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Supplement to the Theory of Augmented-Sixth Chords

Daniel Harrison

We could take it as a sign of progress that little remains theoretically uncertain about augmented-sixth chords. Or we could take it as a sign of complacency. At one time unbroken by the theorist's whip, these chords are now docile fixtures of back-of-the-book chromatic harmony, content in their pedigreed ethnicity and ready for any novice student's four-part exercises. The painstaking (if frequently pedantic) attentions given them by earlier generations of theorists now seem misguided, or at least unnecessary; few today trouble themselves with issues of derivation, root, inversion, classification, and the like. Apparently, the augmented-sixth has been successfully domesticated.

We ought to confess, however, that only those augmentedsixths exhibiting typical eighteenth- and early nineteenthcentury behaviors have been tamed. Many later nineteenthcentury behaviors resist the normalizing discipline administered their earlier kin and, as a result, often end up being considered unprincipled and licentious. If treated at all in a modern harmony text, it is with unease and little sympathy. Is it true, then, that we can handle these quintessential chromatic chords only if they are confined to common-practice pastures? For those that run free in chromatic habitats—such as some discussed in this article—we seem unable to snare.

This supplement to the theory of augmented-sixths reconfigures standard teaching in order to accommodate a wider range of treatments—specifically, those apparent in late nineteenth- and early twentieth-century music. Fittingly, some of the theoretical methods are similar to those used at that time¹—although, in some cases, it is the common interest in the analytic problems of the repertory and not shared ideology that is responsible. Another point of contact between this and earlier efforts is a sympathy for speculative and creative compositional issues—this in addition to the attention paid to the usual theoretical and analytical interests. This article is interested, in other words, not only in the behaviors of those augmented-sixth chords *found* in the repertory, but also in the possible behaviors *available* to that repertory. Many were discovered and composed; some, at least to my knowledge, were not.

One result of this reconfiguration project is an apparent lowering of the membership standards for augmented-sixth chord status, giving the three ethnic purebreds an infusion of new blood for their tight club. To be sure, this influx diminishes the theoretical pre-eminence of the ethnic chords, as they can no longer pretend to sole proprietorship of the title "augmented-sixth chord." This is not to say that the

¹In particular, my work here resembles both in spirit and in substance an 1868 article by Wilhelm Tappert, "Die übermässigen Sexten-Accorden," *Allgemeine musikalische Zeitung* 3 (1868): 259–62, 266–68, 275–77.

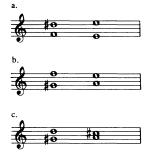
ethnic chords lose *analytic* significance, which they cannot simply on account of their abundant manifestations in the tonal repertory. But the theoretical understanding of augmented-sixth chords needs to be reconstituted if the newcomers are to be integrated well with the charter members. Two benefits accrue from this reconstitution. The first is a more flexible and generous analytic category than we have at present. The second is more direct and subtle entry into compositions that feature nonstandard augmented-sixth chords, freeing the analyst from jerry-rigging ad hoc explanations. This benefit is showcased in an analysis of a Brahms part song that concludes this article.

PRELIMINARIES

The basic mechanics of augmented-sixth chords are well known and are reprised in Example 1a. Let us ignore momentarily our knowledge of more complex matters in order to focus afresh on elementary ones, one of which is the resolution of the dissonant interval in contrary motion by diatonic semitone, which is to say that the pitch classes of the resolution have a different letter name and scale degree from those in the dissonance. This behavior is shared by only two other common dissonant harmonic intervals in tonal music: the diminished fifth and the diminished seventh, whose mechanics are shown in Examples 1b and c.² Again, let us ignore

²Many intervals are able to fulfill this condition. For example, the doubly augmented fourth, occasionally found in German-sixth chords when b3 is respelled as $\sharp2$ for resolution into a major-mode cadential $\frac{6}{4}$ chord, resolves by diatonic semitone into a major sixth. One could go even further afield and cite such curiosities as the augmented third (resolves into perfect fifth) and doubly augmented fifth (resolves into major seventh). A study of such interval behavior would, I think, be analytically helpful in twentieth-century musics that rely on stepwise voice leading for some portion of their structural coherence. The music of Hindemith, for example, or of Britten would seem to

