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More on Sharp $\hat{4}$ to Natural $\hat{4}$: Further thoughts on Frank Samarotto's article "Sublimating Sharp $\hat{4}$: An Exercise in Schenkerian Energetics"

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[1] I would like to elaborate upon several ideas brought up in Frank Samarotto's thought- provoking article on sharp $\hat{4}$ that appeared in the last issue of MTO. The denial of sharp $\hat{4}$'s tendency to lead to $\hat{5}$ is a distinctive progression, the expressive qualities of which were well addressed by Samarotto.

[2] Before turning to the article itself, I would like to applaud Samarotto's desire to heighten rather than downplay Schenker's "energeticist" outlook.(1) As he remarks, "the added specificity of Schenker's method . . . should render it more fine-grained, concrete, and ultimately more defensible as a holistic analysis." By emphasizing the energetic dimension of Schenker's thought, we are brought closer to a consideration of a work's expressive capabilities.

[3] Of all of Schenker's works, it is his *Harmonielehre* that most strongly expresses the dynamic aspect of music associated with "energetics." Due to the many mystical ruminations about tones and their biological life force, this book--his first theoretical publication--is often regarded as more abstract than practical. One of the less speculative parts of *Harmonielehre,* however, is the exhaustive listing of all the intervallic relationships that exist between the scale degrees.(2) The end result leads Schenker to the conclusion that the intervals of the tritone (diminished fifth or augmented fourth) and the diminished seventh (resulting from mixture of the major and minor modes) are *eindeutig,* i.e. "open only to one interpretation."(3) In the major mode, for example, the tritone formed by the diatonic scale degrees $\hat{7}$ and $\hat{4}$ is unique, and thus defines the key unequivocally. Schenker remarks that if a composer desires to "give us a sure perception of the key, he will resort to a univalent [*eindeutig*] interval which, by its very nature, will exclude any other key."(4)

[4] Paradoxical as it may seem, the static, *eindeutig* interval between $\hat{7}$ and $\hat{4}$ embodies the notion of directed motion as warranted by "energetics." When these scale degrees appear in the dominant seventh chord their energetic tendencies become heightened. Even greater than the urge of the leading tone ($\hat{7}$) to resolve up to the tonic scale degree, is that of $\hat{4}$ to descend to $\hat{3}$. Due to its origin as a dissonant passing motion from 5, the necessity of its resolving $\hat{4}$ to $\hat{3}$ is so vital that it will

often be realized despite appearances to the contrary.

[5] To illustrate this, let's look at the second theme from the first movement of Mozart's Piano Concerto in C, K. 467 (**Example 1a**). The melody is made up of descending arpeggio figures, and the opening four bars are subdivided into a pair of two-bar groups. A parallelism in the top voice results: D to E and C to D. However, this description of the top voice does not account for the true voice leading. As shown in **Example 1b**, the top voice C ($\hat{4}$) in the third bar of the theme is the dissonant seventh of V^7. It does not return back up to D in the following bar, but resolves to B ($\hat{3}$) in the bass. The apparently straightforward symmetrical pattern of the melody belies the subtlety of the voice leading. As is often the case in Mozart's music, the apparent simplicity of its outward appearance veils a more complicated tonal structure.

[6] A similar voice-leading occurs in the famous *englische* theme from the Finale of the "Eroica" Symphony, as well as Beethoven's ballet *The Creatures of Prometheus* cited by Samarotto.(5) **Example 2** presents a voice-leading graph of the theme as it appears in the ballet. In bars 10–12, a♭2 ($\hat{4}$) is prominently articulated as the seventh of the V^7, and this active tone resolves to G ($\hat{3}$) in the bass of bar 13. As shown in my analysis, I read a double harmonic progression in the bass, with $\hat{5}$ as the initial structural top voice tone. The melodic descent to $\hat{3}$ occurs in the bass voice before resurfacing in the melody with the structural descent of $\hat{2}$ to $\hat{1}$ in bars 14–16.

