the student is led by Fux to the introduction of metric organization and dissonances with second, third, and fourth species. It is here that I have departed from the original organization of the Gradus, finding it more fitting to first survey the remaining possibilities of notes in one-to-one relation as a structural/pedagogical unit. In the expansion to three voices, Fux discusses: the proper manner in which to add additional consonances to the exercise, including various incidental circumstances (rule number 1), what special attention must be paid to the beginning and end (rule 2), and the preferred type of vertical combination (rule 3). Doubling (rule 5) is not examined until the stage of four-voice composition is reached although some might be expected in three-voice work, but even here, one must not double the leading tone (rule 4).

Rule 1. Fux, by definition, says that this "is the simplest combination of three voices and consists of equal [valued] notes, or more precisely, of three whole
notes in each instance, the upper two being consonant with the lowest.\textsuperscript{152}

Both Zarlino and Jeppesen are in agreement, as this is nearly an exact repetition of their definitions given to describe the proper manner in setting notes in one-to-one relation in two-voice writing.

Three incidentals come up in the discussion of using consonant intervals above the bass:

A) the possibility of using a perfect fifth in combination with a major/minor sixth, both being consonant, yet forming a dissonant major/minor second between the upper voices.

B) the possibility of using a major/minor sixth in combination with a major/minor third, both being consonant, yet forming a dissonant perfect fourth between the upper voices.

C) the possibility of using a diminished and/or augmented triad in first inversion, all primary intervals being consonant, yet forming a dissonant interval in the higher parts.

—and the manner in which the student may treat in succession (where applicable) these dissonances formed in the secondary analysis.

A) Fux makes no specific statement regarding the $\frac{6}{5}$ chord in

\textsuperscript{152}Fux, \textit{Gradus}, 71.
his discussion of first species, though in the
discussion of syncopation in three voices, states "that
the seventh [above the bass] must be set with the
third...."\textsuperscript{153} He means by this, that when in three-
part writing the suspension of a seventh above the
cantus is employed, the third voice should be a third
above the cantus, or secondarily, a doubling of the
unison or octave of either tone.\textsuperscript{154} Though Fux does
not specifically mention the fact, this would mean
also that, by inversion, the 4\textsuperscript{–}5 bass suspension
must be set with a third below the cantus, or
secondarily, a doubling of the unison or octave of
either tone. The possibility of resolving a suspen-
sion into, or using a $\frac{6}{5}$ harmony is thereby excluded.
In four-voice writing, one may correct the offense by
breaking out of the species confine. In this case
"one must divide the whole note...."\textsuperscript{155} in the part
creating the dissonance, employing, as it were, the
principles of second species since that line would for
the moment be in unsyncopated two-to-one relation with
the cantus.

\textsuperscript{153}Fux, \textit{Gradus}, 99.

\textsuperscript{154}Fux, \textit{Gradus}, 99.

\textsuperscript{155}Fux, \textit{Gradus}, 129.
Zarlino states in agreement that "if one part has a sixth above the bass, no other part must sound a fifth above the bass, because then these two parts would be separated by a whole tone or semitone, with a resultant dissonance."\textsuperscript{156}

Jeppesen, however, seems not so concerned about the dissonance found in the secondary analysis:

Perfect and augmented fourths, diminished fifths, and (more exceptionally) diminished fourths can be considered and treated as consonant combinations, but only when they do not occur in relation to the bass. All dissonances are heard most clearly in relation to the bass and hence weaker dissonances, like those mentioned above, are allowed when they are put between the upper and middle voices or between two middle voices.\textsuperscript{157}

Though speaking only of triads in first inversion as possibilities where the above dissonances appear in relative positioning to the bass, I assume Jeppesen would include the major/minor second as a "weaker dissonance," weaker, even, than those mentioned above by virtue of the fact that the above are not allowed in melodic movement, whereas the major/minor second is.

Gustave Soderlund concurs with this view as he states that "the sixth added to the fifth or the fifth

\textsuperscript{156}Zarlino, \textit{Le Istitutioni harmoniche}, 188.

\textsuperscript{157}Jeppesen, \textit{Counterpoint}, 175.
added to the sixth creates the dissonance of a second or a seventh.\textsuperscript{158}

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\end{center}

but "freedom of movement, because of the consonant character with the bass, is encountered quite frequently."\textsuperscript{160} He continues, however, that "the common, or what may be called the regular, form of the 6 (in later styles the cadence formula ii\textsuperscript{6}V I) was treated as a suspension."\textsuperscript{161} Although a number of variations occur in the literature, one generally finds the following:

- The fifth (perfect) [i.e.] prepared on beats two or four.
- The sixth (major or minor) enters freely and remains stationary.
- The fifth resolves down by step on beats two or four.
- The bass rises by step simultaneously with the downward step of the resolution, forming a major or a minor triad.\textsuperscript{162}

\textsuperscript{158} Soderlund, \textit{Direct Approach to Counterpoint}, 94.
\textsuperscript{159} Soderlund, \textit{Direct Approach to Counterpoint}, 94.
\textsuperscript{160} Soderlund, \textit{Direct Approach to Counterpoint}, 94.
\textsuperscript{161} Soderlund, \textit{Direct Approach to Counterpoint}, 95.
\textsuperscript{162} Soderlund, \textit{Direct Approach to Counterpoint}, 95.
as in the following examples:

B) Regarding the appearance of the perfect fourth, Fux admits

...that the interval of the fourth in the inner voices is not very prominent; in fact, it rather assumes the character of an imperfect consonance. Therefore, this progression is to be regarded just as though it occurred from a perfect consonance to an imperfect consonance in direct motion....

and perfectly allowable, as any type of motion may precede an imperfect consonance. The movement to the fourth being considered here is between an upper pair of voices

\footnote{Soderlund, \textit{Direct Approach to Counterpoint}, 95, quotation from first example, measures 1-4.}

\footnote{Fux, \textit{Gradus}, 131.}
but is found even in parallel motion in another example:

of which Fux finds incorrect "nothing except that the ascending sixths on the downbeat sound rather harsh."167

165Fux, Gradus, 131, figure 194.

166Fux, Gradus, 76, quotation from figure 98, measures 7-12.

167Fux, Gradus, 77.
Zarlino, in disapproval of the succession, states that contemporary composers often

...have the parts ascend or descend together for several steps in a manner they call falsa bordone. Although this way of writing is much used, and it would be very difficult to stamp out, I must say that it does not deserve praise. For the fourth is a perfect consonance, as I have shown, and we must not disobey the rule [which forbids a succession of parallel consonances]...168

In continuing his discussion of intervals formed by the secondary analysis, Jeppesen is in agreement with Fux's use of the fourth in the inner voices.

It is not desirable for two or more fourths to follow each other in similar [direct] motion. The only exception is the following progression which, in modern terminology, would be called a series of parallel chords of the sixth:

168 Zarlino, Le Istitutioni harmoniche, 194-95.

169 Zarlino, Le Istitutioni harmoniche, 195, example 138.
But progressions such as the following are foreign to the style of Palestrina:

Fux, Zarlino, and Jeppesen, seem in practice to make no distinction in this parallel succession as to the variety of fourth (see various examples above). Jeppesen's quotation, however, limiting such a progression of fourths to occur only in a series of $\frac{6}{3}$ chords, would prohibit the following segment of Fux's example:

\footnote{Jeppesen, \textit{Counterpoint}, 99-100.}
Compare this with Jeppesen's own example supposedly illustrating proper progression:

171 Fux, Gradus, 80, quotation from figure 105, measures 10-11.
Neither are parallel $\frac{6}{3}$ chords, yet the motion involving the fourths is direct movement. It seems to me here that Jeppesen has verbally gone beyond what he actually means, and in reality, makes the same allowance as Fux. C) Fux makes no specific statement regarding the possibility of using an augmented or diminished triad in any inversion as he is speaking only of intervalllic combination, so we can only turn here to his original statement describing three-part writing in first species,

\[172\] Jeppesen, *Counterpoint*, 204, quotation from first example.
that "the upper two [voices]...[must be] consonant with the lowest."\textsuperscript{173} Through his definition and examples within the text, it stands that Fux will permit the use of both the augmented and diminished triad, but only in their first inversion, as both harmonic intervals above the bass must be consonant (certain allowances are made in cadence procedure, see p.\textsuperscript{140}). Root positions of these triads form a diminished fifth and augmented fourth, respectively, above the bass, and second inversions form an augmented fourth and diminished fifth, respectively, above the bass, and are therefore prohibited. To obtain a succession of these intervals of the same ratio, the composition would have to leave the confine of the mode in which it began, and this not being permissible in species work, dispels the possibility.

As Fux allows the unrestricted advance to the tritone (see examples above), permitting it even in parallel succession, one would be inclined to think that the same would hold true for the inversion. But to approach a diminished fifth in direct motion, Fux says, "is worse [than such an approach to a perfect]--

\textsuperscript{173}Fux, \textit{Gradus}, 71.
because this fifth is not even perfect, but diminished."174

Zarlino will allow, even in two-part writing, the student to "on occasion write the semidiapente in a single percussion."175, if "it is immediately succeeded by the ditone. Here the parts may be exchanged without disadvantage."176 This would, through inversion, allow both the diminished fifth and augmented fourth to appear, the former succeeded by a major third and the latter by a minor sixth, with the added stipulation "that the semidiapente or tritone be [always] preceded immediately by a perfect or imperfect consonance."177

Jeppesen states here that

One can likewise permit the free use of the diminished triad as a chord of the sixth (but only as such) [certain allowances are made, however, in cadence procedure, see ¶40]...and indeed also the augmented triad in first inversion, which, although rare, does occur in [the music of] Palestrina, for example in the mass Salvum Fac.

174Fux, Gradus, 76.

175Zarlino, Le Istitutioni harmoniche, 67.

176Zarlino, Le Istitutioni harmoniche, 67-68.

177Zarlino, Le Istitutioni harmoniche, 68.
Rule 2  Already the composition must begin with the perfect intervals of unison, octave, or fifth (excluded if in the lowest voice), and Fux does not make any specific statement regarding the initial use of the third. We see, however, by the examples within the text, that both the major and minor forms, depending upon the modal diatonicism, are acceptable as an added consonance (excluded if in the lowest voice, as all three theorists demand that the exercise be in a prescribed mode).

