

ORIGINAL ARTICLE

The Chromatic False Relation: A Compositional Device and Diegetic Trope in the English Renaissance

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Resumo: A falsa relação é definida por teóricos como um par incongruente de notas musicais que ocorre em vozes diferentes, implicando em uma relação de alteração cromática. Entretanto, é a falta de relação entre essas notas que dá origem ao seu nome. Os teóricos se referem alternadamente a este dispositivo de composição como *cross relations* (simultâneas/não simultâneas), relações não-harmônicas e “*English clash*”. Este artigo aborda as inconsistências terminológicas e a relativa imprecisão de definição desse dispositivo composicional. Embora o termo apresente uma definição teórica hoje, ele tem um significado retórico/diegético dentro da tradição da *musica poetica* (*parrhesia*; *licentia*), de acordo com documentação do Cinquento e Seicento. Ao identificar diferenças fundamentais entre variantes da falsa relação cromática que estes termos denotam coletivamente em diálogo com modulações “normais”, este artigo faz uma distinção conceitual entre vários modos desse dispositivo decorrentes de uma nova terminologia analítica: síncrona/assíncrona, direta/indireta, etc. O artigo conclui com análises explanatórias de *Ne irascaris domine*, de William Byrd, e *The Silver Swanne*, de Orlando Gibbons.

Palavras-chave: Falsa relação, *Cross relation*, *English clash*, *English cadence*, *Musica poetica*.

Abstract: Theorists define false relation as an incongruent pair of pitches occurring in different voices that imply a relationship of chromatic alteration. It is the lack of relationship between these pitches, however, that affords its name. Theorists have alternatively referred to this compositional device as cross relations (simultaneous/non-simultaneous), non-harmonic relationships, and “English clash”. This article addresses the terminological inconsistencies and relative vagueness of definition regarding this compositional device. Although theoretically rendered today, the term has a rhetorical/diegetic significance within the *musica poetica* tradition (*parrhesia*; *licentia*), according to documentation from the Cinquento and Seicento. In identifying fundamental differences between variants of the chromatic false relation that these terms collectively denote in dialogue with regular modulations, this article makes a conceptual distinction between modes of false relations stemming from novel analytical terminology: synchronous/asynchronous, direct/indirect, etc. The article concludes with explanatory analyses of William Byrd’s *Ne irascaris domine* and Orlando Gibbons’s *The Silver Swanne*.

Keywords: False relation, Cross relation, English clash, English cadence, *Musica poetica*.

As a theoretical approach to pre-Baroque and pre-tonal music, the general perspective in this article serves the dual purpose of a historical-musicological survey and an analytical study. It deconstructs the nineteenth-century outlook that has for far too long dominated these fields, offering a novel approach to the notion of chromatic false relations. In revisiting this theoretical concept, the article considers several research problems that circumscribe the idea of false relations in late Renaissance music, with attention to the multifaceted way it contributes to English polyphonic music at this time. Following a historical overview, the article contemplates the terminological inconsistencies and insufficiencies surrounding this compositional device as observed both within its historical context and in current music theory.

There are also multiple goals in this study. It intends to better understand chromatic false relations to more thoroughly analyze instances in the repertoire. In uncovering the music-historical phenomenon of *musica ficta* and its usage in late sixteenth-century composition, this study deconstructs the chromatic false relation, proposing novel definitions, classifications, and terminologies for the various modes this device manifests. Finally, following an explanation of the analytical framework used in this study, the article offers two analytical examples in which the principles advanced hereafter appear in practice.

1. False relation: a historical and theoretical overview

Extant definitions of false relation are limited and generalized. Mainly, they are lacking in that they fail to account for the variations of this theoretical device in the repertoire, thus overshadowing its full compositional potential. This limitation stems from insufficient documentation of false relations inside and outside the late-Renaissance English repertoire and the difficulty music theory has displayed throughout the twentieth century in trying to emancipate from presentist approaches to pre-tonal music. Music-theoretical studies have frequently lacked the jargon and depth of nuance in their approach to pre-tonal music precisely because the field of music theory—along with its sibling, musicology—was conceptualized during the post-Enlightenment industrial age. Its mechanisms and practices were for far too long primarily concerned with tonal Germanic repertoire,

and these frameworks extend forward into post-tonal repertoire as well as, anachronistically, backward into repertoires that predate the centrality of the tone as dictated predominantly by harmonic functions.

False relations appear in musicological and music-theoretical literature under several interchangeable terms. Some of these are: cross relations, simultaneous cross relations, “English clash” (Barrick, 2005, p. 51-53), “non-harmonic relationship” (Zarlino, 1558, p. 179), and “auxiliary note” (Morris, 1963, p. 16), to name a few. Gioseffo Zarlino (1517-1590) defines false relations as a pair of incongruent pitches occurring in different voices, which imply a relationship of dissonance or chromatic alteration (Zarlino, 1558, p. 179). Instead, it is the *lack* of harmonic or melodic relationship that characterizes this concept, for these pitches occur, by definition, in different voices—ergo, the term *false* relation.

FIGURE 1 – Non-harmonic relationship in Zarlino’s *Le institutione harmoniche*.

Quando le parti della cantilena hanno tra loro Harmonica relatione, & in qual modo potemo vfare la Semidiapente, & il Tritono nelle compositioni. Cap. 30.

VANTI ch'io passi più oltra, voglio dichiarar quello, che hò detto di sopra intorno le parti della cantilena; cioè quando le voci tallora hanno, & tallora non hanno relatione Harmonica tra loro. Onde si debbe sapere, che tanto è dire, che le parti della cantilena non habbiano tra loro relatione harmonica nelle loro voci, quanto a dire, che le parti siano vicine, o lontane l'vna dall'altra per vna Diapason superflua, o per vna Semidiapason; oueramente per vna Semidiapente, o per un Tritono, o altre simili. Non dico però, che questa relatione si ritroui tra due figure, ouero due parti l'vna lontana dall'altra per il graue & per l'acuto: ma dico, che si ritroua tra quattro figure, contenute tra due parti, le quali fanno due consonanze; come qui si vedeno;



Diap. sup. Semidiap. Semidiap. Tritono. Tritono. Tritono. Tritono. Tritono.

Source: Zarlino (1558, p. 179)

The term *false relation* is adequate to describe several variants of chromatic alterations (including simultaneous and non-simultaneous cross relation) than other, extant terminological alternatives. The most recurrent form of false relation in the repertoire happens within the English cadence formula, which later portions of this article explore in detail. Figure 2 shows Thomas Morley's (c.1555-1602) example of an English cadence.

FIGURE 2 – The English cadence pattern exemplified in Morley (c.1600) shows an asynchronous false relation (F and F-sharp) between the alto voice and the soprano.



Source: Morley (c. 1600 *apud* Chan, 2021, p. 18).

It entails a chromatically altered pair of pitches (in this example, F in the alto and F-sharp in the soprano) taking place in different polyphonic voices in two ways: (1) simultaneously or (2) non-simultaneously albeit within close proximity. The rapid succession of chromatic pitches renders this relationship auditorily evident, although the relation is *false* in that it does not happen within the same polyphonic part. In this article, false relation is the default nomenclature for an array of correlated manifestations of chromatic alteration, including several variations of the two main ways it can manifest.

In surveying the purpose and use of this theoretical phenomenon as a compositional device, Reese (1959, p. 297) suggests, “[a] simultaneous false-relation would result if *musica ficta* [...] in vocal music [of] the Franco-Netherlanders before 1550 [which] used the modes in pure form.” In a doctoral dissertation focusing exclusively on the music of William Byrd (1540-1623), which includes an exploration of his use of the “English clash”, Jeannie L. Barrick (2005) states:

The English clash, also known as a simultaneous cross relation, or clashing thirds, refers to the simultaneous use of both major and minor thirds or sixths from the bass. The English clash provides an outlet of expression, justified by the fact that both the major and minor thirds are consonant with the bass. This clash is characteristic of English composers (Barrick, 2005, p. 51).

Barrick (2005) also includes a statistical study of false relations in Byrd's oeuvre, which is illuminating concerning other dissonance types. George Dyson (2001), in turn, defines the false relation as

A chromatic contradiction between two notes sounded together or in different parts of adjacent chords. For music before 1600 the term is normally also applied to the occurrence of a tritone between two notes in adjacent chords, on the grounds that such a progression contradicts the rule of *mi contra fa* observed in the late Middle Ages and the Renaissance (Dyson, 2001).

Barrick's (2005, p. 51) and Dyson's (2001) descriptions do not align. The former implies two chromatic pitches that co-occur, whereas the latter implies adjacent pitches that succeed one another as part of different chords. That being the case, Figure 2 would fit Barrick's description but not Dyson's. Barrick's is a relatively recent study, and Dyson's definition is available in the authoritative *Oxford Music Online*. These extant definitions are not only conflating but incomplete. It is this gap and insufficiency that the present article proposes to address, among other refinements in conceptualization and terminology.

The terms false and cross relation also occur interchangeably in the first volume of Heinrich Schenker's (1868-1935) famed *Kontrapunkt* (1910) (Schenker, 1987, p. 165-171). The historically documented respect and admiration for Schenker's text throughout correlated music disciplines, which have prioritized a Germanic stance since the nineteenth century, perhaps justifies their perpetuation in musicology and music theory within the Anglo-Germanic milieu, even when reference music prior to 1600. Thus, Schenker's perspective is doubly problematic here. First, it is notably presentist and anachronistic in its approach to pre-tonal repertoire in general. Second, it does not make a clear distinction between false and cross relations. However, Schenker cites a passage from Luigi Cherubini's (1760-1842) seminal text *Cours de Contrepoint et de Fugue* (1835), in which the latter's outlook regarding false relations is particularly revealing. Cherubini first recognizes the

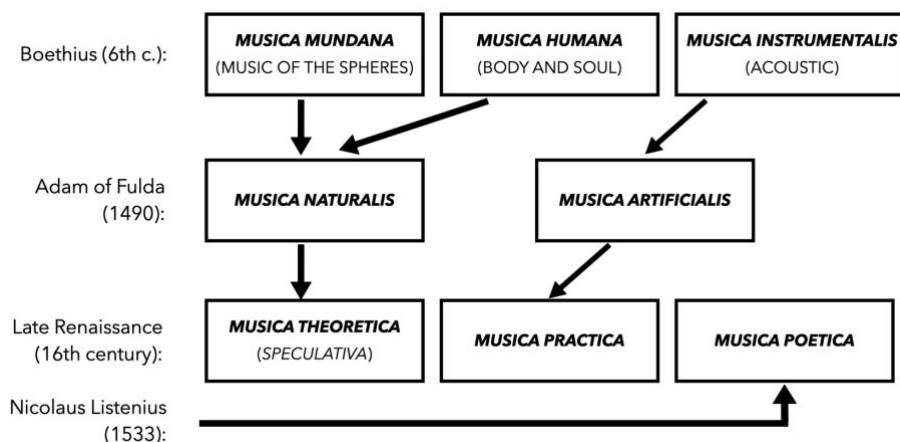
foundational chromatic relationship that can manifest as simultaneous and non-simultaneous iterations, stating, “relation signifies the immediate affinity that exists between two sounds, successive or simultaneous” (Cherubini *apud* Schenker, 1987, p. 168).

