Partimento, que me veux-tu?

Robert O. Gjerdingen

Abstract Jean-Jacques Rousseau, eighteenth-century French author and philosopher, was first a musician. As a youth he had been unable to find a qualified music master and hence lacked the training required to excel in his chosen field. He did read carefully the harmony treatise of Jean-Philippe Rameau, but that study neither advanced his compositional abilities nor later shielded him from the scorn of Rameau himself. Had Rousseau found a master of the then fashionable Italian style of music, he would have studied exercises in *partimenti* and *solfeggi*. Solfeggi were studies for voice with bass accompaniment. Partimenti were instructional basses from which an apprentice was expected to re-create complete compositions at the keyboard. The prodigious mental powers developed through the study of partimenti, which greatly facilitated improvisation and composition, gave a competitive advantage to composers so trained. Though an old, nonverbal method of craft instruction, partimenti were nonetheless a cognitively optimal means of developing fluency in a complex, multivoice style of music. In memorizing exemplars of small contrapuntal schemata, fitting them to the matching locations in a partimento, and then realizing them in a current style, the apprentice was training himself to think in "free" counterpoint.

THE TITLE OF THIS ESSAY echoes a remark—"Sonate, que me veux-tu?" (Sonata, what do you want of me?)—quoted by Jean-Jacques Rousseau (1728–78) at the close of his encyclopedia article "Sonate" (1765). As summarized by Peter Walls (2004), the remark "was supposedly a cry of exasperation uttered by Bernard de Fontenelle (1657–1757) at a concert consisting entirely of instrumental music which (lacking a text) seemed to the philosopher devoid of semiotic clues" (Rousseau: "Je n'oublierai jamais le mot du célèbre M. de Fontenelle, qui se trouvant à un concert, excédé de cette symphonie éternelle, s'écria tout haut dans un transport d'impatience, sonate, que me veux-tu?"). If eighteenth-century literati like Fontenelle wondered how one ought to engage with a semantically unconstrained instrumental composition, what would they have made of a partimento? At least sonatas merited publication and the appellation *opus*. Partimenti, unpublished, untitled, and known primarily to professionals trained in hereditary musician families or in orphanage-conservatories, provided but the single thread of one part (usually a bass) from which the student was expected to re-create a self-standing piece of music. The given thread—*il filo* (Leopold Mozart 1778)—meant that a partimento was not free, not a mode of *fantasia*, yet the phantom nature of the other parts, especially the lack of a notated melody, meant that a partimento was not quite a composition, not quite a work. There was to be no entry in the *Encyclopédie* for "Partimento."

Journal of Music Theory 51:1, Spring 2007
DOI 10.1215/00222909-2008-024

The quote from Fontenelle served to bolster Rousseau's argument that instrumental music could achieve little more than pleasant artifice when cut off from the "soul and energy" of the human voice (1765; "Qui ne sent combien la musique instrumentale est éloignée de cette âme & de cette énergie?"). Rousseau, often mentioned as a godfather to Romanticism, advocated a "natural" art freed from artifice. That the greatest compositional triumph of this almost-modern man, his chamber opera *Le devin du village* (1752), would premiere to acclaim in the exquisitely artificial environment of the royal château at Fontainebleu is but one of many ironies in his life. His spotty musical training made him little more than a gifted amateur, but he wrote many of the music entries for the *Encyclopédie*. Rousseau's apprenticeship was in engraving, but he often made his living copying music. Master of no existing genre of music, he invented a new one, melodrama (*Pygmalion*, 1770). A central figure in Parisian cultural circles and later interred in the Panthéon as a national hero, he was always a foreigner, a "citizen of Geneva" who would declare himself a partisan of Italian music.

Rousseau was aware of these contradictions, being at times acutely embarrassed when his various selves could not be reconciled. After a failed attempt to impress the Parisian Academy of Science with a new scheme for thoroughbass ciphers—the Academy yawned—he remained in the city, hoping somehow to make his fortune. At the moment when he was down to his last sou he received the following advice from a friendly priest: "Since musicians and the learned do not sing by your scale [i.e., the new system of notation], change the string, and apply to the women. You will perhaps succeed better with them" (Rousseau 1769, bk. 7). The priest had mentioned Rousseau to a Madam de Beuzenval and urged the young Genevan to pursue this connection. In his *Confessions* Rousseau describes what happened:

> I at length took courage, and called upon Madam de Beuzenval. She received me with kindness; and Madam de Broglie entering the chamber, she said to her: "Daughter, this is M. Rousseau, of whom Father Castel has spoken to us." Madam de Broglie complimented me upon my work, and going to her harpsichord proved to me she had already given it some attention. Perceiving it to be about one o'clock, I prepared to take my leave. Madam de Beuzenval said to me: "You are at a great distance from the quarter of the town in which you reside; stay and dine here." I did not want asking a second time. A quarter of an hour afterwards, I understood, by a word, that the dinner to which she had invited me was that of her servants' hall. (Rousseau 1769, bk. 7)

The aristocrat, Madam de Beuzenval, took it for granted that a musician was an artisan, a craftsman, and thus someone on the level of her skilled servants. Rousseau, who had never apprenticed in music, thought of his art as more akin to philosophy. He was mortified suddenly to see himself as this noblewoman saw him. A professional musician like Haydn, for instance, would have known that in courtly society an *artiste*, however successful, was no more than

the highest form of artisan. Haydn's contract clearly spelled out that he would "board at the officer's table." Moreover he should not fraternize with the regular musicians: "The said Joseph Heyden shall abstain from undue familiarity, from eating and drinking and other intercourse with them, so as to maintain the respect due to him and preserve it" (Geiringer and Geiringer 1982, 44–45). So it ought to have been obvious that while a Parisian noblewoman might chat with her gardener, listen to suggestions from her dressmaker, even argue with her music master, she would not expect to break bread with any of them. To do so would be to ignore the distinctions of rank and "the respect due."

As a *philosophe* contemplating the art of musical artisans, Rousseau observed and wrote about many things that professional musicians likely considered self-evident. For that reason, his *Dictionnaire de musique* (Rousseau 1768) proves a valuable resource today, when much that was second nature in the 1760s is no longer so. But his outsider's perspective could also be a weakness when it came to describing the core competencies of the insiders. Thoroughbass, or what the French called *accompagnement*, was one such competence. Here is the beginning of Rousseau's discussion of "accompanying" at the harpsichord, from a contemporary English translation of his *Dictionnaire*:

> There is given, as a direction, one of the parts of music, which is ordinarily the bass. That bass must be touched with the left-hand, and with the right the harmony expressed by the tone of the bass, by the melody of the other parts, which are playing at the same time, by the partition which is placed before the eyes, or by the cyphers which are found added to the bass. The Italians hold the cyphers in contempt, the partition itself is of little service to them; the quickness and nicety of the ear supplies their place, and they accompany extremely well without all this preparation, but it is to their natural disposition alone that they are indebted for this facility and another people, not born to music like themselves, find in the execution of the accompanying, several difficulties almost insurmountable. Eight or ten years are necessary for succeeding therein in any tolerable degree. (Rousseau ca. 1775)

Had Rousseau been apprenticed at an early age to a demanding Italian maestro, he would have witnessed his fellow students, native Italians, working equally as hard, with their "natural disposition" offering no exemption from the years of practice needed to attain that "quickness and nicety of the ear." He would also have discovered the important means for eventually achieving this fabled Italian "facility": partimenti and solfeggi.

Outside Italy, the modern reappraisal of partimenti began in the 1930s with Karl Gustav Fellerer (1902–84). Shortly after receiving his doctorate (1925), he took up a post in Münster, where he encountered the huge holdings of Italian music manuscripts in the Santini collection. Fortunato Santini (1778–1861), a Roman priest, tyro composer, and bibliophile, had amassed one of Europe's largest collections of music-pedagogical works from the eighteenth- and early-nineteenth-century conservatories of Naples. Those

manuscripts formed the background for one of Fellerer's early essays on partimenti (1934). Although his remarks were concerned with partimenti performed at the organ, they apply equally well to other keyboard instruments:

> This practice of thoroughbass applies not only to the accompaniments of vocal works, but also—a little known fact—to pieces for organ solo. The pieces transcribed in this manner went by the name of partimenti. They were particularly widespread in Italy during the eighteenth century.
>
> They were, on the one hand, exercises intended to introduce the student organist to the reading of thoroughbass, which placed them principally among textbooks. On the other hand, these sorts of pieces were intended for organists to use in service playing, right alongside the many organ pieces completely written out by their composers. What is characteristic of this art is that improvisation assumes an importance equal to composition, with respect not only to harmony but also to counterpoint. . . .
>
> Playing a partimento presupposes knowledge of the rules of the harmony, control of contrapuntal voices, and especially a presence of mind and powers of concentration which make it possible, at a glance, to engage a complex fabric of voices and to envisage the possibilities of their development in order to construct a whole that is securely balanced and structured. (Fellerer 1934, 251–54)

Fellerer's work on partimenti came to an end during the Second World War. Decades passed before there began a second wave of reappraisal motivated by increasing interest in, and respect for, all forms of improvisation, by the promulgation of editions containing important partimento manuscripts, and by both pedagogical and psychological fascination with the legendary "presence of mind and powers of concentration" that could enable young apprentices to "engage a complex fabric of voices," most of which were imaginary. In North America, a dissertation on basso continuo by Tharald Borgir (1971) was perhaps the first English-language publication to present an informed discussion of partimenti. A subsequent dissertation by Alexander Silbiger (1976), "Italian Manuscript Sources of Seventeenth-Century Keyboard Music," began to draw attention to early Italian keyboard practices in general. In the 1990s the pace of research accelerated. Thomas Christensen's study of the "Rule of the Octave" (1992), a collective term for a suite of rules detailing each scale degree ascending and descending, described the importance of what was often the first topic covered in a manuscript of partimenti. And the research by Jesse Rosenberg (1995, 1999) on Pietro Raimondi (1786–1853) provided the first historical conspectus in English of the partimento tradition, its sources, and its legends. In Italy, a new generation of scholars had already begun to reexamine the archival documents relating to partimento training. Rosa Cafiero (1993) described the teaching of partimenti by masters in the conservatories of Naples, and Giorgio Sanguinetti (1997) traced the continuity of the partimento tradition in nineteenth- and twentieth-century Italian music theory. More recently, the publication of the Langloz manuscript (Renwick

2001) of partimento fugues from the circle of J. S. Bach has demonstrated the widespread adoption of partimento practices. The sponsorship of the digital distribution of the central manuscripts of eighteenth-century partimenti by the National Endowment for the Humanities has helped to promote free access to this immense repertory (Gjerdingen 2005). And this author's *Music in the Galant Style* (2007) has endeavored to show how training in partimenti was an ideal preparation for the highly schematized musical art favored in eighteenth-century courts.

The present essay concentrates on the pedagogical and psychological aspects of partimenti.

Training the artisan

Distinctions of rank had major consequences when it came to education. Only someone of means and leisure could afford the following course of study recommended for English gentlemen (Anonymous ca. 1799), especially given that it had almost no chance of resulting in significant musical competence:

> As Gentlemen should be Scholars . . . , and not ignorant of such a valuable part of learning, as the simple elements of plain Geometry, and practical Arithmetic, I would recommend them to read Doctor Holder's treatise on the principles of Harmony.—Mr. Stillingfleet's remarks on Tartini's work, and if they have no objection to a little Greek, they may look into Ptolemy, published by Dr. Wallis, or the five Greek writers on Music, by Meibomius. This is the study of Music really as a science, and will much facilitate the knowledge of its Practice, especially as to Thorough-Bass, and the principles of composition.

In contrast to the above program for gentleman dilettantes, "the method of training professional musicians was the craft system of education" (Kassler 1972, 217). A young boy would learn the rudiments from a local teacher before beginning an apprenticeship with a music master. Sometimes this could all be accomplished within the family, as with the Bachs or Mozarts. At other times the apprenticeship would resemble the indenture of a servant, often for a period of seven years. The apprenticeship could be quite formal, with a signed contract, or it could be more informal, as when Haydn agreed to serve as valet to the Neapolitan master Nicola Porpora (1686–1768) in return for lessons in composition. Common to the teaching of all crafts was an emphasis on internalizing a set of preferred models or stock patterns:

> The craft system of education fulfilled one fundamental requisite of educational theory: that the pupil form himself upon a model. The model was not within the mind itself but was an external "form" which was to be imitated. In so doing, the pupil learned a just representation of a thing, or person, imitated, which afterwards could be deviated from by his making further searches from his own "stock" or from the stock of others. Hence, the quality of education under the craft system rested primarily upon the music master. (Kassler 1972, 218–19)

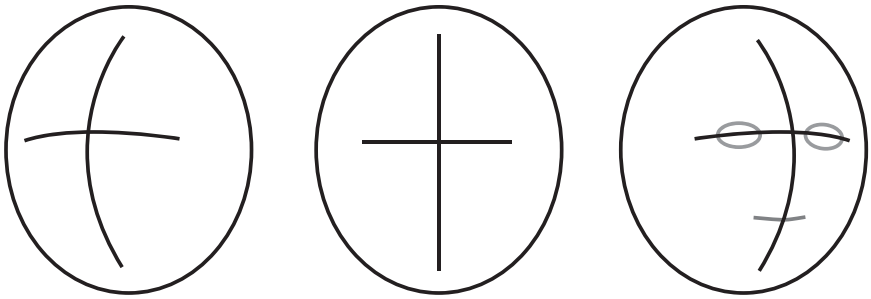


Figure 1. The traditional European schema for drawing a three-dimensional face, shown in three positions

The art historian E. H. Gombrich has written at length on the use of schematic models in the traditional training of visual artists. By analogy to an apprentice musician, he points to the importance of supervised practice: "Just as the young singer lived in the house of his master and learned and practiced scales for many years under his constant supervision, so the painter's apprentice was delivered into the power of his taskmaster, who saw to it that he spent hours in the exercise of copying the works of the great" (1956, 156–57). Much of the student's copying was mundane, involving the internalization of the many models in specially prepared books or manuscripts. These humble pattern books helped establish and maintain standard ways of drawing eyes, hands, familiar objects, and especially the human face. Gombrich directs attention to "the most widespread and familiar of all the diagrammatic formulas taught in the Western tradition—the divided oval or egg shape that does duty for the head" (168; see Figure 1).

The images in Figure 1 were created by this author as computer-drawn approximations of eighteenth-century copybook designs by J. D. Preissler (Preissler and Taubert 1734), member of a large German artisan-family of engravers. Note how adding the perceptual cues of faint eyes and a mouth to the right-hand oval helps to communicate a much stronger illusion of a human face (the other ovals are exact rotations of the same schema but lack those cues). More to the point, the schema itself was not an image. It was a framework on which to draw an image, a framework that helped the beginner surmount the difficulties of representing a three-dimensional object viewed from any angle.

Besides being a staple of four centuries of pattern books for apprentices, this oval-with-cross schema appears in the sketches of such master artists as Leonardo da Vinci, Fra Bartolommeo, Paolo Veronese, and Rembrandt:

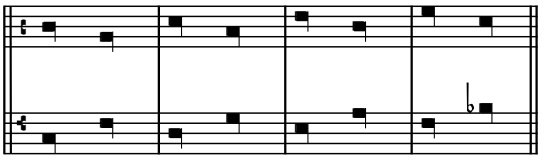
> In their drawings, the schema assumes the form of shorthand notations which the artist will expand and fill in when the time comes. And yet, I think, when we call such formulas "abbreviations" or "simplifications" we are not quite doing justice to their psychological status. The artist need not think first of a

> real head which he then reduces to the abstract oval—even for him the oval, the schema, is the starting point which he will then clothe with flesh and blood if the occasion requires. (Gombrich 1956, 171)

The apprentice draftsman had to learn many component models—eyes, ears, nose—that were to be incorporated within the larger model of the face, which in turn was but a component of models for the standing or seated human figure, which itself occupied a location and role within a conventional pictorial scene. Artisans involved in crafting temporal rather than visual designs needed to master a similar hierarchy of patterns. An improvising actor of the commedia dell'arte, for example, needed to memorize the jokes, banter, dialogues, soliloquies, and physical comedy for the stock character appropriate to his or her age and gender. The actor then needed to learn how to connect those atoms of comedy into the molecules of scenes, which would ultimately be integrated within the skeletal plot narratives known as *scenarios*. These many patterns of speech, action, and reaction had to become so second nature that the actor could adapt smoothly to the unpredictable events of unscripted, often outdoor performance. For the training of beginning actors, the commedia dell'arte troupe kept a *zibaldone*, or commonplace book, full of items for memorization. These were not printed books but private manuscripts containing many of the trade secrets of the craft.

In our era of copy machines and mass-produced textbooks, it can be difficult to imagine the practical and symbolic importance of a hand-copied notebook. Like a diary, it was a personal record of precepts learned and exercises studied. It might also contain models for emulation. Commonplace books were to be found in all the arts. In Jane Austen's *Pride and Prejudice*, for instance, Mr. Bennet addresses Mary, the most studious of his five daughters, as follows: "What say you, Mary? for you are a young lady of deep reflection I know, and read great books, and make extracts" (vol. 1, ch. 2). In Italy, the word *zibaldone* also applied to the extracts, exercises, rules, and models to be found in a music student's commonplace book (Galeazzi 1796, 54–55). Though the most scholarly attention has focused on the *zibaldoni* of students who studied with Bach, Handel, and Mozart (e.g., Poulin 1994; Heartz and Mann 1969), recently identified commonplace books of students in the Neapolitan conservatories reveal small collections of partimenti (Cimarosa 1762; Galeota 1753).

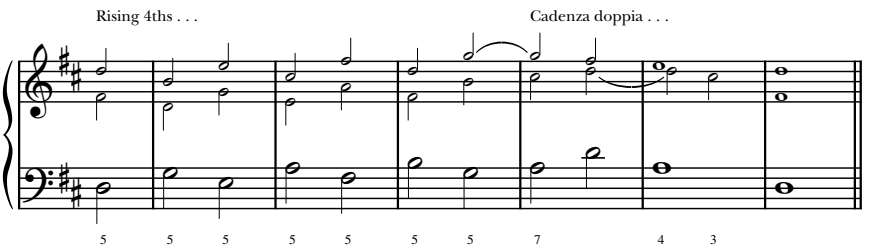
If we think of a partimento as a framework for a complete musical performance, then its analog in the training of actors would be the scenario of an entire act, or of draftsmen the plan of a complete figure or portrait. The traditions of the component schemata used in assembling a complete comedy or drawing go back centuries. The same is true for the many schemata taught to students of counterpoint (eighteenth-century Italian composers were often referred to as *contrapuntisti*). Apprentice musicians were introduced to basic contrapuntal schemata through *regole*, or rules. For example, the ninth rule



Example 1. A schema for an upper counterpoint to an ascending fourth in the lower voice (Ugolino of Orvieto, mid-1400s)

(*nona regula*) of Ugolino of Orvieto (ca. 1380–1452) treats the contrapuntal situation *de octava ascendendo* (of an octave between two voices, where the lower voice then ascends; bk. 2, ch. 26). One of his catchphrases was "Si quarta vel quinta salit, tertiam iure poscit" (If the lower voice rises a fourth or fifth, it rightly takes the third). Ugolino provided musical notation to exemplify each rule. Example 1 shows the case of ascending fourths in the lower voice, where the upper voice sounds an initial octave and then descends to a third (his example 96).