Zarlino, in speaking of four-voice composition, states

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178 Jeppesen, Counterpoint, 175-76.
"that musicians most often write in four parts, which, they find, contain the full perfection of harmony." 179 By inference from this "full perfection of harmony," the student is given the opportunity to add additional pitches in the order of the most perfect and consonant to the least:

Variety of extremes...is found only in the fifth and third [no qualification]. Since harmony is a union of diverse elements, we must strive with all our might, in order to achieve perfection in harmony, to have these two consonances or their compounds sound in our compositions as much as possible. 180

and presumably, even at the beginning, as this is such "perfection."

Jeppesen allows that "one can begin...with the complete triad....In such a case the beginning chord ought to have a major third; yet only if, as in first species, all voices begin together." 181

Fux infers that one should strive to have the concluding harmony as perfect as possible. Already the composition must end on the perfect unison or octave by stipulations given in two-voice writing, but here, a third voice must be added. If the second counterpoint is below the cantus, taking from a previous rule, it would have to triple the final as a unison

179 Zarlino, Le Istituzioni harmoniche, 178.

180 Zarlino, Le Istituzioni harmoniche, 188.

181 Jeppesen, Counterpoint, 176.
or octave unless the spacing is so arranged that it forms a perfect fifth or major/minor third (or related compounds) above the lower, first counterpoint. If the second counterpoint is above the cantus, any combination of perfect fifth or major/minor third would be acceptable. Incomplete chords are, of course, possible in either situation, although doubling is not discussed until later in the text.

In regard to the third being present in the ultimate harmony, Fux says that

...one feels that the degree of perfection and repose which is required of the final chord does not become sufficiently positive with this imperfect consonance. It is otherwise in four part composition where these conditions may be fulfilled when the fifth is added [also], the third being no longer too prominent.182

The minor third "is not capable of giving a sense of conclusion..."183, and we must not use the major when

...the mode itself contains the minor third...[for] the ear...[would have] become accustomed to this characteristic of the melodic line throughout the course of the cantus firmus [and presumably the counterpoint, also] and would be somewhat disturbed by the raised third at the end...[In this case] it is advisable to omit the third altogether.184

When the melodic progression necessitates the third at the cadence, however, the "minor" third, common to the mode, is

182 Fux, Gradus, 77.
183 Fux, Gradus, 80.
184 Fux, Gradus, 80.
altered to the major form.\footnote{Fux, Gradus, 82.}

Zarlino applies his actual discussion of the cadence to only two-voice writing, and the situation is only superficially discussed in relation to composition of more parts. But by reason of the "perfection of harmony," and by actual practice, we see that Zarlino, too, will allow what Fux has prescribed. He is not so worried about omitting the third, however, altered to be major at times, even when its mother tone has recently been sounded:
In the forementioned madrigals, every cadence (all five voice) contains a major third.

Jeppesen agrees that "one can... end with a complete triad [but] In the final chord, the third [if present] should under all circumstances be major." 188

Rule 3 "... the harmonic triad should be employed in every measure if there is no special reason against it." 189 as "that three-part composition is the most perfect of all is... evident from the fact that... one can have a complete harmonic triad without adding another voice." 190

One is inclined here to suspect that Fux's approach is from that of a harmonic standpoint. His "harmonic triad," however, applies only to a note (acting as the root-bass) with a perfect fifth and either a major or minor third above, without reference to possible inversion. In the event of a 6\textsuperscript{th}, or 8\textsuperscript{th}, or 8\textsuperscript{th} analysis, the bass tone is still called the

186 Zarlino, "Lauro Gentile," Madrigals, measures 62-64.
187 Zarlino, "Ind'a Poco i Pie Miei," Madrigals, measures 54-55.
188 Jeppesen, Counterpoint, 176-77.
189 Fux, Gradus, 71.
190 Fux, Gradus, 71.
root, with the sixth, eighth, and sixth and eighth above being "alterations," or using "a consonance not properly belonging to the triad, namely, a sixth or an octave [or related compound intervals]."\(^{191}\) -- the third already encompassed in the basic triadic construction. To the use of these alterations, Fux says that "occasionally, for a better melodic line, one uses a consonance not properly belonging to the triad....[but] More often the necessity of avoiding the succession of two perfect consonances demands the giving up of the triad...."\(^{192}\) Fux's thought here could spring only from wanting to produce a full and varied consonant harmonic-interval relation. He is definitely not speaking of any type of harmonic function, as Westrup and Harrison assert.

This order of consonance is determined from "the harmonic division of the octave."\(^{193}\) -- the octave being divided equally to yield the perfect fifth, and this fifth itself being divided to give the major third.

\(^{191}\) Fux, *Gradus*, 72.

\(^{192}\) Fux, *Gradus*, 72.

\(^{193}\) Fux, *Gradus*, 111.
Example A above demonstrates the ascending order of doubling and would contain the most perfect ratios (and hence, purer sound) of the senario to encompass the complete harmonic triad. Fux advises against the re-positioning of the E-natural down an octave in example B as it produces a "dull and indistinct sound." With this, Fux takes care of the "spacing" or "voicing" involved in setting the harmonic triad on the staff, without having to go into a long and involved discourse of the mathematics entailed at this time.

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194 Fux, Gradus, 111, figure 161.
195 Fux, Gradus, 112, figure 162.
196 Fux, Gradus, 112.
G -- 6  \hspace{1cm} \text{minor third} \hspace{1cm} 6:5

E -- 5  \hspace{1cm} \text{major third} \hspace{1cm} 5:4

C -- 4  \hspace{1cm} \text{perfect fourth} \hspace{1cm} 4:3

G -- 3  \hspace{1cm} \text{perfect fifth} \hspace{1cm} 3:2

C -- 2  \hspace{1cm} \text{perfect octave} \hspace{1cm} 2:1

The importance or "rightness" of the scenario (or six pitches counting the original, produced by a string divided into aliquot parts) has been "proved" to the limits of supernumerary obsession by various theorists throughout history. Claude Palisca's references to this in the introduction to Zarlino's text-translation may help to illustrate this point:

The common source of animistic and organic music is number and proportion, and the all-important number is 6, the senary number, or numero scenario. The number 6 has the virtue of being the first perfect number, meaning that it is the sum of all the numbers of which it is a multiple (1+2+3=1x2x3=6). Many evidences are given of the power of this number. There are 6 planets in the sky. In the Philebus, Plato says hymns should not celebrate more than 6 generations. There are 6 species of movement: generation, corruption, increase, diminution, alteration, and change of location. According to Plato, there are 6 differences of positions: up, down, ahead, behind, right, left. There are 6 types of logic, and the world was created in 6 days. And these do not exhaust the list. 197

\[197\text{Zarlino, Le Istitutioni harmoniche, xix.}\]
The relativity of this all to counterpoint per se is questionable. The scenario, however, does function well for our purpose in that using only the numbers from 1 to 6, "all the primary consonances can be expressed as superparticular ratios." The major and minor thirds can be inverted to form minor and major sixths, respectively, as both Fux and Zarlino are conscious of "inversion;" Zarlino explains the major and minor sixths as being constructed of the combined ratios of the perfect fourth and major and minor third, respectively; adding a "C" here as the sixth partial, though not physically correct nor in direct order, gives a minor sixth with the major present below.

The theoretical explanation of the minor triad is even more complicated, with setting the above in various permutations below the fundamental; by additive string lengths; repositioning of the major and minor thirds; supposed "generation" of the third (minor) below the fundamental by the third above; etc., and might be explained here as simply an "alteration" to the basic scheme. In truth, the minor triad does not exist using consecutive ascending pitches of the overtone series, and for it there is no physical explanation.

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198 Zarlino, Le Istitutioni harmoniche, xix.
In agreement, Zarlino says

...that a composition may be called perfect when, in every change of chord, ascending or descending there are heard all those consonances whose components give a variety of sound. When such consonances are heard, the harmony is truly perfect. Now these consonances that offer diversity to the ear are the fifth and third [Fux's harmonic triad] or their compounds. The tones of which they are composed do not resemble one another as do those of the octave. 199

and, "true, musicians often write [as substitute] the sixth in place of the fifth, and this is fine." 200

Though presenting a more modern view, Jeppesen allows the same intervalllic structures above the bass as both Fux and Zarlino:

In three-part counterpoint, for the first time it is possible to use a chord consisting of root, third, and fifth—a fundamental concept which in harmony is called a triad. In this and the following problems, we should seek to introduce as many complete triads as may be compatible with good voice leading, which in the last analysis is more important. 201

And that also "in three-part writing we can use...chords of the sixth." 202

This seems to be the trend advancing toward the eighteenth century, for Jeppesen finds that

199 Zarlino, Le Istituzioni harmoniche, 186.
200 Zarlino, Le Istituzioni harmoniche, 188.
201 Jeppesen, Counterpoint, 175.
202 Jeppesen, Counterpoint, 175.
If we went through the literature from the Netherlands up to Palestrina, counting instances, we would observe that the percentage of incomplete, empty-sounding chords steadily decreases simultaneously with the increase of harmonic fullness through the use of thirds or sixths. 

Rule 4  Although Fux makes no categorical statement regarding the avoidance of the doubled cadential leading tone, we see the implication from the melodic precept "that fa leads down and mi leads up." Here, the seventh modal degree used as fa in the hexachordal system is closer and thereby drawn to the pitch below

\[
\begin{array}{ccccccc}
\text{soft hexachord} & F & G & A & Bb & C & D \\
\text{natural} & C & D & E & F & G & A \\
\text{hard} & G & A & B & C & D & E \\
\end{array}
\]

while mi is closer and thereby drawn to the pitch above

\[
\begin{array}{ccccccc}
\text{hard hexachord} & G & A & B & C & D & E \\
\text{soft} & F & G & A & Bb & C & D \\
\text{natural} & C & D & E & F & G & A \\
\end{array}
\]

As Fux demands the half-step movement to the modal final (using either the altered or unaltered form of approach as necessary), the seventh degree used as mi must lead up (except in Phrygian where the second degree leads down by this half and the seventh

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203 Jeppesen, Style & Dissonance, 77.

204 Fux, Gradus, 39.
up by a whole tone to the cadence) by half step, and to double it would automatically create either parallel octaves or an incorrect resolution of melodic tendency.

Zarlino makes no specific comment in regard to a leading tone, though does avoid the seventh degree in sixteen of the nineteen pars' cadences of the analyzed madrigals by concluding, in modern terminology, subdominant--tonic (using only root positions). In the three remaining instances, all closings are dominant--tonic (using only root positions). Given one of these:

\[ \text{\footnotesize 205} \]

\[ \text{Zarlino, "Cosi Passando," \textit{Madrigals}, measures 42-44.} \]
one might suspect that the F-natural is to be automatically raised a semitone. In either case, the seventh moves upward by step to the final (as in the two other related cadences), and a doubling, when progressing in this same manner, would cause the forbidden parallelism.

