

Domenico Scarlatti and the Hidden Voice Exchange

The lyrical but slightly ominous bird calls that open the "Rappel des oiseaux" from Rameau's 1724 *Pièces de clavecin* dramatize the early eighteenth century's changing approach to composition¹. They offer an explicit imitation of voice, drama, and nature, and at the same time they challenge the dexterity of the performer. As we look through Rameau's exercise in mimesis and technique, reproduced in Example 1, we can trace the progress of Rameau's bird calls and observe how their tenor changes: We see that once the second reprise gets underway, the bird calls begin to depict, ever more vehemently, what David Fuller calls the "angry chirping" of a mid-air battle.² (Jean Saint-Arromain refers to them as mating calls.)³ They also assume the quality of an étude.

Rameau's mercurial transformation of his bird calls into battle cries—and into a digital exercise—embodies a major shift in stylistic and ideological emphasis. It moves

¹ The bulk of this study was prepared for a paper read at an SMT session during the annual meeting of AMS, SMT, and several other societies in Toronto, 2000, before the appearance of W. Dean Sutcliffe's *The Keyboard Sonatas of Domenico Scarlatti*, which came out in 2003 (Sutcliffe 2003). There is much to admire in Sutcliffe's book, despite its somewhat confrontational tone and the absence of annotations in the musical examples. For detailed assessments of the book's many virtues (and few faults) see Kroll 2004 and Talbot 2004.

A recent paper about hidden voice exchanges, Timothy Cutler's "Hidden Voice Exchanges: Three (Analytical) Fantasies and a Sarabande by J. S. Bach," presented at the annual meeting of MTSNYC in 2009 (Cutler 2009), appears to address a different kind of hidden voice exchange, one that resides more closely to the surface than the exchange described here. I have only seen an abstract for Cutler's paper, at <http://www.ithaca.edu/mtsnys/2009mtg/abstracts/topics.html>.

I thank Floyd Grave, who read the 2000 version of my paper in Toronto on my behalf, for his help and encouragement in bringing this project to fruition.

² Fuller 1983/1992/2003, p. 10.

³ Saint-Arromain 1988, p. 25.

away from a "natural," "tasteful," and sentimental Rococo arrangement of common rhetorical figures, and it proceeds in the direction of a flashy—and not entirely "natural"—arrangement of digital pyrotechnics intended to impress, amaze, and overwhelm.⁴ Beyond their programmatic significance, the tremolos, skips, and rushing scales in the second reprise support Rameau's promotion of the 1724 collection as "Pièces de clavessin [sic] avec une méthode pour la mécanique des doigts, ou l'on enseigne les moyens de se procurer une parfaite exécution sur cet instrument." ("Harpichord compositions with a fingering method that instructs one on how to raise one's performance on this instrument to the highest level.")⁵

With this opportune if inadvertent sleight of hand, Rameau prefigures symbolically also the emancipation of music from mimesis that was to liberate the corpus of Western art music from the shackles of the vocal repertoire during the second half of the eighteenth century. In demanding and thematizing virtuoso display throughout several of the 1724 Pièces, Rameau anticipates by several decades Jean Jacques Rousseau's account of music as an abstract representation of emotions—as an "empty sign" with no pictorial or corporeal referent—which Rousseau appears to have advanced in his posthumously published *Essai sur l'origine des langues*.⁶ Rameau also anticipates the global changes that music for the keyboard was to undergo with the publication in 1738 of Domenico Scarlatti's 30 Essercizi per gravicembalo.

⁴ One composer who was apparently very impressed with Rameau's figurations was J.S. Bach; see Williams 2003, pp. 145-153.

⁵ Reproduced in Saint-Arromain 1988, among others. I thank Blythe Kropf for suggesting this translation.

⁶ On Rousseau's intentions and their relation to music and music theory of the time see Barry 1987 and Thomas 1995; see also Neubauer 1985. For a more recent take, see O'Dea 1995.

Scarlatti's Essercizi and the Voice Exchange

Rameau reprinted the 1724 *Pièces* in 1731, a few years before the castrato Farinelli visited France on his way to Spain. According to the harpsichordist Laura Alvini, Farinelli—no stranger to the conceits of virtuosity—might have procured a copy of the *Pièces* in Paris, and might have passed it on to Scarlatti, prompting Scarlatti to publish his thirty *Essercizi*, or sonatas, in 1738.⁷ Be that as it may—the sonatas were probably composed earlier—Scarlatti's *Essercizi* appeared in London in two editions,⁸ and quickly made their presence known in more ways than Scarlatti had intended: They became the source for some of Handel's most substantial borrowings in the *Concerti Grossi*, Op. 6, composed in 1739,⁹ and they seem to have provided some of the keyboard idioms for Bach's *Goldberg Variations*, published in 1742.¹⁰ It has recently been firmly ascertained that they also wielded much influence in Haydn's, Mozart's, and Beethoven's Vienna.¹¹

Let us turn to the *Essercizi*, then, and to their representation of stylistic change. Though in some ways comparable to Rameau's, Scarlatti's stylistic and ideological transformations are larger in scale. Leaving matters of keyboard technique for another occasion, I shall focus here on Scarlatti's treatment of a single contrapuntal procedure—

⁷ Alvini 1986 and 1991.