[7] Superimposed over the structural melodic descent of $\hat{4}$ to $\hat{3}$, is the chromatic motion A♭ - A♮ - B♭, which serves as the focal point of Samarotto's discussion of this theme. He describes the deflection of the dissonant seventh A♭ to A♮ instead of G as "a manifestation of pure force." Samarotto's characterization of the chromatic motion A♭ - A♮ - B♭ as expressing an "exuberant sense of heroic resolve" is certainly appropriate. Nevertheless, I would argue that, despite the power of this voice-leading aberration, the urgency of the dissonant seventh ($\hat{4}$) must ultimately be taken care of. In other words, there are two dimensions at play here: the surface (foreground) melodic tension of $\hat{4}$ going through sharp $\hat{4}$ to $\hat{5}$, and the structural tonal motion of $\hat{4}$ resolving to $\hat{3}$. The effect of the passage is, in fact, heightened by the conflict between the surface articulation and the larger tonal organization. The top voice may appear to say, quoting Samarotto, "So there, I'll do as I wish," but the necessity of the voice leading forces the tonal structure to find an alternative solution. Although $\hat{4}$ in the melody does not literally continue down to $\hat{3}$, its destiny is fulfilled in another voice.

[8] As Samarotto rightly points out, this chromatic motive is brought back in the elaboration of the final statement of the theme just before the coda. The a♮2, which results in an F-major $\frac{6}{4}$ chord in bar 184, allows for an echo of the A♭ - A♮ - B♭ idea. Yet despite this chromatic inflection, the $\frac{6}{4}$ chord resolves, and the top voice a♮2 descends to g2. **Example 3a** offers an alternative interpretation to Samarotto's of the voice leading of this unusual passage, showing how the harmonic progression from V^7 to $I\flat^7$ is filled out by chromatic passing tones. The structural melodic descent from $\hat{5}$ remains in the top voice, and the recollection of the chromatic motion A♭ - A♮ - B♭ hovers above the descent to $\hat{3}$. As shown in **Example 3b**, Beethoven could have kept a♭2 in the top voice. In any case, the alteration to a♮2 cannot prevent the top voice's ultimate continuation down to g2, but this chromatic inflection helps point to b♭2.

[9] The main focus of Samarotto's article, however, explores the denial of sharp $\hat{4}$'s natural tendency to move to $\hat{5}$. He reminds us that sharp $\hat{4}$ leading to $\hat{5}$ is so significant because "one of the most strongly directed motions in tonal music is modulation to the dominant." Since scale degree $\hat{5}$ is, along with scale degree $\hat{1}$, one of the two most important scale degrees in the tonal system, it's not surprising that melodic chromatic descents from $\hat{5}$ are always written $\hat{5}$ - sharp $\hat{4}$ - $\sharp\hat{4}$ instead of $\hat{5}$ - $\flat\hat{5}$ - $\hat{4}$.(6) Scale degree $\hat{5}$'s status as a defining element of the tonal system precludes it from being altered.

[10] In harmonic progressions the descending chromatic motion from sharp $\hat{4}$ - $\sharp\hat{4}$ usually results from a succession of two distinct chords with an elision of $\hat{5}$. A classic "textbook" example comes from the opening of the C-major slow movement of Beethoven's Piano Sonata No. 4 in E-flat, Op. 7 (**Example 4**). In bar 4, F-sharp in the bass supporting a leading-tone chord is immediately followed by a $V\frac{4}{2}$ over F♮. Although our ear makes sense of the progression as resulting from an elision of G, the deflection of our expectation gives this passage its expressive force.