Taking a more contemporary position on the actual terminology, Jeppesen also states that "leading tones may not be doubled: C-sharp in Dorian, F in Phrygian, F-sharp in Mixolydian, G-sharp in Aeolian, and B in Ionian."206 Of the remaining authentic mode, Jeppesen states

The Lydian mode really exists only in the monophonic ecclesiastical modes. As soon as we go into polyphony, the lack of a consonant triad on the fourth degree becomes too noticeable, and the B is changed to B-flat in order to provide for a major triad on the subdominant. By this the mode is changed into F Ionian; with the B-flat constantly used it is like a transposed C major scale.207

Pux does use the Lydian appearance of the mode, though it must be noted that in every instance concerning the species, the B-naturals are altered to B-flats. At any rate, the E-natural, when used as the leading tone of the Lydian mode, must be mentioned as not being a plausible duplication.

This halfstep, of course, can be considered a true (harmonic) leading tone only at a perceptible cadence.

206Jeppesen, Counterpoint, 177.

207Jeppesen, Counterpoint, 74.
Rule 5 Fux, by definition, says

That the complete harmonic triad is already contained in three parts or in composition with three voices has been stated before. Hence it follows that the fourth voice to be added cannot be employed otherwise than by doubling some consonance already present in the three other voices—except for some dissonant chords which are to be discussed in another place. . . . Whenever one cannot use the octave [above the bass] because of incorrect progressions (which is often the case), one must double the third or, more rarely, the sixth. 208

In regard to the above quote, Mann comments:

"Sixth": a misprint for "fifth"? In the original copy, however, there is no such indication, either in the Errata or in the added marginal notes. Even in Beethoven's "Introduction" (Nottebohm, Beethoveniana, I, p. 180) we find this paragraph repeated without change. . . . At any rate, the possibility of doubling the fifth must be mentioned here. 209

I believe that there is no actual error in the original text. Inconceivable as it would seem that both musicians, Fux and Beethoven, would pass over the same "mistake," we today find comments enduring in counterpoint texts, as, by Salzer and Schachter: "The fifth with doubling...functions best as an initial or closing chord, and should not occur [the doubling of the fifth] in the middle of an exercise." 210 Within the 122 bars of first species, four-part examples, the breakdown of doubling is as follows:

208 Fux, Gradus, 109.
209 Fux, Gradus, 109.
210 Salzer & Schachter, Counterpoint in Composition, 29.
perfect octave........89
major/minor third......33
major/minor sixth......03
perfect fifth...........02 (neither in an initial or concluding
perfect unison...........01 harmony)

with only one occurrence of an incomplete chord in the middle
of an exercise. 211 The possibility of doubling the fifth,
however, must be mentioned.

Zarlino, in partial agreement, says that

Variety of extremes...is found only in the
fifth and third. Since harmony is a union of
diverse elements, we must strive with all our
might, in order to achieve perfection in harmony
to have these two consonances or their compounds
sound in our compositions as much as possible....
although they cannot always be used. Especially
in three-voice writing the octave may be used in
place of one of them to preserve a beautiful,
elegant, and simple voice line. To want to use
those consonances constantly in such pieces would
be impossible.

However, in four-voice work, the error of
omitting one of the two consonances would be
greater, because the extra part facilitates
obedience to the rule. As the number of parts
increases, the obligation to follow the rule grows
proportionately. 212

It is possible, nevertheless, to "write the sixth in place of
the fifth..." 213 for any number of reasons.

Jeppesen does not double the fifth in any incomplete

211 Fux, Gradus, 116, figure 171, measure 4.

212 Zarlino, Le Istitutioni harmoniche, 188.

213 Zarlino, Le Istitutioni harmoniche, 188.
chord in his examples for composition in three voices. However, he seemingly holds no restriction in four-voice writing, as he employs this doubling both at the beginning (presumably, then, allowable at the end) and in the middle of an exercise.


215 Jeppesen, *Counterpoint*, 203, first example.
CHAPTER V

THE SECOND SPECIES OF COUNTERPOINT

It is in the second species that dissonance may first appear, though with strict limitation. This is made practical by the introduction of a metric pattern creating a downbeat-upbeat effect and thus the aural sense of a strong-weak or "more" and "less" structurally significant division of the measure.

Before pursuing the actual discussion of second species work, Fux gives his explanation of the terms, thesis and arsis, as: "The downbeat of the hand is called thesis in Greek, the upbeat [in binary meter], arsis, and I think that for greater convenience we should use these two terms in our exercises, too."216 This later causes some confusion, as some contrapuntists, Jeppesen included, use the terms in reverse order.

In his footnote concerning this matter, Mann says that Fux's position "can be explained by the fact that Fux derives his terms from the raising and lowering of the arm whereas usually they are derived from the raising and lowering of the voice."217 But would, then, not Fux be more "correct" than others, as the

216 Fux, Gradus, 41.

217 Fux, Gradus, 41.
octava battuta was called "thesis by the Greeks--because it occurs at the beginning [or downbeat] of the measure...."218?
To avoid indistinctness, it might be better to remain with Fux's correlation here.

Zarlino, by definition, says

[A]. . . music names the placing motion or downbeat Σέσις [thesis] and the lifting ἀποσ [arsis].219

[B]. . . fugue or consequence "per ἀποσ [arsin] et Σέσιν [thesis]," . . . is, by the rise and fall of the voice.220

Zarlino and Fux are in agreement, both basing their position on the ancient Greek view.

Jeppesen, however, follows the "more usual" application and claims that

[A] The arsis [is] . . . the accented [downbeat] portion of the measure....221

[B] The thesis [is] . . . the unaccented [upbeat, in binary meter] portion of the measure....222

Having established the division of the measure, Fux discusses the new situations which confront the student: where and how dissonance may be introduced (rule number 1), the

218 Fux, Gradus, 37.

219 Zarlino, Le Istituzioni harmoniche, 117.

220 Zarlino, Le Istituzioni harmoniche, 131.

221 Jeppesen, Counterpoint, 116.

222 Jeppesen, Counterpoint, 116.
possibility of beginning the counterpoint at a different metric position than the cantus (rule 2), where and how the effect of consecutive perfect consonances is canceled (rule 3), and the variations of the penultimate measure (rule 4). Fux also includes the form of setting three notes against one on his discussion of second species (rule 5), obverse to "modern" contrapuntists (Jeppesen, Salzer and Schachter, etc.) who classify this discipline under third species. Zarlino, of course, does not classify any particular order under the "species" division here. No new items beyond those in two-part writing are given.

Rule 1  Fux, by definition, says that

The second species results when two half notes are set against a whole note [notes in two-to-one relation]. The first of them comes on the downbeat and must always be consonant; the second comes on the upbeat, and may be dissonant if it moves from the preceding note and to the following note stepwise. However, if it moves by skip, it must be consonant. In this species a dissonance may not occur, except by diminution, i.e., by filling out the space between two notes that are [here] a third distant from each other....

In much the same manner, Zarlino gives a similar definition of the organization:

It is required...that when two minims are written in the counterpoint above [or below] a semibreve in the subject [notes in two-to-one relation], each of the minims should be consonant, for these two parts of the

\[223\] Fux, Gradus, 41.
semibreve are greatly noticed by the ear because of the [aural structure] of the measure, which consists of downbeat and upbeat. 

At times, too, the composer may alternate consonant and dissonant minims, taking care however that the consonant ones fall on the downbeat and the dissonant ones on the upbeat of the measure and that they progress continually down or up in strict conjunct movement through many steps.\footnote{Zarlino, \textit{Le Istituzioni harmoniche}, 93.}

Jeppesen, though reversing the metrical terminology, holds the same position as both Fux and Zarlino.

\footnote{Jeppesen, \textit{Counterpoint}, 116.}

\footnote{Jeppesen, \textit{Counterpoint}, 116.}

\footnote{Jeppesen, \textit{Style & Dissonance}, 20.}

[A] The arsis [downbeat]... may have only consonance.\footnote{Zarlino, \textit{Le Istituzioni harmoniche}, 93.}

[B] The thesis [upbeat]. . . . may have either consonance or dissonance. Consonance may be introduced freely; dissonance may be used only if it is introduced conjunctly and is left conjunctly continuing in the same direction (in this way it fills in the interval of a third between the two notes on either side of it).\footnote{Jeppesen, \textit{Counterpoint}, 116.}

It seems that there could be little disagreement here, for

If we count the minims from the beginning of some mensurated choral composition of the 15th or 16th century, it is apparent--more strikingly so the nearer we approach the culmination of the Palestrina period--that the dissonance as an almost invariable rule falls upon the weak numbers of the minims, or what we call the "weak" part of the measure. The only exceptions are syncop dissonances, which fall with equally as great regularity on the odd numbered minims.\footnote{Jeppesen, \textit{Style & Dissonance}, 20.}
By requiring that dissonance be allowed only by "diminution," each of the three theorists forbid the use of dissonant neighboring-auxiliary figure, although the unrestricted use of the consonant form is permitted.

**Rule 2** "...one may use a half rest in place of the first note [of the counterpoint]."\(^{228}\)

We are left to assume that when the counterpoint does enter, it must form a consonant dyad with the cantus else the dissonance would not be approached, even if left, in conjunct motion. Theoretically, one may gather the possibility of beginning with a dissonance, although Fux does not concede this verbally or by example.

Here above, for example, with the C-natural of the cantus momentarily substituting for a unison ("as if to say 'of one sound'. When we find in a voice of a composition two or more notes with the same letter, or the same note, be they

\(^{228}\) Fux, *Gradus*, 45.
on a line or in a space, we shall say they are unisons, and of one sound only..."\(^{229}\) of both voices, in which case the D-natural in the upper (here) part forms a dissonance to the cantus, the figure conforms to the rule of a dissonance being used only in conjunct diminution. To be sure, this is merely an oversight by Fux in the complete theoretical clarification. This free type of dissonant-introduction is not in common use until the Seconda Pratica, of which Fux is not a representative theorist. Fux begins every two-voice example with a perfect consonance, but includes imperfect consonances in the offset initial harmonies in expanded texture.