Example 1. Tonal behavior of a) augmented-sixth interval; b) diminished-fifth interval; c) diminished-seventh interval



momentarily knowledge of artful treatments (i.e., elided and other manipulated resolutions), and let us also acknowledge that what has been asserted about the intervals in question is likewise true for the inversions of those intervals, which is to say that the diminished third, the augmented fourth, and the augmented second also resolve in contrary motion by semitone. Whenever I refer to one of these intervals in the following discussion, its inversion is also implicitly referenced. For the sake of convenience, I have chosen the "prime" forms shown in Example 1 (instead of their inversions) because they are met with in the root positions of their characteristic chords: the augmented-sixth interval in all three ethnic varieties of the augmented-sixth chord, the diminished fifth in the major-minor seventh chord, and the diminished seventh in the diminished-seventh chord.³

invite such a study. For present purposes, however, I wish to treat only those intervals that have some recognized role in tonal music, which the augmented third, for example, lacks.

³Many theorists acknowledge problems in ascribing roots to both the diminished-seventh chord and the augmented-sixth chords. For example, in Allen Forte's *Tonal Harmony in Concept and Practice* (3rd ed. [New York:

Considering these three intervals together is an interesting and suggestive exercise on a number of counts. For one thing, it brings the augmented sixth out of the hinterlands of harmony pedagogy and lets it bask in the same theoretical prestige enjoyed by the other two intervals, indubitably the fundamental harmonic dissonances of tonal music. There are, of course, reasons why the augmented sixth does not generally keep such distinguished company, reasons explored below. But the fact that the augmented-sixth dissonance resolves in the same way as do the other two intervals indicates that it possesses at least some of their powers of tonal propulsion.

This point is crucial in understanding the attention many nineteenth-century composers paid to augmented-sixth chords, since one of the principal growth areas in nineteenthcentury harmony was in chords that possessed these powers. The diminished-seventh chord, for example, which contains two diminished fifths and a diminished seventh, is a central sonority in this repertory. Similarly, the V^{39} , which grafts a VII^{$\circ7$} onto a $\hat{5}$ root, is also a characteristic nineteenth-century chord of considerable harmonic horsepower. About the popularity of the half-diminished seventh and the related V⁹ little needs to be said. With this kind of interest at work, chords with augmented sixths naturally stood out as ripe for development. Their raw tonal energies were identical to those having diminished fifths and sevenths; yet their potential had been locked up by theorists who, observing the constraints upon augmented-sixth chords in eighteenth-century music, prescribed particular harmonizations, positions, and inversions.⁴ Unlocking the augmented sixth thus unlocked a rel-

⁴The augmented-sixth chord has been the subject of considerable theoretical regulation from the eighteenth century onwards. Rameau had particular troubles with it, being unable to explain its origin by any of his usual methods; it was hence both rootless and uninvertible. He was reproached in this matter by D'Alembert, who, however, could provide little more theoretical justification. See Jonathan W. Bernard, "The Principle and the Elements: Rameau's Controversy with D'Alembert," Journal of Music Theory 24 (1980): 53. (See also note 30 in the present article). Among the better known attempts to give roots to augmented-sixth chords are those by F. W. Marpurg, who once called them fantastische Accorde and who contructed them from a diminished fifth split by a major and a diminished third (Historisch-Kritische Beyträge zur Aufnahme der Musik, vol. 5, part 2 [Berlin, 1761]: 162, 167-68. A similar method was practiced by one of Marpurg's antagonists, G. A. Sorge (see Joel Lester, Compositional Theory in the Eighteenth Century [Cambridge, Mass.: Harvard University Press, 1992], 195). One of the most enlightening views of theoretical problems with augmentedsixth chords comes from an early nineteenth-century source: Gottfried Weber's Versuch einer geordneten Theorie der Tonsetzkunst (Mainz: Schott, 1817-21; 3rd ed. [1830-32] translated as The Theory of Musical Composition by James F. Warner, ed. John Bishop [London: Robert Cocks, 1851]). On pp.