Beyond its prominence among theoretical writings spanning five centuries, the false relation appears in polyphonic writing from Josquin des Prez (c.1450-1521) to Henry Purcell (c.1659-1695) (Chan, 2021, p. 17; Dyson, 2001), serving purely musical as well as poetic purposes. Chromatic relations are especially salient within the *musica poetica* tradition and its heightened attention to textual meanings. The following segments of this article discuss the false relation within music-rhetorical traditions of the Cinquecento and Seicento.

1.1. The *musica poetica* tradition

Musica poetica entails the development of music-rhetorical conventions dating back to the late Middle Ages. It is understood today as a larger movement spanning vocal writing techniques as simple as word painting, to elaborate common codes between the composer and the audience, whereby musical figures and motifs communicate objective meanings to the listener. In *Rudimenta Musicae Planae* (1533), Nicolaus Listenius adds the category *musica poetica* to other, more obvious and overt aspects of vocal composition. *Musica theoretica* (or *speculativa*) denotes composition proper, and *musica practica* entails the phenomenal act of re-creating the totality of the musical discourse through performance (Figure 3).

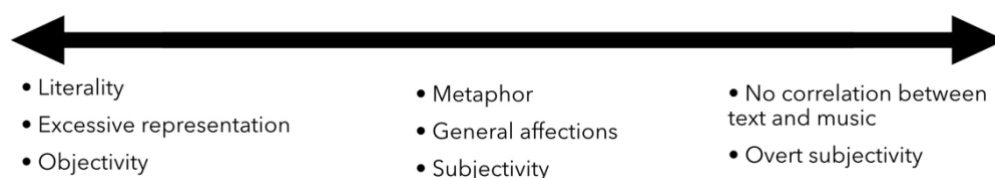
FIGURE 3 – Flowchart summarizing the development of cosmological perspectives on music theory and practice, emphasizing Nicolaus Listenius's (1533) formal addition of *musica poetica* by the sixteenth century.



Source: Author

Whereas the former two subcategories of music epistemology in the sixteenth century evolved from ancient Greek and early Medieval cosmological understandings of musical sound both inside and outside philosophical inquiry, *musica poetica* is a newer tradition concerned specifically with the text or program—an added layer of musical discourse concerned with communicating objective meaning through verbal-linguistic cues. *Musica poetica* flourished particularly in the latter portion of the Renaissance amidst profound considerations and, at times, heated argumentation between artists regarding music-textual expression, emphases, and portrayals. While some favoured the madrigalisms that inevitably appeared in composition by 1600, such as the exaggerated literality of musical portrayal of the text, others condemned such practices as distasteful, promoting instead more nuanced musical renditions of the text (Figure 4).

FIGURE 4 – A graphic representation of the continuum between literality and non-literality in music writing.



Source: Author

To an extent or another, composers used purely musical units—melodic, harmonic, and rhythmic—to draw upon extra-musical imagery and pictorial signification that intensified the meanings of the text, thus presenting it to the audience in more compelling ways. The various coexisting perspectives regarding the literality and consistency of musical figures were also regionally defined, flourishing especially in the Austro-Germanic socio-cultural ambitus though influencing vocal composition at larger in continental and insular Europe.

Hence, *musica poetica* comprehends these ambivalent views regarding literality. It encompasses a spectrum of perspectives that coexisted throughout the Baroque period in the form of a theory of signifier/signified (symbol/meaning) relationships that, with greater or lesser success, impressed the listener with the composer's intended rhetorical rendition of the text. Late Renaissance and early Baroque theorists endeavour to document a system of melodic, harmonic, and rhythmic rhetorical figures that purportedly liken music to speech. Much of this systemic approach was imported from classical rhetoric and oratory in Greek and Latin traditions. Some of these music-rhetorical figures were more consistently used than others cross-culturally, and several theorists attempted to document and classify them with the same priority for Cartesian accuracy and humanist candour observed in other areas of human understanding and artistic expression.

The false relation lies among many other music-rhetorical figures used in compositions of this time. Dietrich Bartel (1997)—in a comprehensive documentation of rhetorical figures in the late Renaissance and Baroque periods—identifies recurring mentions of particularly unusual dissonances under the interchangeable terms *parrhesia* (παρρησία) and *licentia*. In Greek and Latin, the terms translate to “freedom/boldness of speech” and “license or permission [to be free/bold]”, respectively. Bartel's (1997, p. 352) generalized definition of these analogous music-rhetorical devices reads, “*parrhesia*, *licentia*: an insertion of a dissonance, such as a cross relation or tritone, on a weak beat.” Bartel (1997) ascribes this extra-diegetic device to an array of dissonances, translating several texts that describe them. Bartel (1997) does not, however, turn to a more profound appraisal of the specific qualities of each dissonance, nor does he provide a detailed definition of false relations. Indeed, some of these descriptions align with current theoretical descriptions of false relation, but others do not.

Most notably, Joachim Burmeister (1564-1629)—one of the most prominent theorists and commentators discussing rhetorical figures and their use in the late Renaissance and early Baroque—employs both the Greek (1599; 1601; 1606) and Latin (1599) terms to describe a variety of dissonances that occur in weak beats as melodic embellishments (*figurae melodiae*). The generality of Burmeister’s language suggests potential passing notes and other dissonances appearing in non-principal, weak beats or subparts of principal, strong beats (*tactus*). Bartel (1997, p. 354) points out that *parrhesia* and *licentia* could refer to “fleeting cross relations, tritones, or any of the other dissonances Burmeister enumerates”. Similarly, Thuringus (1562 *apud* Bartel, 1997, p. 354) in *Opusculum* uses the alternative term *mi contra fa* to describe tritones and other dissonances.

Figure 5 shows Burmeister’s (1599, p. 65) definition of *parrhesia/licentia* in *Hypomnematum*, where the dissonance examples are marked with an asterisk. The first example shows a tritone: an A in the Tenor part functioning as a passing note against the E-flat in the Alto part. This dissonance occurs on a weak beat. The second example is a suspended D in the Tenor part against an adjacent E-flat in the Alto part. The dissonance occurs in the strong beat and is immediately resolved downward by step. The third example shows a harmonic, direct augmented fourth approached by downward motion by both the Alto and Tenor parts, which occurs on a weak beat. Finally, the fourth example shows an E in the Tenor against an F in the Bass part, creating a major seventh on a weak beat.

FIGURE 5 – Definition of *parrhesia* and *licentia* in Burmeister’s *Hypomnematum Musicae Poeticae*.

XVIII. ΠΑΡΡΗΣΙΑ.

PARRHESIA fit, quando Consonantia Quinta(*) quæ omnibus suis partibus, plena & perfecta esse debet, imperfecta concentibus ex merâ licentiâ commiscetur, ficut & Septima vel alia Discordantia (*)

Exemplum.

D	e	fb	ca	ba	ad	G
f	te]	df	cf	te	df	fe]
b	ga]	bd	xd	dx	db	xb]
	(*)			(*)		(*)
B	c	BBb	ao:	ga}	D	c

a	G	G	Pari modo Orlandus In me transferunt: & Knæfelius Converte nos Deus, exornarunt.
fe}	d	c	
ax}	x	x	
x	g	c	

Source: Burmeister (1599, p. 65)

The definition in this source translates to:

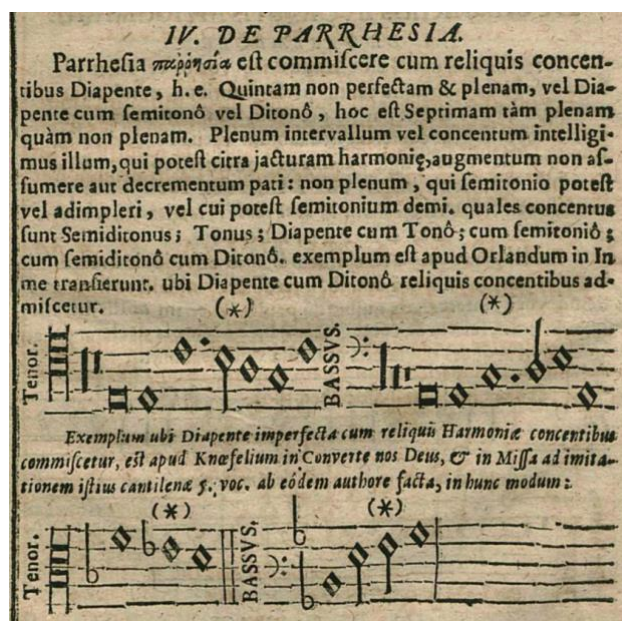
The *parrhesia* occurs when intervals such as a seventh or other dissonances are freely mixed into a harmonizing texture, such as a fifth, which is to be complete and perfect in all its parts, making it imperfect (Burmeister 1599 *apud* Bartel, 1997, p. 355).

In *Musica Autoschediastike*, Burmeister (1601, p. 92) provides two examples of *parrhesia*, also marked with an asterisk (Figure 6). In Bartel's (1997) translation of the text, Burmeister (1601) suggests:

The *parrhesia* occurs when an interval such as an imperfect or incomplete fifth, a minor sixth, or a major or minor seventh is mixed into the other harmonizing voices. Perfect intervals are understood as those which can be neither increased nor decreased without sacrificing the harmony. Imperfect intervals are those which can be increased or decreased through a semitone, such as the minor third, the second, the major or minor sixth, and the major or minor seventh (Burmeister 1601 *apud* Bartel, 1997, p. 355).

The musical examples in *Musica Autoschediastike* are strikingly similar to those in *Hypomnematum*. The first shows a passing note B in the Tenor part against a C in the Bass, creating a major seventh on the weak half of a strong beat. The implied meter of the first example is duple.

FIGURE 6 – Definition of *parrhesia* Burmeister's *Musica Autoschediastike*.



Source: Burmeister (1601, p. 92)

The second example entails a tritone between the Tenor and the Bass. As in the first example, the A in the Bass part functions as a passing note against the E-flat in the Tenor. The meter of the second appears to be triple, which causes the dissonance to occur on the weak half of the likewise weak second beat.

Burmeister (1606, p. 64) also specifies in *Musica Poetica* that this rhetorical figure does not concern all dissonances but, rather, “*unicam*” (unique, specific, or particular) dissonances (Figure 7). The passage is more succinct than the two other sources and does not include musical examples.

FIGURE 7 – Definition of *parrhesia* in Burmeister’s *Musica Poetica*.



Source: Burmeister (1606, p. 64)

Bartel (1997) also offers a translation of this passage in his compendium: “The *parrhesia* is an intermixing of a certain dissonance with the other harmonizing voices. It is placed in the middle of a beat in order that the other voices can resolve it within the beat” (Burmeister 1606 *apud* Bartel, 1997, p. 355).