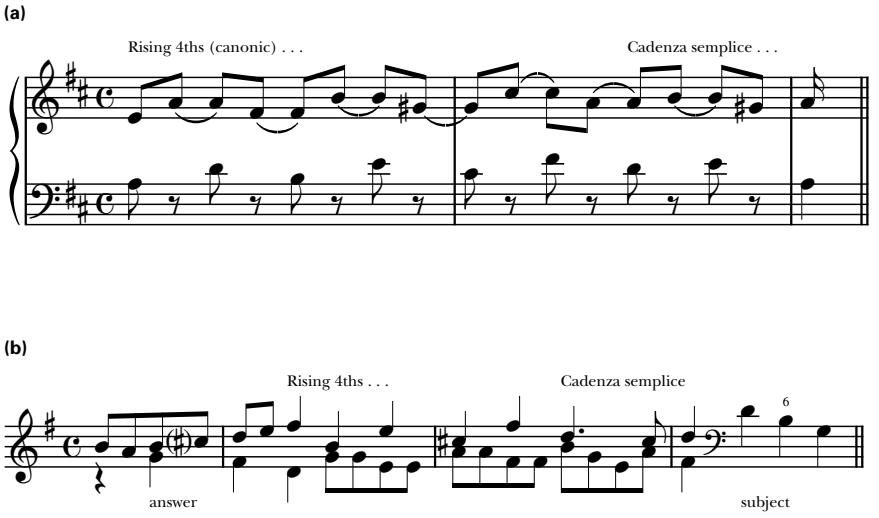
If we go forward in time three centuries, we will find young musicians learning the very same schema, introduced by nearly the same rule. In place of Ugolino we can look to Raimondo Lorenzini (ca. 1730–1805/6), chapel master of the basilica of Santa Maria Maggiore in Rome during the second half of the eighteenth century. A manuscript of his *Regolamento per il cembalo* (*Rules for the Harpsichord*) states that "notes [in the bass] progressing by ascending fourths and then by descending thirds take the five" ("Le note che vanno modulando di 4ª in su, e poi di 3ª in giù vogliono 5ª"; ca. 1780s, fol. 16v; see Example 2). Here "the five" no longer means a single interval but rather the shorthand of thoroughbass, indicating a normal $\frac{5}{3}$ triad. Lorenzini only shows a figured bass, but he would have instructed his own students how to fashion the traditional upper part. The last three measures of his example present the large *cadenza doppia* (double cadence; sometimes called a "consonant fourth



Example 2. Lorenzini's example of a bass that ascends a fourth and then descends a third. The upper part is shown in smaller notes to indicate that it is a modern realization of Lorenzini's bass.

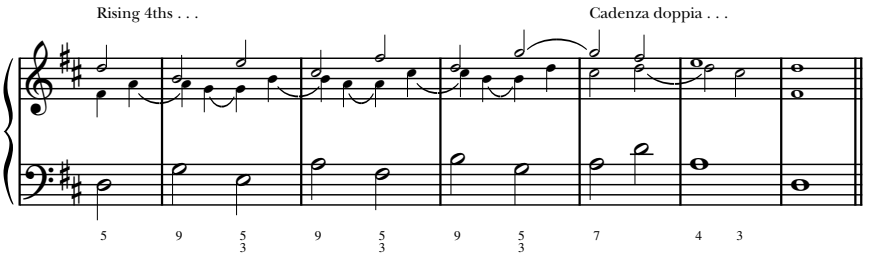
cadence" in English), with its four stages (here each a half note's value) before the final tonic chord.

Today we can confirm the continuing vitality of Ugolino's schema in Lorenzini's era by examining eighteenth-century compositions or pedagogical works. From the literature, one could point to a keyboard work of Francesco Durante (1684–1755), who studied in Rome early in the century (Durante 1747–49; see Example 3a). And from pedagogical material one could highlight a passage from a collection of partimento fugues used within the Bach circle (Renwick 2001, 107; see Example 3b).

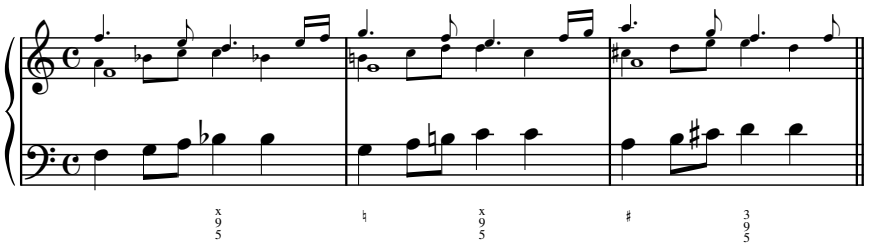


Example 3. (a) Durante, *Studio no. 2,* Allegro, m. 6 (Naples, 1747). (b) Prelude and Fugue 61 in G major, Fuga, m. 18, the Langloz manuscript, *Praeludia et Fugen del Signor Johann Sebastian Bach*

After introducing the basic schema, Lorenzini went on to detail a common variation. He stated that these same bass notes "can also have one note with the five and the other with the nine, following the idea of the composer" ("Possono pure avere una nota 5a, e l'altra 9a secondo l'idea del compositore"; ca. 1780s, fol. 17r; see Example 4). The "nine" means a 9–8 suspension, which often required a third over the even-numbered bass notes. In Neapolitan manuscripts, the presence of this third is sometimes indicated by the Roman numeral "X," as in $\frac{X}{9}$ ("X" = 10, a two-digit number being potentially confusing in thoroughbass; see Cafiero, this issue). In his *Regole per accompagnar il Basso* (*Rules for Accompanying the Bass*), Joseph Doll (d. 1774; the only German ever to become a master at one of the old conservatories in Naples) used this nota-



Example 4. Lorenzini's variant example of a bass that ascends a fourth, descends a third, and uses the dissonance "9" on the downbeats

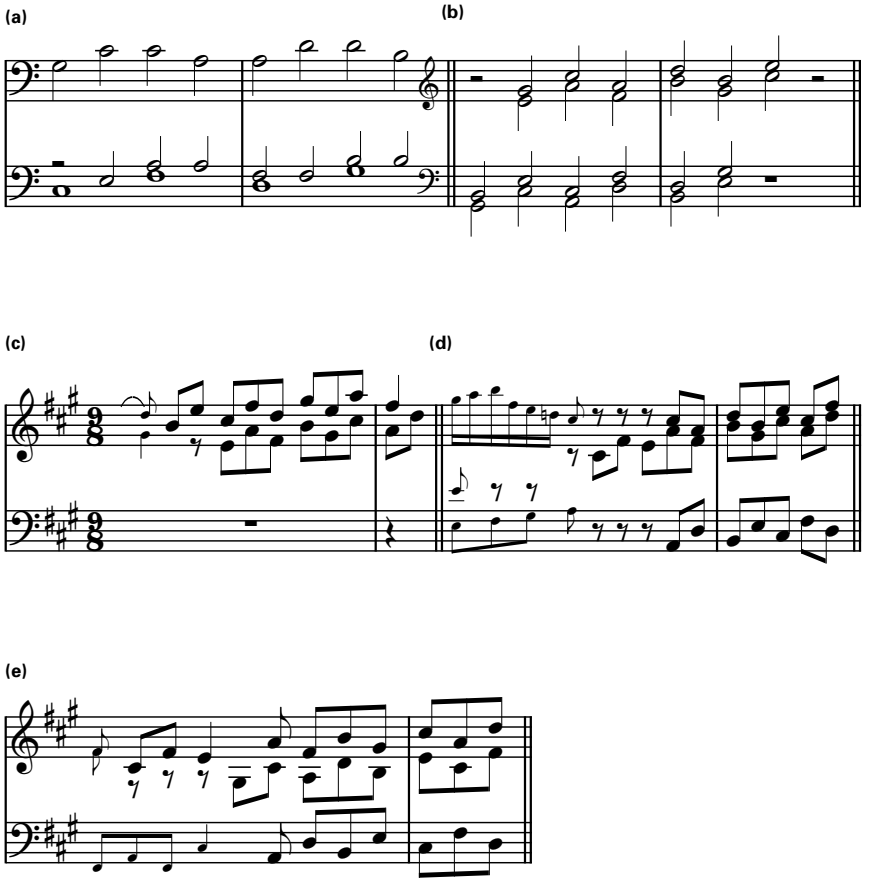


Example 5. This author's realization of a bass by Joseph Doll, a maestro in Naples; "X" means "10"

tion to illustrate one type of "move of the fourth that changes the key" ("Il modo di quarta che cambia tono"; Doll ca. 1760s, fol. 32r). In my realization of Doll's bass (see Example 5), the descents of the upper voice (the "X"s) collide with tones retained from the previous chord (the "9"s). Lorenzini's "idea of composers" may thus also include a canon between the voices, which is already implicit in Ugolino, Durante, and Bach (see Examples 1 and 3).

The association of implicit canons with this particular schema was something usually taught by a master. Occasionally, however, this craft knowledge was committed to print. Referring to sequences, the German organist Andreas Werckmeister (1645–1706) wrote, "Now if a subject [in the bass] should proceed by regular intervals, then it is quite easy to make a canon above it" ("Procediret es [= Subjectum] nun in gleichen Intervallis, so ist gar leicht einen Canonem darauff zu machen"; 1702, 116). Example 6 presents two of Werckmeister's several ideas for canons with a rising-fourths motive, along with realizations of those same ideas in a Bach fugue.

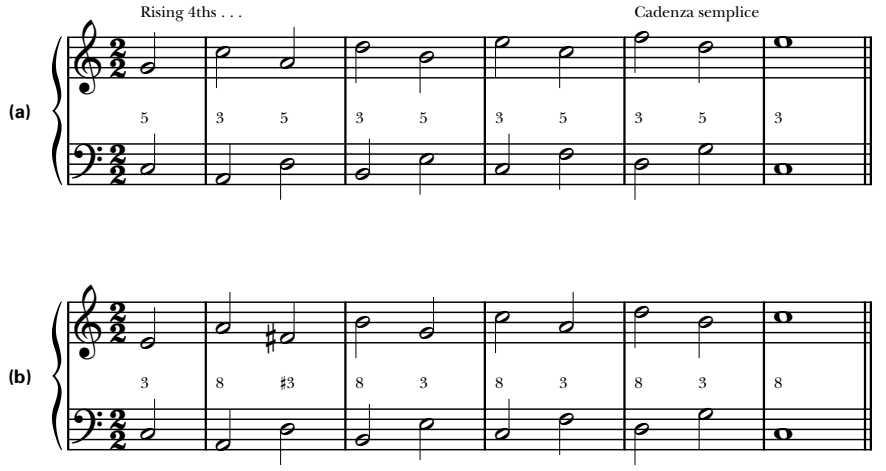
Just as the oval-and-cross schema was not a face but a scaffolding for drawing a face, so a contrapuntal schema was a frame for adding the motivic cues of real music. In his *Principes de composition* (ca. 1720s), Nicolas Bernier (1665–1734), who was a student of Antonio Caldara (1671–1736) in Rome and later became master of music at the Sainte-Chapelle in Paris (the private



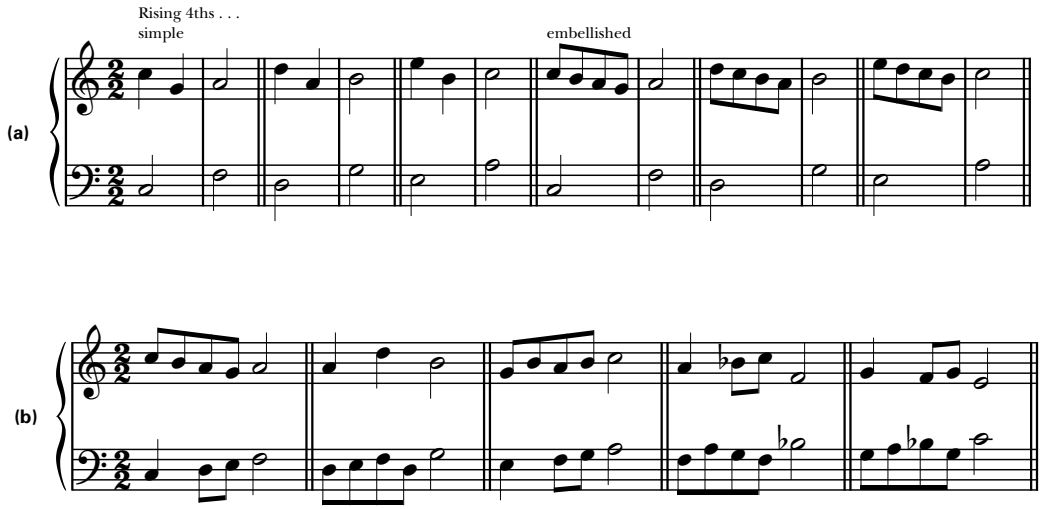
Example 6. Two suggestions by Andreas Werckmeister for canons involving rising fourths (a) above a cantus firmus or "Subjectum" (p. 117), and (b) in doubled thirds (p. 131). His younger contemporary J. S. Bach employed similar canons of rising fourths in his A-major fugue (WTC I), first in two voices (c, m. 21), then in three voices with the upper two in parallel thirds (d, m. 25), and then in three voices with the upper two in parallel sixths (e, m. 31).

chapel of the royal family), shows how to progress from the scaffolding to the first steps of decoration. His section on basses that skip by large intervals begins almost as a quote from Ugolino: "When your bass begins by an ascending skip of a fourth or a fifth" (Bernier ca. 1720s, 24); he then offers several canonic scaffolds, always alternating perfect and imperfect consonances. Two that, in Ugolino's term, "take the third" are shown in Example 7.

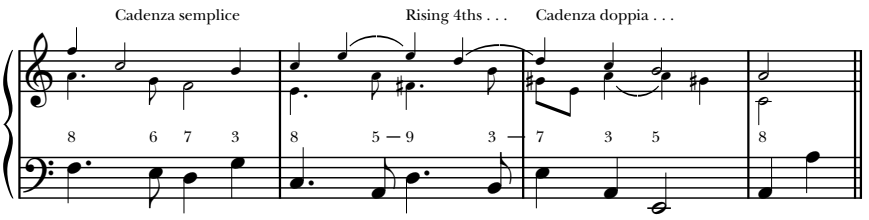
In his section on "embellished counterpoint," he then gives a rule for decorating melodic fourths within this schema: "The skip of a fourth occurring within the measure ought to be embellished by four equal notes, then it is only the first and the fourth which count" (Bernier ca. 1720s, 36; see Example 8a). When he introduces the embellishment of an already embellished bass



Example 7. Nicolas Bernier, *Principes de composition*, examples of canons on rising fourths with the intervals (a) 5–3–5–3 . . . and (b) 3–8–3–8 . . .



Example 8. Bernier, *Principes*, two stages of embellishment: (a) embellishing a melody over a simple bass, and (b) embellishing a melody over an embellished bass



Example 9. Bernier, *Principes*, a summary exercise in the use of dissonances

(see Example 8b), his new rule seems more like a general maxim than a prescription for how to arrive at his specific examples: "One must make all the notes either 'parfaite' [1, 3, 5] or 'mixed' [6], and if one encounters a false fifth or some other 'imparfait' [2, 4, 7] interval, then one must resolve this dissonance by descending one degree" (38–39).

After introducing the general treatment of dissonance he provides "some exercises" with more realistic basses (50). He places figures above the bass, but they represent a literal upper voice, not generic chords. A third voice is implicit, and in this author's realization (see Example 9), that implicit voice (shown in the alto range in smaller noteheads) can complete the contrapuntal rising-fourths schema, making a forceful drive to the ensuing cadence in the key of A minor. Bernier's didactic bass, though almost indistinguishable from real music at the Sainte-Chapelle, is fully comparable to the second schema of Lorenzini (note Bernier's "9" in the second measure and then his *cadenza doppia*; cf. Example 4) and to the much earlier model of Ugolino (cf. Example 1). Thus, in terms of the practical training of composers, improvisors, and accompanists, the eighteenth century of Werckmeister, Bernier, Durante, Bach, Lorenzini, and Doll has as much and perhaps more in common with the fifteenth century of Ugolino than with the nineteenth century and its Romantic-era textbooks on "the science of harmony."

The importance of exemplars

Rousseau had started life in an artisan's family but through a series of misadventures became the lover of the monied Madame de Warrens in the duchy of Savoy near his native Geneva. She made it possible for him to complete a gentlemanly education, in the course of which he obtained, probably in the later 1730s, a book that offered a scientific approach to music: "While we were fighting in Italy,[1] they were singing in France: the operas of Rameau began

1 By "we," Rousseau likely means the French, and the historical context is probably the wars of the Austrian succession. The larger context of the *Confessions* makes it clear that Rousseau never was a soldier.

to make a noise there, and once more raise the credit of his theoretic works, which, from their obscurity, were within the compass of very few understandings. By chance I heard of his 'Treatise on Harmony,' and had no rest till I purchased it" (Rousseau 1769, bk. 5). Jean-Philippe Rameau's first modern biographer, Cuthbert Girdlestone, relates what little we know of Rameau's first forty years. He was the son of an organist, went to Savoy and Milan in Italy briefly around the year 1700, learned the Rule of the Octave in Montpellier shortly thereafter, and then, following twenty years of organ playing in the French provinces, came to Paris and wrote his *Traité de l'harmonie reduite à ses principes naturels* (*Treatise on Harmony Reduced to Its Natural Principles*; 1722; see Girdlestone 1957, 2–3, 485). As Thomas Christensen has noted, "Rameau's theory of music was seen as a *scientific* system. In both method and structure, it was frequently compared to Newton's systematization of celestial mechanics and optics. . . . Not surprisingly, Rameau was often granted the accolade 'Newton of Music'" (1993, 7–8). A beginner like Rousseau, however, could not see a way to translate these lofty precepts into practical composition: "As I began to read music tolerably well, the question was, how I should learn composition? The difficulty lay in meeting with a good master, for, with the assistance of my Rameau alone, I despaired of ever being able to accomplish it; and, since the departure of M. le Maitre, there was nobody in Savoy who understood anything of the principles of harmony" (Rousseau 1769, bk. 5).