Holt, Rinehart and Winston, 1979], 171-75), any position of a diminishedseventh chord is analyzed as "7" because of the enharmonic intervallic equality of all its inversions. This practice effectively denies the diminished-seventh a root position. I follow here the practice of others in considering VII7 in minor the root position of the diminished-seventh chord (e.g., Edward Aldwell and Carl Schachter, Harmony and Voice Leading, 2nd ed. [Orlando, Fla.: Harcourt Brace Jovanovich, 1989], 368-75). The problems with augmented-sixth chords are thornier in that most root-seeking routines yield "unusual" root positions. For example, some analyze the root of both the German and Italian sixths as #IV. Many theorists have submitted to such uncomfortable circumstances. Perhaps the example best known to North-American theorists is Robert W. Ottman's Advanced Harmony, 1st through 3rd eds. (Englewood Cliffs, N.J.: Prentice-Hall, 1961, 1972, 1984). In the fourth edition (1992) Ottman switched to the now common ethnic abbreviations, although traces of the older notation survive (e.g., p. 249). Others have avoided dealing with the idea of root position (Leonard G. Ratner, Harmony: Structure and Style [New York: McGraw Hill, 1962]), have waved the reader off from the issue (Aldwell and Schachter, Harmony and Voice Leading, 493-95), or have claimed the chords are rootless (Kostka and Payne, Tonal Harmony, 383). Although later in this article I will disfranchise the augmented-sixth chords as traditional chords-thereby obviating the root problem-I here subscribe provisionally to the notion that the most common bass positions of the three ethnic augmented-sixth chords function as their root positions. Cf. Walter Piston, Harmony, 4th ed., revised and expanded by Mark DeVoto (New York: W. W. Norton, 1978), Kostka and Payne, Tonal Harmony, 383, and Roger Sessions, Harmonic Practice (New York: Harcourt Brace, 1951), 333-35.

atively untapped source for new effects that relied upon familiar manners of dissonance resolution. Many of these effects will be illustrated in this article.

Another, more speculative, attribute of these three intervals might be of interest to votaries of Moritz Hauptmann's theories; all three resolve to Hauptmann's fundamental tonal spaces: the diminished fifth to the (major) Third, the diminished seventh to the (perfect) Fifth, and the augmented sixth to the Octave.⁵ Thus, it might be said that the three dissonant intervals deserve their fundamental status by circumscribing, outlining, or otherwise indicating the basic Hauptmannian consonant spaces. This point can be developed further while, at the same time, the augmented sixth can be peeled off from the group so that its distinctive properties can emerge.

It is well known that both the diminished fifth and the diminished seventh circumscribe not mere generic thirds and fifths but thirds and fifths between specific scale degrees within standard tonal systems. That is, the third defined by the diminished fifth in major spans $\hat{1}$ and $\hat{3}$, and the fifth defined by the diminished seventh in harmonic minor spans $\hat{1}$ and $\hat{5}$. This specificity results from the uniqueness

of the intervals in question—what Schenker called their "univalence"⁶—within the respective scale structures. This univalence gives them a supremely strong position-finding role.⁷ In other words, because each interval only occurs between a single pair of scale degrees, sounding the interval gives away its location within the given key. Univalence and the resulting position-finding abilities are perhaps the primary reasons why the diminished fifth and diminished seventh rank as fundamental dissonances.

The augmented sixth, on the other hand, is not a creature of a standard scale system; it cannot be found between any scale degrees. It is thus "nonvalent," if you will, and without any inherent position-finding powers. This is the reason why Schenker, among others, cannot discuss the augmented sixth in the same breath as he does the diminished fifth and diminished seventh; he delays discussion of it until the harmonic implications of the standard scale systems have been explored.⁸ Because of its nonvalence, the augmented sixth has rather different position-finding attributes than its two peers, which are explored in the following discussion.

THE AUGMENTED SIXTH AND ITS POSSIBLE DIATONIC CONTEXTS

We begin by attempting to reconcile the augmented sixth to standard scale systems. Although this attempt will prove to be unsatisfactory in some crucial respects, it is not a useless exercise; we will discover that the augmented sixth is quite flexible and able to operate in surprising contexts.

⁶Heinrich Schenker, *Harmony*, edited and annotated by Oswald Jonas and translated by Elisabeth Mann Borgese (Chicago: University of Chicago Press, 1954), 127.

^{215–18} of the Warner-Bishop translation, Weber delves into the recent history of augmented-sixth lore, taking Marpurg and H. C. Koch to task over their treatments of the chord, condemning Marpurg's refusal to admit it into the "church style," and ridiculing Koch's scruples about allowable inversions. It is these niggling qualms about the chord that "locked it up," as it were, for eighteenth- and nineteenth-century musicians. For the adventurous, locks can always be picked, of course; but abiding by the rules was the only course for the many who wished to work comfortably within the prevailing styles of composition.