[11] A different situation occurs, however, when the deflection of sharp $\hat{4}$ to $\sharp\hat{4}$ occurs within the same chord. Without a change of harmony, the effect of neutralizing sharp $\hat{4}$ to $\sharp\hat{4}$ is highlighted and the result becomes more powerful. One of the most clear, yet breathtaking examples that I know occurs at the end of the introduction to the first movement of the 39th Symphony by Mozart. **Example 5a** presents the last four bars of the introduction. In bar 24, just before the dominant that ushers in the exposition, Mozart presents an augmented sixth chord over C♭ on the third beat. What makes this moment so striking is the way this augmented sixth chord is prepared. As shown in the successive levels of **Example 5b**, it grows out of IV. **Example 5c** presents a foreground reduction of this passage: the chromatic inflection from IV to the augmented sixth

chord is effected through a series of voice exchanges, culminating in the stark, ominous canon in octaves between the outer voices. At the moment we finally achieve the augmented sixth chord in bar 24, the tension is poignantly deflated by the unexpected inflection down a chromatic semitone from A♮ to A♭. Despite the intensification of ♮$\hat{4}$ to sharp $\hat{4}$, the motion towards $\hat{5}$ is denied at the last moment when sharp $\hat{4}$ reverts back to ♮$\hat{4}$.

[12] In his article, Samarotto presents several examples in which the potency of sharp $\hat{4}$ is neutralized back to ♮$\hat{4}$ over more elaborate prolongations. In the first of his examples, the aria "Bist du bei mir," Samarotto shows how sharp $\hat{4}$ in the bass, supporting a ♮-IV^7 chord leads over bars 5–7 to ♮$\hat{4}$ as part of a IV^6. Reflecting upon the meaning of the words, he remarks that sharp $\hat{4}$ "relinquish[es] its force, not because it is denied, but because it is given up willingly." While not disputing his interpretation of the text, I would like to propose an alternative reading of the voice- leading. In making a connection between the seventh chord over E♮ in bar 5 and the E♭ $\hat{5}$ chord in bar 7, Samarotto reads bar 6 as a passing $\hat{5}$ between them. Although $\hat{5}$s often do function as passing chords, I read the harmony in this bar not as a passing, but as a cadential $\hat{5}$. The successive stages of **Example 6a** show how the resolution of this cadential $\hat{5}$ is expanded; instead of resolving directly to a $\hat{5}$ chord, it goes to a V$\hat{5}$ chord.

[13] **Example 6b** presents a voice-leading reduction of the first part of the aria. The modulation to the dominant at the end of the first part is achieved by reinterpreting the opening E♭ tonic as IV in B♭. In bar 5 this IV becomes chromatically inflected as ♮-IV^7 with E♮ in the bass leading to the dominant F decorated by a $\hat{5}$ chord in bar 6. The E♭$\hat{5}$ chord, which occurs at the beginning of bar 7, functions as a passing chord between the cadential $\hat{5}$ in bar 6 and its resolution to V$\hat{5}$. Although the E♮ seventh chord in bar 5 and the E♭ $\hat{5}$ chord in bar 7 have the same root, the two chords function very differently. Thus, despite the close proximity of sharp $\hat{4}$ and ♮$\hat{4}$, I would argue that there is not a direct transformation of one into the other as Samarotto suggests.

[14] Two other factors contribute further to this interpretation. The first concerns the skip in register from d2 down a seventh to e♭1 at the beginning of bar 7. The leap from d2 to e♭1 leaves a void, which is recovered at the appearance of c2 on the second beat. This gap in register connects the $\hat{5}$ of bar 6 supporting d2 to the c2 over V^6. The second factor concerns the phrase rhythm. It is clear that bars 1–6 alternate in a succession of strong and weak bars. However, bar 7 is not heard as a strong bar, but as a weak one. With the arrival in bar 8 of B♭, bars 8–9 constitute another pairing of strong to weak bars. The succession of bars 6 and 7 as weak expands bars 5–7 as a three-bar hypermeasure. The cadential $\hat{5}$ does not, therefore, fall on the second of a two-bar hypermeasure, but the second of a three-bar one. This rhythmic extension, incidentally, accounts for the unusual nine-bar phrase length of the first part.

[15] In closing, I would like to offer an example which contains a similar voice-leading motion as in the aria, but one which does embody Samarotto's idea of the sublimation of sharp $\hat{4}$ to ♮$\hat{4}$. This occurs at the end of the recapitulation in the opening movement of Beethoven's "Eroica" Symphony with the statement of the final "second" theme (bars 512–547). The passage to be discussed includes one of the most dramatic moments in the movement: the six repeated statements of the A♮ diminished seventh chord in syncopation over bars 531–534.