In his Gilford Lectures (1951–52), the philosopher of science Michael Polanyi gave a technical account of riding a bicycle in terms of Newtonian mechanics. His tongue-in-cheek specification of the physics was intended as a foil for his central point—that personal experience, embodied knowledge, and the skills gleaned from apprenticeship in a living tradition can be as important as formalized rules:

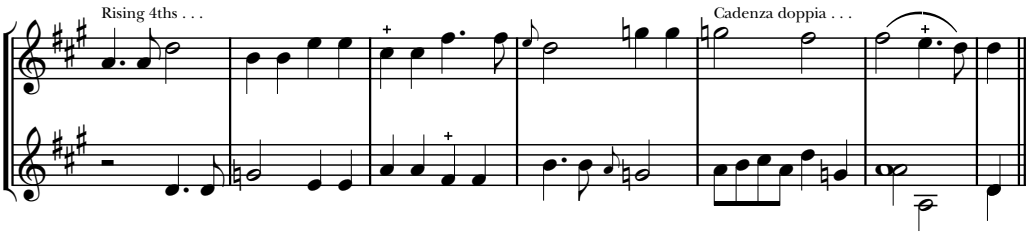
> But does this tell us exactly how to ride a bicycle? No. You obviously cannot adjust the curvature of your bicycle's path in proportion to the ratio of your unbalance over the square of your speed; and if you could you would fall off the machine, for there are a number of other factors to be taken into account in practice which are left out in the formulation of this rule. Rules of art can be useful, but they do not determine the practice of an art; they are maxims, which can serve as a guide to an art only if they can be integrated into the practical knowledge of the art. (1958, 50)

It was the integrated practical knowledge that Rousseau lacked. He read and reread his Rameau but grew convinced that it would not solve the problem at hand. If rules and principles failed, then recourse must be made to exemplars:

> By another chance I fell sick; my illness was inflammatory, short and violent, but my convalescence was tedious, for I was unable to go abroad for a whole month. During this time I eagerly ran over my Treatise on Harmony, but it was so long, so diffuse, and so badly disposed, that I found it would require a con-

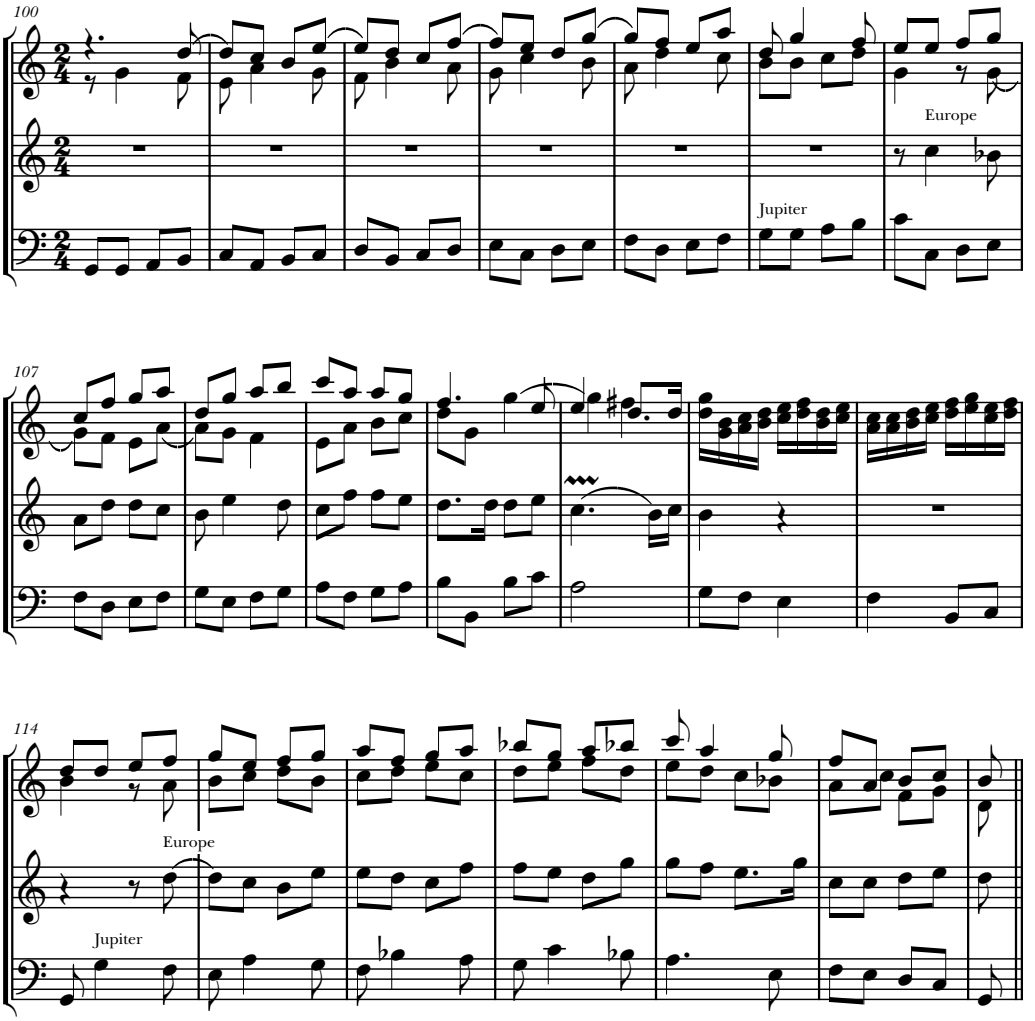
> siderable time to unravel it: accordingly I suspended my inclination, and re-created my sight with music.
>
> The cantatas of Bernier were what I principally exercised myself with. These were never out of my mind; I learned four or five by heart, and among the rest, "The Sleeping Cupids," which I have never seen since that time, though I still retain it almost entirely; as well as "Cupid Stung by a Bee," a very pretty cantata by Clérambault, which I learned about the same time. (Rousseau 1769, bk. 5)

The Bernier of these cantatas is the same Bernier of the *Principes de composition* mentioned earlier, though Rousseau likely never saw those rules. What Rousseau internalized were the actual examples of the art of Bernier and his contemporary Louis-Nicolas Clérambault (1676–1749). A collection of Clérambault's motets for the royal convent school at St.-Cyr, near Versailles, was published in 1733, and a Christmas motet "Hodie Chrisus natus est" may serve to show how close to the rule an exemplar may be. The passage marked *Plus gai* with the text of praise "Gloria in excelsis Deo" (see Example 10) begins as an exact rising-fourths canon with a bass almost identical to Lorenzini's (cf. Example 2). Exemplars this "exemplary" are sometimes called *prototypes* or *archetypes*.



Example 10. Louis-Nicolas Clérambault, *Petits motets*, "Hodie Christus natus est," Plus gai, m. 52

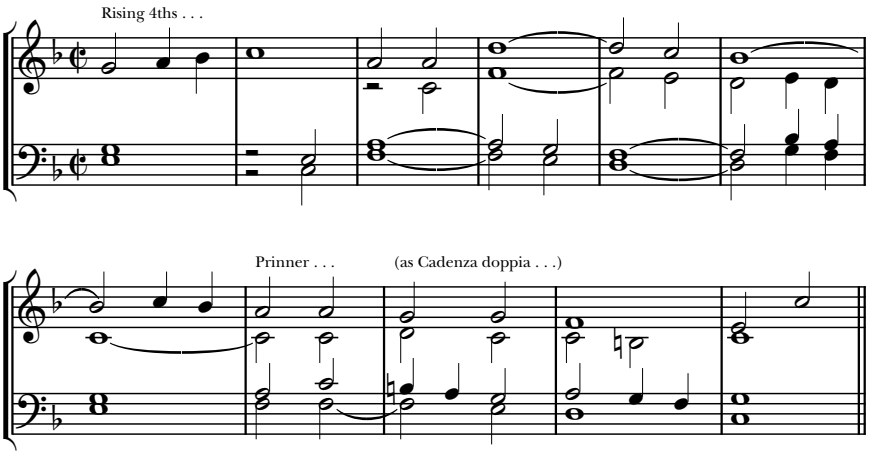
The cantata *Jupiter et Europe* by Bernier contains a duet full of canons on the rising-fourths schema ("Non, non ne craignez point"; Bernier 1703; see Example 11). The violins begin with a canon whose motive descends a third stepwise before leaping up a fourth. That will be the soprano Europe's initial motive. The baritone Jupiter, by contrast, fills in the ascending fourth stepwise but leaps down the descending third (his part is doubled by the basso continuo). When all four parts are in play, Jupiter's motive is mirrored by parallel consonances in the second violins while Europe's motive engages in canon with the first violins. This would be complex enough, but Bernier also manages to include the "idea" of 9–8 suspensions (see the downbeats of mm. 101–4, 107–8; cf. Example 3). After a G-major cadence, the violins first per-



Example 11. Bernier, *Jupiter et Europe*, "Non, non ne craignez point," m. 100

form an "embellishment" of Jupiter's motive in sixteenth notes. They then launch into a canon on Jupiter's motive while the singers perform a canon on Europe's motive. The sum of all these parts was something deeply embedded in, to quote Polanyi, the "practical knowledge of the art."

If Bernier's dazzling virtuosity was too much for Rousseau to absorb, many other examples of the obvious type of rising-fourths schema found in Clérambault's motet abounded in the repertories of churches large and small. Had Rousseau's peregrinations taken him to Vienna instead of Paris, he might have heard the same schema in the work of Georg Reutter (the younger, 1708–72), the Viennese master of St. Stephen's cathedral and the imperial chapel.



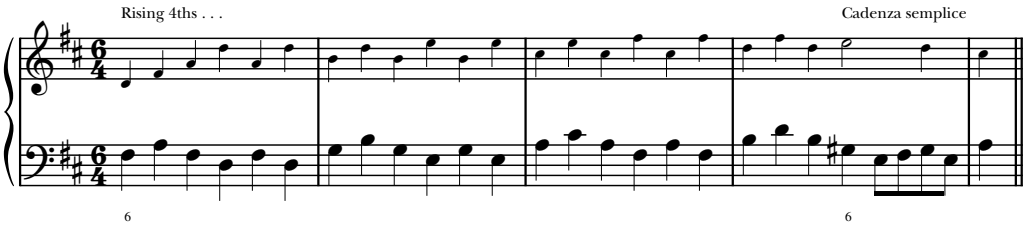
Example 12. Georg Reutter, *Messa a quattro da Capella*, Kyrie, m. 64

Like Bernier, Reutter had studied with Caldara. As shown in Example 12 from the Kyrie of his a capella mass (1744; with continuo), the two-part canon of the model, doubled in thirds or sixths as in Werckmeister (cf. Example 6), provides the general framework for the rising motion in the first half of the passage. In the second half Reutter adapts the *cadenza doppia* to the more galant schema of the Prinner (Gjerdingen 2007, ch. 3; cf. Example 23).

In ordinary English, an *exemplar* is "a person or thing which serves as a model for imitation."[2] In the literature of cognitive psychology, however, the word is shorn of the sense of imitation or emulation. The focus instead shifts to the older meaning of "an instance," and particularly to a remembered instance of a particular experience. In matching a new experience to a host of similar, previously stored exemplars, we may behave as if we have abstracted a category or prototype (Nosofsky, Clark, and Shin 1989). We may respond to the new experience as if to say "it's one of those," even if we have no name for "those." After experiencing the above dozen exemplars of the rising-fourths contrapuntal schema, and especially if one has taken the time to play and listen to them, then one's memory of these individually unique but collectively coherent exemplars will be brought to bear on one's hearing of the passage in Example 13.

This instructional bass was written by Johann Mattheson (1681–1764), a talented musician and diplomatic secretary in Hamburg. It comes from the seventh of his "organ test-pieces for the intermediate level," first appearing in 1719. It lacks many of the surface features of the other exemplars, yet we "know" that it is "one of those." That is the power of a rich fund of exem-

2 *Oxford English Dictionary*, 2nd ed. (Oxford: Oxford University Press, 1989), s.v. "Exemplar," definitions 1 and 3.



Example 13. Johann Mattheson, Exemplarische Organisten-Probe, no. 7, Vivace, m. 9

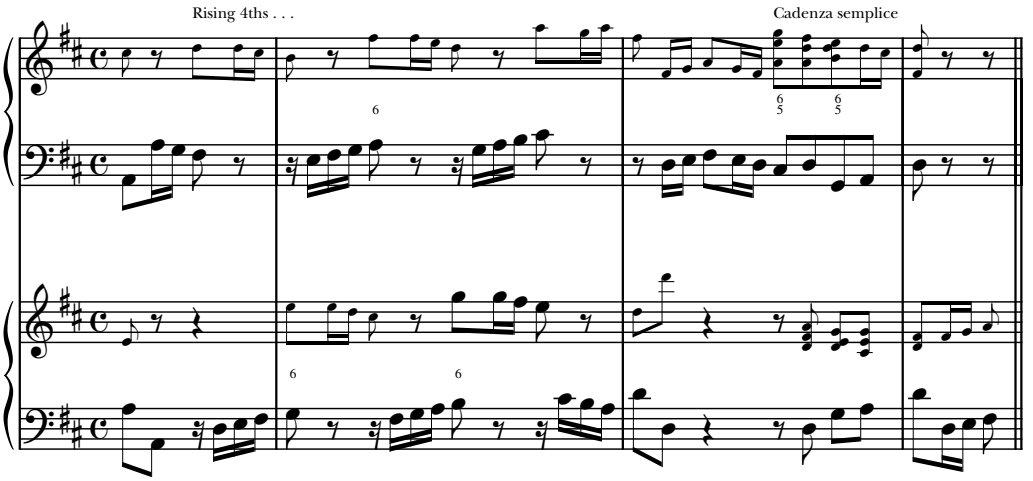
plars. The motto on Mattheson's cover page, taken from Seneca's ancient letters of advice (ca. 60), reads "Longum iter est per praecepta, breve et efficax per exempla" (The journey is long by rules, but short and efficient by examples; letter 6). Mattheson wrote two books of such exemplars in all major and minor keys, with accompanying commentary. They were partimenti in all but name. Yet in Hamburg, Mattheson lacked the institutional support, the huge base of students, and the pedagogical nexus found in Naples. There the partimento transcended thoroughbass to become a training ground for the musical imagination.

The institutionalization of craft training in Naples

For Italian musicians, the word *partimento* was associated with a *basso continuo* as early as 1605 in the north (Venice) and 1608 in the south (Palermo), and therefore almost from the beginnings of thoroughbass itself.[3] The fact that partimenti with explicit figures often look exactly like thoroughbass accompaniments has helped to foster some terminological confusion. Moreover, in several Italian cities even those basses used to create independent performances were originally not called partimenti, although the word gained broad currency later in the eighteenth century. In Rome, for example, the composer and famous keyboard player Bernardo Pasquini (1637–1710) labeled his partimenti—independent figured basses for one or two harpsichords—as "sonatas." In the example shown of the rising-fourths schema (ca. 1700; sonata no. 111 in the modern edition, mm. 6–9; see Example 14), the two harpsichords trade the explicit filled-in fourths, as each performer then implicitly provides the descending thirds for the other. An advanced apprentice could have learned a great deal playing at one harpsichord while his master played at another.

In Bologna, the famous Padre Martini published what resembles a *zibaldone* of models for the study of imitative counterpoint. The title of this impor-

3 For Venice, see G. M. Trabaci, *Missarum, et motectorum quatuor vocum* (Venice, 1605), cited in Borgir (1987: 12). For Naples and Sicily, see Gallo (1608).



Example 14. Bernardo Pasquini, Sonata in B minor, no. 111 for two keyboards, beginning in the second half of m. 6 with a passage in D major

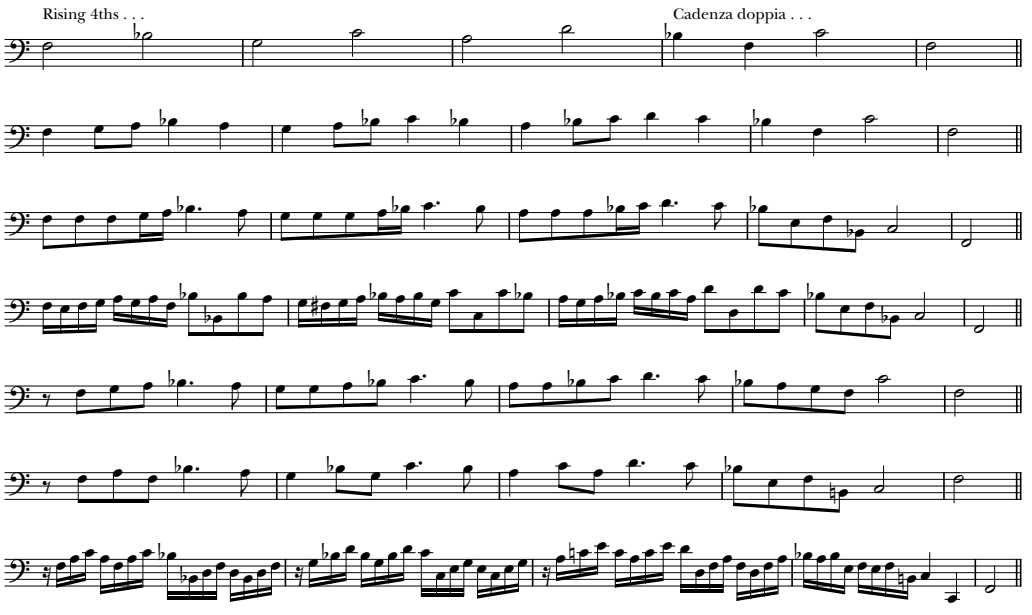
tant treatise, if rendered in English, begins *Exemplars* . . . (Martini 1774–76), and a recent monograph on this treatise makes explicit its affinity with pattern books in the visual arts (Pasquini 2004, 61–62). His work with thoroughbass was similarly laconic. A manuscript of elementary basses by him or a member of his school (Martini ca. 1770s?; Padre Martini's name is listed on the cover of the binding, but the manuscript may be in the hand of one of his assistants, perhaps Stanislao Mattei) begins with a single page that states the names of intervals and sets out the Rule of the Octave. After that first page, the only phrase seen in the remainder of the manuscript is an occasional "alio modo" ("[this could be done] in another way") over an alternative exemplar. His diminutions on the rising-fourths bass (see Example 15) show how to add the cues of real musical motives to the basic framework, much as an artist might add facial features to the oval-and-cross model of the head. All but the last of these diminutions will work in canon according to the schemes shown in many of the previous excerpts.

In Naples, partimento training was brought to a very high standard. Collections of partimenti by the Naples-born Gaetano Greco (ca. 1657–1728) are likely the earliest preserved there. But as Borgir made clear (1987, 147), the central figure was Francesco Durante (1684–1755).

> Greco's pedagogical ideas were developed and refined by Francesco Durante into a method that remained the model for Neapolitan teachers until the end of the century. Fenaroli's highly successful partimento manual, reissued time and again and held in high esteem far into the nineteenth century, follows the format established by Durante. . . . [His] teaching method is surely one of the significant documents in the history of continuo practice. Not only does it pro-

vide a solid grounding in fundamentals but it also helps develop specialized skills such as improvising a florid line above the bass. The diminution exercises are without parallels in the entire figured bass literature.

Durante had the advantage of working in the special environment of Naples. There, in the sixteenth century, religious charities had established four foundling homes for boys (*conservatorii*). In the seventeenth century, the boys began to receive music lessons from professional musicians. Greco was one of these boys and received his training in the 1670s. As Spanish wealth subsidized the construction of ever more sumptuous opera houses and great churches, the need for trained musicians was met by students from the conservatories. By the second decade of the eighteenth century, the conservatories were hiring famous musicians as teachers and attracting paying students from abroad. Nowhere in Europe was there such a concentration of talented students (several hundred). This is when Durante, himself a product of the conservatories, returned from studies in Rome (perhaps with Pasquini) to take over from the elderly Greco as master of one of the schools. Durante's success and influence may have rested in part on his excellence as a composer, in the sense that his partimenti, like Chopin's études, transcended the merely pedagogical. But another factor was his insight into how to teach the component schemata of the Neapolitan tradition. As a second maxim from Seneca put it, "facilius per partes in cognitionem totius adducimur" ("we are more easily led part by part to an understanding of the whole"; letter 89).