⁵Moritz Hauptmann, *The Nature of Harmony and Metre*, trans. and ed. W. E. Heathcote (London: Swan Sonnenschein and Co., 1888), 5–8. While it is true that the inversion of the three intervals would resolve to inversions of the fundamental tonal spaces, which in themselves are not fundamental, Hauptmann's conception of interval seems to be more accurately described as one of *interval class*, since intervallic and chordal inversion has little effect on his discussion (e.g., pp. 50–51).

⁷See Richmond Browne, "Tonal Implications of the Diatonic Set," *In Theory Only* 5, nos. 6-7 (July-August 1981): 3-21.

⁸In *Harmony* Schenker introduces the diminished fifth and diminished seventh on p. 126; the augmented-sixth interval appears on p. 279.

The most congenial spots to locate an augmented sixth in a standard scale system appear to be at the semitones. That is, the interval can be force-fit with minimum effort onto a scale system by anchoring one of its semitones to a semitone in the system. Figure 1 illustrates. In the left column are the two diatonic semitones of each mode, presented in scaledegree format and broken down by direction. Every semitone is matched by another in the same row an augmented sixth away. Accidentals attached to a scale degree show if it is raised (\ddagger) or lowered (\flat) a half step compared to the standard form.⁹

This scheme gives each mode four augmented sixths surely an overabundant supply. What is more, the possibilities for chords containing augmented sixths are even greater than what Figure 1 suggests. Because the interval of resolution (the octave) is "omnivalent" in all scale systems, the scale degree upon which an augmented sixth resolves can be supported in a variety of harmonic formations. Put another way, the scale degree of resolution could be in most cases either the root, third, or fifth of a chord that contains that scale degree.¹⁰ This situation is in marked contrast to, say, that with the diminished seventh, where the interval of resolution—the perfect fifth between 1 and $\hat{5}$ —is between the root and fifth of a major or minor tonic (or tonicized) triad, or of some other chord type in which the major or minor triad is the most characteristic subset.¹¹

⁹They do not, in other words, indicate what accidental is attached to the *note* inhabiting the scale degree. $\sharp 6$, for example, would be an A \sharp in the key of C major, an A \star in C \sharp major, an A \natural in C \flat major, etc.

¹⁰It is reasonable to stipulate that the scale degree of resolution cannot be a seventh, ninth, etc. of a chord since such members cannot, according to standard teachings, sustain the doubling that augmented-sixth resolution creates.

¹¹I am thinking here particularly of cases such as VII^{$\circ7$} of V⁷, where the VII^{$\circ7$} is expected to tonicize the following chord (and hence create a temporary 1 and 5). The addition of a minor seventh over the major triad of

Figure 1. Augmented sixths generated from one semitone pair in a tonal system

Augmented sixths from major-mode semitones

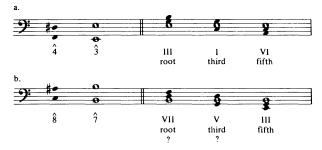
| Descending semitone | Augmented sixth above | |
|---------------------|-----------------------|--|
| <u>-</u> | #ô-7 | |
| 4-3 | #2-3 | |
| Ascending semitone | Augmented sixth below | |
| 7 -8 | ▶2-î | |
| 3-4 | b Ŝ-4 | |

Augmented sixths from minor-mode semitones

| Descending semitone | Augmented sixth above |
|---------------------|-----------------------|
| ô-ŝ | # 4 -\$ |
| 3 -2 | # 1-2 |
| | |
| Ascending semitone | Augmented sixth below |
| Ŝ-Ĝ | |
| 5-0 | ŀ7-ô |

In sum, each of the four augmented sixths belonging to a mode can resolve to one of three chord members, creating twelve possible classes of resolution. Example 2 sketches the situation for two representative classes: the augmented sixth over $\hat{4}-\hat{3}$, shown at a, and the one over $\hat{8}-\hat{7}$, shown at b. The situation at a shows a straightforward consequence of the near omnivalence (limited by doubling restrictions) of the octave resolution: each of the three triads can freely support the $\hat{4}-\hat{3}$ resolution. Most of the augmented sixths of Figure 1 are

resolution (V) clearly prevents this tonicization. Nonetheless, the sense that the diminished seventh at least wants to resolve into a particular perfect fifth between either a local or global $\hat{1}$ and $\hat{5}$ persists.