⁸ Hammond 1994 and 2003. For a state-of-the-art account see Sutcliffe 2003.

⁹ Derr 1989. See also my dissertation (Willner 2005), at this website, especially chapters 1 and 5.

¹⁰ Marshall 1976 and Williams 2001. See also Williams 2003.

¹¹ The foundational work on the Scarlatti sonatas' presence in Vienna is Choi 1974, Badura-Skoda 1985, and especially Celestini 1999. See also the Afterword, *Scarlatti and Improvisation*, at the conclusion of this essay.

the voice exchange—within the larger tonal, rhythmic, and formal context of one sonata's first reprise. I shall then trace the impact of the exchange on the sonata's background structure and on the rhetorical design of the second reprise.

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The voice exchange is ideally suited to the enlargement of transitional voice leading. While it extends the tonal domain defined by its outer chords, the voice exchange allows its central passing chord to anticipate the tones and also the tonal domain of the new key area whose tonicization is impending. The voice exchange in Example 2a extends the chord of C, but the passing D chord that prolongs the exchange—at least on those occasions when that D chord is sharpened—looks ahead to the key of the dominant. The augmented-sixth chord and the common-tone diminished-seventh chord that close the exchange in Examples 2b and 2c derive from the tonic, but they too pull the voice leading towards the new key area. Despite these glances at the dominant's territory during the voice exchange, the tonal boundaries between tonic and dominant are not blurred. The reason they remain well defined resides in the thematic quality of the sixth chord that concludes the exchange: Whether a triad, a diminished seventh, or an augmented sixth, the chord features scale degree $\hat{3}$ in the bass. The timely entrance of $\hat{3}$ *in the bass* is an expressive tonal marker that wields long-range harmonic and contrapuntal influence matched by few other bass gestures.¹²

François Couperin's Pièces de clavecin offer a rich font of crystal-clear voice exchanges. The Allemande from the second Ordre is reproduced in Example 3a, and tonal sketches follow in Example 3b. The upper tonal sketch shows how the arrival of the I^6 chord in bar 10 clarifies the path along which the circuitous bass line has traveled in

¹² For excellent introductions to the opposite phenomenon—the blur in boundaries between the prolongation of the opening tonic and the tonicization of the central dominant—see Harutunian 1989, 1990, and 2005, Wagner 1995, Laufer 1999, Suurpää 1999, 2006a, and 2006b, Traut 2001, and Wen 2006.

earlier measures. It also shows how the I^6 chord paves the way for the dominant preparation, which follows.

The I^6 chord in bar 10, the major supertonic that precedes it in bar 9, and the dominant preparation that takes force in bar 11 all have a familiar ring to them: They were prefigured in bar 6 by a similar I^6 chord and by a major supertonic which appeared during an earlier, nested voice exchange; see the lower sketch in Example 3b. The preponderance of sonorities belonging to both the tonic and the dominant, and the tonal clarity with which they come and go, illustrate jointly how well the voice exchange regulates tonal flux, and how essential it is for scale degree $\hat{3}$ to make its presence in the bass known.

But voice exchanges occasionally do disappear. Example 4a reproduces the first reprise of the Courante from the little-known and explicitly galant Suite in Eb, BWV 819, by Bach (one of two suites that were dropped from the collection of six French Suites and then replaced by other, more traditionally contrapuntal suites). The first reprise shows a rare instance of a voice exchange whose closing I^6 chord has been radically de-emphasized by the design.

As the Courante reaches for its central dominant and for the double bar, a prominent large-scale passing F major chord appears in bar 10. The prominence of F in the bass matches the prominence of an F that appeared high in the upper voice three measures earlier, in bar 7. Put together, the combined thematic weight and structural weight of the two tones makes it clear that—however one reads the outer voices of the Courante—the opening Eb chord with its G on top ultimately turns inward at the deeper levels of structure. Thus the bass F in bar 10 and the upper-voice D at the turn of bar 11 prepare for the arrival of the bass G and the upper-voice Eb later in bar 11. But the bass G is hidden: It is buried in a falling arpeggiation of the dominant and the tonic which is collapsed onto the supertonic $\overset{6}{5}$ in the key of the dominant. The upper-voice Eb

disappears altogether; see the tonal sketch in Example 4b. The bass F to which the hidden G was to have moved arrives at the end of bar 11. Its companion upper-voice F remains implicit.