Zarlino, in partial agreement, says that

...musicians sometimes begin the parts one after another rather than together, with the same succession of notes, as in a fugue, or consequence ...In such cases they may enter with any consonance they chose, perfect or imperfect, for rests would have intervened in one of the parts. However, the interval between the initial notes of the two voices should be one of the perfect consonances named above [unison, fifth, octave, or related compound], or a fourth.\(^{230}\)

Jeppesen, too, is in agreement, for

It is also the rule in third species, as in the preceding species, to begin with a perfect consonance. If, however, the counterpoint begins

\(^{229}\)Zarlino, Le Istitutioni harmoniche, 24-25.

\(^{230}\)Zarlino, Le Istitutioni harmoniche, 55.
with the up-beat [there is some confusion here as to the term "upbeat." Jeppesen also requires the "upbeat" of the second half of a unit to be a perfect consonance.\textsuperscript{231}], imperfect consonances may be used occasionally.\textsuperscript{232}

Neither Fux nor Jeppesen mention a restrictive interval between the two offset lines, but by example, restrict this interval to be either a perfect or imperfect consonance.

\textbf{Rule 2} \ldots the skip of a third [and, by inference, an interpolated single conjunct dissonance or consonance] cannot prevent a succession of either two fifths or two octaves. The intervening note on the upbeat is regarded as hardly existing, since owing to its short duration and the small [melodic] distance between the tones it cannot compensate to such an extent that the ear will not notice the two succeeding fifths or octaves. \ldots It is different if the skip is of a greater interval; e.g., a fourth, fifth, or sixth.\textsuperscript{233}

Fux appears to reason that if this leap to the arsis is greater than a third, the ear tends to dismiss the previous dyad and avoids hearing a parallel succession. Either Mann is unclear in the translation, or Fux in the original explanation, for the statement reads: "In such a case the distance between the two tones causes the ear to forget, as it were, the first note on the downbeat until the next note

\textsuperscript{231}Jeppesen, \textit{Counterpoint}, 133.

\textsuperscript{232}Jeppesen, \textit{Counterpoint}, 125.

\textsuperscript{233}Fux, \textit{Gradus}, 43.
on the downbeat." In such a case, then, does the ear "remember" the first downbeat dyad, and thereby acknowledge this parallelism, "forgetting," instead, the embellishing leap? Perhaps a better explanation would be that the more disjunct the connection between successive downbeats, the less apt the ear is to recognize a parallelism. The same would apply to those successions formed on serial upbeats, but in the less structurally emphasized part of the measures, they are not so offensive to the listener.

In agreement, Zarlino states that

...a dissonance placed between two perfect consonances does not alter the harmony; or [sic, nor] does it alter the fact that the two consonances are used consecutively without an intermediate consonance, since musicians know that consonances are primary elements whereas dissonances are incidental, as I have said....Thus consecutive octaves are forbidden even if separated by a seventh or ninth, and similarly two unisons if separated by a second. Now, though the fourth and sixth are consonant, as has been determined, and though some change in the harmony occurs when either is used to separate two fifths, nevertheless neither should be so used except in compositions for many voices. For in simple music they [the consecutives] generate a certain unpleasantness, difficult to describe but evident....

By Zarlino's stated intermediate restrictions (and the various positions they form between the consecutives) we see that he,

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234 Fux, Gradus, 43-44.

235 Zarlino, Le Istitutioni harmoniche, 113.
too, believes that the third is too small a melodic distance to permit the aural acceptance of the succession.

Though giving no explicit liberties as does Fux, Jeppesen says that "accented fifths or [and] octaves (fifths or octaves following each other on successive accents) must be used carefully, even if they are not excluded entirely." 236

Rule 4 ... in this species the next to the last measure should have a fifth, followed by a major sixth, if the cantus firmus—or chorale melody—is in the lower voice. If the cantus firmus is in the upper voice, there should be a fifth followed by a minor third. 237

But when this fifth below would be of dissonant quality, as in the Phrygian mode, one may write "a sixth rather than a fifth." 238, and depart from the strict stepwise approach to the cadence. The three possible cadence patterns, then, are:

236 Jeppesen, Counterpoint, 126.

237 Fux, Gradus, 42.

238 Fux, Gradus, 46.
Having already established that the penultimate harmony must be either a major sixth or minor third depending upon the relative positioning of the subject, Zarlino goes on to discuss the diminished cadence with its innumerable possibilities by saying "it would be very tedious...to give examples of every possible proper and improper cadence, so infinite is their number. The contrapuntist must constantly seek new cadences and fresh procedures, at the same time avoiding errors."\textsuperscript{239} In his complications, he does not specifically discuss the cadences as given by Fux. Returning to the discussion of the basic organization of notes in simple counterpoint, however, we understand Zarlino to be in agreement with Fux, though admitting other possibilities and even, instead of Fux's mandatory change of the diminished fifth to the consonant sixth, to "on occasion write the semidiapente in

\textsuperscript{239}Zarlino, \textit{Le Istituzioni harmoniche}, 150.
a single percussion."\textsuperscript{240}

Jeppesen's examples quite frequently demonstrate the possibility of an ascending order of the counterpoint above the cantus forming intervals of perfect fifth--major sixth--octave, in one unit of two-to-one relation progressing to the ultimate dyad. Through the process of inversion, the student would seem to have the possibility of a descending order of the counterpoint below the cantus forming intervals of perfect fourth--minor third--unison, in one unit of two-to-one relation progressing to the ultimate dyad. The fourth being considered a dissonance by both Jeppesen and Fux, however, this approach would be eliminated (but not, theoretically, by Zarlino) as the student may place on the accent only consonance, and here, allows Fux's "alteration."

\textbf{Rule 5} In his short discourse of triple meter, Fux explains that

\begin{quote}
...the middle note [the second, of notes in three-to-one relation] may be dissonant...[if] all three of them move stepwise. It would be different if one note or the other moved by skip, in which case all three notes would have to be consonant...\textsuperscript{241}
\end{quote}

which would eliminate the possibilities, among others, of

\begin{footnotes}
\item[240] Zarlino, \textit{Le Istituzioni harmoniche}, 67.
\item[241] Fux, \textit{Gradus}, 49.
\end{footnotes}
unless Fux assumes that the third unit is already an allowable position of dissonance. Unfortunately, we have no way of knowing this because there is not a single species example in triple meter in the Gradus.

Why has Fux given this particular order no more than superficial attention? Malcolm Boyd thinks "because of its comparative rarity and its association with simple, non-imitative texture, triple metre is rarely called for in student exercises." Immediately succeeding the species, the Gradus takes up imitative writing and the fugue. At any rate, it does not seem that Fux wants more than to acknowledge the existence of the discipline, and definitely is not to be studied in depth here by the student.

Salzer and Schachter allege that "dissonances cannot occur on the first beat of the measure, but may appear on

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either the second or the third beat. (In triple meter, both
the second and the third beats are weak.)”--allowing, at
least, example A above. I mention this here because they quote
an example of Herman Roth. Jeppesen includes Roth as one of
a series of theorists basing their teachings upon Palestrina, though there seems later to be a contrariety as Jeppesen does
not permit the third unit to be dissonant:

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244 Jeppesen, *Counterpoint*, x.

245 Salzer & Schachter, *Counterpoint in Composition*, 77
example 3-49b.
Though making no specific statement regarding the positioning of harmony in a three-to-one relation, coupled with the customary practice "for musicians to write imperfect breves (containing two semibreves) in equal measures, and perfect breves (containing three semibreves in unequal measures...)", Zarlino disagrees with Fux. With the proposed order of consonance and dissonance, we see that Fux, in his reduction of the note values, has erroneously shifted the requirement of consonance from the first one-half of any subdivided block to the accented portion of the measure no matter what the subdivision:

\[\begin{array}{cccc}
3 & 0 & 0 & 0 \\
1 & c & c & c \\
2 & p & p & p & p & p & p & p & p \\
Fux & 3 & 3 & 3 & 3 \\
2 & c & d & c \\
4 & c & d & . & c \\
\end{array}\]

\[246\] Zarlino, *Le Istitutioni harmoniche*, 120.
Jeppesen, too, sees the error in reduction here as he states that

Triple time with the half note as the unit of measure requires, in the Palestrina style, that each half note be a consonance. It is, therefore, not in accordance with the laws of the style when Bellermann, Haller, and others permit the second and third half to be dissonant. The rule is that in triple time only the second half of each unit of measure may be dissonant. Thus in 3/1 time only every other half note may be dissonant and in 3/2 time every other quarter.247

Regarding the handling of the dissonance, he continues that "the rules for binary meters also apply to ternary meters."248

247 Jeppesen, Counterpoint, 119.

248 Jeppesen, Counterpoint, 129.
CHAPTER VI

THE THIRD SPECIES OF COUNTERPOINT

In this species, the half notes resulting from the division of the whole are themselves divided, creating a ratio of four-to-one. One would expect each of these also to embrace that manner of dissonance-handling found in the preceding species, but after a definition parallel to that arrangement, Fux describes the various incidental circumstances (rule number 1). Because of the increasing aptitude of the melodic line (and harmony) to become repetitive, Fux reviews the use of sequence (rule 2), although this might also be avoided in the second species, and tells of what new attention must be paid to the penultimate measure (rule 3). Modern scholars (Jeppesen, Salzer and Schachter, Roberts and Fischer, etc.) have made it a practice to wait until fifth species before discussing the use of eighth notes. Fux, however, wishing to confront the student with only the "combination of species," excludes any new pedagogical allowances. In the third species we find his first discussion of eighth notes—those created by diminution (rule 4), the manner in which both half and quarter note values were first illustrated. The next species includes the concluding remarks on the subject. No new items beyond those concerned with two-part writing are given.

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Rule 1  Fux, by his definition, leaves the reader unclear as he states

By the third species of counterpoint is meant a composition having four quarters against a whole note [four-to-one relation]. Here, in the first place, one must observe that if five quarters follow each other, either ascending or descending, the first one has to be consonant, the second may be dissonant, and the third must again be consonant. The fourth one may be dissonant if the fifth is consonant.249

This does not, even in later exception, take into consideration (even by example) the seemingly allowable form of

\[ \text{\includegraphics{image}} \]

as is by some, nor

\[ \text{\footnote{Fux, Gradus, 50.}} \]

\[ \text{\footnote{Salzer & Schachter, Counterpoint in Composition, 57, example 3-4.}} \]
as one can rearrange the progression and still retain the proper sequential placement of consonance and dissonance.