The relative generality and, consequently, vagueness of Bartel’s (1997, p. 352-354) analysis leaves room for more careful explorations of the false relation as a historical phenomenon and of its place among recent descriptions. Like many other historical concepts, the false relation has become a diachronic, transhistorical attempt to classify and explain a compositional device. In this case, however, scholarship has failed to account for the theoretical differences between these dissonances, thus perpetuating unclarity in the form of a new term. In other words, what is now understood to be a false relation was classified in the sixteenth century as *parrhesia*, *licentia*, or *mi contra fa*; yet the contrary is not the case, in that these terms do not confidently translate into the notion of false relation today.

Table 1 summarizes an array of primary sources describing the various dissonances in Bartel’s (1997) work. The summary lists several terms, in the leftmost column, including the additional

contrapunctus luxurians (luxuriant counterpoint) from Christoph Bernhard's *Tractatus* (c.1657). Although these terms are often used interchangeably to denote false relations, they point to dissonance types that do not correlate with one another—as listed in the rightmost column. Most of these definitions suggest that the very generality and lack of specificity mirrored in Bartel's (1997) text are inevitable when one analyzes false relations from a historical standpoint. The terminological and conceptual issues circumscribing false relations seem to stem from the historical and transhistorical lack of clarity in conceptualizing the dissonance (or collection of dissonances) it signifies.

TABLE 1 – Table summarizing sources that discuss terms for rhetorical figures often used in connection to false relations.

<i>Term</i>	<i>Year</i>	<i>Treatise</i>	<i>Translation</i>	<i>Definitions</i>
<i>licentia, licentiae</i>	c.1657	• Bernhard (<i>Tractatus</i> , p. 42, 71)	• License	• General and specific dissonances
	1643	• Herbst (<i>Musica Poetica</i> , p. 49)	• Free use	
	95 A.D.	• Quintilian (<i>Institutio</i> , IX.ii.28)	• Musical freedom	
	1562	• Susenbrotus (<i>Epitome</i> , p. 69)		
<i>parrhesia</i> (παρρησία)	1599	• Burmeister (<i>Hypomnematum</i> , p. 64)	• Freedom of speech	• Dissonances on the weak beat
	1601	• Burmeister (<i>Musica Autoschendiastike</i> , p. 64)	• Liberty	
		• Burmeister (<i>Musica Poetica</i> , p. 64)		• Various dissonances in expectedly consonant harmonies
	1606	• Gottsched (<i>Redekunst</i> , p. 286)	• Expression of thought	
	1736	• Quintilian (<i>Institutio</i> , IX.ii.28)		
	95 A.D.	• Susenbrotus (<i>Epitome</i> , p. 69)		
	1562	• Thuringus (<i>Opusculum</i> , p. 126)		
	1624	• Walther (<i>Lexicon</i>)		
<i>mi contra fa</i>	1732			
	1624	• Thuringus (<i>Opusculum</i> , p. 126)	• Mi (E, B)	• Dissonances such as min. 2nds and dim. 5ths
	1732	• Walther (<i>Lexicon</i>)	against Fa (F)	
<i>contrapunctus luxurians</i>	c.1657	• Bernhard (<i>Tractatus</i> , p. 42, 71)	----	• “Strange leaps, which are suitable to move the affections.”

Source: Bartel (1997)

Recent scholarship has not yet addressed this problem. On the contrary, the generality that circumscribes the term remains. For instance, the entry on false relation in the *Oxford Music*

Online—perhaps the most authoritative and thorough encyclopedic collection of definitions designed for students and researchers to date—consists of a relatively brief and incomplete explanation of the concept, without examples or analysis of instances in the repertoire. In an effort to mitigate this problem and with the intent of improving musicological and music-theoretical analysis of polyphonic writing, the following sections revisit the false relation as a compositional device that is, in essence, independent from other dissonance types. In reconceptualizing—or, perhaps, for the first time systematically conceptualizing—the false relation, the article turns to instances and usages within Early Modern repertoire, followed by a theoretical/analytical framework and extensive examples.

The false relation had by 1600 become a pan-European compositional phenomenon. It occurs in the work of several composers as early as the late Middle Ages. The false relation is especially significant in English repertoire (Andrews, 1966; Barrick, 2005, p. 52), recurring often in the music of Thomas Tallis (1505-1585) and William Byrd. Fabrice Fitch (2020, p. 159) suggests that the larger textures of the late Renaissance create a heightened potential for false relations, a phenomenon she calls “thick scoring”. Tallis’s “elephantine” motet (Taruskin, 2010, p. 1124) epitomizes this practice. A score written for eight five-part choruses and amassing to forty independent parts, *Spem in alium nunquam habui* (1571) contains several false relations—especially noticeable in the heavy polyphonic texture. Reese (1959, p. 297) also suggests that “while it is true that false-relation is at times clearly indicated in music by the composers in question, examples are less frequent in it than in contemporary English writing.”

Byrd makes generous use of tone painting in accordance with the *musica poetica* tradition (Gray, 1969, p. 45), often employing unconventional dissonances (Hynson, 1978, p. 20-21) and *musica ficta*. In a more recent study, Barrick (2005, p. 51) notes the statistical prevalence of false relations in Byrd’s work. However, she recognizes the relative rarity of this device—perhaps in comparison to other, more recurrent dissonances such as passing notes, suspensions, and appoggiaturas. Barrick (2005, p. 51) and Eleanor Chan (2021, p. 18) conclude that false relations eventually become particularly prominent in the English milieu of the Cinquecento and Seicento.

The false relation also frequently underscores the extra-diegetic trope of sadness, as evident in

this article's examples (Appendix, Example 1 and 2). Byrd brings the destruction of Jerusalem to the forefront in *Ne irascaris* (Example 1), and Gibbons emphasizes the melancholic sadness of the swan in the song *The Silver Swanne* (Example 2). Pain and tender suffering permeate both pieces, with a plea for mercy in the former, in which the prophet Isaiah entreates the divine on behalf of Israel, asking for the spearing of his people. Jerusalem lays bare, becoming a desolate wilderness.

Orlando Lassus (c.1532-1594) also uses the device specifically as word painting (Reese, 1959, p. 693), a practice from Renaissance "literary" madrigalisms which Byrd shares with caution (Brett, 2007, p. 102-103). Particularly in the two volumes of his *Gradualia* (1605; 1607), Byrd uses stark harmonic shifts (Kerman, 1963, p. 432), which bears implications for the religious and political context during his lifetime. His use of specific textual emphasis may have been an intentional endeavour to connect with his patrons and audience, such as the visible celebration of Catholicism detected in *Gradualia* (Brett, 2007, p. 128-128; Kerman, 2000, p. 283; Trendell, 2007, p. 28) and other correlated works. For instance, the false relations in *Ave Verum*, occurring on the syllable "-ve" of the adjective "ave", are particularly compelling in his highlighting of humility and plea for mercy (Kerman, 2000, p. 286). From a different standpoint, Maria R. Maniates (1979) suggests Morley connects word painting with madrigals and other secular vocal pieces, with attention to cadential patterns:

In the ditty (secular vocal music), people admire variety. In this case, rhythm, harmony, melody, and texture should change in reflection of the mood of the words. In particular, poetic often call forth fine bindings and strange cadences. (...) The motet, in contrast, must always be grave, majestic, and slow (Maniates, 1979, p. 168).

Maniates (1979, p. 168) also contrasts these characteristics of secular vocal music to the more austere aesthetic components of the sacred motet. In any case, it is evident that even within apparently conflating standpoints, *musica poetica* appears as a pervasive phenomenon across a vast array of genres, purposes, and settings, thus pointing to the continuum-based approach to literacy in the Renaissance at large. *Musica poetica* reaches beyond textual embellishment to an essential endeavour to convince through the musical discourse, thereby drawing upon foundational principles of classical rhetoric that permeate various fine arts and Western traditions at this time.

1.2. The “English cadence”

The English cadence is arguably one of the most frequent instances of false relations (see pattern in Figure 1). Its main characteristic is the insertion of a false relation in the concluding portion of a musical phrase. The false relation usually occurs between the flattened seventh degree of the scale in one voice, followed by its natural counterpart in a different voice. Chan (2021, p. 19) describes the English cadence as “essentially a perfect authentic cadence constructed around the V-I chord progression, spiced by a dominant chord in which the 3rd of the chord is heard both in minor and major forms, thereby creating a false relation—usually between adjacent sonorities.” Chan (2021, p. 19) also discusses the recurrence of this cadence among English Renaissance composers, thus justifying its nomenclature and reference in extant musicological and theoretical scholarship.

English cadences occur in the repertoire in the major and minor modes, particularly in the music of Tallis and Byrd. While they almost invariably involve a perfect authentic cadence (PAC), Chan (2021, p. 18-19) overlooks two potential variations of the English cadence that are fundamental for adequately documenting the false relation in this repertoire. First, the cadential voice pattern can also involve an imperfect authentic cadence (IAC), in that the top voice in the texture may feature scale degrees 3 or 5. This bears significant implications for voice-leading and textural shifts. The voice in which the chromatic alteration takes place may limit the composer’s possibilities regarding textural voicing and addition/subtraction of parts, such as in imitations or repetitions, for instance.

Secondly, Chan (2021) does not account for the potential harmonic function of a cadence within broader harmonic contexts of the polyphonic setting. To import language from tonal functional harmony, authentic cadences in Renaissance repertoire often briefly “tonicize” non-principal tones. Even amidst the modality in Tallis and Byrd, “non-tonic” cadences (such as I:HC, V:HC, or vi:PAC, for instance) are employed to embellish non-principal harmonic niches. In this sense, what Chan (2021, p. 19) describes as scale degrees [b7 - 7 - 8] in a I:PAC may function interchangeably with scale degrees [b3 - 3 - 4] in a I:HC in a broader context. Morley’s (c.1600) example depicted in Figure 1 shows precisely this case. Besides, authentic cadences are not as strong punctuating gestures in modal of the Renaissance music as they are in tonal repertoire. They evade

into “non-tonic” harmonies in freer chord progressions that often deviate from the normative tonal standards of later music, such as a stricter adherence to the circle of fifths and a polarization between the tonic (I) and dominant (V). Appendix, Example 1, m. 137 and m. 145 include cadential patterns that conclude in V-IV harmony, for instance, rather what a tonal ear would retrospectively expect today: V-I.