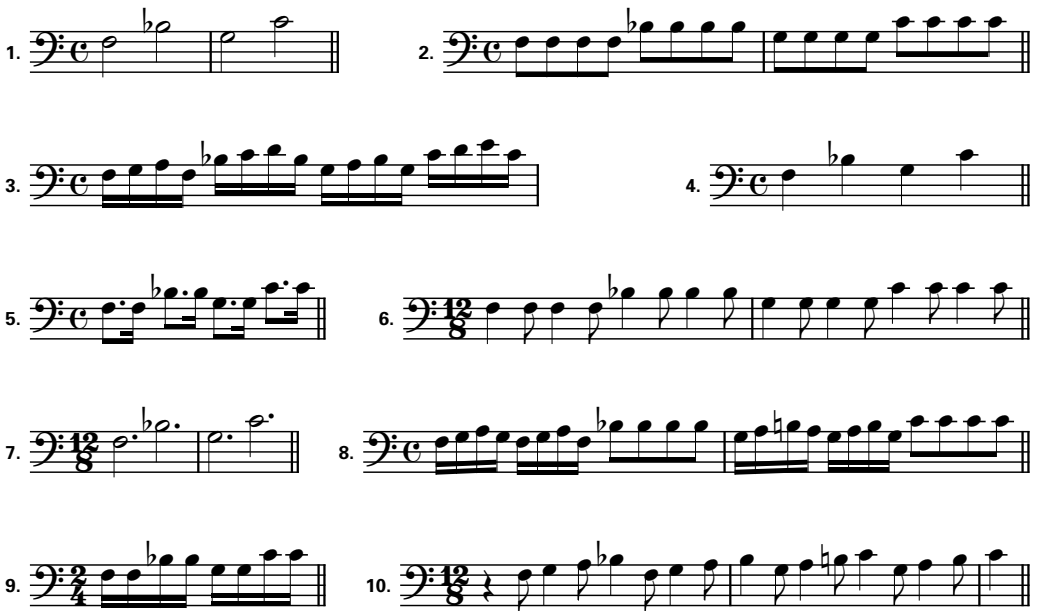


Example 15. Giovanni Battista (Padre) Martini, diminutions of the rising-fourths bass

The "diminution exercises" (*partimenti diminuiti*) lauded by Borgir were studies in the embellishment not of the bass but of the implicit, imagined parts of a particular schema, meaning what was improvised by the performer's right hand at the keyboard. In the preserved manuscript collections of these exercises, verbal description is entirely absent save for the enumeration of options: *primo modo* (a first way), *secondo modo* (a second way), and so forth. Each set of *modi* or optional exemplars was followed by a complete partimento. The student needed to study the exemplars and then determine where in the partimento they would fit. As the student progressed through a collection of these lessons, he mastered the craft of more and more schemata. Each new partimento was an opportunity for discovery, for reinforcement of previous schemata, and for practice in knitting the component parts into a satisfying whole. It was a nonverbal course of study that combined elements of performance, analysis, improvisation, and composition.

Because the surviving collections of these studies are archival in nature and preserved in libraries across Europe, we cannot say with any certainty which partimento a student might have studied first. The *zibaldone* of the twelve- or thirteen-year-old Domenico Cimarosa (1762) contains a small collection of partimenti from the *regole* of Durante along with some of Durante's easier partimenti. The *zibaldone* of Antonio Galeota (1753) is similarly modest in size and filled with easier partimenti. So perhaps only older, more advanced students would undertake the *partimenti diminuiti*. In any case there is no fixed entry point into the network of patterns associated with a particular schema. The important thing was to fix many exemplars in memory. The great seventeenth-century comedian Niccolò Barbieri noted that improvising actors "study and fortify their memory with a wide variety of things such as sayings, phrases, love-speeches, reprimands, cries of despair, and ravings, in order to have them ready for the proper occasion" (1634). The students of Durante would "study and fortify their memory" with a repertory of exemplars so that they could apply them to the "occasion" first of a partimento and later to both improvisation and composition. The task was enormous, but the student would spend seven to ten years in the conservatory, studying six days a week from dawn to dusk. The result was an ability to think in terms of complex musical patterns.

By focusing the lens of the rising-fourths schema on Durante's *partimenti diminuiti*, it may be possible both to highlight his great powers of invention and to suggest how students could "fortify" their memories. Eight of the more than a hundred of these studies focus on the model of the rising-fourths schema, and Durante offers thirteen *modi*—Barbieri's "wide variety of things"—as exemplars. Among these exemplars one can find at least ten variants of the bass, not counting differences of key or mode. In Example 16 these basses are transposed for ease of comparison with Martini's basses (cf. Example 15), with which they share many features. A student needed to be able to recognize which passages of a partimento matched which schema, and

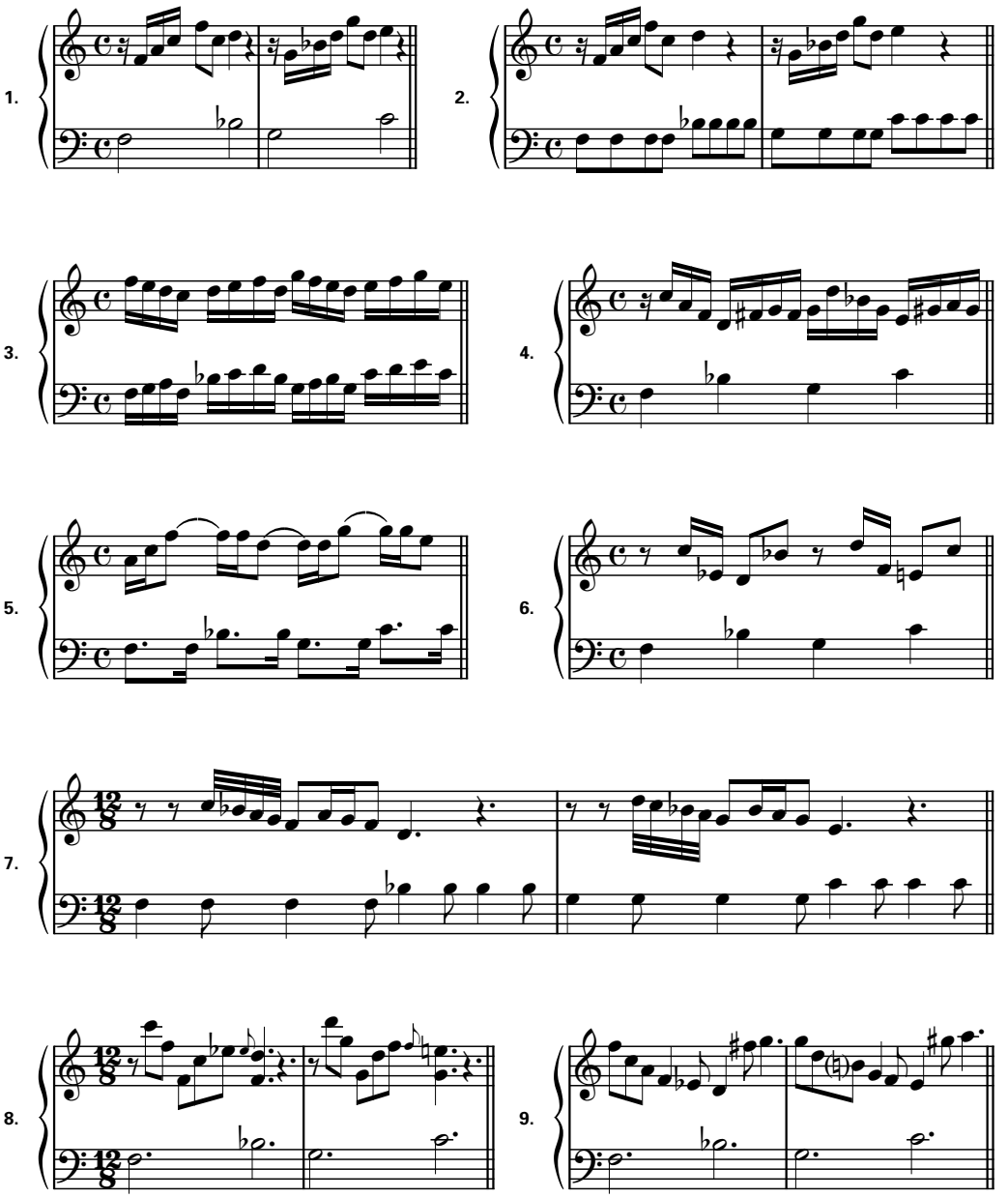


Example 16. Ten variants of the rising-fourths bass, from Durante's *Partimenti diminuiti*

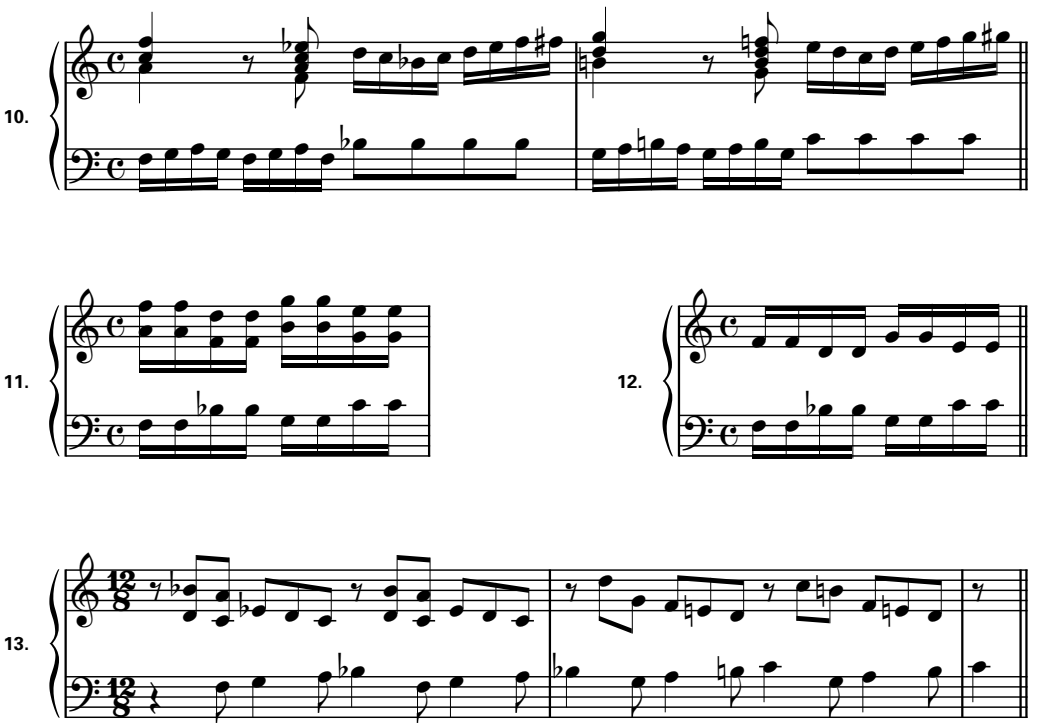
that skill in pattern recognition was fostered by learning so many variations on the bass pattern of the schema.

Durante's thirteen exemplars of melody-bass pairs are shown in Example 17 (transposed to match Example 16). Aesthetic doctrines in Durante's era emphasized the *ars combinatoria* (Eckert 2000), meaning that an artwork, instead of being invented from whole cloth, involves the artful combination of preexisting elements. Many of the basses and melodies in his exemplars could be recombined in dozens of ways, forming an even larger pool of interrelated exemplars. The particular combinations of bass and treble that Durante presented are representative of a broad range from the basic (Example 17, no. 12) to the *recherché* (Example 17, no. 13), including a selection of both the diatonic and the modulating types.

In the Durante method a student learned to incorporate a schema into the form and flow of the associated partimento. Any of his exemplars could serve to illustrate this process, but let us select the tenth one of Example 17, which has the advantage of displaying its chords in a transparent fashion. It is of the modulating type that, in maestro Doll's phrase, "changes the key" (cf. Example 5). While the opening F-major chord seems stable at first, at the second chord a melodic descent through E♭ quickly shifts the focus toward the new anchor of a B♭-major triad. The pattern then repeats a step higher in the second measure. The exemplar's keyboard texture features an alternation of sixteenth-note passagework between the hands, something quite charac-



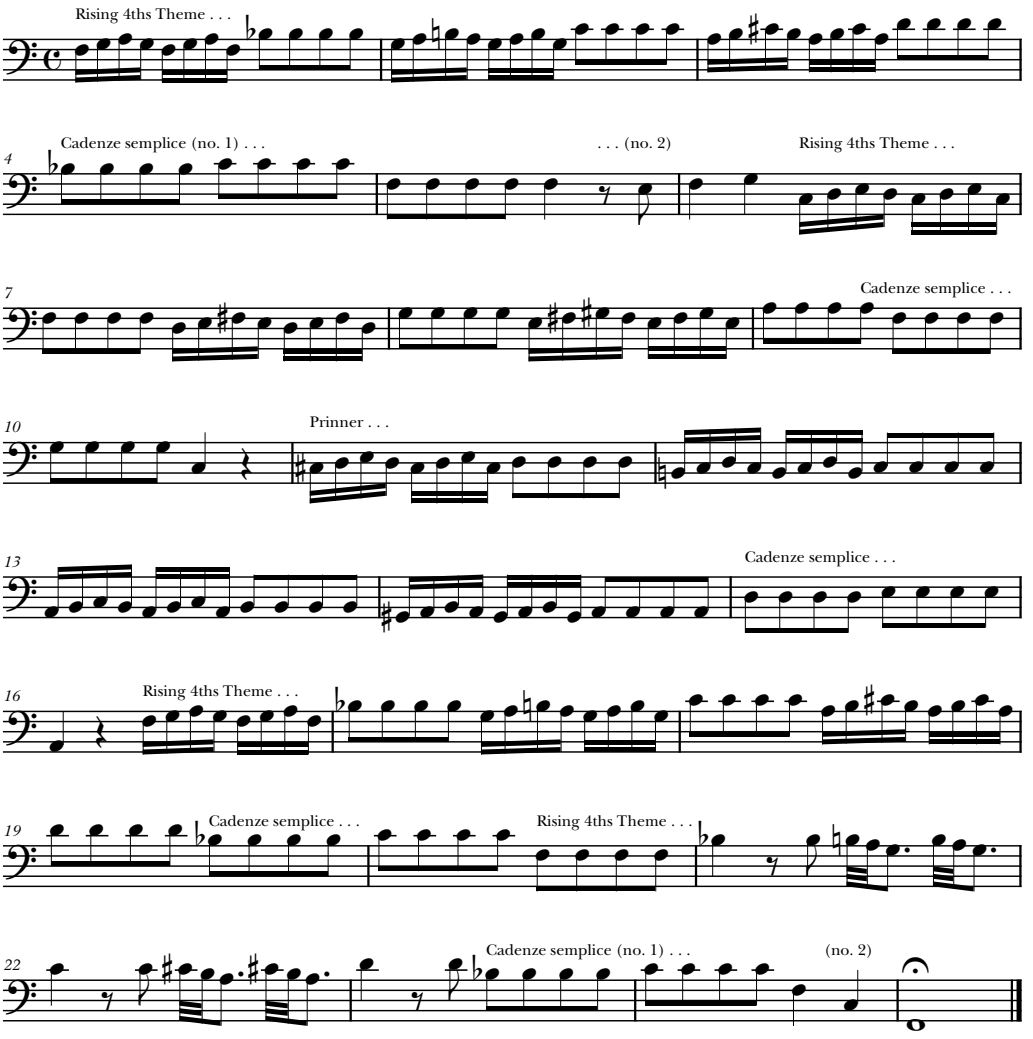
Example 17. Durante's thirteen ways, or *modi*, of fashioning an upper part to pair with a rising-fourths bass



Example 17 (continued)

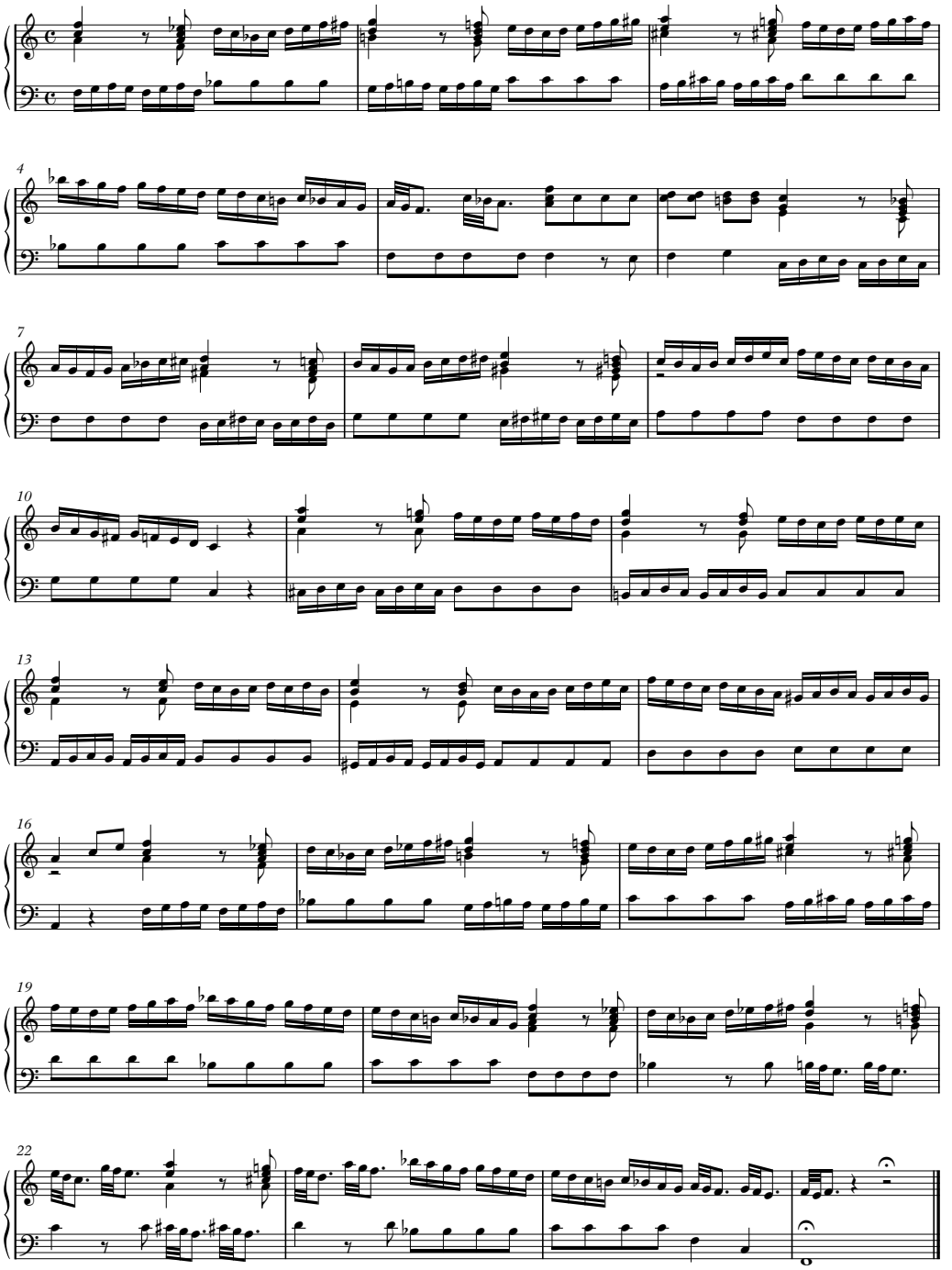
teristic of partimento style. Note that although this exemplar is far removed from the simple half-note model of Bernier (compare Example 7b), the tones sounded in the outer voices at the beginning and midpoint of each measure match that older model exactly.

The partimento that Durante wrote for practice with this exemplar is shown in Example 18. The exemplar's bass obviously matches the first two measures of the partimento, and it seems clear that the pattern is meant to continue for an additional measure (m. 3). This rising-fourths theme repeats in C major midway through m. 6. A third statement at the original pitch begins in the middle of m. 16. Thus, of the partimento's twenty-five measures, nine are occupied by obvious presentations of the rising-fourths theme. At the midpoint of m. 20, a somewhat disguised version of the theme makes a last appearance, and beginning in m. 11 a quite different adaptation of the exemplar creates a descending four-bar sequence in the minor mode that matches the Prinner schema. These variants account for an additional seven measures. Only eight measures remain, all involving *cadenze semplici* (simple cadences). The game of a partimento really could be that simple, though learning to perform the exemplars in different keys and to knit the exemplars together with the cadences was far from trivial, especially for young apprentices.