One reason Bach downplays the significance of G and Eb has to do with thematic imitation. Both hands in bar 11 imitate the motivic setting of several earlier measures, especially that of bar 3. At the lyrical pace of the Courante, the priorities of moment-to-moment thematicism win over those of long-range voice leading (as they sometimes do, under similar circumstances, in the voice exchanges of Handel and Couperin). Another, equally important reason, has to do with sonority: As a self-consciously homophonic piece, the Courante emphasizes root-position chords and complete chordal sonorities at metrically exposed beats in a way few Bach suite movements do. Disguising the underlying voice exchange by letting the tonic's Eb linger below in the manner of a long-range suspension is Bach's way of disguising the linear Baroque affiliations of the Courante and underlining its homophonic galant qualities instead.

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The composer who seems to suggest and then hide the I^6 chord at the end of his voice exchanges as a matter of habit is Domenico Scarlatti. Like the voice exchange itself, Scarlatti is a transitional figure. While his counterpoint and phrase rhythm uphold the traditions of the Baroque, his frequent shifts from major to the parallel minor expand on Venetian idioms and prefigure the modal shifts of the Viennese Classical style. Temperamentally, his music is *sui generis*.¹³

¹³ Talbot 1985 and, to a lesser extent, Rosen 1997 provide the most informative observations on the meaning of Scarlatti's modal shifts between the parallel major and minor keys. See also Sutcliffe 2003.

For a vivid example of a hidden voice exchange in Handel, see my analysis of the Fugue from the E minor keyboard Suite (1720) in chapter 4 of my dissertation (Willner 2005), p. 273 (esp. fn. 14), and Example 4.6, at this Website.

As transitional pieces, the Scarlatti sonatas yield to a variety of stylistic pressures which emanate from different sources and work at cross purposes against each other. One pressure, tonal as much as it is rhythmic, comes from the high contrapuntal style of the Baroque, and calls for evenly paced linear progressions at the levels immediately below the surface.¹⁴ In the instrumental repertoire it exerts its power most consistently within the traditional binary division of many movements into two reprises and within the equally traditional subdivision of each reprise into three or four dovetailing ritornello cycles of *Vordersatz*, *Fortspinnung*, and *Epilog*. These, in fact, are the essential links between the Scarlatti sonatas and the long suite movements of Bach and Handel.¹⁵

A more specifically idiomatic sort of pressure emerges from the rising brilliance of keyboard technique. We've just encountered it in Rameau's transformational bird calls, and we can observe its repercussions in the spasmodic hand crossings, the obsessive repeated notes, and the rushing arpeggios that Scarlatti makes his own. From a still different direction—that of the *Essercizi*'s prospective players—there is pressure for natural, tasteful, and pleasing themes and sonorities of the type we found in Bach's *Eb Courante*. The *Essercizi* published in 1738 reflect all these stylistic currents at once. Indeed, they allow the precarious balance between the opposing forces to shape their narrative ebb and flow.

Scarlatti, Sonata in E, first reprise

¹⁴ On the pacing of linear progressions at various levels see Willner 1998 and 1999; on the stylistic implications of such pacing, see Willner 2006.

¹⁵ I discuss the subdivision of the reprise into ritornello cycles in Willner 1999 and in my dissertation, chapters 1 and 4 (with further references). It is a major issue in Bach scholarship, treated especially well in the work of Laurence Dreyfus and Michael Marissen.

Overview. The Sonata in E, K. 20, is a particularly effective exemplar of a composition that is tossed back and forth between these aggressive stylistic forces. It is reproduced with annotations in Example 5. Like all of Scarlatti's sonatas, the Sonata in E is a formidably complex piece that requires a close reading for its details to emerge within a properly balanced stylistic framework. Here it will be possible to cull only the most pertinent details from an extended, ongoing study of structure and phrase rhythm in the 30 *Essercizi*.¹⁶ As we look at the Sonata, let us glance ahead to the voice-leading sketches in Examples 6 and 7, and try to get a sense of the ways in which the first reprise generates an emphasis on the bass tone F#. Observe how the design builds up the expectation that F# will ultimately lead to G# during the third period of the reprise, in bar 55. It is in bar 55 that Scarlatti substitutes an E minor chord in root position for the expected E major I⁶ chord, thereby averting his voice exchange.