Moreover, the English cadence is associated with an old-fashioned tradition in the Early Modern period. Morley (1597) criticizes this cadential pattern as something to be limited or altogether avoided in counterpoint writing, complaining that the English cadential formula was “robbed out of the capcase of some old organist” (McCarthy, 2013, p. 34). Morley states in *A Plaine and Easie Introduction to Practicall Musicke* (1597), “the close in the counter[tenor] part[, which] is both naught and stale like unto a garment of a strange fashion, which being new put on for a day or two will please because of the noveltie, but being worne thread beare, wil growe in contempt” (Morley 1597 *apud* Chan, 2021, p. 17). Morley’s contempt toward the use of false relations lies in its overuse rather than in the rhetorical effectiveness of the device’s auditory effect. Reese (1959) comments on this aesthetic disposition, saying:

It is interesting that Morley considers double counterpoint specifically Italian and also that he several times harangues against the well-known archaic procedure favoured by the English—though not, of course, followed only by them—of employing cross relation in such a way that what we would call the raised and lower forms of the seventh degree of the scale are heard in close conjunction, if not actually simultaneously. This is a feature of Byrd’s style, but is avoided by Morley and the more urbane madrigalists. Weelkes, however, occasionally uses it for a beautiful expressive effect (Reese, 1959, p. 824f).

Despite this linkage with Italian repertoire, Reese (1959, p. 693) also points out Giovanni Pierluigi da Palestrina’s (c.1525-1594) avoidance of false relations.

There seems to be a generally heightened awareness about using false relations in vocal repertoire, with a cautioning regarding its sparing employment. Recent pedagogical approaches to modal and tonal counterpoint have retained this perspective (Gauldin, 2013, p. 84; Morris, 1963, p. 16; Scholes, 1992, p. 453). In discussing Franco-Netherlandish repertoires in the Cinquecento, Reese (1959) states:

But to argue that a large group of men avoided *musica ficta* just because it would cause false-relation in a few isolated cases, is weak indeed. It may as easily, perhaps more correctly, be held that one way a composer had of indicating that he did not wish *musica ficta* applied to a note occurring in a context normally requiring it, was to double that note (Reese, 1959, p. 297).

Nevertheless, despite the aversion toward this mannerism, the false relation returns and becomes prominent in Byrd's composition by the seventeenth century (McCarthy, 2013, p. 146).

2. A novel analytical framework

Zarlino's (1558, p. 179) "non-harmonic relationship" is, perhaps, along with "false relation", the most fitting term for the theoretical phenomenon described herein. Since the term false relation is already extensively used in music theory and composition, this article retains this term as the default hereafter. Whereas "cross relation" implies temporally non-concurrent pitches only, "false relation" is encompassing enough to incorporate pitch relationships with both a melodic and a harmonic function.

In deconstructing the false relation (FR) and attempting a description of its nature, the following sections discuss its relation to its oppositional counterpart: a "true relation" (TR), as it were. Subsequently, these sections further explore the nature of chromatic relationships *within* and *between* individual polyphonic parts, observing a dual gesture: (1) the introduction of chromaticism as an initial pitch alteration and (2) its subsequent return to the original pitch.

2.1. True relations (TR)

True relations are chromatic alterations within one voice or part, although they have significant harmonic implications. They are "true" in that they occur within melodic units in one part instead of between melodic units in different parts. FRs, on the other hand, require at least two polyphonic parts to take place. TRs are a "non-concept" in music theory in that they entail a regular, simple chromatic alteration within a melodic unit. In this study, however, an analysis of how TRs dialogue with FRs in the motion "to" and "from" of the *musica ficta* proved illuminating. Despite the

“common” nature of TRs, it is interesting that FRs can appear more often than TRs in this repertoire. Examples 1 and 2 below demonstrate the statistical occurrence of TRs vis-à-vis FRs.

TRs can be direct (dTR) or indirect (iTR). dTRs entail perfectly adjacent *musicae fictae*, whereby an E, for instance, becomes an E-flat. iTRs are chromatic alterations embellished by connecting harmonies, which can impact the melodic contour linking the two pitches involved in the chromaticism, allowing other pitches to intercept between them. The idea of connecting harmonies is further explored below in the context of false relations since they impact chromatic alterations virtually in the same way in both TRs and FRs.

2.2. False relations (FR)

False relations are, by necessity, polyphonic devices in that they need more than one part to exist. FRs are illusive connections between two pitches involved in a chromatic alteration. They are easily notable both visually and auditorily. The FR is also intriguing because it can manifest in various ways, synchronously/asynchronously and directly/indirectly. Distinctions between the variants of FRs are unclear in musicological and music-theoretical scholarship, as they are poorly documented. Table 2 contains a brief overview of these variants, which the sections below explain in detail. Although documentation is not the main focus of this article, the analytical framework advanced heretofore may help understand FRs more thoroughly and evaluate their incidence in the repertoire.

TABLE 2 – Overview of false relation variants.

Synchronous False Relation (SFR)	Asynchronous False Relation (AFR)
Characteristics: • Temporally concurrent/simultaneous • Harmonic “clash”	Characteristics: • Temporally non-concurrent/non-simultaneous
Function: • A melodic result of the modal approach to <i>musica ficta</i>	Function: • Implies a harmonic change (chord progression) • Melodic relationship (“cross”, “across”)
	Subcategories: • Direct asynchronous false relation (dAFR) • Indirect asynchronous false relation (iAFR)

Equivalent historical and extant terminology:

- Simultaneous cross relation
- English clash

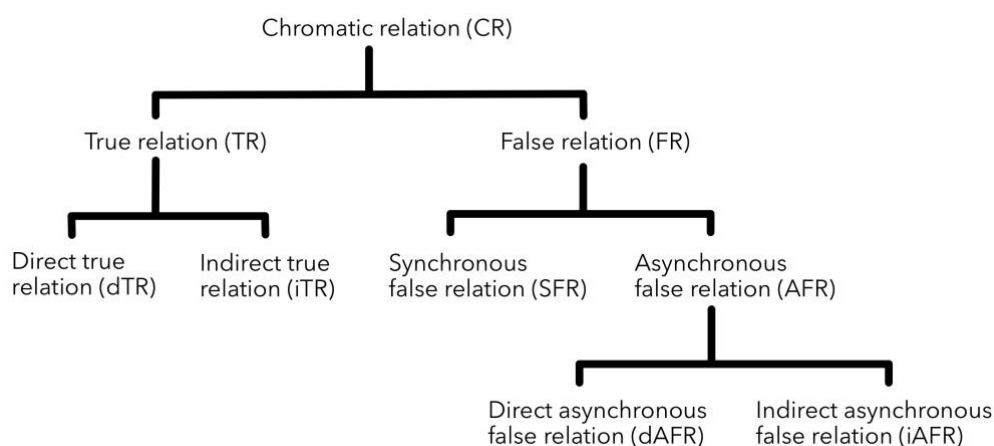
Equivalent historical and extant terminology:

- “Non-harmonic relationship” (Zarlino, 1558)
- Non-simultaneous cross relation
- Auxiliary note

Source: Author

The flowchart in Figure 8 depicts TRs and FRs as stemming from the essential chromatic relation, along with other variants of both TRs and FRs.

FIGURE 8 – Flowchart showing various types of TRs and FRs stemming from the fundamental chromatic relation.



Source: Author

2.2.1. Synchronous false relations (SFR)

This article advances the idea of *synchronicity/asynchronicity* instead of other alternatives in music scholarship to mitigate the lack of clarity in other conceptual renditions. Chan (2021, p. 19), for instance, uses the term “simultaneous”. The term may be problematic because the concept of *simultaneity* implies an exact concurrence of the pitches involved in an FR. Instead, the continuum *synchronicity/asynchronicity* allows for a broader understanding of the temporal concurrence of chromatically adjacent pitches, thus accounting more thoroughly for instances of FR as they occur in Renaissance music. Figure 9, for example, shows two pitches in different polyphonic parts that do co-occur.

FIGURE 9 – SFR in Nicolas Gombert’s *Media vita in morte sumus*.

The image shows a musical score for Nicolas Gombert's *Media vita in morte sumus*. The score is written for six staves. A vertical dashed line and an orange oval highlight the Simultaneous False Relation (SFR) at the end of the piece. The label 'SFR' is at the top right, and '(#)' is next to the B-natural note in the fifth staff.

Source: Gombert (1539)

However, FRs can coincide temporally within the harmonic texture without being exactly concurrent. In other words, the simultaneity of the FR may occur for part of the rhythmic duration, or note value, of the pitches involved rather than for their entirety—therefore, the term *synchronous* false relation (SFR). The SFR in Byrd’s *Ne irascaris domine/Civitas sancti tui*, analyzed below (Appendix, Example 1, m. 120), shows a B-flat and B-natural coinciding temporally and harmonically, though not for their entire rhythmic duration.

It appears that the term “English clash”, discussed above, applies specifically to SFRs—at least as framed in Barrick’s (2005, p. 51) dissertation: “‘English clash’, also known as a simultaneous cross relation, or clashing thirds, refers to the simultaneous use of both major and minor thirds or sixths from the bass”. Thus, a “simultaneous cross relation” (here SFR) entails the temporally concurrent sounding of chromatic adjacent pitches. This may explain Barrick’s (2005, p. 51) suggestion that this dissonance is extremely rare, referring to SFRs rather than FRs in general. Indeed, an SFR occurs only

once in Byrd's motet (Appendix, Example 1) and not at all in Orlando Gibbons's (1583-1625) motet *The Silver Swanne* (Appendix, Example 2). In *Ne irascaris*, the SFR amounts to 1.51% of all chromatic relations and 1.88% of all FRs in the piece, thus attesting to the relative rarity of the SFR among other variants of the FR.

2.2.2. Asynchronous false relations (AFR)

Asynchronous false relations (AFRs) denote a virtual relationship between two chromatic pitches in different voices of a polyphonic texture that are not temporally concurrent at any point during the pitches' rhythmic duration (note value). One pitch must temporally conclude before the other begins (Figure 10). As suggested above, AFRs are more frequent than SFRs and appear in two forms: direct asynchronous false relation (dAFR) and indirect asynchronous false relation (iAFR).

FIGURE 10 – AFR in Tomás Luis de Victoria's (1572) *Sancta Maria succurre*.

AFR

14

la - ni - mes, re - fo - ve fle - bi - les

- ni - mes, re - fo - ve fle - bi - les fle -

re - fo - ve, re - fo - ve fle - bi - les, fle -

- va pu - sil - la - ni - mes, re - fo - ve fle - bi - les fle -

Source: Victoria (1572)

In Psalm 25, *Ae te domine*—an example from Mikołaj Gomółka's (1580, p. 27-28) *Melodie na Psalterz Polski* shown in facsimile format in Figure 11—the composer uses a direct asynchronous false relation (dAFR) between the first and second portions of the hymn. The second section contains

a SFR toward the cadential pattern, akin to the English cadence described by Chan (2021). dAFRs feature a chromatic relationship between two parts in the polyphonic texture that immediately follow one another. There are no mediating harmonies between the two pitch iterations. The example in Figure 10 above also features a dAFR.

FIGURE 11 – dAFR and SFR in Gomółka’s (1580) *Melodie na Psalterz Polski*.