Example 18. The full partimento corresponding to the *modo* of Example 17, no. 10

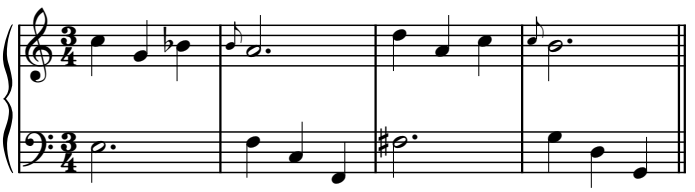
My realization of this partimento, notated in Example 19, is but one of countless ways to assemble the implied schemata and cadences (see the article by Giorgio Sanguinetti, this issue, for further information on partimento realization). Notating a realization was not, however, an eighteenth-century Neapolitan practice. Indeed, given the hundreds of students at four conservatories for decade after decade, it is remarkable how few fragments of notated realizations survive. The real strength of the partimento method of teaching was in guiding the students to develop their "presence of mind and powers of concentration" unaided by notation.



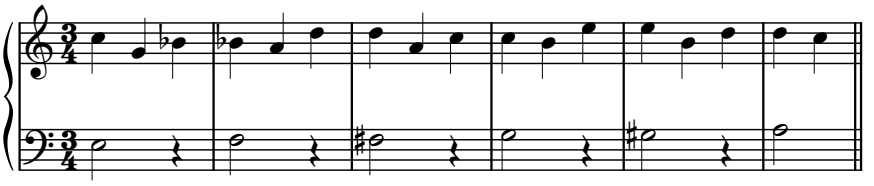
Example 19. The author's realization of the partimento given in Example 18

An *ars combinatoria*

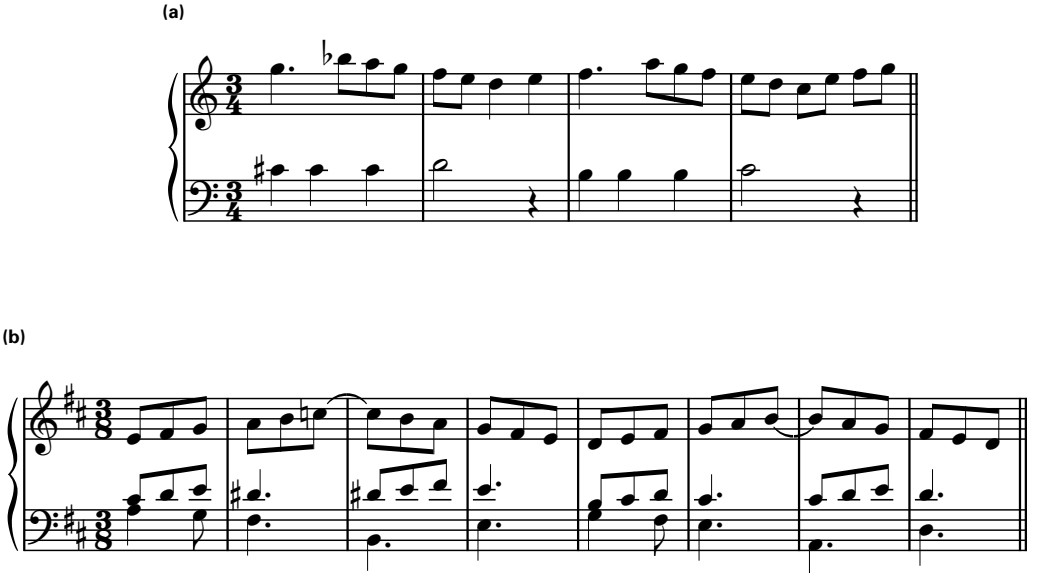
The long-serving chapel master of the court of Turn and Taxis at Regensburg, Joseph Riepel (1709–82), was a strong proponent of the *ars combinatoria*. In a voluminous series of books about music, Riepel described several schemata or models (Ger.: *Muster*) that every student needed to commit to memory (1755, 44). The first of these, the Monte, or mountain, is shown in Example 20, transposed to the pitch level of Durante's exemplars (1752, 18). Riepel's melody goes down a third, then up a fourth, just as in almost all the previous examples. His bass, however, is a galant smoothing of the earlier leaping fourth—in chordal terms, instead of the root of one triad leaping up to the root of another, there is now the third of the first triad stepping up to the root of the second one. While the purely contrapuntal version of the rising-fourths schema had no fixed location in the scale and key, Riepel's Monte does, and so does Durante's exemplar in the above partimento. In harmonic terms, the Monte features a move ("a change of key"; cf. Example 5) toward the subdominant, followed by a similar move toward the dominant. Or described another way, the chromatic form of the contrapuntal schema is subsumed under a broader cadential schema. Riepel does not speak in such terms, but one of his subsequent discussions could be interpreted that way. Riepel's book on "deceptive" practices in composition includes an example that matches the three-part rising-fourths theme of Durante (1765, 22; see Example 21; cf. Example 19). From Riepel's description it can be inferred that he thought of his example as a type of deceptive cadence—IV–V–vi—with each pair of measures standing for one chord or for one scale degree in the cadential bass.



Example 20. Joseph Riepel's exemplar of the Monte schema (1752)



Example 21. Riepel's exemplar of an extended, three-module Monte (1765)



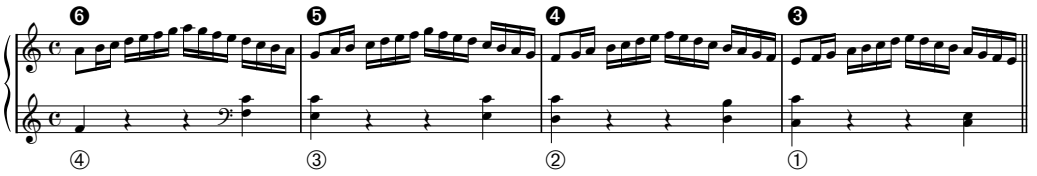
Example 22. (a) Riepel's exemplar of the Fonte schema. (b) Francesco Gasparini, excerpt from the opera *Il Bajazet* (Venice, 1719)

Riepel's second schema was the Fonte, or well (as in "down a well"). It used the same module as the Monte, but transposed a step lower rather than a step higher. Example 22a shows Riepel's exemplar (1765, 2) and Example 22b shows a typical operatic example from the Venetian Francesco Gasparini (1661–1727).

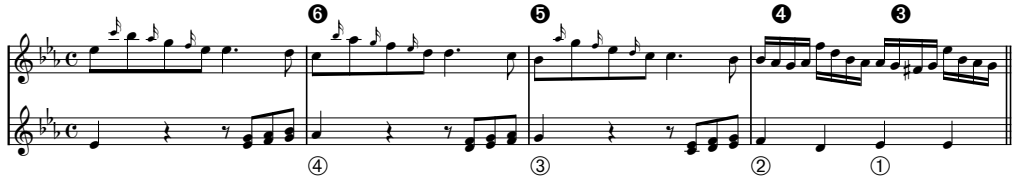
It may be tempting to see Reipel's Monte and Fonte as merely "chord progressions." They contain chords, yes, but they were strongly contrapuntal in origin. They represent centuries-old schemata: discant-tenor frameworks transformed first into melody-bass frameworks and then adapted to stereotypical harmonic-contrapuntal sequences.

Among the most prevalent of all eighteenth-century schemata was the Prinner, a four-stage descent in parallel tenths between melody and bass. The downbeats of a passage from a well-known sonata of Mozart sound the core tones of this schema (1788; see Example 23). J. C. Bach, himself an important model for Mozart, managed to incorporate the rising-fourths schema into the first three stages of the larger Prinner schema, as shown in Example 24 (Bach 1773–74, mm. 46–49).

The astute reader should now be catching on that the *ars combinatoria* of interrelated schemata goes far beyond the musical dice games designed for amateur composers in the days of Mozart and Haydn (Ratner 1970). In a sense, the dice games were stories told to patrons and dilettantes, stories that

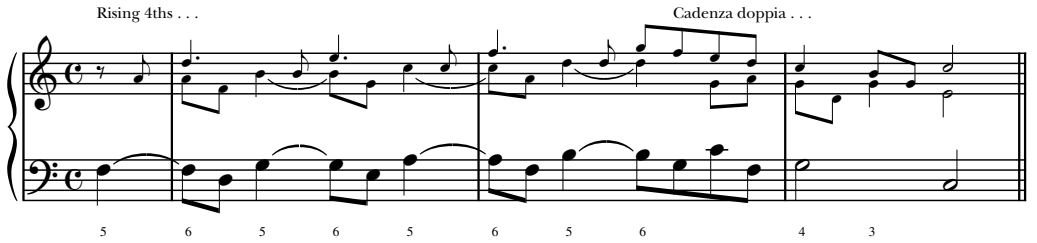


Example 23. The Prinner schema in an Allegro by Mozart, KV 545 (Vienna, 1788, m. 5). The schematically central scale degrees are marked in circles.

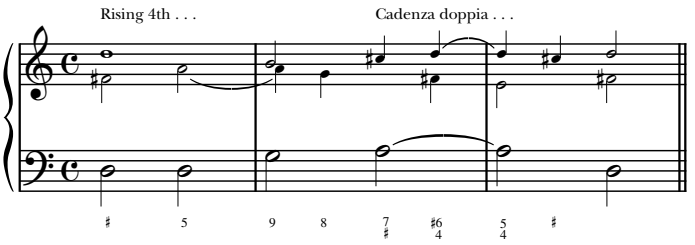


Example 24. J. C. Bach's exemplar of the rising-fourths schema articulating the first three stages within a larger Prinner schema (op. 12/6, mvt. 2, mm. 46–49)

hinted at but did not reveal the secrets of the professionals. A composer who was trained aurally in the method of partimenti was not selecting patterns at random. He would intuitively call up from memory only the patterns that would be appropriate for a particular musical context. Greatly talented composers like Durante, Mozart, and J. C. Bach were able to call upon multiple schematic frames to create particularly rich musical patterns. In the works of these artists, there are so many associations between the common musical schemata that it may be wrong to think of schemata as wholly separate categories. Take, for instance, the well-known rising contrapuntal pattern 5–6–5–6. . . . Note how one of the 5–6–5–6 thoroughbass exemplars given by Durante in his partimento "rules," or *regole*, presents the now familiar rising-fourths bass (Example 25).



Example 25. Durante's *regula* for the 5–6–5–6 thoroughbass pattern with leaping bass



Example 26. Durante's *regula* for the 9–8 suspension

The more one learns of eighteenth-century style, the more such relationships emerge. For instance, in Durante's *regole*, the exemplar of the 9–8 dissonance follows an ascending leap of a fourth—the same "idea" mentioned by Lorenzini (see Example 26; cf. Example 2). Note that the dissonance occurs above scale degree 4, something that may seem incidental to us but that was likely memorized as an integral part of the praxis of partimenti.

Durante placed his model 9–8 dissonance (Example 26) in the larger context of the rising-fourths schema and its following *cadenza doppia*. Similarly, only a few chromatic adjustments would be needed to incorporate Example 25—Durante's 5–6–5–6—into Riepel's schema of the Monte. Were the bass of Example 25 to sequence downward, by contrast, it could be easily fashioned into a Fonte or a Prinner. Indeed, a Fonte begun in a major key, with a typical two-measure design, could be extended through two more measures to form a four-bar Prinner that ends in the relative-minor key. And this is just what Durante implicitly calls for in his partimento of Example 17 (see mm. 11–14). Craft knowledge of these possibilities for the *ars combinatoria* would emerge from intensive training carried out over a period of many years. Achieving a degree of fluency in these transformations and associations would characterize the shift from apprentice to young master.

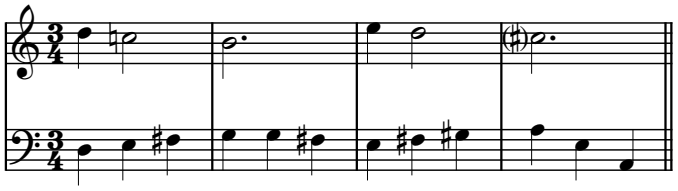
Solfeggi: A significant fund of exemplars

A young student in one of the Neapolitan conservatories did not spend every waking hour at the harpsichord. There were lessons in religion, lessons in Latin, lessons on an instrument, and lessons in singing. This last type of activity, judging from the number of exercises preserved in manuscripts, must have been extensive and important. The above-mentioned Santini collection in Münster, for instance, contains more than six hundred solfeggi in dozens of compilations.

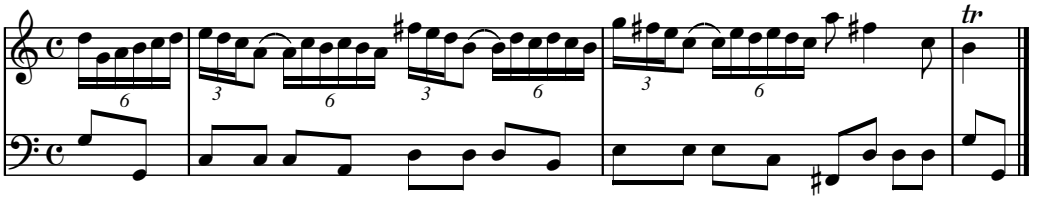
Unlike the dry nineteenth-century exercises for solo voice still studied in conservatories today, an eighteenth-century Neapolitan solfeggio was a duo that paired a graceful melody with a partimento-like unfigured bass. That is, every melodic tone was uttered in the context of a partimento—in a complete musical context. This huge, practically unstudied repertory of solfeggi

(penned by many of the greatest composers of that era—including Mozart) thus constituted a perfect microcosm for learning this musical language. In effect, apprentice composers memorized both a lexicon and a phrase book of melodic material contextualized by its association with partimento basses. Since many of the same boys who learned solfeggio melodies would also be trained to realize a partimento, their partimento work at the keyboard must have cued for them a number of memories of solfeggio melodies. The early-seventeenth-century commedia dell'arte actor Pietro Maria Cecchini (1563–ca. 1630) emphasized that "the actor must see to it that his mind controls his memory (which dispenses the treasure of memorized phrases over the vast field of opportunities constantly offered by comedy)" (1628). This idea of creating a rich store of memories from which one can later draw (as influenced by the artistic moment) can be mapped directly onto the practices of the Neapolitan conservatories. In daily rehearsal, the boys learned to "study and fortify" a "treasure of memorized phrases" from partimenti and solfeggi. When realizing partimenti at the keyboard, when improvising, or when composing, they could "dispense" those phrases from their "rich store of memories."

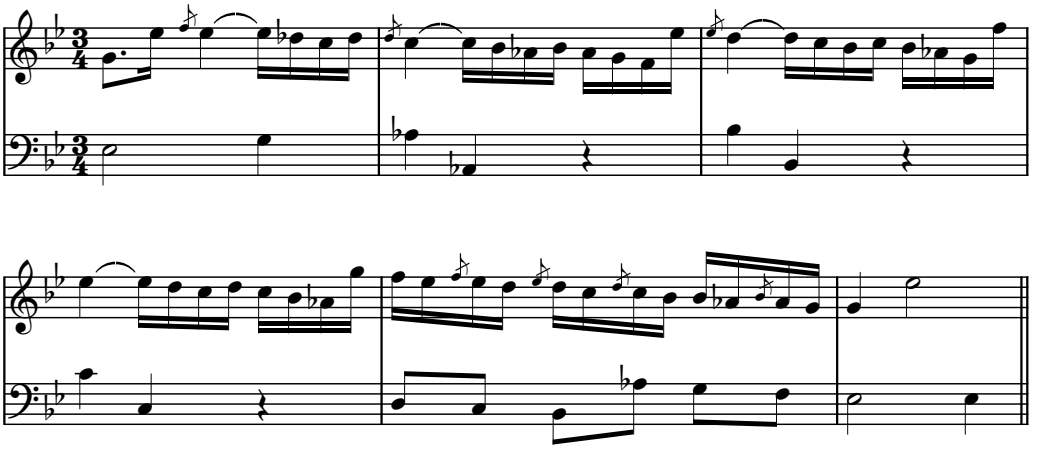
The musical pas de deux of solfeggio melody and partimento bass can be illustrated with excerpts from some of the many solfeggi of Leonardo Leo, a stylistic paragon of the Neapolitan school. In the excerpt shown in Example 27 (Leo ca. 1730s), a student would have encountered an exemplar that forms an excellent match to both the older contrapuntal model and the newer Monte. In Example 28, by contrast, the student would have learned how to embellish and invert the melodic intervals: the descending third of the model becomes an ascending sixth, the ascending fourth becomes a descending fifth.



Example 27. Leonardo Leo, *XII Solfeggi*, no. 1, Allegro, m. 20 (Naples)



Example 28. Leonardo Leo, *XII Solfeggi*, no. 6, Lento, m. 16 (Naples)

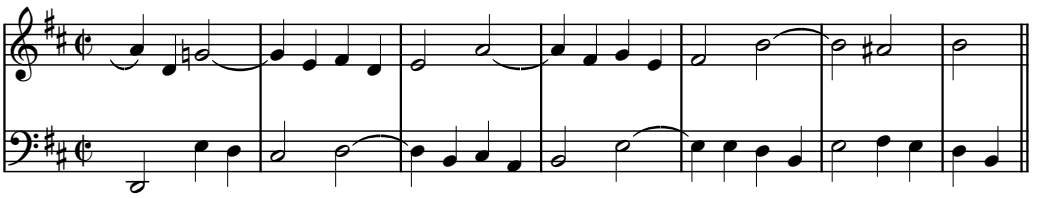


Example 29. Leonardo Leo, *XII Solfeggi*, no. 8, Larghetto, m. 10 (Naples)

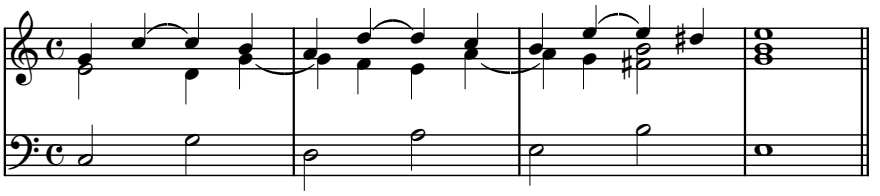
Embellishment and transformation feature again in the excerpt shown in Example 29. Tonally, the excerpt begins like a Monte by focusing first on the fourth scale degree (A♭ in the bass of m. 11). The appearance of F4 as the low note of that measure's melody indicates an intervallic shift from 5 to 6 above the A♭ bass. The 5–6–5–6 thoroughbass pattern continues as the bass ascends stepwise to B♭, C, D, and, through a descent of seven notes in both voices, finally to E♭, the local keynote. At each rise of the bass, the melody completes a descending scale to land a third above the new bass.

A student would eventually begin to "feel" these patterns, with the effect of dozens of memories of similar exemplars governing what seemed right and wrong. For the Naples-trained student, the pattern of rising fourths in Example 30 might look like the rising-fourths schema, but it would not "feel right."

In the Neapolitan tradition, the motivic and contrapuntal interplay of the two voices in Example 30 was emblematic of a different schema—a rising-*fifths* schema. The excerpt of Example 31 displays an exemplar of that schema published in a nineteenth-century edition (ca. 1800, bk. 3, example A.u.)