The first reprise of the E major Sonata is structured much like the first reprise of a long Bach or Handel *allemande*. It divides into three tripartite *ritornello* cycles, each consisting of a *Vordersatz*, a *Fortspinnung*, and an *Epilog*.¹⁷ Scarlatti pits these formal divisions against his temperamentally gestural keyboard manner: Against the precipitous outbursts of virtuoso conflagrations, and against the sudden reassumption of lyricism and repose.¹⁸ On top of it all, Scarlatti adds his forward-looking modal shifts, and his obsessive preoccupation with figural repetition.

¹⁶ The Sonata can be heard on the Web at www.prs.net/scarlatt.html#1 and abundantly on YouTube.

¹⁷ Just as Bach and Handel often do, but in a much more extreme way, Scarlatti inverts and repositions the functional properties of the *ritornello*'s three parts: After the first *ritornello* he lends the *Vordersatz* the quality of a *Fortspinnung*, the *Fortspinnung* the quality of an *Epilog*, and the *Epilog* the quality of a *Fortspinnung*.

¹⁸ Much the most substantial work on gesture remains Hatten online, with further references, and Hatten 2004.

In the best Baroque tradition, the themes and rhythms of the Sonata operate at the service of its tonal outlines. Looking very briefly at the durational structure of the reprise—a closer look will take us too far afield—we can get a sense at least of how it connects with the Sonata's voice leading. The pace reduction in Example 8 and the rhythmic diagram in Example 9 explain the durational scheme of the reprise.¹⁹ They show how its quarter-note *basic pace*—the underlying, even movement of quarter notes established by the outer voices in the opening eight measures—fluctuates wildly as the Sonata evolves. Although Scarlatti controls the basic pace just as stringently as Bach and Handel do, he treats it more flexibly and with greater plasticity. The *grouping pace* which the two Examples show—the pace established by the Sonata's most conspicuous segments—expands and contracts with similar freedom. Beyond bar 9, the outlines of each ritornello's three parts crystallize through the fluctuations in the basic pace and the grouping pace. Far from arbitrary, these fluctuations respond to the developmental needs of each part, and they support the rhetorical and emotional impact that the part attempts to deliver.

The three periods. The first period, which extends from bar 1 to bar 24, comprises a foundational eight-bar *Vordersatz*, an argumentative eight-bar *Fortspinnung*, and an eight-bar *Epilog* whose turn to the parallel minor and enigmatic conclusion on the dominant raise more questions than they answer. In the larger scheme of things, the period as a whole assumes the role of a long, expository *Vordersatz*; the second and the third period, similarly, assume the roles of a developmental *Fortspinnung* and a cadential *Epilog*. Even this hierarchic arrangement is a Baroque trademark.²⁰

¹⁹ The pace reduction in Example 8 and the terminology that comes along with it employ the analytical apparatus I introduced in Willner 1998 and 1999.

²⁰ The notion of hierarchically controlled permutations and recombinations of formal

The second period, two bars shorter, extends from bar 25 to bar 46. Without quite participating in the voice exchange proper, it sets the stage for the later suggestion and abandonment of the exchange, which takes place during the third period.²¹

The third period, even shorter, extends from bar 47 to the double bar. It contains an eight-bar *Vordersatz*, which attempts to realize the voice exchange, a chromatically adventurous four-bar *Fortspinnung*, which aborts it, and a virtuosic but noncommittal six-bar *Epilog* that leaves it to the second reprise to digest and to perorate the turbulence of the first reprise. It is no coincidence that just when the voice exchange fades, at bar 55, the expanded two-bar basic pace, with which the period began, contracts to an underlying half-bar pace, and that the Sonata's two-bar grouping pace shrinks to a one-bar pace.

Despite the prevalence of two-bar and four-bar groups, the first reprise remains steeped in the additive Baroque tradition metrically. Its many repetitions, literal as well as sequential, serve to build up not a hypermetrical grid but a tonal and formal grid. This is the grid established by the division into three periods and the subdivision into shorter ritornello cycles. Even though the repetitions mimic those that one finds in galant music from the same time, they have little to do with the emerging periodicity of the pre-Classical style. Rather, they resemble the tonally motivated repetitions one finds

functions within the ritornello scheme—and, in later style, within the Schoenbergian sentence—is reflected in both the Bach literature (Dürr 1971/2004 is but one representative example) and, more specifically, in the work of Laurence Dreyfus, William Caplin, and Wayne Petty; see Caplin 1998, Petty 1995a, Dreyfus 1996, as well as the earlier Marissen 1990a. See also Crist 1971 and Dubowy 1991.