Of course, what Fux does mean to say is that the accented first quarter, falling on the downbeat, and the third quarter, as it falls on the "relatively accented" portion of the measure (two half notes subdivided to four quarter notes), must be consonant. Dissonance may appear on the second quarter, if accompanied on both sides by a melodic consonance of a third—both of these being harmonically consonant with the cantus, and on the fourth quarter, if the same qualifications are met. This does not imply a mandatory use of dissonance, however, as one (either) or both of these dissonances may be replaced by a consonance and then not have to be both approached and left in stepwise continuing motion.

This order of consonance and dissonance is exactly the same position that Zarlino holds on the matter:

When four semiminims are desired in the counterpoint as equivalents of the semibreve [four-to-
one relation], then the semiminims falling on the
downbeat and upbeat should be consonant...the
second and fourth need not be so, but if they are,
all the better. 251

This option of including dissonance, however, "applies only
when the contrapuntal part proceeds conjunctly." 252, and,
joined with the previous stipulation, may exist only by
diminution.

Jeppesen, also in agreement, says that

On the second and fourth quarter [of the
measure], dissonance may be used. The conditions
under which this may occur are, as in second species,
the stepwise introduction and continuation of the
dissonance. 253

This would seem to imply that dissonant neighboring-auxiliary
tones would be acceptable, but in his discussion of melodic
dissonance in second species, Jeppesen admits only the
passing form.

Three incidentals come up in the discussion of the proper
placement of consonance and dissonance in this ratio:

A) the possibility of using dissonance on the third
quarter of the measure.

B) the possibility of using a dissonant neighboring-
auxiliary on either/both beats two or/and four.

251 ZarlinO, Le Isttutionti harmoniche, 93.

252 ZarlinO, Le Isttutionti harmoniche, 93.

253 Jeppesen, Counterpoint, 124.
C) the possibility of using a melodic figure which might make disjunct motion allowable from and/or to a dissonance.

--of which Fux gives examples of each.

A) Fux will allow a departure from his basic definition if "the second and fourth notes are consonant...[that] the third note [relatively accented] may be dissonant [...[if it] may be described as a diminution or a filling out of the skip of the third."²⁵⁴

Zarlino is sorely lacking in any verbal allowance and says only that "when four semiminims are desired in the counterpoint as equivalents of the semibreve, then the semiminims falling on the downbeat and upbeat should be consonant."²⁵⁵

Jeppesen, in studying the score, finds that

If...2 crotchets succeed a preceding minim, whether tied over from the preceding measure or not, the first of these crotchets can... be dissonant in conjunct descending movement; but if the progression ascends, only the second crotchet may eventually be dissonant, thus:

²⁵⁴ Fux, Gradus, 50.

²⁵⁵ Zarlino, Le Istituzioni harmoniche, 93.
but never:

Jeppesen also asserts that Fux is in error on this point:

In Fux's opinion the third quarter may be dissonant provided both of the quarters which adjoin it on either side are consonant. Where Fux found this rule I do not know; possibly he formulated it himself [see discussion below]. At any rate it is not based upon the practice of the Palestrina style.\footnote{Jeppesen, \textit{Style & Dissonance}, 112-13.}

\footnote{Jeppesen, \textit{Counterpoint}, 40.}
However, Jeppesen continues that

While in fifth species (as well as in the third species where the movement is entirely in quarter notes) it is not permissible to let the third quarter in the measure dissonate, it is another matter when the note that is dissonating follows after an accented half note (not after a quarter note) and the melodic movement all the way through is stepwise downward. While this:

![Musical notation image]

is absolutely forbidden, the following is unobjectionable:

![Musical notation image]

In other words, when two quarters move in stepwise progression downward, if the movement follows an accented half note, it is permissible to let the first (or second) of these quarters dissonate. If, on the other hand, the motion is stepwise ascending, for example:

![Musical notation image]

(which, as we already know, is not so good on purely melodic grounds) then only the
second of these quarters may dissonate.\textsuperscript{258}

Unfortunately, Jeppesen's own example here is in error. That Jeppesen cannot see why Fux may have deduced this rule is surprising. Vincenzo Galilei (1533-1591), a contemporary of both Palestrina and Zarlino (overlapping the dates of each by fifty-eight years, and a student of the latter), allows the following positions of consonance and dissonance:

\textsuperscript{259}Jeanne Boyer, \textit{Counterpoint}, 143-44.

\textsuperscript{259}Claude V. Palisca, "Vincenzo Galilei's Counterpoint Treatise: A Code for the Seconda Pratica [sic]," \textit{Journal of the American Musicological Society} IX/2 (Summer 1956), 89, example 3b.
This restriction that the third quarter be consonant is

One rule Galilei did specifically reject. He recalled that it was usually learned by heart that of four semiminims the second and fourth might be dissonant but the others had to be consonant. He advised memorizing instead that the two extreme notes, the two central notes, or the second and fourth, or any others, in fact, might be

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260 Palisca, "Galilei's Counterpoint Treatise," A.M.S., 89, example 3d.

261 Palisca, "Galilei's Counterpoint Treatise," A.M.S., 89, example 3e.
dissonant. Galilei approved not only the pattern that Zarlino considered acceptable, C D C D, but allowed also D C C D, C D D C, D C D C, and occasionally others. As many as three cattive [dissonances, from the Italian cattivo, meaning bad, defective, wrong, etc.] may occur in succession. 262

Such freedom may have caused both Giambattista Martini (1706-1784), a contemporary of Fux, and Roth, basing his study on the Palestrina style, to give

![Musical notation]

as a possibility, 263 although Fux does not use the figure here.

Galilei was not the only composer to allow the third quarter to dissonate. It is found even earlier, in the works of Josquin des Prés (c.1450-1521):

262 Palisca, "Galilei's Counterpoint Treatise," A.M.S., 89.

263 Fux, Gradus, 50.
264 Jeppesen, *Style & Dissonance*, 120, second example.
and Robert Whyte (?-1574):

Franz Nekes will allow for the third quarter to be dissonant, but

...the standard should consequently be, that the dissonance upon the relatively unaccented third crotchet can only be employed when all four crotchets move in scale-like descending progression, and moreover one of the other voices forms a syncopated dissonance with the latter.\textsuperscript{266} 

Meanwhile, Jeppesen disagrees with even these conditions.

The difficulty about accepting Nekes hypothesis with respect to the constituent significance of suspension is the circumstance, that very often 2 stationary notes occur coincidentally of which only one is syncopated. The following example shows a very common and altogether quite legitimate

\textsuperscript{265}Jeppesen, Style & Dissonance, 120, first example.

\textsuperscript{266}Jeppesen, Style & Dissonance, 108.
As we see, the tone B in the tenor is dissonant in relation to A in the upper and F in the lower voice, while only the tone in the upper voice remains stationary and forms the syncopation. But a rule which suffers such frequent transgression rests upon rather a weak foundation. 267

And there are, of course, examples of Palestrina's music that correspond to Fux's precept, which even, as in the second example below, lift the restriction that the third quarter dissonance be couched on either side by consonance.

267 Jeppesen, Style & Dissonance, 111.
It is very difficult to believe that Fux is really all that much in error, and even more that he "made up" the rule himself, as Jeppesen asserts. This handling of dissonance is found not only in the common literature of the sixteenth century, but in the compositions of Palestrina himself.

B) By example, Fux demonstrates the use of the unaccented dissonant lower neighboring-auxiliary figure in the bass, which presumably also gives the student the freedom to use it in the treble.

268 Jeppesen, Style & Dissonance, 109, first example.

269 Jeppesen, Style & Dissonance, 109, second example.
270 Fux, Gradus, 92, quotation from figure 132, measures 10-11.

271 Fux, Gradus, 123, quotation from figure 182, measures 10-11.
The discretion to use only the descending form is probably due to the effect of an aural prominence when the dissonance is preceded by a lower note. Introduced from above, this effect is lessened considerably. Mann, on a rather weak base, sees the figure as better to be avoided because of the rule and used here as an "irregularity."272 One must remember, however, that much of Fux's thinking can be seen only through his examples, and especially that the figure is quite common in sixteenth-century style (see p. 117).

In disagreement, Zarlino says only that

...the composer may alternate consonant and dissonant minims, taking care however that the consonant ones fall on the downbeat and the dissonant ones on the upbeat of the measure and that they progress continually down or up in strict conjunct movement through many steps.273

which means, of course, only by diminution. To be sure, Zarlino does not use a single neighboring-auxiliary tone, either consonant or dissonant, with a quarter value of the basic unit, in the analyzed madrigals. The figure is quite common in the eighth note value, although is primarily used here as decoration of a suspension-resolution. It falls always

272 Fux, Gradus, 92-93.

273 Zarlino, Le Istitutioni harmoniche, 93.
off from the main beats of "one" or "three," because of the restrictions placed upon syncopation (see p.130). The figure is also found, though more rarely, outside of the suspension. In either case, it is found only in its descending form.

Jeppesen is in agreement with Fux, though he doesn't seem to realize this, as he states that

...while it was possible in half-note movement to use only the so-called "passing note dissonances," in the third species one is not restricted to the continuation in the same direction, but may return to the tone from which one started; in other words, it is permissible here to use dissonant auxiliary notes. Fux, to be sure, does not use such dissonances [but he does!; see above, p.115], and Bellermann says in this regard: "The composers of the sixteenth century likewise knew this kind of dissonance but they rarely used it, and then only in notes of shorter value, quarters [as Fux in third species] and eighths [as Zarlino]."

With this remark Bellermann forbids their use henceforth. Meanwhile he [Bellermann] is definitely in error when he asserts that this procedure is rare in sixteenth century. On the contrary, it is very popular. 274

In discussion of the specific requirements, Jeppesen continues "that it must come from a consonant note and return to the same, in conjunction with the stipulation that it can only be placed upon unaccented beats." 275

274 Jeppesen, Counterpoint, 124.
275 Jeppesen, Style & Dissonance, 164.
Of the two formulae, though by no means rare in its ascending form, the ornamental auxiliary is much more common in the descending order.\textsuperscript{276}

C) Fux will allow disjunct melodic movement to involve dissonance only in the cambiata figure, if "it occurs... from the second note--when dissonant--to a consonant note by skip..."\textsuperscript{277}, through third species. By definition, the "cambiata" is

A term used, rather confusingly, for a variety of formations that belong to the general category of nonharmonic tones. All \textsuperscript{[?] interpretations of the term go back to the \textit{Gradus ad Parnassum} (1725) of J.J. Fux, who explains the cambiata as the formation shown in Ex. a [below]. This presents an exception from the general rule that a dissonant note (the second of the four quarter notes) should be resolved in conjunct motion.\textsuperscript{278}

\begin{center}
\includegraphics[width=0.5\textwidth]{cambiata.png}
\end{center}

\textsuperscript{276}Jeppesen, \textit{Style \& Dissonance}, 162.