Example 30. Leonardo Leo, *XII Solfeggi*, no. 4, Allegro, m. 25 (Naples)

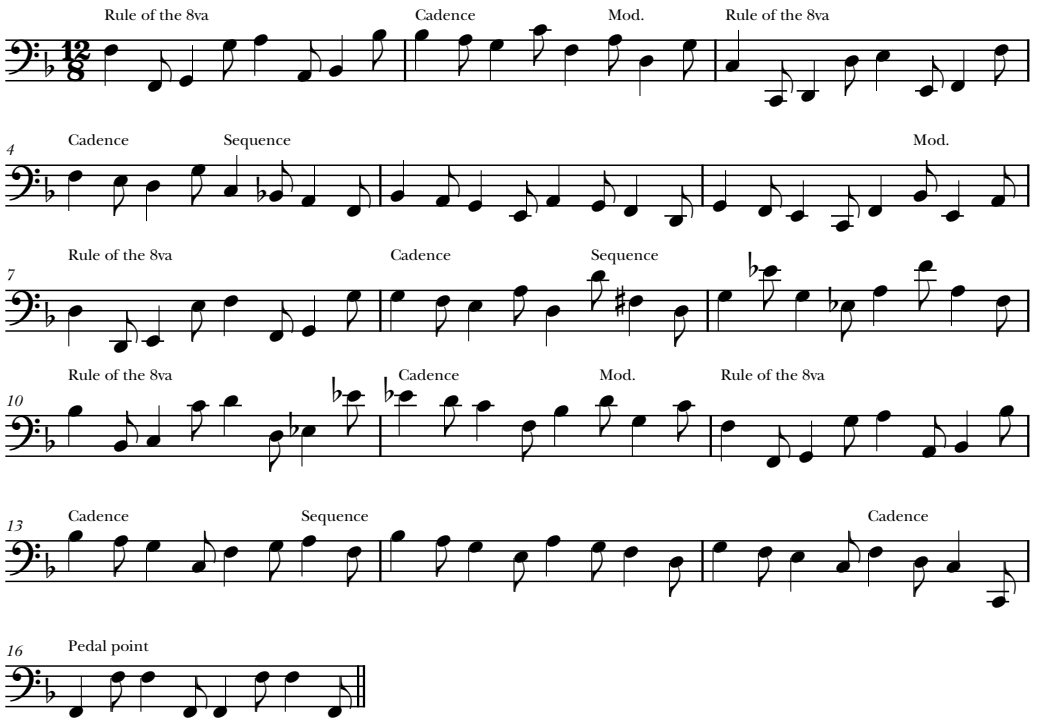


Example 31. Fedele Fenaroli, *Partimenti*, book 3, his musical example A.u. (Naples, ca. 1800)

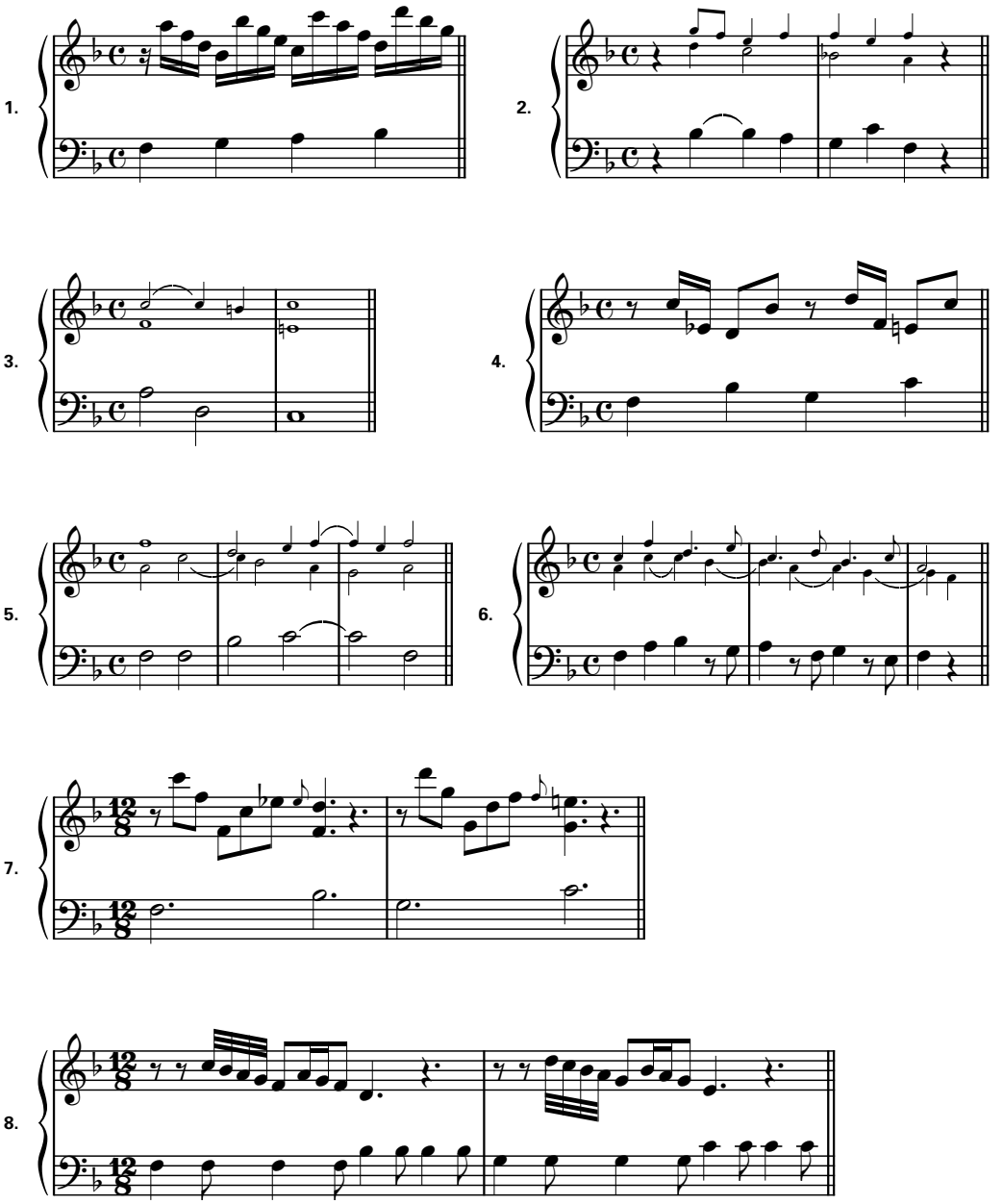
of the partimenti of Fedele Fenaroli (1730–1818), a student of Durante. Its upper voices match Leo's more decorated soprano and bass.

Performance as analysis

Let us attempt to match exemplars written by Durante to a bass written by one of his contemporaries. The idea is to mimic, in slow motion, the type of automatic processes of memory retrieval and action planning that a trained apprentice might apply to the same task. The bass is shown in Example 32,



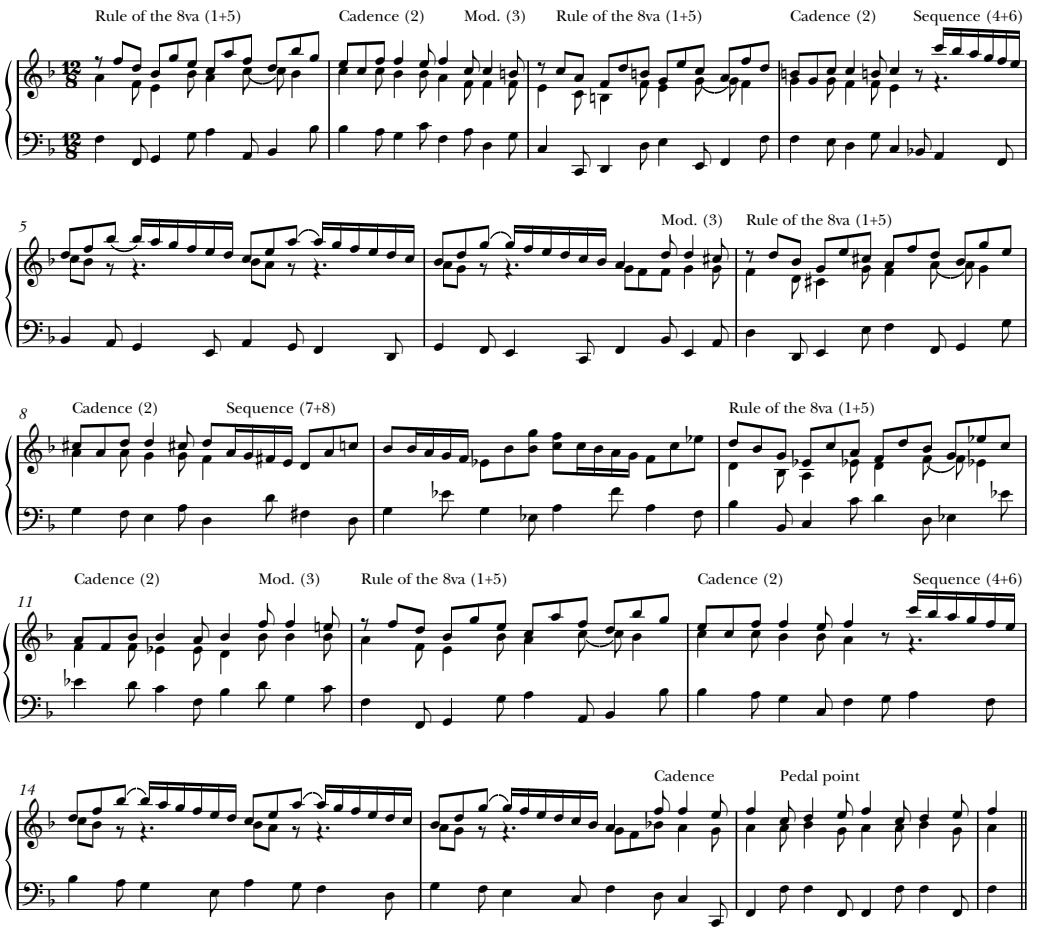
Example 32. A bass to which one can fit various schemata taught by Durante and other masters



Example 33. Durante *tesserae* suitable for constructing the mosaic of the partimento of Example 32

along with modern annotations that spell out the contexts likely to be noticed by an apprentice. In the most general terms, these contexts are: Rule of the Octave, cadence, modulating cadence ("Mod." in Example 32), sequence, and pedal point.

While a student might have learned dozens of exemplars for each type of context, let us examine only a few for the sake of simplicity. Example 33 presents a minimal set of exemplar *tesserae* from which one can construct the mosaic of a realization for this partimento. Each one is itself an amalgam of various smaller patterns. Those exemplars with smaller noteheads in the upper part are modern realizations from Durante's thoroughbass *regole*. The others are originals from his *partimenti diminuiti*, with all but the first of those belonging to the rising-fourths schema (cf. Example 16). For convenience,

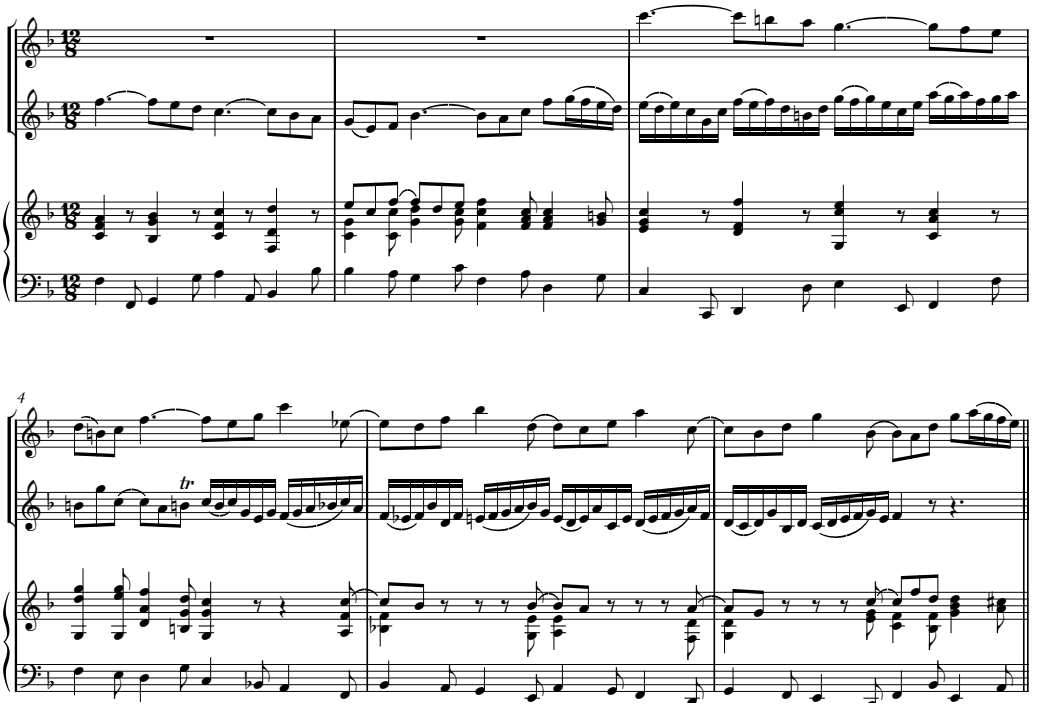


Example 34. A realization of the bass of Example 32, assembled from the *tesserae* of Example 33

they are labeled *tesserae* 1–8, and all have been transposed to F major for ease of comparison with the bass of Example 32.

One of the benefits of partimento instruction was that a student became adept not only at transforming exemplars into different keys, modes, and meters, but also at combining or merging them. Example 34 demonstrates how one might adapt the *tesserae* of Example 33 to the several contexts of the bass from Example 32. Alongside the labeled contexts in Example 34, numbers indicate which *tesserae* were chosen. Indications like "(1 + 5)" mean a combination of *tesserae* 1 and 5, that is, incorporating the 9–8 suspension of *tessera* 5 into the Rule of the Octave of *tessera* 1. Some of Durante's exemplars are themselves composites. *Tessera* 9, for instance, melds a 9–8 suspension into each stage of a larger Prinner. An exemplar by Doll was chosen for the concluding pedal point.

The realization of Example 34 was made intentionally simple and sectional to reflect what might be possible through stages of improvisation. Thus, there was no attempt made, as would be characteristic of a more "literary" approach, to integrate the motifs of the sequential *soli* passages with the *tutti* passages of the Rule of the Octave. Example 35 provides a far more sophisti-



Example 35. A realization of the bass of Example 32 (only mm. 1–6 shown) by J. S. Bach (BWV 1043)

cated, composed realization by one of the greatest masters of this style (Bach 1730–31).

Each realization of a partimento is itself a *modo*, one specific stylization of all the possibilities implied. To create and perform the realization, the apprentice first had to understand those implications, which meant he had to analyze the bass as part of becoming acquainted with it. Such an analysis was not in terms of a harmonic system, but in terms of a web of schemata and motives.

Achieving fluency and facility

Let us return for a moment to the scene where Rousseau was visiting the house of Madame de Beuzenval. You will remember that she had offered him dinner with her servants. His dismay must have been evident, at least to the Madame's daughter. Here is how Rousseau described it:

> Without suffering my anger to appear, I told Madam de Beuzenval that I had an affair of a trifling nature which I had just recollected obliged me to return home, and I immediately prepared to depart. Madam de Broglie approached her mother, and whispered in her ear a few words which had their effect. Madam de Beuzenval rose to prevent me from going, and said, "I expect that you will do us the honor to dine with us." In this case I thought to show pride would be a mark of folly, and I determined to stay. The goodness of Madam de Broglie had besides made an impression upon me, and rendered her interesting in my eyes. I was very glad to dine with her, and hoped, that when she knew me better, she would not regret having procured me that honor. The President de Lamoignon, very intimate in the family, dined there also. He, as well as Madam de Broglie, was a master of all the modish and fashionable small talk jargon of Paris. Poor Jean Jacques was unable to make a figure in this way. I had sense enough not to pretend to it, and was silent. (Rousseau 1769, bk. 7)

"All the modish and fashionable small talk jargon" was a closed book for the provincial Rousseau. Either he did not grasp the idioms or understood them too slowly to engage in rapid banter ("to make a figure") with those more fluent. Although he had grown up speaking French and had acquired correct grammar, the skill to converse in Parisian society seemed to require something more. Perhaps traditional concepts of grammar are too narrow. Consider the following proposal delivered by Joan Bybee (2006, 711) in her presidential address to the Linguistic Society of America:

> While all linguists are likely to agree that grammar is the cognitive organization of language, a usage-based theorist would make the more specific proposal that grammar is the cognitive organization of one's experience with language. As is shown here, certain facets of linguistic experience, such as the frequency of use of particular instances of constructions, have an impact on representation that we can see evidenced in various ways, for example, in speakers' recognition of what is conventionalized and what is not, and even more

> strikingly in the nature of language change. The proposal presented here is that the general cognitive capabilities of the human brain, which allow it to categorize and sort for identity, similarity, and difference, go to work on the language events a person encounters, categorizing and entering in memory these experiences. The result is a cognitive representation that can be called a grammar. This grammar, while it may be abstract, since all cognitive categories are, is strongly tied to the experience that a speaker has had with language.

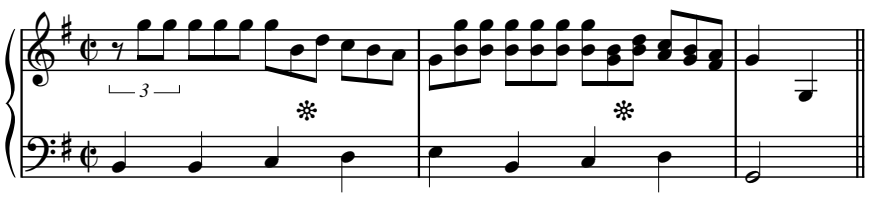
Rousseau's experiences in the provinces were encoded in his provincial "grammar," while his Parisian dinner partners had had quite different experiences of "language events." Of the strategies or principles needed to interpret a written or spoken "language text," the language-use scholar John Sinclair (1991, 109–10) has described two, of which Rousseau was highly gifted in the first and, in that refined Parisian setting, deficient in the second:

> In order to explain the way in which meaning arises from language text, we have to advance two different principles of interpretation. One is not enough. No single principle has been advanced which accounts for the evidence in a satisfactory way. The two principles are:
>
> *The open-choice principle*
>
> This is probably the normal way of seeing and describing language. It is often called a "slot-and-filler" model, envisaging texts as a series of slots, which have to be filled from a lexicon which satisfies local constraints. At each slot virtually any word can occur.
>
> *The idiom principle*
>
> The principle of idiom is that a language user has available to him or her a large number of semi-preconstructed phrases that constitute single choices, even though they might appear to be analyzable into segments.

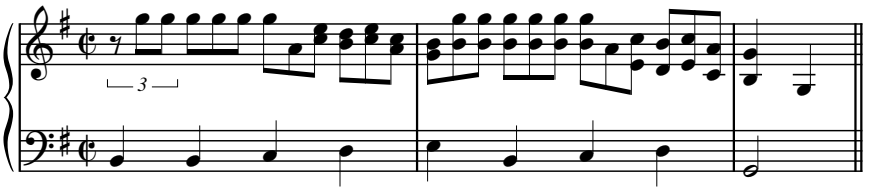
By "idiom" Sinclair means not just opaque expressions like "to kick the bucket" (= to die), but a whole range of unitized or partially unitized collocations of words gleaned from the statistics of our experiences with language. Before the advent of massive databases of spoken and written English, assertions about the great importance of knowing thousands of ready-made phrases were tentative and provisional (Prodromou 2003, 43). Today, with transcribed corpora of natural speech involving billions of words, those assertions can be quantified. A pilot study by Erman and Warren (2000) examined the question of how big a role is played by "prefabs" in written and spoken English. They defined a prefab as "a combination of at least two words favored by native speakers in preference to an alternative combination which could have been equivalent had there been no conventionalization." As an example, they noted that a native speaker would interpret "good friends" differently from "nice friends" (i.e., "good" can equal "nice," but "good friends" means "close friends"). Remarkably, these authors found that 40 to 60 percent of the content of the texts analyzed was made of prefabs, supporting the importance of Sinclair's idiom principle.