²¹ To survey briefly the larger rhythms of the second period: The period comprises a twelve-bar *Vordersatz* whose sequential spinning lends it the semblance of a *Fortspinnung*, a four-bar *Fortspinnung* that shows the cadential design of an *Epilog*, and a six-bar *Epilog* whose surging sixteenth-notes display the earmarks of a *Fortspinnung*. This is the permutation of functions to which I just referred; it underscores the developmental quality of the second period. The basic pace of the period ranges from a wide, sequential pace of four bars at the outset to a more intense one-bar and half-bar pace later on. The grouping pace, too, expands to movement in four-bar segments; it contracts to movement in three bars during the *Epilog*, but its contraction becomes apparent only in retrospect.

throughout the concertos of Corelli, Vivaldi, and especially Albinoni. Let us see now in what ways they are tonal (keeping in mind that their role may change during the second reprise).

Tonal Analysis. The underlying progression that allows Scarlatti to evade his voice exchange at a level closer to the surface is shown schematically in the lower systems of Example 2. In addition to suspending the tonic's root under the exchange, as Bach does in his Eb Courante, Scarlatti suspends a $\hat{5}$ —its precise structural status we don't yet know—on top of the $\hat{3}$ that participates in the exchange, and he allows a $\hat{5}-\hat{4}-\hat{3}$ descent to the voice below to cover and mask the upper part of the exchange. While my sketches in Examples 6 and 7 correspond to those in Example 2, they also enlist the help of David Neumeier's three-part *Ursatz* to account for the movement of all the structural voices.²² The diverse upper-voice readings in Example 7a place different degrees of emphasis on $\hat{5}$ and on the descent $\hat{5}-\hat{4}-\hat{3}$, and in so doing they bring up the question, often raised by Schenkerians, whether the structural descent takes place on the way to the dominant at the double bar, or later, on the way to the closing tonic. The question can be answered if we look at the procedure composers most commonly follow in extended dance-suite movements in binary form.

The most substantial Baroque dance-suite movements—as opposed to the *Galanterien*, which often have only a token back-relating dominant at the double bar—devote their first reprise to the tonicization of the structural dominant, and close the reprise with its cadential confirmation. Their second reprise either prolongs the dominant and then retonicizes the tonic with an auxiliary cadence, or else it allows a longer auxiliary cadence to occupy the entire reprise and to bring in the tonic as well as all the intervening material, including the tonicization of the intermediate harmony, within the

²² Neumeier 1987b.

time-span of the dominant at the double bar. The descent of the fundamental melodic line—or, more often, lines, since the three-part *Ursatz* is very common in this repertoire—as far down as $\hat{2}$ and $\hat{7}$ may therefore take place either over the structural dominant at the double bar or later on, during the second reprise, even if an auxiliary cadence takes up the entirety of the reprise.²³

In our Scarlatti Sonata, the bulk of the structural and rhetorical business occupies the area in front of the double bar; the light weight of the second reprise confirms this impression.²⁴ And that, regardless of the bass structure in the second reprise, clinches the matter of the two structural descents: The $\hat{5}$ -line descends all the way to $\hat{2}$, $f\#\#^2$, and the $\hat{3}$ -line descends all the way to $\hat{7}$, $d\#\#^2$, by the time the major supertonic and the dominant arrive in bars 59-62. The high b^2 of bar 62 is superimposed over the culmination of the descent. This is the reading suggested in Example 6, in the second part of Example 7a, and in Example 7b. We can now put the alternative reading offered in the first part of Example 7a safely aside.

Going into the tonal details of the first reprise, we find that its first period ends on a dividing dominant over B in bar 24. This is where the Sonata's complexities begin in earnest: Here Scarlatti takes up the long-range invertible counterpoint of the high style. Just as Bach and Handel so often do, he disperses his underlying voice leading over the entire spectrum of the Sonata's registral ambitus. I've tried to restore the outlines of the contrapuntal structure to their proper register by beaming the most significant upper-voice tones in Examples 6 and 7, and by connecting the bass line with the inner voice

²³ If both a $\hat{3}$ -line and a $\hat{5}$ -line are active, the $\hat{3}$ line is likely to go down as far as $\hat{7}$, then turn around and close at $\hat{1}$ together with the $\hat{5}$ -line. In that case the motion $\hat{2}-\hat{1}-\hat{7}$ is a full-fledged structural movement rather than a plain motion into the inner voice from $\hat{2}$. Scheepers 1996 addresses this issue.

²⁴ It is no coincidence that the second reprise is somewhat easier to play than the first.

tones above the bass through unfolding signs. The dividing dominant's B in bar 24 is an inner-voice tone; across several voices, and through a passing A#, it descends to A natural during the second period. This A, which enters in bars 35-36, also turns out to be an inner-voice tone; it is absorbed by the bass D# in bars 37ff. (see the unfolding signs on Examples 6 and 7). That bass D#, though, where exactly is it?