\textsuperscript{277}Fux, \textit{Gradus}, 51.


\textsuperscript{279}Apel, "Cambiata," \textit{Harvard Dictionary}, 122, example a.
Mann cites that "this [here, in the Gradus] is the first [verbal] mention ever made in musical literature of the nota cambiata, though it had been in use since the early days of polyphony." This is surprising since, not only had it been in use, but "is perhaps the most characteristic idiom of Renaissance music."  

Zarlino will not permit the figure, and says only that

If among numerous minims there is one that does not progress by step, it may never be dissonant....But when the dissonance is introduced stepwise on the second minim, the movement is not offensive because of the relative velocity of such passages. Not so in leaping movements, however, since the dissonance is made so noticeable by the skip that it can hardly be tolerated.

Though he allows the form to begin on the first and/or third quarter of the measure, Jeppesen does permit this

...idiom in which the dissonance introduced stepwise from above (which, like all dissonance in this and the preceding species, falls on the unaccented part of the measure) is quitted by the skip of a third downward, followed by the step of a second upward.

280 Fux, Gradus, 51.


282 Zarlino, Le Istitutioni harmoniche, 95.

283 Jeppesen, Counterpoint, 125.
Fux does not mention the possibility of inverting the cambiata figure, Zarlino not at all in any form, and Jeppesen only that "although permissible in longer note values, [it] is not written in quarters...."284, which would cause us here to leave the pedagogical structure.

**Rule 2** On the basis of avoidance and correction by Fux of his own example, Mann states that "the forming of sequences (the so-called monotonia) ought to be avoided as much as possible."285 Of the example:

![Musical notation](image)

"the following correction for the next to the last measure was added in [the original] manuscript:


This modification is also needed to execute the proper third species cadence formula, though Mann does not mention this point (see p. 122).

As variety brings pleasure and delight, so excessive repetition generates boredom and annoyance. Let us seek above all to avoid a common error and be certain that our counterpoint is so varied that the same passage or harmonic progression [not discussed by Fux but presumed inferred] is not repeated exactly, with the same consonances, rhythms, and [or] tones. For while such counterpoints if well written will be free from anything dissonant or unpleasant to the ear, nevertheless to repeat them does not produce the pleasure that springs from variety. 288

Jeppesen, also in agreement, states that "such redundancy [here, repeating the climax, repetition of intervallic configuration, and, even if not immediately, use of tonal material] (as well as sequences) must be definitely avoided." 289

Rule 3 In regard to the cadence formulae, Fux allows that

287 Fux, Gradus, 54.

288 Zarlino, Le Istituzioni harmoniche, 153.

289 Jeppesen, Counterpoint, 115.
"if the cantus firmus occurs in the lower part, there are these possibilities:

\[\text{\textbf{diagram}}\]

and, "if the cantus firmus occurs in the upper part, the possibilities are these [sic, only a single possibility is given]:

\[\text{\textbf{diagram}}\]

Having already established that the penultimate dyad of a counterpoint must be either a major sixth or minor third, Zarlino goes on to discuss the diminished cadence with its innumerable possibilities. The first of these, then, would

\[\text{\textsuperscript{290} Fux, Gradus, 52.}\]

\[\text{\textsuperscript{291} Fux, Gradus, 52.}\]
be perfectly allowable, but the latter two may seem not in agreement with Zarlino's statement that "when four semiminims are desired in the counterpoint as equivalents of the semi-breve, then the semiminims falling on the downbeat and upbeat should be consonant."\textsuperscript{292} The first of these, as it is the cambiata figure, is not allowable by the leap from a dissonance. The third example, in that Zarlino has previously stated "that the [perfect] fourth is actually not a dissonance but a consonance."\textsuperscript{293}, and is available "not only as accompaniment to other consonances but also without support in two-voice compositions."\textsuperscript{294} as well, we see that this would be, at least theoretically, acceptable to Zarlino also, though for a different reason.

Though making no specific statement regarding the furthering of the cadence in third species, through his own examples Jeppesen demonstrates that

A) the first would be acceptable.\textsuperscript{295}
B) the second would be acceptable.\textsuperscript{296}
C) there is no quoting of the third figure. Jeppesen has

\textsuperscript{292}Zarlino, \textit{Le Istituzioni harmoniche}, 93.
\textsuperscript{293}Zarlino, \textit{Le Istituzioni harmoniche}, 12.
\textsuperscript{294}Zarlino, \textit{Le Istituzioni harmoniche}, 14.
\textsuperscript{295}Jeppesen, \textit{Counterpoint}, 127, third example.
\textsuperscript{296}Jeppesen, \textit{Counterpoint}, 127, first example.
previously asserted that it is not permissible in the Palestrina style to place a dissonance (the perfect fourth included) on the relatively accented beat in a ratio of four-to-one, even with a stepwise approach. Here, he feels that another cadence approach which is more akin to the rules should be formulated.

Rule 4 Since in this species, however, eighth notes are not yet to be employed, the old masters have approved the...example [below] where the second note forms a seventh [or fourth, as Mann states as an addition to accompany the example by Fux in the original... as the filling in of the cambiata figure.

Fux is very limiting here, allowing these to appear only in the second quarter of the measure, and (by example) placing consonance within the beat. They are used only in pairs, and

\footnote{Fux, Gradus, 52.}

\footnote{Fux, Gradus, 52.}

\footnote{Fux, Gradus, 52, example 52.}
only in a descending diminution.

The discussion of those quarters created by diminution continues in fourth species, but for simplicity, this might be included here also: "Furthermore, two eighths may occasionally be used in the next species [fifth]; that is, on the second and fourth beats of the measure— but never on the first and third." 300 Illustrating the proper arrangement, Fux gives the following figure:

\[ \text{good good bad} \]

One must understand that in the last example it is not with the lower neighboring-auxiliary that Fux finds fault, but the metric position of eighth notes. Later (in fifth species, two-voice writing, by example), Fux allows this stepwise lower ornamentation. When the figure does occur, however, it follows the same restrictions given to other pairs of eighth notes. It is always a pattern of two moving in stepwise motion on either beats two or four, and never is more than one pair of eighths used in a single measure:

---

300 Fux, Gradus, 63.

301 Fux, Gradus, 63, figure 81.
Zarlino states in his discussion of consecutive consonances that one "may substitute for the semiminims a dotted minim, followed by two crome [eighth notes]...."\(^{303}\) in order to conceal the progression. He makes no further verbal allowance of the note value, but in his music we see that Zarlino uses these eighth notes in a variety of ways. Excluding their combination with the suspension figure (for discussion, see p.142), a pair of these may be used both in descending (only) passing motion or as a lower neighboring-auxiliary and its return. The requirement that the value be preceded by a dotted minim does not always hold true as there are many exceptions contained in the score:

\(^{302}\)Fux, Gradus, 66, quotation from figure 86, measures 1-3.

\(^{303}\)Zarlino, Le Istitutioni harmoniche, 115.
Jeppesen, in complete agreement with Fux, says that Eighth notes were normally used only in groups of two in the sixteenth century. They were introduced and quitted in stepwise movement:

An interval of the [sic, a] fourth, therefore, may be filled out by two eighths both in ascending and descending motion. The preceding note does not absolutely need to be a dotted half but may be a quarter:

Auxiliary notes are likewise possible, but only with the lowered second... Furthermore it must be understood that eighths may occur only on unaccented quarters of the measure.\textsuperscript{306}

\textsuperscript{304}Zarlino, "Amor Mentre Dormia," \textit{Madrigals}, measure 21.

\textsuperscript{305}Zarlino, "I' Vo Piangendo," \textit{Madrigals}, measure 48.

\textsuperscript{306}Jeppesen, \textit{Counterpoint}, 93.
CHAPTER VII

THE FOURTH SPECIES OF COUNTERPOINT

In the fourth species, the last pedagogical division in which new "harmonic" forms are encountered, Fux deals with the syncopation of both consonance and dissonance (rule number 1) (the allowances created in voice leading were discussed previously, see p.21), the cadential approaches brought about through the syncope figure (rule 2), and, departing from the "proper" ratio here of two-to-one, the concluding remarks concerning note values smaller than the quarter (rule 3). Included in the expansion of the number of voices is the pedal point (rule 4) and a superficial treatment of the "double" suspension (rule 5), though in its dissonant form, is not used by Fux in the species.

Rule 1  Fux, by definition, says that "this species is called ligature or syncopation, and can be either consonant or dissonant."307, for

In this species there are two half notes set against a whole note [cantus firmus]. These half notes are on one and the same tone and are connected by a tie, the first [tone] of which must occur on the upbeat, the second on the down-beat.308

307Fux, Gradus, 55.

308Fux, Gradus, 55. -129-
By definition, then, there may exist two types of suspension:
A) consonant—when both the arsis and thesis of a half note line form a consonant dyad with the cantus.
B) dissonant—when the arsis of a half note line forms a consonant dyad with the cantus, but the thesis a dissonance.

and as these syncopated "dissonances should always resolve descending stepwise to the next consonances...."\(^{309}\), we see that the three essential properties of the figure are:
A) the preparation—on the unaccented portion of the measure, and forming a consonant dyad with the cantus.
B) the suspension proper—on the accented portion of the measure having been tied across the bar to the preceding preparation, forming either a consonant or dissonant dyad with the cantus.
C) the resolution—on the unaccented portion of the measure, forming a consonant dyad with the cantus having been approached in a descending stepwise manner. These latter two are a requirement only if the suspension proper formed a dissonance, as otherwise there would be no particular restrictions to the movement.

Zarlino agrees in definition that "a note is said to be syncopated or to make a syncopation when it begins on the

\(^{309}\)Fux, Gradus, 56.
upbeat of a measure and is held through the next downbeat.\textsuperscript{310}

Further, he continues that

The dissonance, placed on the second half of the syncopated note, is thus weakened and is barely perceived, concealed as it is by a stronger movement in the other voice, which is changing location at the same time with a livelier progression [activity versus the absence of].\textsuperscript{311}

\textsuperscript{310}Zarlino, \textit{Le Istituzioni} harmoniche, 121.

\textsuperscript{311}Zarlino, \textit{Le Istituzioni} harmoniche, 97.

\textsuperscript{312}Zarlino, \textit{Le Istituzioni} harmoniche, 176-77.