Source: Gomółka (1580, p. 27-28)

iAFRs, like iTRs, entail a connection between two chromatic pitches that occur in different voices and are mediated by one or more connecting harmonies. The analyses below ascribe the label iAFR to any FR with up to three connecting harmonies between the chromaticism. This was a deliberate choice in exemplifying how close or far apart chromatic alterations “to” and “from” the *musica ficta* may be. The distance between the chromatic pitches can be adjusted in further studies or for specific analytic purposes (see the section on “harmonic considerations” below, which explores connecting harmonies in greater detail).

It is paramount to note that the chromatically altered pitches involved in AFRs appear at

various distances. However, they tend to appear in close proximity in Renaissance polyphony. Their closer proximity can be traced to the modal system in place, whereby the necessity to modulate to adjacent harmonies for prolonged sections does not yet exist. Baroque and Classical repertoires, in their dependence on the circle of fifths and the polarity between tonic and dominant harmonies, feature longer formal sections in non-tonic harmonic regions. Yet AFRs of both types also occur in tonal repertoire.

iAFRs and dAFRs are, thus, analogous to a purely modulatory pitch alteration. Compared to dAFRs, iAFRs are remarkably akin to such modulations in that they are further separated by connecting harmonies. Figure 12 depicts this continuum that permeates false relations. This holistic and elastic perspective allows for motions *to* and *from* the *musica ficta* to exist within a wider spectrum.

FIGURE 12 – Continuum depicting the fluid relationship between different types of FR.



Source: Author

The continuum between purely modulatory chromaticism and perfectly simultaneous FRs contains all other potential variants of this musical phenomenon, which musicologists and music theorists now read collectively as false relation without distinguishing between their individual characteristics.

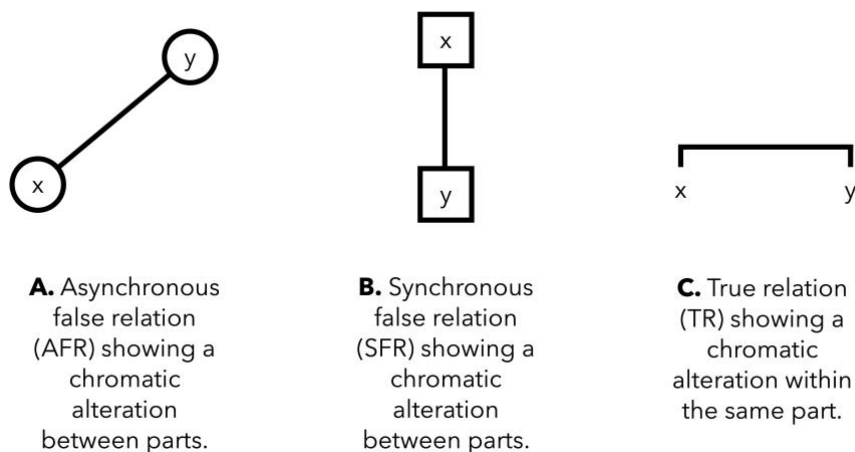
The following portions of this section briefly propose and exemplify a novel framework with its analytical labels and score annotations—a practical application of the concepts discussed heretofore. They contemplate motions “to” and “from” chromatic alterations (along with their direction, distance in range, and inter-part connections), melodic prolongations and their function within FRs, and a careful exploration of connecting harmonies that link the chromatic pitches

involved in the FR at hand. The hypothetical pitches in the visual examples (Figures 13 to 17) are called “x” (the original pitch) and “y” (its chromatic alteration).

2.3. Motions “to” and “from” *musicae fictae*

Figure 13 depicts different types of chromatic relations as they appear on the score analyses in Appendix, Examples 1 and 2. Diagonal connecting lines (Figure 13A) show AFRs between different voices, whereas vertical lines (Figure 13B) portray SFRs. Horizontal lines (Figure 13C) show both dTRs and iTRs within the same voice.

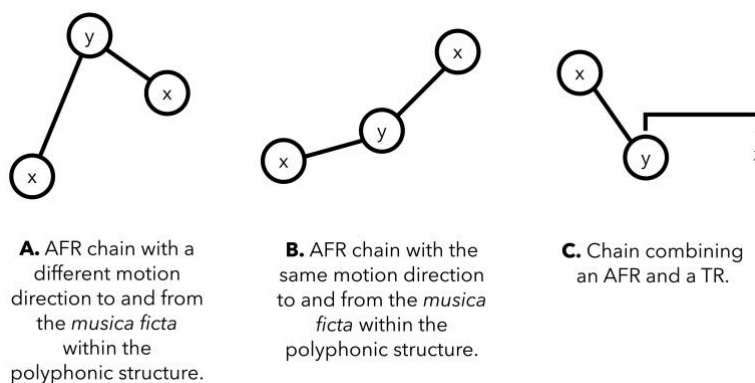
FIGURE 13 – Various representations of chromatic relations for score annotations.



Source: Author

FRs are, more often than not, a three-pitch phenomenon. Since most of the FRs in Appendix, Examples 1 and 2 appear in pairs — “to” and “from” the chromatic alteration—they are portrayed in a triangulated disposition on the score. Figure 14 exemplifies this three-pitch unit, which can occur in different directions within the score. Although both TRs and FRs are plentiful in the examples provided, the latter are more recurrent and statistically significant, as the accompanying tables show (see Appendix).

FIGURE 14 – Various triangulated, three-pitch dispositions of chromatic relations.



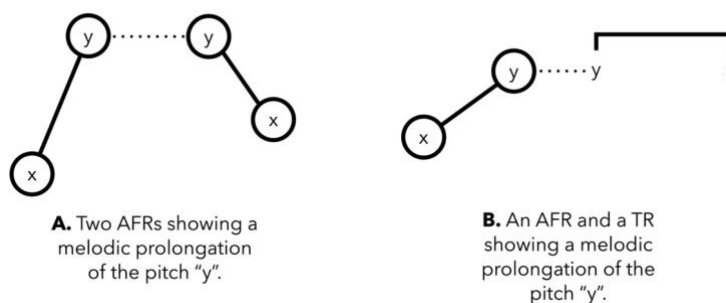
Source: Author

The analyses in the Appendix show pairs of chromatic alterations combining TRs or FRs in this triangulated disposition and featuring a three-pitch motion.

2.4. Melodic considerations: prolongation, direction, and range distance

At times, the chromatic alteration is retained for longer passages, thus prolonging the *musica ficta* for a more extensive effect. This alteration eventually resolves to the original pitch. Figure 15 shows this retention of the chromatically altered pitch with dotted lines exemplifying the chromaticism's *melodic prolongation*.

FIGURE 15 – Triangulated, three-pitch chromatic relations mediated by melodic prolongation of the central pitch (*musica ficta*).



Source: Author

The score analyses below do not show the dotted lines, however, as these *melodic prolongations* are usually evident in the actual music notation (Appendix, Examples 1 and 2). As suggested above, AFRs, along with melodic prolongations, are akin to modulations in later repertoires, yet despite the pitch retention in Renaissance polyphony, these passages are still short compared to Baroque and Classical modulatory bridges and regions. The idea of tonicization of an adjacent harmony through the introduction of the *ficta* is, perhaps, a more applicable concept to such temporary and brief passages.

The *melodic direction* of a chromatic pair of pitches is a different concept from the *spatial direction* that connects voices across the score. The idea of melodic direction here stands for the culturally established vector of frequency change, depicted in score labels with arrows—“↑” for upward chromatic motion to a higher frequency and “↓” for downward chromatic motion to a lower frequency. For example, an FR between an E and an E-flat labelled “[iAFR ↓ S – B]” in the score analysis denotes: an indirect asynchronous false relation between the Soprano and Bass parts, with chromatic alteration moving downward from the pitch E-natural to E-flat. The melodic direction is evident in the music notation, but it also appears in analytic labels for clarity, easier referencing, and quick data retrieval.

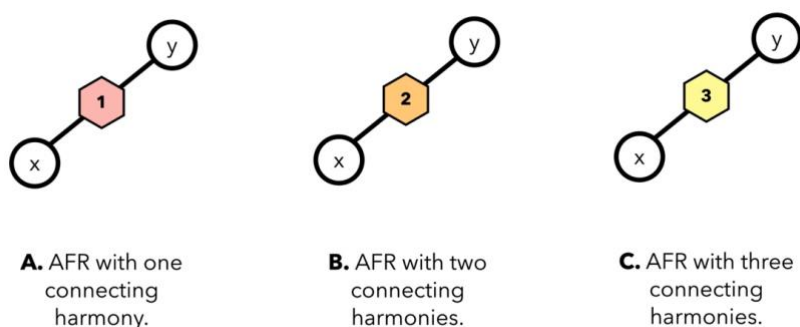
In considering the *range distance* involving pitches in a chromatic relation, chromaticism between polyphonic parts may also exceed the octave range. When this is the case, the FR contains chromatic pitches in different octaves, which is usually more recurrent between distant polyphonic parts—such as from Soprano to Bass, for example. In this article, these instances were indicated in table format (Appendix, Examples 1 and 2) but not labelled in the score since they do not significantly impact the harmony. The table indicates three types of range activity: no change (0); an FR moving into a higher octave (+1, +2, etc.), and an FR moving into a lower octave (-1, -2, etc.). The range proximity between the pitches of an FR may sound especially “crunchy”, chiefly in dAFRs and SFRs with no range changes (0). The change in range may also impact counterpoint (potentially invertible counterpoint) when voices cross. Knud Jeppesen (1992, p. 113) indicates that “without [crossings in the voice leading] no real polyphony is possible”, therefore implying that these crossovers may frequently involve FRs. This is particularly true of the middle voices in Appendix, Example 1,

where Alto 1, Alto 2, and Tenor often cross over one another in range, thus impacting pitch distances of FRs occurring between those voices.

2.5. Harmonic considerations: connecting harmonies, harmonic/temporal distance

These mediating harmonies are highlighted in the scores and respective tables below through a hexagon. As little as a linking passing tone or, potentially, more elaborate connections can separate FRs. Each hexagon bears the number of *connecting harmonies* between the pitches involved in an FR. As suggested above, FRs were considered to a maximum of three connecting harmonies, since longer distances between adjacent chromatic pitches may indicate a longer-lasting modulation when compounded with melodic prolongations, rather than a brief motion to and from the *musica ficta*. Figure 16 shows how connecting harmonies appear in combination with FR labels on the score.

FIGURE 16 – Various connecting harmonies between FRs (colour-coded).