When the dominant reenters for a longer time at the middle of the second period, D# appears only in the upper-register figures, as an inner-voice tone. But it is nonetheless the central bass tone of the second period. The contrapuntal conduct of the lower voices within the idiomatic framework of the tonic's tacit prolongation, and the explicit return of E in bars 41ff (of which more presently), indicate jointly that the D# of bars 37-40 may be heard as the implicitly sustained bass tone. Structurally, the D# extends the Sonata's opening E by serving as its lower neighbor; see the brackets under Examples 6 and 7.

With the surge of sixteenths that concludes the second period in bars 41-46, A and D# give way to G# and E. The entrance of these two tones occasions the appearance of a linearly conceived tonic, which in Scarlatti's best serpentine manner is embellished by a local dominant and by an ancillary supertonic seventh. E and G# compress onto a true passing F# only later, during the third period's *Vordersatz*. The large-scale bass progression that these polyphonically conceived lower tones outline is common to many of the *Essercizi*: Before folding inward for its concave voice exchange, the tonic extends outwards by means of the convex neighbor-note motion $I-V_3^6-I$. And as E and G# are about to fold inwards and collapse onto F#, E bifurcates: An additional E stays put below, tacitly, at a deeper level, as if it were the seventh of a seventh chord's third inversion (see Example 6). This E will rise to F# only later, through the parenthetical prefix D natural-E-F#. The E that supports the rushing sixteenths as they begin their run in bar 41 is left hanging in mid-air; the embellishing F# over which the sixteenths conclude, and which only anticipates the later F#, is left hanging too. (Until we see the larger picture of the

Sonata's structure, it is impossible to ascertain whether the chord on B in bars 43-46 is indeed subservient to the chord on F# to which it is fused in these measures; Scarlatti often reverses the seemingly obvious relationship between two chords whose bass tones lie a fifth apart, favoring in the long run the less obvious of the two chords, at the upper end of the fifth.²⁵ In this instance, the void that opens with the abandonment of F# at the turn of bar 47 lends emphasis to F#, at the expense of B.)

The lyrical theme which begins over the repeated notes at bar 47 serves to prepare for the arrival of the real F# in bars 53 and 54 by lending that F# as much tonal emphasis as possible. Because F# hooks onto the E and the F# that were left hanging under the sixteenths in bars 41-46, one hears the new F# as projecting a tendency to continue the rising motion towards G#. A continuation to G# would also, among other things, conform to the behavior of the bass in analogous situations elsewhere in the Baroque repertoire, and in the *Essercizi* in particular. And it would support a persuasive E in the upper voice. All the more surprising, then, that when the *Fortspinnung* begins in bar 55, the G# we expect in the bass and the E we expect in the upper voice both fail to appear. They are replaced by G natural in the upper voice and by E in the bass as the chordal texture of the preceding measures drops out. Familiarity with Scarlatti's *modus operandi* and with the norms of eighteenth-century voice leading would lead us to believe that the I⁶ chord is perhaps only postponed or deemphasized by a detour, in the manner of a deceptive cadence, but nowhere is the exchange completed.

Aborting the voice exchange. From a stylistic vantage point, one could argue that the replacement of the diatonic I⁶ chord by a root-position tonic in the parallel minor expresses the same preference for prominent root position chords that Bach's Courante suggests. Within the polyphonic environment of the three-part *Ursatz* in general and the

²⁵ Or at the lower end of the fourth that results from the inversion of the fifth.

Baroque instrumental repertoire in particular this idea makes sense: One tends to hear a background structure more sonorous than Schenker's lean two-voice setting, and accordingly one filters the middleground in one's ear more sonorously as well. But this idea is admittedly a little abstract, especially in view of the light and astringent sonorities that Scarlatti offers in rapid succession after bar 55. There must be more concrete reasons for Scarlatti's extravagant strategy.

The voice-leading sketches in Examples 6 and 7 show how the upper-voice descent from $\hat{5}$ to $\hat{3}$, which accompanies the voice exchange at the upper third in the background, closes at bar 55; this is where the upper voice G natural replaces the expected G#. Realizing the voice exchange in literal fashion at this point would entail the coincidence of a structural bass G# and a structural upper-voice G# across a I^6 chord. While not illegitimate, the prospect of a prominent sixth chord with its bass doubled by the top voice at such a focal moment—the climax of the Sonata—evokes the sound of an aesthetically unpleasing sonority of the type one would find in a student's harmony exercises.