...the dissonance should be followed by the consonance closest to it...[and] the syncopated voice should always descend by step, never ascend.\textsuperscript{311}

Zarlino disagrees with Fux, however, by stating that

...one should not follow a syncopated semibreve immediately with a dissonant minim in conjunct motion [to follow it in disjunct motion would, of course, not be allowable either]. This would go against the nature of the completely consonant suspension, which should never be followed by a dissonance but always by a consonance.\textsuperscript{312}

This could, to "resolve" in either direction, involve the 5--4 treble and/or 3--4 bass suspension since by definition, Zarlino classifies the perfect fourth as a consonance. The fourth is, however, never used as a tone of resolution in the selected portion for analysis of Zarlino's music.

Later, in fifth species, by example, Fux permits just such an occurrence of the consonant suspension, using the perfect fourth in quarter value both as the "resolution" of the suspension and as a passing dissonance.

\textsuperscript{312}Zarlino, \textit{Le Istituzioni} harmoniche, 176-77.
Jeppesen, in partial agreement, says that

In fourth species, as in the second [species], two half notes are written in the counterpoint against each note in the cantus firmus...[but] the unaccented half note is tied to the accented one immediately following...Dissonances may be resolved only to imperfect [italics mine] consonances. 314

The requirement of resolution to an imperfect consonance, while holding in two-part writing, does not apply when a third voice is added. Here,

..."bad" dissonant suspensions such as fourths and sevenths in the lower voice, or seconds or ninths in the upper voices, may be used if in any such case a "good" suspension is produced at the same time in relation to another part:

313 Fux, Gradus, 64, figure 82, measures 4-5.

314 Jeppesen, Counterpoint, 130.
Presumably, this extension would apply also to the consonant syncope, and permit the resolution into the perfect fifth:

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315 Jeppesen, *Counterpoint*, 188.
Of Fux's verbal handling of the consonant suspension, Jeppesen agrees that "if a syncopated consonance occurs on the strong accent it is permissible to take a passing dissonance on the following weak beat, but only in accordance with the rules of second species...."\textsuperscript{316}--approached and left, ascending or descending, in stepwise motion, as "the stepwise descending continuation is obligatory only where the syncope is dissonant."\textsuperscript{317}

In furthering his definition, Fux eliminates the 7--8 bass suspension by reason of the common practice of Palestrina's period: "There is no one among them [the masters] who has used the seventh resolving in this way [stepwise descending] to the perfect octave...."\textsuperscript{318}, but no restriction is given to the inversion of the figure, the 2--1 suspension. Fux may not have found the figure for any number of reasons:

(A) the avoidance of a possible forbidden succession of octaves, especially here involving the bass.

(B) the avoidance of resolving to the most consonant interval, which has less consonance, or "fullness of sound," than any other interval, especially here

\textsuperscript{316}Jeppesen, Counterpoint, 133.

\textsuperscript{317}Jeppesen, Counterpoint, 133.

\textsuperscript{318}Fux, Gradus, 58.
involving the bass.

(C) the avoidance of a higher anticipation of the resolution, more audible here to the listener than if found in the bass.

The tone of resolution is already present in the upper voice; the effect of the resolution, therefore, becomes greatly diminished. It is generally a risky procedure to anticipate the tone of resolution by having it sound in another voice. Only when the lowest voice anticipates the tone of resolution (as in the 9--8 suspension) is the danger minimized.319

(D) and, besides eliminating the "need" or "expectation" of a resolution of the dissonance (the setting up of which is the purpose of a suspension) by having it sound at the same time with the dissonance, there is also the possibility of an aural confusion as to what is the "real" dissonance, or, what is and what is not structurally significant. Given the instance:

319Salzer & Schachter, Counterpoint in Composition, 82.
confusion arises as to which is the "correct"
dissonance to be resolved. Is the C-natural
dissonant to the uppermost voice in the formation
of an incomplete E minor harmony? Or, both because
it is the lowest sounding part and is given added
emphasis by its previous length, is the B-natural
structurally important as part of a first inversion
A minor triad? Leaping from the anticipating
resolution to another consonance would both be
theoretically possible and eliminate the doubling of
the resolution in the second half of the measure, but
still the effect of expectation--resolution is gone.
This manner would be even more unsatisfactory because
of the disjunct motion involving the "expected" voice
to resolve.

Allowable Suspension Figures

<table>
<thead>
<tr>
<th>Treble:</th>
<th>9--8</th>
<th>7--7</th>
<th>6--5</th>
<th>4--3</th>
<th>2--1</th>
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<tbody>
<tr>
<td>Fux</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Zarlino</td>
<td>9--10*</td>
<td>7--6</td>
<td>6--5</td>
<td>4--3</td>
<td>2--3*</td>
</tr>
<tr>
<td>Jeppesen</td>
<td>9--8</td>
<td>7--6</td>
<td>6--5</td>
<td>4--3</td>
<td>2--1</td>
</tr>
</tbody>
</table>

*Although Zarlino recommends this type of resolution
for these dissonances (see p.12), neither form appears
in the analyzed madrigals. On more than rare occasions,
between 7 and 8 per cent of the total number of suspensions, the 9--8 treble suspension is used, while the 2--1 does not appear at all (in the primary analysis).

Bass:

<table>
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<tr>
<th></th>
<th>9--10</th>
<th>5--6</th>
<th>4--5</th>
<th>2--3</th>
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</thead>
<tbody>
<tr>
<td>Fux</td>
<td>----</td>
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<tr>
<td>Zarlin</td>
<td>----</td>
<td>5--6</td>
<td>4--5</td>
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<tr>
<td>Jeppes</td>
<td>----</td>
<td>7--8</td>
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</table>

Writing only in the diatonic modes, the augmented and diminished dyads to occur involve the intervals of fourth and fifth (excluding those caused between a parent tone and its chromatic alteration at the cadence). It would seem that these, too, classified as dissonances by all three theorists, would be available in syncopation.

Fux makes no specific statement, but shows their possible use through example.\(^{320}\)

Zarlino, in agreement, while making no specific statement either, also shows their use through example.\(^{321}\)

Jeppesen, however, is in seeming indecision in this matter. He states in his counterpoint text that "one ought to avoid

\(^{320}\)Fux, Gradus, 95, figure 137, measure 4.

\(^{321}\)Zarlino, "Hor Non So," Madrigals, measures 60-61.
all augmented and diminished intervals in suspensions."\textsuperscript{322} Yet four years earlier admitted "that augmented and diminished intervals are often found syncopated in Palestrina, though almost always where there are more than two parts."\textsuperscript{323} Suspensions involving the diatonic augmented and diminished intervals are found present in Jeppesen's own counterpoint examples.

None of the three theorists, however, uses the augmented or diminished dissonance in suspension in his two-voice pedagogical examples.

\textsuperscript{322} Jeppesen, \textit{Counterpoint}, 132.

\textsuperscript{323} Jeppesen, \textit{Style & Dissonance}, 230.

\textsuperscript{324} Jeppesen, \textit{Counterpoint}, 189, quotation from first example.

\textsuperscript{325} Jeppesen, \textit{Counterpoint}, 190, quotation from first example.
Though not categorically stating that one may not tie a note to another of larger value, Fux does not use this figure in his examples. The ligature involves notes only of equal value or when the preparation is twice the value of its resolution. There is no tie involving the ultimate dyad.

In speaking of the instances in which one may tie a note to another, Zarlino says that

... a syncopation is caused by preceding the syncopated note by a note half its value [a note tied across the "bar" to half its own value] or by two more notes equivalent to this half [a note tied across the "bar" to any combination of rhythm on the tone of resolution which equals the value of the preparation].\textsuperscript{326}

In agreement, Jeppesen states that

It is not permissible to tie notes of less value to subsequent notes of greater value.... The opposite may take place, but in such a case only values can be tied that are in relation to each other at 2:1....\textsuperscript{327}

Though not mentioning here that notes of equal value may be tied, we see the possibility as this is the basic organization of fourth species.

\textbf{Rule 2} In regard to cadencing in fourth species, Fux will permit only two possibilities:

\footnote{\textsuperscript{326} Zarlino, \textit{Le Istituzioni harmoniche}, 122.}

\footnote{\textsuperscript{327} Jeppesen, \textit{Counterpoint}, 141.}
[A]...a seventh resolving into the sixth...in the next to the last measure if the cantus firmus is in the lower voice.\footnote{328}

[B]If the cantus firmus is in the upper voice...a second resolving to third and finally moving into the unison.\footnote{329}

Having already established that the penultimate--ultimate dyads of both Zarlino and Jeppesen must be either major sixth--perfect octave or minor third--perfect unison, depending upon the various positioning of cantus firmus and counterpoint, the only approach to use these intervals as resolution of syncopation is with either a 7--6 treble or 2--3 bass suspension. Both forms are permitted by each Zarlino and Jeppesen, and we therefore see a complete agreement regarding the cadence here:

\footnote{328}{Fux, Gradus, 60.}

\footnote{329}{Fux, Gradus, 60.}
appear in example at the cadence:

In its only occurrence, the "supposed" restrictions deduced from the score are:

A) that the texture be that of three (or more) voices in order to have the full triad present.

B) that the suspension resolve to the diminished fifth on the penultimate dyad.

C) that the ligature be in the lowest voice.

Zarlino does not mention the possibility beyond the discussion of setting consonances with the subject, in which this was prohibited, nor is the figure found in the analyzed madrigals.

Jeppesen allows that "cadences may be introduced with syncope dissonances...[and] if the syncope is in the lower

\[330\] Fux, Gradus, figure 144, measures 9-11.
[sic, lowest of three] voice it may be resolved into a diminished triad, but always in close position [my italics] ...."\textsuperscript{331} Both Fux and Jeppesen introduce the figure as an extension of second species, three-voice writing, but Jeppesen places one more restriction upon this than Fux.

\textbf{Rule 2} Although counterpoint with the mixing of note value in a single line is handled elsewhere, Fux says here "that the ligatures discussed so far may also be used in another way, where the original form is hardly changed, but nevertheless an enlivening movement results...."\textsuperscript{332} He gives here the possibilities of ornamenting the resolution through the use of note values smaller than the preparation, and smaller than or equal to the resolution:

\textsuperscript{331} Jeppesen, \textit{Counterpoint}, 178.

\textsuperscript{332} Fux, \textit{Gradus}, 62.
which include the possibility also of the "portamento," or anticipated resolution.

The resolution here is anticipated on the offbeat, then resounded on the proper beat of resolution.