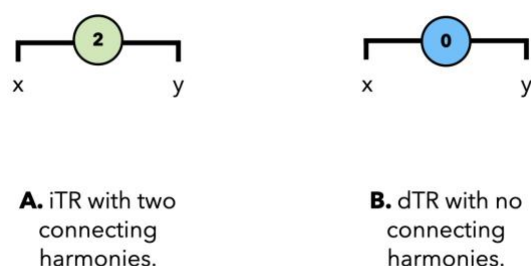
Source: Author

It may be argued that, if FRs can appear as far apart as three harmonies, any chromatic alteration in the repertoire would qualify as an FR. While this is a sound proposition, this article is less interested in a hermetic definition of the FR as it is in the elasticity of the concept vis-à-vis the idea of modulatory alterations across the polyphonic texture. Perhaps, this distancing of chromatic alterations was a stylistic means for composers to address the growing contempt toward the FR. The spacing out of FRs may also have played a fundamental role in developing more significant

modulatory regions in combination with the melodic retention of the *ficta*. In short, the expansion/extension of the *ficta*—through melodic prolongation and connecting harmonies—can help introduce new harmonies, progressions, and harmonic regions. Renaissance composers also return to the original pitch relatively soon, which tells of the modality of this music and the *musica ficta*'s auxiliary role (Morris, 1963, p. 16).

Moreover, although the chromaticism is always heard polyphonically (vertically) in this compositional style, the chromatic alteration by a semitone usually has a fundamental melodic (horizontal) function, which allows for TRs to have a similar effect when combined with FRs. Figure 17 exemplifies how connecting harmonies (with potential melodic implications) interspersing a TR appear in the score analyses (Appendix).

FIGURE 17 – Various numbers of connecting harmonies between two types of TR.



Source: Author

Since TRs are less recurrent than FRs in the pieces analyzed in this article and the focus of this study is on the latter, the colour coding for connecting harmonies was kept the same for one, two, and three connecting harmonies between TRs. Light green is used for iTRs and darker blue for the only dTR in the examples in the Appendix.

Range distances were discussed above; and it is also fruitful to distinguish between the *temporal distance* and *harmonic distance* between two chromatic pitches. This article focuses only on the latter, intending to emphasize the false relation as an ultimately auditory experience. Renaissance music frequently warps the feeling of chronological, “ticking” time due to its stretched horizontality. The verticality of the chords, which results from interwoven melodic lines, often dictates the piece’s

momentum to the listener. Therefore, the harmonic distance between chromatic pitches may be more interesting to the listener and to the analyst than their temporal distance. Within the broader ambitus of phenomenology, the event is often of more interest than the flow of times. This, too, was a deliberate (if not aesthetic) choice in this article and may be reconsidered in future approaches to FRs in Renaissance music.

3. Analytical examples

The Appendix below shows two analytical examples according to the conceptual and analytical frameworks advanced in this study. Each analysis contains (A) a score analysis, (B) a table listing instances of chromatic relations, and (C) two graphs with statistical data regarding the incidence and comparative significance of these relations within the respective pieces. TRs and FRs have been colour-coded according to their type (and number of connecting harmonies, in the case of FRs). The colours are consistent between the score analyses, tables, and graphs for ease of reference. Although these materials appear in the Appendix, the two sections below contain the explanatory, analytical write-up in prose format.

3.1. Example 1: William Byrd, *Ne irascaris domine/Civitas sancti tui* (1611)

The narrative in this Latin motet entails destruction of Jerusalem, drawing attention to its ultimate desolate state in contrast with a plea for restoration. The piece comprises two major sections, juxtaposing these dichotomous yet complementary thematic niches. Both sections are through-composed, with a free and non-recurrent musical treatment of the text, except for the local imitative entrances common to Latin liturgical texts at this time.

The first section, a prayer God's mercy on Israel ("*populus tuus*"), opens without chromatic alterations, establishing the central harmony of F and highlighting the key signature showing the B-flat *ficta*. Chromatic alterations begin, however, as soon as all voices have entered in imitation. The first pair of FRs occurs in mm. 9-11 and targets the cancellation of the original B-flat *ficta* from the

time signature. It forms a triangulated group of chromatically related pitches: B-flat/B-natural/B-flat mediated by two iAFRs between the Alto 1, Alto 2, and Soprano parts. The second group of iAFRs takes place in mm. 12-16, this time showing an inverted triangulation, featuring the group E-natural/E-flat/E-natural. It overlaps with another pair in mm. 15-16, this time involving an iAFR and iTR between the pitch group B-flat/B-natural/B-flat.

The only dTR in the piece, which shows immediate chromaticism within the same voice, occurs in m. 22, confirming Byrd's predilection for a combination of iAFRs and iTRs. This complex overlapping of chromatic alterations between parts recur frequently throughout both sections of the piece, as the analysis shows.

The passage that begins around the striking augmented-sixth harmony (m. 96)—from m. 95 to m. 106—is particularly noteworthy. It shows several groups of FRs overlapping in close succession and proximity. It contains fifteen FRs and only five TRs involving all five voices. This passage suggests that Byrd intentionally added chromaticism across the voices rather than within them. The chromatic alterations also involve multiple pitches, alternating systematically as the passage unravels. Chromaticism also appears in three triangulated pitch groups: B-flat/B-natural/B-flat, C-natural/C-sharp/C-natural, and F-natural/F-sharp/F-natural. Besides the five TRs, the analytical labels show three types of FR and emphasize their melodic direction: one dAFR, six iAFRs mediated by one harmony, eight iAFRs mediated by two harmonies, and one iAFR mediated by three harmonies.

In mm. 120-121, Byrd introduces the only SFR in the motet. The B-flat in the Soprano part clashes with the introduced B-natural in the Tenor part, creating an SFR between the voices. The return to the original B-flat occurs in the following measure, as the iAFRs lead the motion from the Tenor to the Alto 2 voice through one connecting harmony.

In revisiting the notion of connecting harmonies, it is fit to mention that chord progressions longer than three connecting harmonies are relatively rare in *Ne irascaris*, appearing only four times in the entire piece. They occur in the following passages: mm. 39-42 (E-flat/E-natural, in the Alto 1); mm. 88-91 (B-natural/B-flat, between Alto 1 and Tenor); mm. 104-109 (E-natural/E-flat, between Tenor and Alto 1/Tenor); and mm. 109-113 (B-natural/B-flat, between Alto 1 and Alto 2).

3.2. Example 2: Orlando Gibbons, *The Silver Swanne* (1612)

Gibbons's *The Silver Swanne* is a short setting of a profound and melancholic secular English poem in anthem format (ABB). The piece comprises an A section, which underscores the first couplet in the poetry, and a repeated B section, which contains the remaining two couplets. The A section has one iAFR mediated by two connecting harmonies, between the Alto 1 and Bass parts. This FR concurs exactly with a TR within the Alto 1 part. (Exact concurrences of chromatic relations are emphasized in the tables accompanying the score analyses below.) Interestingly, the first notated B in the score features a natural sign—a *ficta*, which cancels the B-flat in the time signature. This instance causes the FR to stand alone as a virtual “return” to the B-flat without a motion to the B-natural. This effect carries a unique aural effect of a modulatory quality and tonal instability upon first impression—a confirmation of the modality of this repertoire when falling on post-tonal ears.

The repeating B section features two pairs of chromatic relations overlapping, taking place in mm. 5-6 and mm. 8-9. The first triangulated group to commence (B-flat/B-natural/B-flat) is an iAFR between the Bass and Soprano, combined with an iTR within the Tenor part. A melodic prolongation of the *ficta* B-natural connects these. The second triangulated group (E-natural/E-flat/E-natural) contains the opposite in melodic direction and order: an iTR in the Alto 1 followed by an iAFR between Alto 1 and Alto 2.

The most noteworthy musical moment, perhaps, is the simultaneous introduction of the *ficta* B-natural in the Soprano part and E-flat in the Alto 1 part (middle of m. 5 and paralleled on the first beat of m. 9). This simultaneous iteration of two *fictae* shows an outstanding intersection of two pairs of chromatic relations, highlighting a core of melodic, contrapuntal, and harmonic activity to embellish the narrative. In m. 5, this concurrence emphasizes the word “a-against” in the Soprano part, describing the swan’s leaning on the “reedy shore” (Alto 1). In the analogous passage when the music repeats, in m. 9, the emphasis lies on the word “death”, in the Soprano part, against “close” in the Alto 1 and “eyes” in two other voices. The bleak ending of the poem leaves room for despair at the final punctuation—an ambivalent English cadence (mm. 6-7 and mm. 9-10) depicting the bittersweet moment of death as a balm for the forlorn yet relieved swan.

4. Closing thoughts

False relations in English Renaissance repertoire are more nuanced and complex than extant scholarship suggests. Its variants are multiple, and the interactions of this compositional device with other theoretical and rhetorical aspects of Renaissance writing are noteworthy, most notably its role within the *musica poetica* tradition as a rhetorical figure emphasizing elements of sadness, desolation, and despair. It is also paramount for future research to continue distinguishing between true and false relations as alternative manifestations of a more fundamental compositional device—the essential chromatic relationship between adjacent pitches. This article proposes a triangulated insertion of *musica ficta* across the polyphonic texture, entailing three-pitch groups of chromatically altered notes connected by two chromatic relations (true or false), differentiating between spatial and melodic direction.

Additionally, a more nuanced terminology targeting synchronous (SFR), asynchronous (AFR), direct (d), and indirect (i) false relations is advanced in this study, remaining fundamental in accounting for this phenomenon in future research. This article points to the false relation as an elastic, flexible compositional device in a continuum that links chromatic relations through *musica ficta* and the broader concept of modulation, as mediated by connecting harmonies and melodic prolongation of chromatically altered pitches. It argues that the growing distance between a pair of chromatically altered pitches may have been an aesthetic response to the growing historical contempt toward the false relation by the late Renaissance, thus adapting and perpetuating this technique albeit in more nuanced ways. The two analytical examples herein also show the statistical prevalence of false relations over true relations, suggesting the composers' intentionality regarding the use of chromaticism between (rather than within) polyphonic voices, especially in heavier textures. They also point to the complexity of the polyphonic texture in passages that contain overlapping true and false relations between various pitch sets.

REFERENCES

- ANDREWS, Herbert Kennedy. **The technique of Byrd's vocal polyphony**. New York: Oxford University Press, 1966. 318 p.
- BARRICK, Jeannie Love. **William Byrd's English anthems and Latin motets: A stylistic comparison**. 2005. 104 p. Master's Thesis (Music Theory). Texas Tech University, Texas, 2005.
- BARTEL, Dietrich. **Musica poetica: Musical-rhetorical figures in German Baroque music**. Lincoln: University of Nebraska Press, 1997. 471 p.
- BRETT, Philip. **William Byrd and his contemporaries**. London: University of California Press, 2007.
- BURMEISTER, Joachim. **Hypomnematum musicae poeticae**. Rostock: S. Myliander, 1599.
- BURMEISTER, Joachim. **Musica autoschediastike**. Rostock: C. Reusner, 1601.
- BURMEISTER, Joachim. **Musica poetica**. London: S. Myliander, 1606. 76 p.
- BYRD, William (composer). **Ne irascaris domine/Civitas sancti tui**. Mixed voices. Allen Garvin (ed.), 2022. 7 p. 1 score. Available at: <https://cpdl.org/wiki/images/c/c6/20-byrd--ne_irascaris_domine_satis---0-score.pdf>. Access: August 16, 2024.
- BYRD, William (composer). **The Baldwin partbooks**. Mixed voices. Oxford: 1575. Manuscript at Christ Church. 1 score.
- CHAN, Eleanor. The "English" cadence: Reading an early modern musical trope. **Early Music**, 49, 1, 17-34, 2021.
- DYSON, George. False relation. **Oxford Music Online**, 2001. Available at: <<https://doi.org/10.1093/gmo/9781561592630.article.09269>>. Access: August 16, 2024.
- FITCH, Fabrice. **Cambridge introductions to music: Renaissance polyphony**. Cambridge: Cambridge University Press, 2020. 292 p.
- GAULDIN, Robert. **A practical approach to 18th century counterpoint**. Long Grove, IL: Waveland Press, 2013.
- GIBBONS, Orlando (composer). **The Silver Swan**. Mixed voices. Allen Garvin (ed.), 2015. 2 p. 1 score. Available at: <https://cpdl.org/wiki/images/9/97/01-the_silver_swan---0-score.pdf>. Access: August 16, 2024.