[16] This diminished seventh chord represents an altered subdominant harmony, chromatically inflected as ♮-IV♭^{7}.[(7)] The almost brutal insistence with which it is reiterated makes us expect a strong dominant to follow. Through a voice-exchange over bars 534–536, in which ♮-IV♭^{7} becomes ♮-IV$^{6}/_{♭5}$ (cf. Example 5b), Beethoven intensifies this expectation even further. The cadential $\hat{5}$ chord arrives with full force in bar 537, and in the following bar yet another statement of the ♮-IV$^{6}/_{♭5}$ chord occurs, but now with C♮ instead of C♭ in the bass. Again, we expect another statement of the dominant immediately to follow, and **Example 7** presents a hypothetical return of the cadential $\hat{5}$ in bar 539. In the actual music, however, the a♮2 (sharp $\hat{4}$) in the top voice of bar 538 does not resolve to b♭2 as it did previously; instead it leads to a♭2 (♮$\hat{4}$).

[17] The tonal meaning of this passage is presented through a series of voice-leading reductions presented in **Example 8**. Example 8a presents the basic structure of the double harmonic progression supporting a melodic descent from $\hat{5}$ to $\hat{1}$. Example 8b shows how the first dominant is decorated by a cadential $\hat{5}$, which resolves to a V$\hat{5}$ instead of V$\hat{5}$ chord (cf. Example 6a). In Example 8c, we see how the ♮-IV♭^{7} is embellished by a voice exchange to ♮-IV♯$^{6}/_{♭5}$. The cadential $\hat{5}$, which follows, now leads through a passing chord to V$\hat{5}$. The two ♮-$^{6}/_{♭5}$ chords, noted by asterisks, function differently. The ♮-$^{6}/_{♭5}$ chord over C♭ results from a voice exchange with the ♮-IV♭^{7}, whereas the ♮-$^{6}/_{♭5}$ chord over C♮ is essentially a passing chord. The chromatic motion of A♮ to A♭ in the top voice results from an elision of B♭ (shown in parentheses). As in the Beethoven piano sonata extract quoted above (Example 4), sharp $\hat{4}$ is deflected from its proper resolution through an elision.

[18] Example 8d presents a foreground reduction of this passage. At this stage, the chromatic motion A♮ to A♭ is no longer merely the result of an elision. Beethoven goes one step further by altering the functional meaning of the top voice A♮. As shown in **Example 9**, A♮ is enharmonically transformed into a B𝄫 in bar 539. This enharmonic transformation of A♮ to B𝄫 allows for a tonicization of a D♭ chord in bar 540. The top voice tone over this D♭ chord, a♭2, serves to prepare the dissonant seventh of the V$^6_5$ chord in the succeeding bar. Not only does the neutralizing of sharp $\hat{4}$ at this crucial moment create a most expressive sigh of longing, but the enharmonic change of A♮ to B𝄫 is the ultimate refutation of sharp $\hat{4}$.

[19] **Example 10** isolates bars 539–542, and shows how they can be understood as a sequence. Example 10a presents the basic form of this sequence, and Example 10b places A♭, the common tone of the first three bars, in the top voice. In Example 10c, B𝄫 serves to decorate the top voice A♭ as its chromatic upper neighbor. In the following bar, A♭ is shifted into an inner voice before resurfacing back in the top voice. Example 10d shows how a descending third motion prolongs the top voice A♭ . Furthermore, the $\frac{5}{3}$ chords in bars 540 and 542 are decorated by suspensions and chromatic lower neighbor notes. The resultant effect of these figurations is that each of the $\frac{5}{3}$ chords is heard initially as a minor instead of major triad (i.e. e♮ = f♭ over D♭ and f♯ = g♭ over E♭). This suggestion of a modal alteration in these bars creates an uplifting quality to this passage. Following the denial of sharp $\hat{4}$'s urge to resolve to $\hat{5}$ earlier in bars 538–539, darkness gives way to light, and there is a surge of triumph leading to the final cadence. In bar 545, at the arrival of the dominant just before the theme's completion, b♭ 2 is regained; here it reasserts itself powerfully in the register previously denied by the enharmonic change of a♮ 2 to b𝄫2 in bar 539.