Zarlino, in regard to the figures, is A) in agreement: the decoration of a suspension by stepwise movement—the lower neighboring auxiliary decorating the portamento figure. Zarlino does not verbally mention the figure in his text, but decorates over 34 per cent of the entire number of suspensions

333 Fux, Gradus, 62, figure 79, measures 4-6.

334 Fux, Gradus, 62, figure 79, measures 9-10.

335 Fux, Gradus, 63, figure 80.
present in the analyzed works in this way. He will even allow the possibility of the lowest tone of the figure forming a dissonance with the bass/treble, as in 77 per cent of the decorated suspension figures.

B) in disagreement: the decoration of a suspension by a leap downward to a tone consonant with the bass/treble, then leaping back up to the tone of resolution. Zarlino does not verbally mention the figure in his text, nor is it present in the analyzed madrigals.

C) in agreement: the portamento resolution. Zarlino does not verbally mention the figure in his text, but decorates over 13 per cent of the entire number of suspensions present in the analyzed works in this way. Jeppesen, in regard to the figures, is

A) in agreement: stating the exact figure as a permissible decoration of the suspension,\textsuperscript{336} with the added remark that "it is immaterial whether the first or second or both [the combination not shown by Fux, but presumed allowable] eighths dissonate."\textsuperscript{337}

B) in disagreement:

A cadence formula which one meets, though seldom, in the music of the sixteenth century is the following:

\textsuperscript{336}Jeppesen, \textit{Counterpoint}, 149.

\textsuperscript{337}Jeppesen, \textit{Counterpoint}, 148.
Here a quarter note is inserted between a suspension dissonance and its note of resolution. It is a third below the [suspended] dissonance and forms a consonance in relation to the other voice. On the other hand, the figure used by Fux and the theorists that followed him:

is positively not in the style of Palestrina. Undoubtedly one can find it among the composers of the sixteenth century [my italics] in rare instances; but it is not in common use until the beginning of the eighteenth century in composers such as Bach and Handel. Therefore Fux must have adopted it involuntarily from his own contemporary music [italics mine].

One must doubt that Fux blindly incorporated this item into his method. If it is in the literature, perhaps he was correct to include it here as a possibility in sixteenth-century practice. At any rate, the figure itself—the leap from a suspension proper to a consonant tone below, and a return to the resolution

on the proper beat—is hardly changed. It is only the slight difference here of how far the auxiliary tone, which for a moment disrupts the melodic resolution by step, may leap.

C) in agreement: as "anticipations may, under all circumstances, come only on unaccented quarters of the measure and (in Palestrina melodies) they are used only when approached from above."\footnote{339} but "it is immaterial whether it [the portamento] dissonates or not...\footnote{340}

Rule 4 Fux, in speaking of the exception to the consonant first note of a ligature, says that this must apply

...only to the instances in which the lower voice moves from bar to bar, but not to the instances in which the bass [no mention or example of the inverted pedal] remains on a pedal point—as it is usually called—that is, in the same position. In such a case a ligature involving only dissonances is not only correct but even very beautiful...\footnote{341}

\footnote{339}{Jeppesen, \textit{Counterpoint}, 94.}

\footnote{340}{Jeppesen, \textit{Counterpoint}, 149.}

\footnote{341}{Fux, \textit{Gradus}, 98.}
The variations given by Fux in example are:

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\[\text{Fux, Gradus, 99, figure 142.}\]

\[\text{Fux, Gradus, 98, figure 141, measures 6-8.}\]
Here, Fux shows that both consonant and dissonant preparations may be introduced on the arsis, which in turn follow the rules, where applying, of the expected resolution. This permits the species line to use either the distribution of consonance and dissonance found in fourth or second (Mann erroneously states: "like that in the third [italics mine] species of counterpoint."\textsuperscript{344}) species.

Zarlino disagrees with Fux by asserting that "the first part of a semibreve must never be dissonant, whether syncopated or not."\textsuperscript{345} The figure of a dissonant preparation over a sustained does not appear in the analyzed madrigals.

Jeppesen, in agreement with Fux, states that

On the whole, the use of dissonantly introduced syncopation ("la sincopa tutta cattiva", as the 16th century theorists called it), with the sole exception of the "consonant 4th" was rapidly declining in Palestrinian music.\textsuperscript{346}

Jeppesen does admit, however, that

The form with half-note syncopes still appeared not infrequently, mostly in madrigals, but also occasionally in the ecclesiastical compositions of Palestrina's time....\textsuperscript{347}

though not in two-part examples.\textsuperscript{348}

\textsuperscript{344}Fux, \textit{Gradus}, 98.

\textsuperscript{345}Zarlino, \textit{Le Istitutioni harmoniche}, 97.

\textsuperscript{346}Jeppesen, \textit{Style & Dissonance}, 217.

\textsuperscript{347}Jeppesen, \textit{Style & Dissonance}, 217.

\textsuperscript{348}Jeppesen, \textit{Style & Dissonance}, 216.
That Bellermann [and Fux] requires that the fourth [and other dissonances, where permissible] should be conjunctly treated in these phrases is quite rational, this being the typical mode of treatment in Palestrina's time. Exceptions occur, however, and not alone in the works of the Netherlanders....but also in compositions of Palestrina himself:

Here, Palestrina allows the syncope dissonance to be formed by disjunct motion which involves even the crossing of voices.

In this way, over a stationary tone, a suspension may be prepared by a dissonance in violation of the rules of fourth species.

Rule 5 Fux, in speaking only of the pedagogical constructions, excludes but one example of a double suspension in the species' exercises:

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Neither tone tied across the bar creates a dissonance to any other voice, but as a theoretical possibility, it would seem that even with the inclusion of dissonance, there are no further restrictions beyond those already encountered.

Zarlino makes no further restriction at the double suspension containing only consonance or a consonance and a dissonance. He does continue, however, that

A syncopated dissonance...is for many reasons hardly grasped by the ear. Yet the other parts should avoid a dissonance of their own so that the ear, somewhat offended by the syncopated dissonance, would not suffer a double offense.\footnote{Fux, Gradus, 136, figure 203, measures 4-5.}

\footnote{Zarlino, Le Istituzioni harmoniche, 233.}
In agreement, Jeppesen gives no specific explanation of this figure, but does use it in his examples, even in three-voice writing. Of the particular use of the double suspension when writing in the Palestrina style, Boyd states that

Double, and occasionally triple suspensions may be used, but these often sound less dissonant than single ones, either because one suspension softens the effect of the other [Zarlino doesn't seem to think so], or because one of the suspended notes is not dissonant with the bass [or treble, if a suspension is in the bass], and therefore not, strictly speaking, a suspension at all.  

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352 Jeppesen, Counterpoint, 196, fourth example.

CHAPTER VIII

THE FIFTH SPECIES OF COUNTERPOINT

Each of the preceding species divisions has, of necessity, given emphasis to a detail of composition with which it was specifically concerned. The fifth species is a culmination of all these pedagogical elements, and nothing new needs to be explained. Fux accomplishes this goal through two approaches: first, by the setting of one line of unrestricted note values against a whole note cantus, with additional whole note counterpoints added to expand the work to a four-voice texture; second, through "mixed" species--the restriction that any one line remain in a particular order but be set against another melody of different species. Relying primarily on these kinds of examples, Fux grasps the opportunity to review and summarize the material covered in the preceding pages. This is done without going beyond a four-voice texture, and without entering the more advanced setting of "free" composition. These are discussed elsewhere in a later portion of the Gradus, because the objective of the species is merely to give a beginner the fundamental knowledge needed to approach these areas.
CHAPTER IX

CONCLUSION

Johann Joseph Fux presented in 1725 a text that would teach the beginner to compose in the style of the sixteenth century. The *Prima Prattica* was broken down into specific, fundamental areas, and each independently discussed in its relation to a two-, three-, and four-voice texture. These areas were called the "species," or different kinds, of counterpoint.

Knud Jeppesen, a modern scholar, made the assertion that Fux, while supposedly basing his teaching on that of Palestrina, allowed eighteenth-century compositional idioms to enter into the *Gradus*. Excluding the mathematical data that precedes the actual species, and ending where the practice of "free" composition begins, this study has examined that portion where the differences would be most obvious—the fundamental concepts of the discipline.

Through the research for this thesis, it can be seen that Jeppesen's judgment was in error. True, in the text there are various differences to those considered "pure" by Jeppesen, but in the majority of cases it is only because Fux either did not go far enough in his explanation, or that

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he presents a "musical exception" to a rule with which both theorists agree. In the remaining instances, it is what Jeppesen considers "eighteenth-century" that is not necessarily so. This can be shown in the disagreement over the third quarter dissonance; Jeppesen says this is not permitted, yet seventeenth- and eighteenth-century scholars, sixteenth-century contemporaries, and even Palestrina himself, use this arrangement. The one area where Fux truly is in error concerns triple meter. But even this cannot be considered an eighteenth-century mannerism, as it is simply an error in basic note reduction.

I contend that Fux did not incorporate anything "new" from his era into the species, although in the hindrance of having a limited collection of Palestrina's works to study, he may have had to rely on, and was influenced by, other sixteenth-century sources. If these few differences spring from the fact that Palestrina's compositions were not easily available to Fux, it would seem that his scholarship was remarkable. This thesis shows that Fux's original intent to base the method on that of Palestrina was indeed carried out, and that he was not so influenced by the eighteenth century as Jeppesen and others might think.
A. Books:


B. Articles:


C. Music:

Zarlino, Joseffo. Nove Madrigali a Cinque Voci, collected from various sources & ed. by the Fondazione Giorgio Cini as Collana di Musiche Inedite o Rare, III. Venice: San Giorgio Maggiore.
APPENDIX A

A PARTIAL LISTING OF MUSICIANS WHO USED THE GRADUS

Johann Albrechtsberger  
Thomas Attwoods  
Daniel François Auber  
Ludwig van Beethoven  
Heinrich Bellermann  
Hector Berlioz  
Johannes Brahms  
Luigi Cherubini  
Frédéric Chopin  
François Fétis  
Michael Haller  
Franz Joseph Haydn  
Paul Hindemith  
Johann Nepomuk Hummel  
Franz Liszt  
Padre Giambattista Martini  
Felix Mendelssohn-Bartholdy  
Giacomo Meyerbeer  
Ignaz Moscheles  
Leopold Mozart  
Wolfgang Amadeus Mozart  
Niccolò Paganini  
Gioacchino Rossini  
Richard Strauss

--collected from various sources

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