GOMBERT, Nicolas (composer). *Media vita in morte sumus*. In: Gardano, A., **Motetti del frutto a sei voci**. Mixed voices. Venezia: Figliuoli di Antonio Gardano, 1539. First edition. 1 score.

GOMÓŁKA, Mikołaj (composer). **Melodie na psalterz polski**. Mixed voices. Kraków: Drukárni Łazarzowéy, 1580. First edition. 1 score.

GRAY, Walter. Some aspects of word treatment in the music of William Byrd. **The Musical Quarterly**, 55, 1, 45-64, 1969.

HYNSON, Richard. The two choral styles of William Byrd. **The Choral Journal**, 19, 4, 20-22, 1978.

KERMAN, Joseph. Music and politics: The case of William Byrd (1540-1623). **Proceedings of the American Philosophical Society**, 144, 3, 275-287, 2000.

KERMAN, Joseph. On William Byrd's *Emendemus in melius*. **The Musical Quarterly**, 49, 4, 431-449, 1963.

KNUD, Jeppesen. **Counterpoint: The polyphonic vocal style of the sixteenth century**. Toronto: Dover Publications Inc., 1992

MANIATES, Maria Rika. **Mannerism in Italian music and culture 1530-1630**. Manchester: Manchester University Press, 1979.

MORRIS, Reginald Owen. **Introduction to counterpoint**. London: Oxford University Press, 1963. 55 p.

REESE, Gustave. **Music in the Renaissance**. W. W. Norton & Company, 1959. 946 p.

SCHENKER, Heinrich. **Counterpoint, Book 1**. John Rothgeb and Jürgen Thym (trans.). London: Schirmer Books, 1987. 361 p.

SCHOLES, Percy Alfred. **The Oxford companion to music**. Oxford: Oxford University Press, 1992. 1250 p.

TARUSKIN, Richard. **Oxford history of Western music: The complete five-volume set**. Oxford University Press, 2010.

TRENDELL, David. Aspects of William Byrd's musical recusancy. **The Musical Times**, 148, 1900, 27-50, 2007.

VICTORIA, Tomás Luis de (composer). **Motecta I**. Mixed voices. Venezia: Figliuoli di Antonio Gardano, 1572. First edition. 1 score.

ZARLINO, Gioseffo. **Le institutione harmoniche**. Venice, 1588. 347 p.

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RESEARCH DATA AVAILABILITY

- Data use not reported; no research data generated or used.

APPENDIX

Example 1: William Byrd, *Ne irascaris domine/Civitas sancti tui* (1611)

A. Score Analysis

1

Ne irascaris Domine satis

Isaiah 64:9-10 William Byrd (c.1540-1623)
Liber primus sacrarum cantionum (Thomas East press, London, 1589)

Superius *Prima pars* 5

Medius Ne

Contratenor Ne i - ra - sca - ris Do - mi - ne sa - - -

Tenor Ne i - ra - sca - ris Do - mi - ne sa - - -

Bassus Ne i - ra - sca - ris Do - mi - ne sa - - -

Ne i - ra - sca - ris Do - mi - ne sa - - - tis, ne i - ra -

i - ra - sca - ris Do mi - ne sa - - - tis, ne i - ra - sca -

tis, ne i - ra - sca - ris Do - mi - ne sa - - - tis, ne i - ra - sca -

tis, ne i - ra - sca - ris

tis, ne i - ra -

15 sca Do mi sa - - - tis, et ne ul - tra me - mi - ne -

ris Do mi ne sa - - - tis, et ne ul - tra me - mi - ne -

ris Do ne sa - - - tis, et ne ul - tra me - mi - ne -

Do mi ne sa - - - tis, et ne ul - tra me - mi - ne -

sca - ris Do - mi - ne, et ne ul - tra me - mi - ne -

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2 **dTR ↓ [A1]** Ne irascaris Domine satis: (score) 25

ris i - ni - qui - ta - tis no - - stræ,

ris i - ni - qui - ta - tis no - - stræ, i - ni - qui -

ris i - ni - qui - ta - tis no - - stræ,

ris i - ni - qui - ta - tis no - - stræ, i - ni - qui - ta - tis no - -

ris i - ni - qui - ta - tis no - - stræ,

itr ↑ [B] **itr ↑ [T]** **dAFR ↓ [T - S]**

30 35

i - ni - qui - ta - tis no - - stræ. Ec - ce, ec - ce, re -

ta - - tis no - - stræ. Ec - ce, ec - ce,

i - ni - qui - ta - tis no - - stræ. Ec - ce, ec - ce,

stræ, i - ni - qui - ta - tis no - stræ. Ec - ce, ec - ce, re -

i - ni - qui - ta - tis no - - stræ. Ec - ce, ec - ce,

iAFR ↑ [A1 - B] **itr ↑ [A1]** **iAFR ↓ [B - A1]** **itr ↓ [A1]** **dAFR ↑ [T/B - S]** **iAFR ↓ [A2 - S]**

40

re - spi - ce, ec - ce, re - spi -

re - spi - ce, ec - ce, re -

re - spi - ce, ec - ce, re - spi -

re - spi - ce, ec - ce, re - spi -

re - spi - ce, ec - ce, re - spi -

re - spi - ce, ec - ce, re - spi -

re - spi - ce, ec - ce, re - spi -

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45 50 3

iaFR ↑ [A2 - A1] iaFR ↓ [A1 - B] iaFR ↑ [T - A2] iaFR ↓ [A2 - S]

ce, re - spi - ce, re - spi - ce, re - spi - ce, po - pu-lus

- spi-ce, re - spi - re - spi-ce, po - pu-lus tu -

re - spi-ce, re - spi - ce, re - spi - ce,

spi - ce, re - spi - ce, re - spi - ce, po - pu-lus tu - us

ce, re - spi-ce, re - spi-ce,

55

dAFR ↑ [S - T] ITR ↓ [T]

tu - us om - nes nos,

us om - nes nos, po - pu-lus tu - us om -

po - pu-lus tu - us om - nes nos, om -

om - nes nos,

po - pu-lus tu - us om - nes

60

po - pu-lus tu - us, po - pu-lus tu - us om -

- nes nos, po - pu-lus tu - us om - nes nos, po - pu-lus

- nes nos, po - pu-lus tu - us om - nes nos, po - pu-lus

po - pu-lus tu - us om - nes nos, po - pu-lus tu -

nos, po - pu-lus tu - us om - nes nos,

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4 Ne irascaris Domine satis: (score) 70 iAFR ↑ [T/B - S] iAFR ↓ [S - T]

65 nes nos, po - pu-lus tu - us om - nes nos, po - pu-lus tu - us om - nes
 tu - us om - nes nos, po - pu-lus tu - us om - nes nos, po - pu-lus tu - us
 tu - us om - nes nos, po - pu-lus tu - us, po - pu-lus
 us om - nes nos, po - pu-lus tu - us om - nes nos, po - pu-lus tu - us om -
 po - pu-lus tu - us om - nes nos, po - pu-lus tu - us om -

75 Secunda pars
 nos, om - nes nos. Ci - vi - tas san - cti tu -
 om - nes nos. Ci - vi - tas san - cti tu - i, san - cti
 tu - us om - nes nos.
 nes nos. Ci - vi - tas
 nes nos.

80 iTR ↑ [T] iAFR ↓ [T - S] 85
 - i, ci vi - tas san - cti tu - i,
 tu - i, ci - vi - tas san cti tu - i,
 Ci - vi - tas san - cti tu - i, ci - vi - tas san - cti tu -
 san - cti tu - i, san - cti tu - i, ci - vi - tas san - cti
 Ci - vi - tas san - cti tu - i, ci -

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[illegible]

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[illegible]

Ne irascaris Domine satis,
et ne ultra memineris iniquitatis nostræ.
Ecce respice populus tuus omnes nos.

Civitas sancti tui facta est deserta.
Sion deserta facta est, Jerusalem desolata est.

Thy holy cities are a wilderness.
Zion is a wilderness, Jerusalem a desolation.

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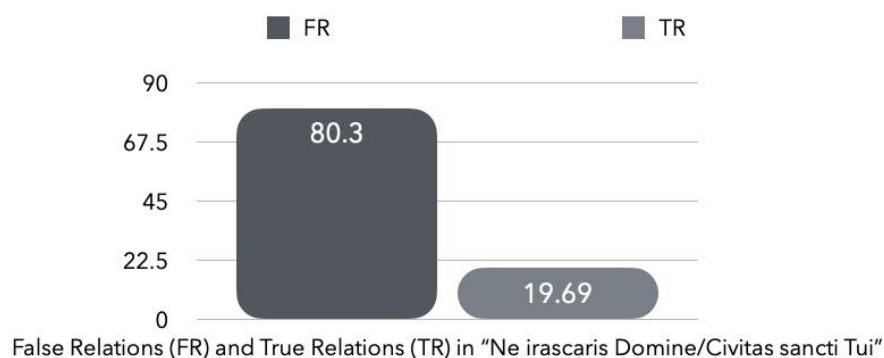
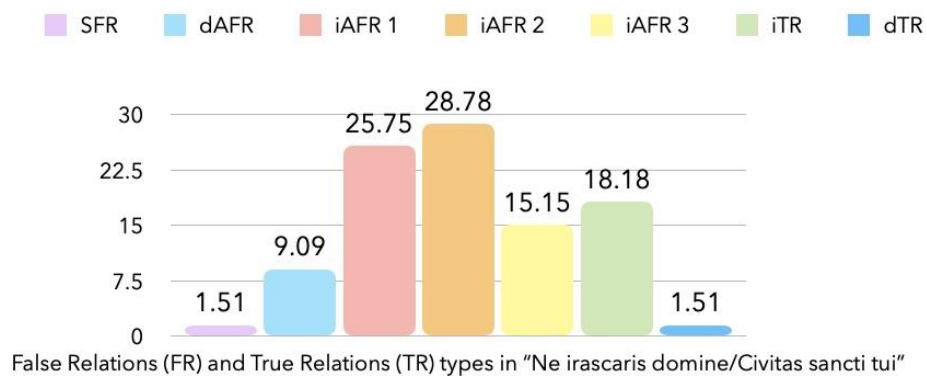
B. Summary table