But there is more. The adventurous chromaticism after bar 55 presents a group of nested (and harmonically incomplete) subdominant cadences embedded within a larger subdominant cadence.²⁶ These cadences resemble closely the progression that William Rothstein has called the "Schrock cadence," after Karl Schrock, who first observed their frequency in the organ music of J.S. Bach.²⁷ Example 7b shows how within each cadence the passage from the subdominant to the dominant is extended by the parenthetical

²⁶ The nested cadences are incomplete on two counts: They lack an opening tonic and a closing tonic, yet they define each key so precisely that one is justified in hearing them cadentially.

²⁷ Rothstein 1991, 1992, 1999, and 2007, above all pp. 266-277 in Rothstein 2007. Several good examples appear in C.P.E. Bach's *Versuch* (Bach 1949), p. 256, and probably in other figured-bass manuals as well.

insertion of a prefix that introduces the dominant from I^6 , a third below.²⁸ The retention of E in the bass in conjunction with these cadences allows Scarlatti to summarize and to clinch the voice leading of the entire Sonata.

The retention of E also facilitates an important motivic enlargement. I mentioned that between the opening E and the F# at bar 53 the bass outlines the neighbor-note motion E-D#-E-F#. Thanks to the bass E at bar 55 and to the cadences that follow, Scarlatti can now repeat this highly characteristic long-range motive as a tonal parentheses at several levels at once before proceeding to the new dominant and to the structural supertonic's F# at bar 59 (see the square brackets under Examples 6 and 7). The colorful cadences superimpose themselves over the conclusion of the voice exchange, and they cancel it out.²⁹

Repetition and magnetism. But there is still more, and this brings us back to the tonal origins of Scarlatti's phrase rhythm, and to his obsessive repetitions. The emphasis on repetition and on chordal extension that so deceptively appears to connect Scarlatti with the pre-Classical style has to do, rather, with the strategic placement and intensification of structural chords. These are chords whose striking harmonic and contrapuntal color serves as a tonal magnet for the extensions and the prolongations that have just taken place. The E minor sonority at bar 55 is just such a chord. Like other "magnetic chords" in the literature it not only consolidates what has occurred earlier but it also provokes a

²⁸ The cadence acquires its signature sound and its name when I^6 is introduced by V^4_2 . And although V^4_2 is missing in this instance, the cadence is so closely identified with Scarlatti's cadential manner that I have kept the name Rothstein has assigned. (In the absence of V^4_2 one can use the more descriptive appellation *prefix progression*.)

²⁹ One might also say that they replace the dramatically gestural, improvisatory flourish which often accompanies the conclusion of a long voice exchange.

flurry of tonal activity in the measures that follow.³⁰ Provocative chords of this type are not common in the rapid instrumental works of Bach or Handel, where their presence would disrupt the perpetual flow of the surface, but they abound in the music of Mozart, Haydn, and Beethoven, where in a more periodic context the preparation for their impending appearance lends a distinctive shape to the thematic design. Just think of the augmented sixth chord in the slow variations movement of Beethoven's "Archduke" Trio.

Surprising though its arrival is, Scarlatti's magnetic chord—like those of his Viennese followers—does not come out of the blue. The enigmatic cadential *Epilog* in the opening period is cast mostly in E minor; the new themes at the beginning of the second and third periods bring out the keys of B minor and A minor. Most important, the rising ornamental third G#-A-B, which predominates during the first period's *Fortspinnung* (bars 9-16), elicits an inquisitive response from a modally altered slide, E-F#-G natural, during the *Epilog* (bars 17-24): See the curved brackets in Example 5. The E minor chord in bar 55 and the cadences that follow add thematic weight to the modal alteration of E-F#-G natural, and they realize its improvisatory potential; see again the curved bracket under bars 55 and 56 in Example 5.

The dramatic impact of these modal shifts and modal points of emphasis undercuts the playful and jovial mood that Scarlatti suggests at the outset. The Sonata's ever-growing tonal darkness intensifies the gestural violence of Scarlatti's frequent outbursts, and it substantiates musically the ever greater physical demands that Scarlatti makes on the player as the Sonata evolves.³¹ The root-position E minor chord at bar 55

³⁰ One can summon up additional metaphors and say that the E minor chord is the eye of Scarlatti's structural storm, or the vortex of its underlying counterpoint. The notion of magnetic chords advanced here is not quite identical to that proposed by Steve Larson and Candace Brower in Larson 1998 and Brower 1998 (both with further references), but it is certainly consonant with their theories, which are based on the work of Rudolf Arnheim.

³¹ I thank the pianists James Christie and Jessica Bruser, who have played through many of the Scarlatti sonatas, for confirming this impression. W. Dean Sutcliffe also makes the

encapsulates the tension and the violence of this instrumental drama in a nutshell.