Rousseau's difficulties with Parisian idioms and prefabs were mirrored in his relationship to refined music composition. With his copy of Rameau's treatise, he had Sinclair's open-choice principle. That is, the harmony text seemed to set out a slot-and-filler model. Harmonic grammar consisted of three slots (tonic, subdominant, dominant) in a preferred sequence, and a large number of chords that could fill each slot. Rousseau knew that this was not enough, as did Rameau (who was not responsible for the frequent over-simplifications of his many treatises), but as Rousseau put it, "The difficulty lay in meeting with a good master" (1769, bk. 5). Figured bass could provide the vocabulary of chords—the lexicon—for filling the open-choice slots, but a master would be required to teach the large repertory of unitized phrases—the phrasicon—needed for fluency. Without the phrasicon, the result would sound like the utterances of a nonnative speaker. According to Gwyneth Fox (1998, 33), who began her career teaching English to foreigners and later became the editor of the *Macmillan English Dictionary*: "When even very good learners of the language speak or write English the effect is slightly odd. There is nothing that is obviously wrong, but somehow native speakers know that they would not express themselves in quite that way. The problem is often one of collocation."

The problem of collocation might explain some of Rousseau's difficulties as a composer. Take, for instance, the following cadence from the aria "Quand on sait aimer et plaire" in Rousseau's *Le devin du village* (1752, scene 5, Andante; see Example 36). The melody by itself is fine. The bass by itself is fine. Their collocation, however, "is slightly odd" at the asterisks in Example 36, and the eightfold appearance of this cadence within the aria removes any question of a misprint. Italian composers of the type admired by Rousseau would occasionally retain two (but never three) notes of the tonic triad (G major) as the bass rose from scale degree 3 to 4 and then to 5 (Gjerdingen 2007, ch. 11). But Rousseau's particular utterance does not match any items in the galant phrasicon. It is a testament to the power of schematic hearing that his phrase still sounds acceptable, in the sense of not having obviously "wrong notes" in spite of the clash between melody and bass. Example 37 presents a reconstruction of Rousseau's cadence in "native galant," preserving his deceptive-cadence bass and the contour of his melody.

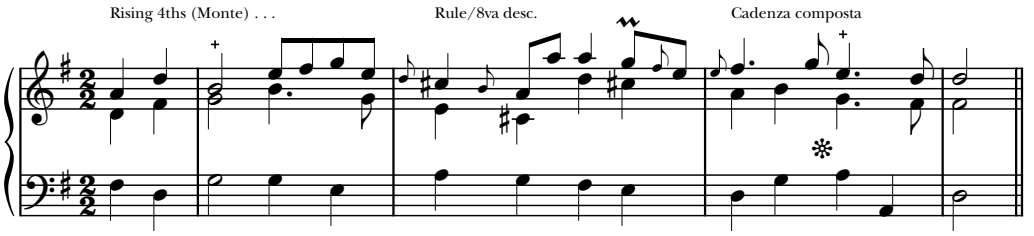


Example 36. Rousseau, *Le devin du village*, scene 5, "Quand on sait aimer et plaire," Andante, m. 7 (1752)



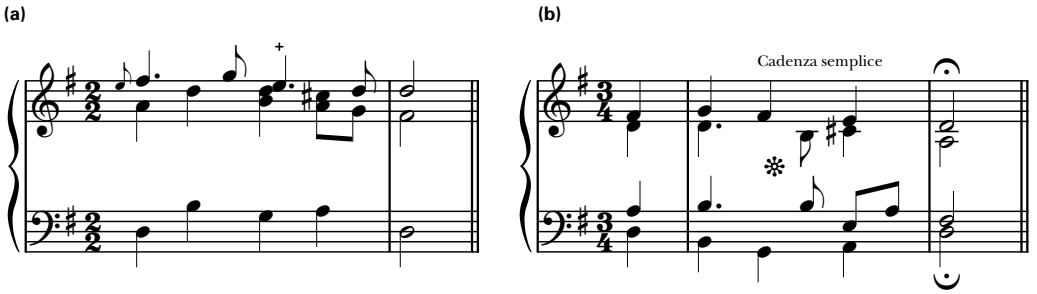
Example 37. A reworking of Rousseau's cadence to conform with standard galant usage

In Rousseau's day a musician could hardly avoid noticing the rising-fourths schema, especially in its modernized version as the Monte. In the aria from scene 6, "Tant qu'a mon Colin j'ai su plaire" (1752, Mesuré andante, m. 53; see Example 38), Rousseau fluently sets forth the canonic version of the rising-fourths schema, harmonized as a standard Monte. It is the following cadence, however, which again is slightly odd because of a problem in collocation.



Example 38. Rousseau, *Le devin du village*, scene 6, "Tant qu'a mon Colin j'ai su plaire," Mesuré andante, m. 53 (1752)

A pedant might point to the ascending movement of both outer voices to the octave G5 (at the star on the example) as the stylistic faux pas. Yet "direct" or "covered" octaves, where the upper voice moves by step, were explicitly sanctioned in the eighteenth century. Instead, the fault lies in Rousseau not recognizing that a different bass was the preferred collocate for his melody. Example 39a shows Rousseau's cadence with the more idiomatic bass (now a *cadenza semplice*), and Example 39b (transposed for comparison) shows how J. S. Bach also chose the idiomatic bass for that class of melody. Bach's cadence comes from his figured-bass harmonization of the sacred song "O Jesulein Süss, O Jesulein Mild" (1736, BWV 493). It is perhaps worth noting that Bach's version, which comes out of his thorough training as an artisan, does not sound at all odd even though it is contrapuntally much harsher, with direct motion to a major seventh in place of Rousseau's octave (see the starred location, Example 39).



Example 39. (a) Rousseau's cadence of Example 38 given a bass that better matches its melody. (b) J. S. Bach, figured-bass harmonization of "O Jesulein Süss, O Jesulein Mild," BWV 493, m. 3

Rousseau's musical compositions were occasionally original, as he hoped they would be, and fashionable at times, as part of the new wave of sentimentality and sensibility. They were never, sadly for him, considered profound, and his output remained very slight by eighteenth-century standards. It is possible that without professional training and skills he found composition arduous, especially when more than melody and accompaniment were required. His relationships with professional musicians were never easy. Around 1745 he had composed an opera titled *Les muses galantes* (*The Galant Muses*, lost). He showed it to the well-connected composer François-André Philidor (1726–95), but Philidor indicated little interest in it. In Rousseau's *Confessions*, he relates what happened when he persuaded, with difficulty, the author of his harmony text to listen to excerpts from this opera:

> Rameau consented with an ill grace, incessantly repeating that the composition of a man not regularly bred to the science, and who had learned music without a master, must certainly be very fine! . . . Rameau, the moment he heard the overture, was purposely extravagant in his eulogium, by which he intended it should be understood it could not be my composition. He showed signs of impatience at every passage: but after a counter tenor song, the air of which was noble and harmonious, with a brilliant accompaniment, he could no longer contain himself; he apostrophised me with a brutality at which everybody was shocked, maintaining that a part of what he had heard was by a man experienced in the art, and the rest by some ignorant person who did not so much as understand music. It is true my composition, unequal and without rule, was sometimes sublime, and at others insipid, as that of a person who forms himself in an art by the soarings of his own genius, unsupported by science, must necessarily be. (1769, bk. 7)

Rousseau had experienced the effects of great training "with rule" when he was personal secretary to an ambassador in Venice:

> A kind of music far superior, in my opinion, to that of operas, and which in all Italy has not its equal, nor perhaps in the whole world, is that of the "scuole." The "scuole" are houses of charity, established for the education of young girls without fortune, to whom the republic afterwards gives a portion either in marriage or for the cloister. Amongst talents cultivated in these young girls, music is in the first rank. Every Sunday at the church of each of the four "scuole," during vespers, motettos or anthems with full choruses, accompanied by a great orchestra, and composed and directed by the best masters in Italy, are sung in the galleries by girls only; not one of whom is more than twenty years of age. I have not an idea of anything so voluptuous and affecting as this music; the richness of the art, the exquisite taste of the vocal part, the excellence of the voices, the justness of the execution, everything in these delightful concerts concurs to produce an impression which certainly is not the mode, but from which I am of opinion no heart is secure. (1769, bk. 7)

These schools (*scuole*) were, of course, the Venetian *ospedali*, the equivalents for girls of the Neapolitan *conservatori* for boys. The Neapolitan boys, who were being groomed for professional employment, likewise worked for years to achieve fluency and facility. It is in these terms that Borgir (1987, 147) describes the practical advantages of training in partimenti for future composers:

> The advanced sections as a whole may be seen as a keyboard approach to learning composition. The player had to recognize at sight opportunities for using diminutions, imitations, motivic interplay, etc., and thereby developed compositional skills. A central aspect of this training was the necessity of working out musical ideas on the spot. The ability to compose quickly was particularly important in opera where a new work often needed to be completed in the course of a few weeks. The partimento method was uniquely suited to develop the facility needed for such a task. The method was developed and practiced at the Neapolitan conservatories, and it is hardly coincidence that their graduates dominated the field of opera for much of the eighteenth century.

Later reception

The term *partimento* began the eighteenth century as a regional variant of *basso continuo*. Neapolitan maestros, instead of viewing basso continuo as a mechanical process for deriving chords from a numerical shorthand, developed their own system for training performers and composers. They used basses as cues for the recall and adaptation of various styles or *modi*, which in turn were constructed on the framework of numerous schemata taught by rote. The power of this system, which helped ensure the success of hundreds of indigent boys, lay in its simple method of integrating the craft knowledge of small harmonic-contrapuntal schemata into the aesthetic, performative experience of a complete musical movement. It was wonderful training for composers and improvisors, who learned how to create a total fabric from a single thread. Partimenti and solfeggi were thus factors in the rapid emergence of Naples as

one of the great centers of music. Naples-trained composers and performers so dominated the world of eighteenth-century music and secured so many top positions at courts and cathedrals that they were often resented by local musicians abroad. To compete, maestros in other cities began adopting partimento methods, and over time the term *partimento* became known across Europe as something distinct from *basso continuo*.

In the nineteenth century, Italy generally continued the partimento tradition, though as noted by Fellerer (1934) the emphasis shifted away from improvisation and toward harmony lessons with written exercises (Sanguinetti 1997; see also the article by Stella, this issue). Printed copies of Fenaroli's partimenti, with textbook-like annotations by later editors, dominated the scene even through the first decades of the twentieth century. Luciano Berio (1925–2003) may have been one of the last major Italian composers who trained with partimenti. As a young boy of six he was given a copy of Fenaroli by his grandfather (Berio 1982, 99). Berio worked through those venerable studies much as Neapolitan boys had done two centuries before. As an inducement, his grandfather told him that Giuseppe Verdi (1813–1901) had studied the same book.

At the close of the eighteenth century, the situation in France was chaotic due to the Revolution. Textbook-like printings of Neapolitan partimenti and solfeggi began to appear in Paris (see Cafiero, this issue), but the attacks on churches and the nobility removed the patronage that had supported the training of young musicians. In response the state stepped forward to establish a *Conservatoire* along the general model of Naples. Perhaps due to the rebellion in Naples against French rule, the new head of the conservatory was someone trained in Bologna: Luigi Cherubini (1760–1842). Cherubini was a student of Giuseppi Sarti (1729–1802), who had been trained by Padre Martini. This Bolognese orientation was later reinforced in 1826 by the appointment of Auguste Panseron (1795–1859) as professor of composition. Panseron was trained in Bologna by Stanislao Mattei, who was also a student of Padre Martini.

Panseron's treatise of 1855, *Traité de l'harmonie pratique et des modulations, en trois parties, à l'usage des pianistes* (*A Treatise on Practical Harmony and Modulation, in Three Parts, for the Use of Pianists*), represents the mainstream French use of partimenti in the nineteenth century. As its table of contents reveals, partimenti were intended to reinforce and consolidate harmonic skills in more realistic contexts:

> Part 1. A Complete Treatise on Practical Harmony
> Part 2. The Art of Modulation
> Part 3. Partimenti. Assignments and lessons to be played at the piano or written out.

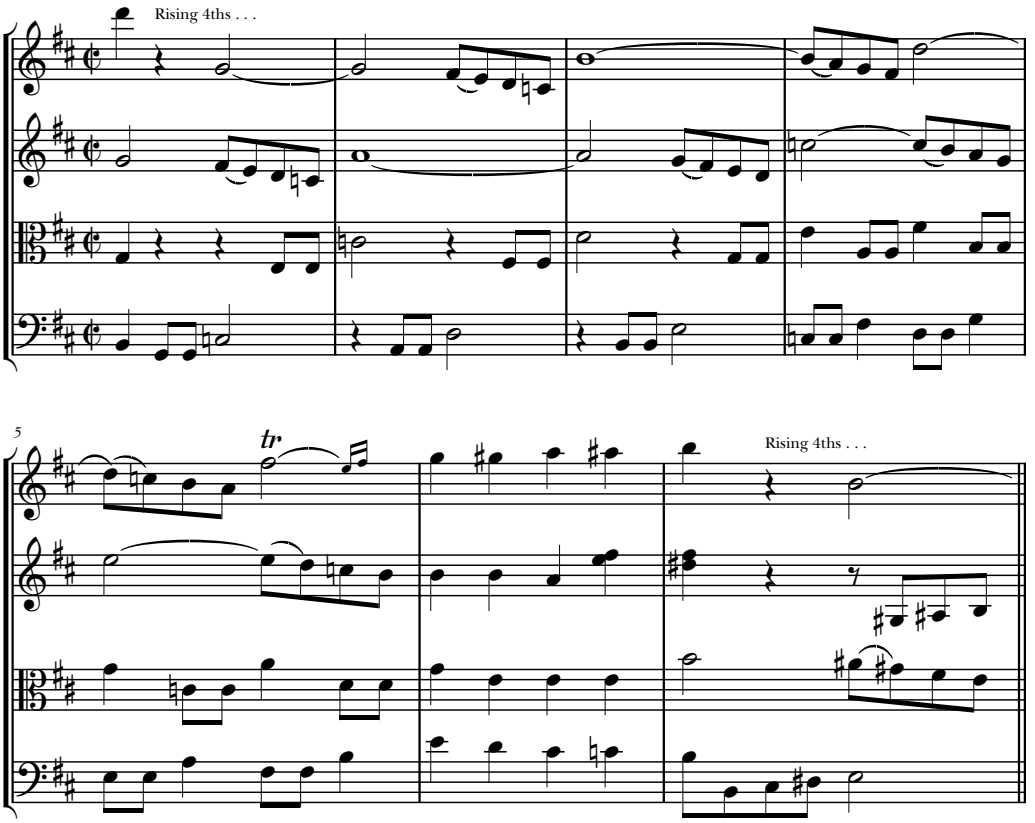
After World War I, the impact of Parisian teaching on American students was profound. Many composers moved to Paris and worked their way through

collections of partimenti. Nadia Boulanger (1887–1979), who taught many of these ex-patriots, routinely assigned the partimenti contained in a harmony text by Théodore Dubois (1921). Walter Piston (1894–1976), future author of a widely read American book on harmony, completed a fugue "On a Theme by Fenaroli" for Boulanger (Piston ca. 1924–26). The theme was taken from Fenaroli's partimento fugue in D minor, bk. 5, no. 3. Piston did not realize Fenaroli's partimento as a keyboard work. Instead, he used the theme as the kernel for a *disposizione a 4* (i.e., a four-voice arrangement in open score) in the style of a French *fugue d'ecole* ("school" or "academic" fugue, an offshoot of the Italian partimento fugue). He transposed the key to B minor, arranged the parts for string quartet, and inserted a number of sequential episodes or *divertissements* to meet the strict formal requirements of the *fugue d'ecole*. Toward the end of Piston's fugue, where Fenaroli originally wrote rising sequences, Piston composed two versions of the rising-fourths schema, both with a Corellian "leapfrog" series of 2–3 suspensions in the violins (Gjerdingen 2007, 471). His real fluency in the use of these schemata is demonstrated in Example 40, which presents the first such episode and the beginning of an embellished second one.

In 1926, Archibald T. Davison, Piston's former professor at Harvard and his future colleague, wrote a book titled *Music Education in America: What Is Wrong with It? What Shall We Do about It?* He contrasted the generally weak training received by young Americans with that of their counterparts in Europe, and he quoted a "graduate of the Music department of an American university, now studying in Paris" for firsthand evidence of French rigor (could the "American in Paris" have been Piston?):

> A conservatoire class in harmony, counterpoint, fugue or composition has three two-hour sessions per week, compared to our three one-hour sessions at home. To be admitted to a harmony class, you must have finished the text book work and are required to pass an entrance examination testing your knowledge of it. In America the text book work is done in class and you complete your course when you have finished your text book. In other words, here harmony begins at the point where at home it ends. Once admitted to the class you work at "partimenti," unfigured basses and melodies (from 20 to 60 or 80 measures long), usually in instrumental style, which have been culled from Fenarolli [*sic*] and other seventeenth and eighteenth century Italians and from "continuo" parts in Bach. Their "realization" demands extensive use of all the devices of imitation and a constant eye for melodious part writing. . . . You are admitted to the counterpoint classes without examination upon obtaining a "premier prix" in harmony. (Davison 1926, 140–41)

The situation in nineteenth-century Germany and Austria was far more complex. No one city, institution, or teacher was clearly dominant. There were, of course, many Italians working in German-speaking lands. Antonio Salieri (Vienna), for example, wrote partimenti (Mertin 1984, 166; they were lost in World War II), and Gaspare Spontini (Berlin) was trained on parti-



Example 40. Walter Piston, *Fugue pour quatuor à cordes sur un sujet de Fenaroli,* m. 74

menti in Naples. There were also many Italian-trained Germans working back home. An example would be Christian Weinlig (1780–1842), who studied partimenti with Mattei in Bologna before returning to Dresden and later Leipzig, where he was cantor of the Thomaskirche (like J. S. Bach). Weinlig's students included Clara Schumann and Richard Wagner. The article by Ludwig Holtmeier (this issue) details the great extent of partimento training in German-speaking lands.

Another factor shaping the reception of partimenti in Germany and Austria was the indigenous tradition of "Fundament" treatises (Christensen 2008), analogues of basso continuo treatises in Italy. Michael Haydn, for example, wrote figured-bass exercises for his students. Some years later a former student published them as Haydn's *Partitur-Fundament* (1833). Yet a contemporary reference to these exercises describes them as "74 pages of partimenti" (Becker 1836). In the same vein, the continuo parts for many south German sacred works look very much like partimento fugues, with changes of clef to accommodate shifts in the register of the vocal parts. Compare, for instance,

Example 41. Georg Reutter, *Messa a quattro da Capella*, Kyrie, m. 79

the excerpt of the partimento fugue from the Bach circle (Example 3) with a passage from the mass movement by Reutter discussed above (see Example 41; Example 12 is from earlier in the same work). This partimento-like summary of a multivoice texture was also employed by Johann Eberlin (1702–62) in Salzburg, and copied by the Mozarts (Gjerdingen 2007, 381–82).