[20] It is clear that the motion from ♯$\hat{4}$ to ♮$\hat{4}$ has a special significance in expressing unfulfillment and denial, or even, as Samarotto proposes, sublimation. As we have seen, Samarotto and I have sometimes come to different conclusions about pieces that exploit it. Occasionally our vantage points contradict each other, but hopefully they can, more often, be complementary and help to illuminate the inner workings of compositions where this motion occurs. As Samarotto concludes in his article, for Schenkerians, "the inference of energetic forces can inform and even clarify one's understanding of structure, taking us back to the tones themselves, and their inner lives."

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Footnotes

1. Throughout the second half of the 20th century, there has been a tendency to downplay this aspect of Schenker's thought. Even among Schenkerians themselves, there was the fear that this viewpoint would weaken their cause, especially in light of the exacting objectivity in analyzing serial techniques throughout the late-20th century. The "toning down" of Schenkerian rhetoric is well outlined in William Rothstein's article "The Americanization of Schenker" in *Schenker Studies* (Cambridge: Cambridge University Press, 1990) pages 193–203. See also Rothstein's update on the situation in his article "Conservatory Schenker vs University Schenker" in the *Tijdschrift voor Muiktheorie* VII/3, November 2002, pages 239–241.
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2. This passage (sections 66 and 67) is excised in the standard English translation of Schenker's *Harmonielehre,* published as *Harmony,* ed. Oswald Jonas, trans. Elisabeth Mann Borgese (Chicago: University of Chicago Press, 1954).
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3. The German words *eindeutig, zweideutig,* and *mehrdeutig* do not have exact equivalents in the English language, but are usually translated as "unambiguous," "having a double meaning," and "having many meanings," respectively. Schenker uses the words to specify the exact number of possibilities that different intervals have in different keys, and expands his categories to include the words *dreideutig, vierdeutig,* etc. Borgese's translations of *eindeutig* as "univalent" and *mehrdeutig* as "plurivalent" aim to capture the spirit of the original language, but are, unfortunately, unidiomatic and somewhat clumsy (see William Mitchell's review of the Borgese translation in *Musical Quarterly* XLI/2, April 1955, pages 256–260).
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4. Schenker, *op.cit.* page 129. The original German text reads: "so bedient [der Künstler] sich der eindeutigen Intervalle, die eben durch ihre Eindeutigkeit naturgemäß alle anderen Tonarten ausschalten."
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5. Originally appearing as the seventh of *Twelve Contradanses,* WoO 14, this theme is modeled after the "English," as opposed to the "French" or "Italian," country dances popular at the turn of the 19th century. Thomas Sipe provides a succinct discussion of the significance of this form of the country dance and its association with French revolutionary ideals in his short monograph on the "Eroica" Symphony in the Cambridge Music Handbooks series (Cambridge University Press: Cambridge, 1998) pages 11–12.
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6. Mozart, in particular, seems to have had a penchant for chromatically descending themes, and always writes them as $\hat{5}$ - sharp $\hat{4}$ - natural $\hat{4}$. See, for example, the opening themes of the first movement of the Piano Trio in E (K. 542), Minuet of the Symphony No. 41 in C (K. 551), and last movements of both the String Quartet in A (K. 464) and String Quintet in D (K. 593).
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7. Reasons of space do not allow me to include a discussion of bars 512–531. An interpretation of the tonal structure of these bars can be understood in light of Schenker's analysis of the parallel passage from the exposition in "Beethoven's Third Symphony," trans. Derrick Puffett and Alfred Clayton, in *The Masterwork in Music III* (Cambridge: Cambridge University Press, 1997) pages 21–23. Although several details of my own interpretation of this passage differ from Schenker's, we both essentially read the large-scale harmonic progression harmonic progression as I leading to IV, becoming chromatically inflected to natural-IV$^{\flat 7}$ in bar 531 (see especially Schenker's Figure 16).
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