Afterword: Scarlatti and improvisation

To find out what it was in Scarlatti's Sonatas that captured the imagination of Mozart, Haydn, and Beethoven we need to turn to the familiar notion of improvisation. Scarlatti's quicksilver changes in mood, rhythm, texture, and register all bespeak improvisation—but of a very learned, sometimes even self-consciously studied kind. Scarlatti's impulsiveness treads a fine line between the dramatic contrasts of the Baroque and the “natural” ease of the Rococo. At its best, it combines both in magical fashion. The Viennese transformation of Scarlatti's impishness is apparent across countless borrowings from the approximately one hundred Scarlatti sonatas that were available in Vienna during the last decades of the eighteenth century. By way of a sampling, I offer in Example 10 three of Beethoven's appropriations from the first reprise of Scarlatti's E major Sonata. The three borrowings appears in close proximity in the recapitulation of the "Emperor" Concerto's first movement, where their tonal and registral links to their source are particularly clear.

What is it that Beethoven takes over and amplifies? Scarlatti's angular motives and his nervously jagged rhythms, to be sure, and Scarlatti's demonstrative gestures. Yet with so many developmental resources at his disposal—and a theatrical temperament to match—Beethoven does surprisingly little to elaborate on Scarlatti's explosive theatricality. Instead, he adds imperial majesty—his own authorial voice—and rhetorical lyricism; he also adds space, and a wider temporal framework. But he tones down the vehemence of Scarlatti's gestures, and he curbs the angularity of their rhythms. Rather than bank on Scarlatti's mercurial changes in tone, Beethoven turns to an altogether

different kind of spontaneity.³² What Beethoven really appropriates is the narrative of Scarlatti's unfolding voice exchange, namely the three gestures that set the stage and the rhetorical tone for the appearance of the E minor chord in bar 55 and then also realize the chord's entrance and its aftermath. The three original gestures are the sudden thematic emphasis on F# minor at the beginning of the second period (bars 25 ff.); the equally sudden thematic preparation for the passing F# chord at the beginning of the third period (bars 47-54); and the passages atop the nesting Schrock cadences to which the E minor chord leads. All three gestures turn up, in a different order, in the "Emperor" Concerto: As Beethoven's C# minor theme (Example 10b; introduced in Eb minor in the exposition and ultimately reemerging in C# minor and Db major during the recapitulation as Beethoven's second theme); as the transitional theme leading away from the opening Eb tonic (Example 10a); and as Beethoven's closing theme (Example 10c). Even the furiously disjunctive run in bare octaves just before Beethoven's C# minor theme (bars 398 ff., not shown) derives from Scarlatti, from a similarly turbulent passage in the Bb Sonata, K. 16, bars 42 ff. It seems that each time Beethoven opens a new chapter in his tonal story or unveils a different facet of his protagonist's character (never mind the inauthentic title), he marks the turn of events with a gesturally pointed appropriation of a

³² Beethoven's reinterpretation of Scarlatti, Bloomian overtones and all, is emblematic of Scarlatti's reception in Vienna. It embodies the priorities of a dramatic but referentially abstract and contained expression, which prevailed in Vienna during Haydn's and Mozart's reign. On another front, Beethoven's reinterpretation exemplifies in practice the ideological changes that took place in the spheres of music theory and music philosophy during the late eighteenth century. It reflects the shift from a rhetorical and a grammatical focus to a more personified and more representational outlook, the outlook that cleared the way for the notion of sonata form to emerge during the early decades of the nineteenth century. Its complexities thematize and at the same time problematize the ideas Rousseau expressed so eloquently and prophetically in his *Essai*. Karl Braunschweig, Jacques Derrida, and Paul de Man have written about the origins of these stylistic, theoretical, and philosophical changes in very diverse and very illuminating ways (Braunschweig 1997, Derrida 1998, and De Man 1983).

theme, a rhythm, or a texture from Scarlatti.³³

And with Beethoven we have come full circle, because the tone of Beethoven's reinterpretation—the change in improvisatory emphasis and the concurrent retention of narrative intent—echoes the changes in character and the retention of rhetorical strategy that identify Handel's borrowings from Scarlatti's *Essercizi* in the *Concerti Grossi*, Op. 6. The further study of these far-reaching yet conservative changes—indeed, of Scarlatti's elusively paternal resonance throughout the tonal canon—is long overdue.³⁴

³³ For a detailed account of this surprisingly systematic procedure see my “Mozart and the English Suites,” at this Website.

³⁴ I demonstrate how this might be done in chapters 1 and 5 of my dissertation (Willner 2005), at this Website. See especially my analysis of Handel's E minor *Concerto Grosso*, Op. 6, No. 3, vis-à-vis its origins in Scarlatti's *Essercizi*.

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