<i>Section</i>	<i>Passage</i>	<i>Relation</i>	<i>Pitch I</i> ("To")	<i>Pitch II</i> ("From")	<i>Connecting</i> <i>Harmonies</i>	<i>Distance</i> <i>in Octaves</i>
<i>Ne irascaris domine</i>	mm. 9-11	iAFR ↑ [A1 - A2]	B-flat	B	1	0
	m. 11	iAFR ↓ [A2 - S]	B	B-flat	1	0
	mm. 12-15	iAFR ↓ [A1 - A2]	E	E-flat	3	0
	m. 15	iAFR ↑ [S - A1]	B-flat	B	1	0
	mm. 15-16	iAFR ↑ [A2 - T]	E-flat	E	1	-1
	mm. 15-16	iTR ↓ [A1]	B	B-flat	1	0
	mm. 20-22	iAFR ↑ [A2/T/B - A1]	C	C-sharp	2	+1 [A2 - A1] 0 [T - A1] +1 [B - A1]
	m. 22	dTR ↓ [A1]	C-sharp	C	0	0
	mm. 34-37	iAFR ↑ [A1 - B]	F	F-sharp	3	0
	mm. 34-37	iTR ↑ [B]	F	F-sharp	3	0
	mm. 35-37	iTR ↑ [A1]	E-flat	E	3	0
	mm. 35-36	iTR ↑ [T]	B	B-flat	(1)	0
	mm. 36-37	dAFR ↓ [T - S]	B	B-flat	0	+1
	mm. 37-38	iAFR ↓ [B - A1]	F-sharp	F	1	+1
	mm. 38-39	iTR ↓ [A1]	E	E-flat	1	0
	mm. 40-41	dAFR ↑ [T/B - S]	B-flat	B	0	+1 [T - S] +2 [B - S]
	mm. 42-43	iAFR ↓ [A2 - S]	B	B-flat	1	+1
	mm. 44-45	iAFR ↑ [A2-A1]	B-flat	B	2	0
	mm. 45-46	iAFR ↓ [A1 - B]	B	B-flat	2	-1
	mm. 46-47	iAFR ↑ [T - A2]	F	F-sharp	3	0
	mm. 47-48	iAFR ↓ [A2 - S]	F-sharp	F	2	+1
	m. 51	dAFR ↑ [S - T]	B-flat	B	0	-1
	mm. 51-52	iTR ↓ [T]	B	B-flat	1	0
	mm. 70-71	iAFR ↑ [T/B - S]	B-flat	B	1	+1 [T - S] +2 [B - S]
	mm. 71-72	iAFR ↓ [S - T]	B	B-flat	3	-1
<i>Civitas sancti tui</i>	m. 82	iTR ↑ [T]	B-flat	B	1	0
	mm. 82-84	iAFR ↓ [T - S]	B	B-flat	2	+1

mm. 87-88	iAFR ↑ [T - A1]	B-flat	B	3	0
mm. 90-91	iAFR ↑ [S - T]	F	F-sharp	3	-1
mm. 91-92	iAFR ↑ [A2 - A1]	B-flat	B	2	0
mm. 92-93	iAFR ↓ [S - A1]	F-sharp	F	2	0
mm. 95-96	iTR ↑ [T]	D	D-sharp	1	0
mm. 95-97	iAFR ↓ [A1 - T]	B	B-flat	2	0
mm. 96-97	iAFR ↓ [S - B]	D-sharp	D	1	+1
mm. 97-98	iAFR ↑ [B - A1]	C	C-sharp	3	+2
mm. 98-99	iAFR ↑ [B - S]	B-flat	B	2	+2
mm. 98-99	iAFR ↓ [A1 - S]	C-sharp	C	1	+1
mm. 99-100	iTR ↓ [S]	B	B-flat	2	0
mm. 99-100	iAFR ↑ [S - A1]	C	C-sharp	2	-1
mm. 99-101	iAFR ↑ [A1 - A2]	F	F-sharp	2	-1
mm. 100-101	iAFR ↑ [S - T]	B-flat	B	2	-1
mm. 100-101	iAFR ↓ [A1 - T]	C-sharp	C	2	0
m. 101	iTR ↓ [A2]	F-sharp	F	2	0
mm. 101-102	iTR ↓ [T]	B	B-flat	2	0
mm. 101-102	iAFR ↑ [T - A2]	C	C-sharp	2	-1
mm. 102-103	iAFR ↑ [T - S]	B-flat	B	2	+1
mm. 102-103	iAFR ↓ [A2 - S]	C-sharp	C	1	+2
mm. 103-104	iTR ↓ [S]	B	B-flat	2	0
mm. 103-104	iAFR ↑ [S - A1]	C	C-sharp	1	-1
mm. 104-105	iAFR ↑ [T - S]	F	F-sharp	1	+1
mm. 104-106	iAFR ↓ [A1 - A2]	C-sharp	C	1	0
mm. 105-106	dAFR ↓ [S - A1/T]	F-sharp	F	0	0 [S - A1] -1 [S - T]
mm. 108-109	iAFR ↑ [A1/T - S]	E-flat	E	1	0 [A1 - S] -1 [T - S]
mm. 108-109	iAFR ↑ [A2 - A1]	B-flat	B	2	0
mm. 110-113	iAFR ↓ [S - A1/B]	E	E-flat	3	0 [S - A1] -1 [S - B]
mm. 113-114	iAFR ↑ [A1/B - T]	E-flat	E	1	-1 [A1 - T] 0 [B - T]
m. 120	SFR ↑ [S - T]	B-flat	B	-	-1
mm. 120-121 (?)	iAFR ↓ [T - A2]	B	B-flat	1	0
mm. 136-137	iAFR ↑ [A2 - T]	B-flat	B	2	0

mm. 137-138	iAFR ↓ [T - A2]	B	B-flat	1	0
mm. 143 - 144	iAFR ↑ [T - S]	B-flat	B	2	+1
mm. 144-146	iAFR ↓ [S - A2]	B	B-flat	3	-1
mm. 148-149	iAFR ↓ [B - A1]	E	E-flat	2	+1
m. 149	dAFR ↑ [A1 - T]	E-flat	E	0	+1
m. 150	dAFR ↓ [S - A1]	E	E-flat	0	0
mm. 150-151	iAFR ↑ [A1 - S]	E-flat	E	3	0

C. Statistics



Example 2: Orlando Gibbons, *The Silver Swanne* (1612)

A. Score analysis

1

The Silver Swan

Orlando Gibbons (1583-1625)
The First Set of Madrigals and Mottets (London, 1612)

iAFR ↓ [A1 - B] iTR ↓ [A1]

Cantus: The sil-ver Swanne, who liv-ing had no Note, When

Altus: The sil-ver an-ne, who liv-ing had no Note, When

Quintus: The sil-ver Swanne, who liv-ing had no Note, When death ap-proacht un-

Tenor: The sil-ver Swanne, who liv-ing had no Note, When death ap-

Bassus: The sil-ver Swanne, who liv-ing had no Note, When death ap-proacht

death ap-proacht un-lockt her si-lent throat, Lean-ing her

death ap-proacht un-lockt her si-lent throat, Lean-ing her breast a-

- lockt her si-lent throat, Lean-ing her breast a-

proacht un-lockt her si-lent throat, a- gainst the ree-dy

un-lockt her si-lent, si-lent throat, Lean-ing her breast a-

iAFR ↑ [B - S] iTR ↓ [A1] iAFR ↑ [A1 - A2] iTR ↓ [T] iAFR ↓ [B - A1] iTR ↓ [B] iAFR ↑ [A1/B - A2]

breast a- gainst the ree-dy shore, Thus sung her first and

gainst the ree-dy shore, (1) Thus sung her first and last, and

gainst the ree-dy shore, Thus sung her first and last, and sung no

shore, Thus sung her first and last, and sung more, and sung

gainst the ree-dy shore, Thus sung her first and last, and

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2 The Silver Swan (score)

last, and sung no more, Fare - well all joyes, O 1

sung no more, Fare - well all joyes, O death come.

more, no more, Fare - well all joyes, O death come close mine

no more, Fare - well all joyes, O death 1

sung no more, Fare - well all joyes, O death come close mine

death come close mine eyes, More Geese than Swannes now live, more fooles than wise.

close mine eyes, (1) More Geese than Swannes now live, more fooles than wise.

eyes, More Geese than Swannes now live, more fooles than wise, than wise.

come close mine eyes, More Geese than Swannes 2 live, more fooles than wise.

eyes, More Geese than Swannes now live, more fooles than wise.

IAFR ↑ [B - S] ITR ↓ [A1]

IAFR ↑ [A1 - A2] ITR ↓ [T] IAFR ↓ [B - A1] ITR ↓ [B] IAFR ↑ [A1/B - A2]

The silver Swanne, who living had no Note,
When death approacht unlockt her silent throat,
Leaning her breast against the reedy shore,
Thus sung her first and last, and sung no more,
Farewell all joyes, O death come close mine eyes,
More Geese than Swannes now live, more fooles than wise.

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B. Summary table

<i>Section</i>	<i>Passage</i>	<i>Relation</i>	<i>Pitch I ("To")</i>	<i>Pitch II ("From")</i>	<i>Connecting Harmonies</i>	<i>Distance in Octaves</i>
A	mm. 1-2	iTR ↓ [A1]	B	B-flat	1	0
	mm. 1-2	iAFR ↓ [A1 - B]	B	B-flat	2	-1
B	m. 5	iAFR ↑ [B - A1]	B-flat	B	1	+2
	m. 5	iTR ↓ [A1]	E	E-flat	1	0
	mm. 5-6	iAFR ↑ [A1 - A2]	E-flat	E	(1)	0
	mm. 5-6	iTR ↓ [T]	B	B-flat	2	0
	m. 6	iAFR ↓ [B - A1]	E	E-flat	2	+1
	m. 6	iTR ↓ [T]	E	E-flat	2	0
	mm. 5-6	iAFR ↑ [A1/B - A2]	E-flat	E	1	0 [A1 - A2] +1 [B - A2]
B	mm. 8-9	iAFR ↑ [B - A1]	B-flat	B	1	+2
	mm. 8-9	iTR ↓ [A1]	E	E-flat	1	0
	m. 9	iAFR ↑ [A1 - A2]	E-flat	E	(1)	0
	m. 9	iTR ↓ [T]	B	B-flat	2	0
	mm. 9-10	iAFR ↓ [B - A1]	E	E-flat	2	+1
	mm. 9-10	iTR ↓ [T]	E	E-flat	2	0
	m. 10	iAFR ↑ [A1/B - A2]	E-flat	E	1	0 [A1 - A2] +1 [B - A2]

C. Statistics