Summary

Fellerer (1934) categorized partimenti as a subset of thoroughbass. The two arts share a focus on basses and a performance tradition centered on keyboard instruments. He also drew attention to partimenti as an art of improvised performance, whether in service playing for organists, or for the training of composers studying with maestros. The above discussions have focused on the sophisticated cognitive skills developed in connection with partimento training. A partimento player needed a good musical memory, skill in adapting dozens of harmonic-contrapuntal schemata to the "opportunities afforded" by the bass, and facility in reproducing the exemplars taught by his maestro or learned from solfeggi and other repertory.

Rousseau had learned something about solfeggi. He mentions solfeggi "composed by the celebrated Leo" in his *Dictionnaire* (1768, s.v. "Solfier": "On a, en Italie, un Recueil de leçons à Solfier, appellées Solfeggi. Ce Recueil, composé par le célèbre Léo, pour l'usage des commençans, est trés-estimé"). But he never found a master and so never acquired the polish and powers of invention that training in partimenti might have given him. Of course, it is also possible that his antipathy toward any kind of strict apprenticeship might have prevented him from embarking on such a course. He may have wished the technical insouciance of *Le devin du village* to help reflect its unstudied hero and heroine. He could argue that few works in Paris had greater success than his small opera. In his later novel on ideal education, he describes how his pupil Emile will shun conventional representation: "I will, therefore, carefully avoid giving him [Emile] a drawing master who would give him only imitations to imitate and would make him draw only from drawings. I want him to have no other master than nature and no other model than objects" (1762; Bloom trans., 143–44).

Rousseau's Romanticism was a precursor of nineteenth- and twentieth-century notions about how the ideal artist might learn "from nature." But this public idealization is contradicted by our records of how great artists did in

fact learn. Visual artists learned models from pattern books and from copying the great masters. Improvisational comedians learned routines from their *zibaldoni*. Traditional composers copied the scores of great masters, learned models from a maestro, and practiced performing them with the aid of *zibaldoni* filled with *regole*, partimenti, and solfeggi. As Gombrich noted (1956, 167), the visual pattern books "can really be compared with vocabularies." Similarly the studies used in the Neapolitan conservatories provided both a lexicon and a phrasicon for the construction of fluent music. With a harmony book alone, Rousseau could never attain the fluency of the elite musicians who were his contemporaries.

After Thomas Attwood (1765–1838) finished two years of study with maestros in Naples, he traveled to Vienna to begin lessons with Mozart. According to the Irish tenor Michael Kelly—who had studied singing in Naples with the famous castrato Giuseppe Aprile (1731–1813), had first met Attwood there, and had been performing in Vienna at this time—Mozart said that Attwood, of all his students, came closest to Mozart's own musical style[4] (Kelly 1826). Though Attwood would never achieve Mozart's level of mastery, the two of them could converse as speakers of the same musical language because, through partimenti and solfeggi, Attwood had achieved a significant measure of fluency. Mozart, himself composer of at least three Neapolitan-style solfeggi, also wrote some variations (K. 532) on a theme by Kelly, and the flattered singer asked the maestro if perhaps he ought to take up counterpoint on the road toward becoming, like Attwood, a real composer. Mozart said, "My good lad, you ask my advice, and I will give it you candidly; had you studied composition when you were at Naples, and when your mind was not devoted to other pursuits, you would perhaps have done wisely" (Kelly 1826, 224). We can now infer with some confidence that the valuable Neapolitan training to which Mozart referred, and which Attwood had received from the masters Felipe Cinque (n.d.) and Gaetano Latilla (1711–88), was centered around solfeggi and partimenti. Solfeggi by Latilla, for instance, appear in an important Parisian print of 1772. Today the main partimento manuscripts of Naples are once again available for study (Gjerdingen 2005). Following Mozart's advice, we might "do wisely" to study them if we wish to understand the training of eighteenth-century composers.

To answer the question "Partimento, what do you want of me?" one might say "recognition, and possibly engagement." We ought to recognize that partimenti were an important and perhaps the central locus of craft training for eighteenth-century musicians. And we might engage with the surviving

4 "Attwood is a young man for whom I have a sincere affection and esteem; he conducts himself with great propriety, and I feel much pleasure in telling you, that he partakes more of my style than any other scholar I ever had; and I predict, that he will prove a sound musician" (Kelly 1826, 225).

partimenti both for their rich store of exemplars and for their readiness to offer a still-viable method of musical training. For intrepid twenty-first-century voyagers who venture into the virtual world where a partimento's imaginary voices can be heard still singing out the schematic patrimony of a centuries-old tradition, there are intense experiences to be shared with the elite musicians of the eighteenth century. Those experiences may in turn change our perceptions of fully notated eighteenth-century compositions. Partimenti may ask a great deal of us, but they offer much in return.

Works Cited

Anonymous. ca. 1799. *Euterpe; or, Remarks on the Use and Abuse of Music, as Part of Modern Education*. London. Excerpted in Jamie Croy Kassler, "Burney's 'Sketch of a Plan for a Public Music-School.'" *Musical Quarterly* 58: 210–34, 1972.

Bach, Johann Christian. 1773–74. Op. 12/6. Paris.

Bach, Johann Sebastian. 1730–31. Double Concerto for Two Violins, BWV 1043.

———. 1736. "O Jesulein süss, o Jesulein mild," figured-bass harmonization, BWV 493. In G. C. Schemelli, *Musicalisches Gesang-Buch*. Leipzig.

Barbieri, Niccolò. 1634. "What Is a Buffoon?" trans. from *La supplica*. In *Actors on Acting*, ed. Toby Cole and Helen Chinoy, 2nd ed., 53. New York: Crown, 1954.

Becker, Carl Ferdinand. 1836. *Systematisch-chronologiche Darstellung der musikalishen Literatur von der frühesten bis auf die neueste Zeit*. Leipzig.

Berio, Luciano. 1982. "Verdi?" *Studi verdiani* 1: 99–106.

Bernier, Nicolas. 1703. *Cantates françoises ou musique de chambre*. Modern reprint in *Cantatas by Nicolas Bernier, Part II*, ed. David Tunley. The Eighteenth-Century French Cantata, vol. 7. New York: Garland, 1990.

———. ca. 1720s. *Principles of Composition*, trans. and ed. Philip Nelson. New York: Institute of Medieval Music, 1964.

Borgir, Tharald. 1971. "Basso continuo in Italy during the Seventeenth Century." Ph.D. diss., Musicology, University of California at Berkeley.

———. 1987. *The Performance of the Basso Continuo in Italian Baroque Music*. Ann Arbor: UMI Research Press, 1987.

Bybee, Joan. 2006. "From Usage to Grammar: The Mind's Response to Repetition." *Language* 82: 711–33.

Cafiero, Rosa. 1993. "La didattica del partimento a Napoli fra Settecento e Ottocento: Note sulla fortuna delle Regole di Carlo Cotumacci." In *Gli affetti convenienti all'idee: Studi sulla musica vocale italiana*, ed. Maria Caraci, Rosa Cafiero, and Angela Romagnoli, 549–80. Naples: Edizioni Scientifiche Italiane.

Cecchini, Pietro [or Pier] Maria. 1628. *Frutti delle moderne comedie et avisi a chi le recita*. Padova. Trans. and excerpted in *Actors on Acting*, ed. Toby Cole and Helen Chinoy, 2nd ed., 50–52. New York: Crown, 1954.

Christensen, Thomas. 1992. "The *Règle de l'Octave* in Thorough-Bass Theory and Practice." *Acta Musicologica* 64: 91–117.

———. 1993. *Rameau and Musical Thought in the Enlightenment*. Cambridge: Cambridge University Press.

———. 2008. "Fundamenta Partiturae: Thorough Bass and Foundations of Eighteenth-Century Composition Pedagogy." In *The Century of Bach and Mozart: Perspectives on Historiography, Composition, Theory, and Performance*, ed. Sean Gallagher and Thomas Forrest Kelly, 17–40. Cambridge, MA: Harvard University Department of Music, Harvard University Press.

Cimarosa, Domenico. 1762. *Partimenti di Domenico Cimarosa per violino* [*sic*]. MS Gamma.L.9.26. Modena: Estense Library.

Clérambault, Louis-Nicolas. 1733. *Chants et motets à l'usage . . . de St Louis à St Cyr. Tome premier . . . par Mr Nivers . . . mis en ordre et augmenté de quelques motets par Mr Clérambault.* Modern ed. in *Petits motets from the Royal Convent School at Saint-Cyr,* ed. Deborah Kauffman. Middleton, WI: A-R Editions, 2001.

Davison, Archibald T. 1926. *Music Education in America: What Is Wrong with It? What Shall We Do about It?* New York: Harper, 1926.

Doll, Joseph. ca. 1760s. *Regole per accompagnare il Basso.* MS Camera instrumentale, No. 8. Geneva: Conservatory Library.

Dubois, Théodore. 1921. *Traité d'harmonie théorique et pratique.* Paris: Heugel.

Durante, Francesco. 1747–49. *Sei sonate per cembalo divisi in studii e divertimenti.* Naples. Facs., ed. Pinuccia Carrer. Rome: Stravaganza, 1986.

Eckert, Stefan. 2000. "Ars Combinatoria, Dialogue Structure, and Musical Practice in Joseph Riepel's *Anfangsgründe zur musicalischen Setzkunst.*" Ph.D. diss., State University of New York at Stony Brook.

Erman, Britt and Beatrice Warren. 2000. "The Idiom Principle and the Open-Choice Principle." *Text* 20: 29–62.

Fellerer, Karl Gustav. 1925. "Beiträge zur Musikgeschichte Freisings von den ältesten christlichen Zeiten bis zur Auflösung des Hofes 1803." Ph.D. diss., University of Munich. Freising, 1926.

———. 1934. "Le Partimento et l'organiste au XVIIIe siècle." *Music Sacra* 41: 251–54.

Fenaroli, Fedele. ca. 1800. *Partimenti ossia Basso numerato.* Rome.

Fox, Gwyneth. 1998. "Using Corpus Data in the Classroom." In *Materials Development in Language Teaching,* ed. Brian Tomlinson, 25–43. Cambridge: Cambridge University Press.

Galeazzi, Francesco. 1796. *Elementi teorico-pratici di musica con un saggio sopra l'arte di suonare il violino analizzata, ed a dimostrabili principi ridotta,* vol. 2. Rome.

Galeota, Antonio. 1753. MS Adespota 30.1.5. Naples: Library of the Conservatory of San Pietro a Majella.

Gallo, Vincenzo. 1608. *Salmi del re David che ordinariamente canta Santa Chiesa ne i Vesperi: libro primo a otto voci con il suo partimento per commodità degli organisti.* Facs., ed. Maria Antonella Balsano and Giuseppe Collisani. Florence: Olschki, 1996.

Gasparini, Francesco. 1719. *Il Bajazet.* Venice.

Geiringer, Karl and Irene Geiringer. 1982. *Haydn: A Creative Life in Music.* 3rd ed. Berkeley: University of California Press.

Girdlestone, Cuthbert. 1957. *Jean-Philippe Rameau: His Life and Work.* London: Cassell.

Gjerdingen, Robert O. 2005. *Monuments of Partimenti. http://faculty-web.at.northwestern.edu/music/gjerdingen/partimenti/index.htm.*

———. 2007. *Music in the Galant Style: Being a Treatise on Various Schemata Characteristic of Eighteenth-Century Music for Courtly Chambers, Chapels, and Theaters, Including Tasteful Passages of Music Drawn from Most Excellent Chapel Masters in the Employ of Noble and Noteworthy Personages, Said Music All Collected for the Reader's Delectation on the World Wide Web.* New York: Oxford University Press.

Gombrich, E. H. 1956. *Art and Illusion: A Study in the Psychology of Pictorial Representation.* Princeton, NJ: Princeton University Press.

Heartz, Daniel and Alfred Mann. 1969. *Thomas Attwoods Theorie- und Kompositionsstudien bei Mozart.* New York: Bärenreiter.

Kassler, Jamie Croy. 1972. "Burney's 'Sketch of a Plan for a Public Music-School.'" *Musical Quarterly* 58: 210–34.

Kelly, Michael. 1826. *Reminiscences by Michael Kelly.* London: H. Colburn.

Latilla, Gaetano. 1772. Selected works. In P. Levesque and L. Bèche, *Solfèges d'Italie avec la basse chiffrée,* 2nd ed., passim. Paris.

Leo, Leonardo. ca. 1730s. *XII Solfeggi a Voce Sola di Soprano con Basso Del Signore Leonardo Leo,* MS 2369, Santini Collection. Münster: Bishopric Library.

Lorenzini, Raimondo. ca. 1780s. *Regolamento per il cembalo del Signore Raimondo Lorenzini*, MS 2397, Santini Collection. Münster: Bishopric Library.

Martini, Giovanni Battista (Padre). ca. 1770s? *Per il basso continuo.* MS H.H.78. Bologna: Civico Museo Bibliografico Musicale.

———. 1774–76. *Esemplare, o sia Saggio fondamentale pratico di contrappunto sopra il canto fermo.* Bologna.

Mattheson, Johann. 1719. *Exemplarische Organisten-Probe. . . .* Hamburg.

Mertin, Josef. 1984. "Ein Beitrag zu den Historischen Generalbass-Instrumenten Orgelpositiv und Regal." In *Musik am Hof Maria Theresias: In memoriam Vera Schwarz*, ed. Roswitha Vera Karpf, 160–67. Munich: Emil Katzbichler.

Mozart, Leopold. 1778. Letter of August 13. In *The Letters of Mozart and His Family*, trans. Emily Anderson, vol. 2, 889. London: Macmillan, 1938.

Mozart, Wolfgang Amadeus. 1788. Sonata in C Major. Vienna.

Nosofsky, Robert M., Steven E. Clark, and Hyun Jung Shin. 1989. "Rules and Exemplars in Categorization, Identification, and Recognition." *Journal of Experimental Psychology: Learning, Memory, and Cognition* 15: 282–304.

Panseron, Auguste. 1855. *Traité de l'harmonie pratique et des modulations, en trois parties, à l'usage des pianistes.* Paris: Brandus.

Pasquini, Bernardo. ca. 1700. Sonata no. 111. Mod. ed. in *Collected Works for Keyboard*, ed. Maurice Brooks Haynes, vol. 7. N.p.: American Institute of Musicology, 1968.

Pasquini, Elisabetta. 2004. *L'Esemplare, o sia saggio fondamentale pratico di contrappunto: Padre Martini teorico e diddatta della musica.* Florence: Olschki.

Piston, Walter. ca. 1924–26. *Fugue pour quatuor à cordes sur un sujet de Fenaroli.* MS Mus 245 no. 11. Cambridge, MA: Houghton Library, Harvard College Library.

Polanyi, Michael. 1958. *Personal Knowledge: Towards a Post-critical Philosophy.* Chicago: University of Chicago Press.

Poulin, Pamela L., trans. 1994. *J. S. Bach's Precepts and Principles for Playing the Thorough-Bass or Accompanying in Four Parts: Leipzig, 1738.* Oxford: Clarendon Press.

Preissler, Johann Daniel and I. K. Taubert. 1734. *Gründlich-verfasste Reguln oder kurtze Anleitung zu der Zeichen-Kunst.* St. Petersburg: Kays. Akad. d. Wiss.

Prodromou, Luke. 2003. "Idiomaticity and the Non-native Speaker." *English Today* 74: 42–48.

Rameau, Jean-Philippe. 1722. *Traité de l'harmonie reduite à ses principes naturels.* Paris.

Ratner, Leonard G. 1970. "Ars Combinatoria: Chance and Choice in Eighteenth-Century Music." In *Studies in Eighteenth-Century Music: A Tribute to Karl Geiringer on His Seventieth Birthday*, ed. H. C. Robbins Landon and Roger E. Chapman, 343–63. New York: Allen and Unwin.

Renwick, William. 2001. *The Langloz Manuscript: Fugal Improvisation through Figured Bass.* Oxford: Oxford University Press.

Reutter, Georg. 1744. *Messa a Quattro a Capella.* Mod. reprint in *Three Masses from Vienna: A Cappella Masses by George Christoph Wagenseil, Georg Reutter, and Leopold Hofmann*, ed. Jen-yen Chen. Middleton, WI: A-R Editions, 2004.

Riepel, Joseph. 1752. *Anfangsgründe zur musicalischen Setzkunst*, Vol. 1, *De rhythmopoeia, oder Von der Tactordnung.* Regensburg and Vienna.

———. 1755. *Anfangsgründe zur musicalischen Setzkunst*, Vol. 2, *Grundregeln zur Tonordnung insgemein.* Frankfurt and Leipzig.

———. 1765. *Anfangsgründe zur musicalischen Setzkunst*, Vol. 4, *Erläuterung der betrüglichen Tonordnung.* Augsburg.

Rosenberg, Jesse. 1995. "The Experimental Music of Pietro Raimondi." Ph.D. diss., New York University.

———. 1999. "Il 'leista' Raimondi contro il 'durantista' Bellini." In *Francesco Florimo e l'Ottocento Musicale*, ed. Rosa Cafiero and Marina Marino, 75–97. Reggio Calabria: Jason Editrice.

Rousseau, Jean-Jacques. 1752. *Le devin du village*. Fontainebleau. Modern keyboard-vocal score, in *Le devin du village*, ed. Charlotte Kaufman. Middleton, WI: A-R Editions, 1998.

———. 1762. *Émile, ou De l'éducation*. Paris. Trans. Allan Bloom as *Emile, or On Education*. New York: Basic Books, 1979.

———. 1765. "Sonate." In *Encyclopédie ou Dictionnaire raisonné des sciences, des arts et des métiers, par une Société de Gens de lettres*, ed. Denis Diderot and Jean le Rond d'Alembert, vol. 15, 348. Paris.

———. 1768. *Dictionnaire de musique*. Amsterdam: M. M. Rey.

———. 1769. *Confessions*. 1st French ed., 1782. Trans. from *The Confessions of Jean Jacques Rousseau*. London: Members of the Aldus Society, 1903.

———. 1770. *Pygmalion (scène lyrique)*. Lyons: Hôtel de Ville. Modern edition, *Pygmalion: Scène lyrique*, ed. Jacqueline Waeber. Geneva: Editions Université–Conservatoire de musique, 1997.

———. ca. 1775. *A Dictionary of Music*, trans. William Waring. London.

Sanguinetti, Giorgio. 1997. "Un secolo di teoria della musica in Italia: Bibliografica critica 1850–1950." *Fonti musicali italiane: Periodico di ricerca musicologica* 2: 155–248.

Seneca, Lucius Annaeus. ca. 60. "Seneca Lucilio Suo Salutem." In *Epistularum Moralium Ad Lucilium*, letter 6.

Silbiger, Alexander. 1976. "Italian Manuscript Sources of Seventeenth-Century Keyboard Music." Ph.D. diss., Brandeis University.

Sinclair, John. 1991. *Corpus, Concordance, Collocation*. Oxford: Oxford University Press.

Ugolino of Orvieto. Mid-1400s. *Ugolini Urbevetanis Declaratio musicae disciplinae*, ed. Albert Seay. *Corpus scriptorum de musica*, vol. 7/2, 1–53. Rome: American Institute of Musicology, 1960.

Walls, Peter. 2004. "'Sonade, que me veux tu?': Reconstructing French Identity in the Wake of Corelli's op. 5." *Early Music* 32: 27–47.

Werckmeister, Andreas. 1702. *Harmonologia Musica oder Kurtze Anleitung zur Musicolischen Composition*. . . . Frankfurt and Leipzig.

Robert O. Gjerdingen is professor of music at Northwestern University, Evanston, Illinois. He is the author of *A Classic Turn of Phrase* and *Music in the Galant Style*, translator of Carl Dahlhaus's *Studies on the Origin of Harmonic Tonality*, and former editor of *Music Perception*.