Example 2. Resolutions for two sample augmented sixths

Example 3. Augmented-sixth chord harmonizing 2-3 in minor



ilarly unfettered. Example 2b shows a different, more stricted situation. Standard teaching discourages doubling the leading tone in a dominant-functioned entity, so the resolution of the $\hat{8}-\hat{7}$ augmented sixth into the third of a V chord is illegitimate, and that into the root of a VII chord, dubious.¹² Thus, doubling conventions put a brake on possibilities of resolution.

Although our attention will soon be drawn towards the more familiar structures represented in Figure 1, it is instructive to entertain some of the unfamiliar ones, even to the point of working out possible progressions. For instance, conExample 4. Augmented-sixth chord harmonizing $\hat{3}-\hat{2}$ in minor



sider Example 3, which shows an augmented sixth involving $\hat{2}-\hat{3}$ in minor resolving upon the third of a tonic triad, an action noted with dotted lines in the example. The other notes of the augmented-sixth chord are taken from the Germansixth collection associated with the Db-B interval, which is to say that the augmented sixth under $\hat{2}-\hat{3}$ has familiar chordal companions with which to carry out its work in unfamiliar circumstances. Example 4 presents another instance of an unusual augmented-sixth chord. In this case, an augmented sixth over $\hat{3}-\hat{2}$ in minor resolves upon the fifth of a V⁷ in $\frac{4}{3}$ position. As in the previous example, the other notes of the chord are taken from the German-sixth collection. The harmonic effects of Examples 3 and 4 are unusual, but also fresh and attractive; the progression of parts, entirely convincing.¹³

Similar "undiscovered" progressions can also be mined from the raw material of Figure 1. But not all are as interesting or useful as Examples 3 and 4; many, in fact, refuse to stabilize on their appointed scale degree and instead ask to be heard as being built upon another. For instance, it is

¹³Upon hearing these two examples during a public lecture on this topic, Charles Smith promptly and from memory located compositional manifestations. Example 3 is realized as the opening progression of Richard Strauss's "Befreit," op. 39 no. 4. The progression in Example 4 can be found in the concluding measures of Wolf's "Man sagt mir, deine Mutter woll' es nicht," no. 21 from the *Italienisches Liederbuch*.

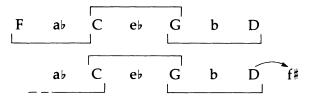
¹²The right of VII to behave in a non-dominant way, such as in a descending-fifth sequence, ought to be reserved.

difficult to push the resolution of a $\hat{4}-\hat{3}$ augmented sixth upon the fifth of a VI chord (shown in Example 2a) and have the chord really sound like a VI; it would much rather be heard as a local tonic. The same is true for the III chord in the same example. Indeed, informal experiments with the various resolutions suggested by Figure 1 indicate that all tend towards having the chord of resolution be either a locally dominantor a locally tonic-functioned entity.¹⁴ Why?

TONAL FUNCTION OF AUGMENTED SIXTHS

The previous discussion is predicated upon the fact that the augmented sixth is not an interval found in a standard scale system, and that, if force-fit into such a system, one of its semitones will involve a chromatically altered scale degree. Figure 1 illustrates this situation perfectly. We can, however, treat the altered scale degrees with more sensitivity if we loosen the strict constraints. For it is clear that, while none of these semitones is native to the major or minor scale in question, some are more frequent and honored guests in the diatonic household than others. In particular, $\#\hat{4}-\hat{5}$ is an especially important and popular chromatic caller, as it creates tonicizations of and modulations to the dominant key. $\frac{1}{2}$ 1 is another friendly visitor, responsible for Neapolitan effects. Some of the others are encountered far less frequently than these. Indeed, \flat ? in minor (e.g., $G\flat$ in A minor) is so rare as to be mere theoretical fiction. All this is by way of saying that while the augmented sixth may not fit easily into the diatonic scale system of a key, it finds more comfortable accommodation in some locations than it does in others.

Figure 2. Minor system (above) "stretched" towards its dominant side (below)

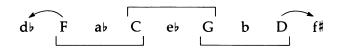


Moritz Hauptmann's harmonic theories again prove useful, this time to explain the relationship of some non-diatonic scale degrees to standard scale formations. Hauptmann conceived key structure as a series of perfect fifths between which were embedded major and minor thirds. The upper row of Figure 2 illustrates this structure using the key of C minor as an example.¹⁵ Perfect fifths are located between adjacent upper-case letters, and thirds between any pair of adjacent upper- and lower-case letters. In theory, the fifth-and-third relationships can be extended infinitely in both directions, thereby encompassing all possible keys; what Figure 2 shows is a segment from that line delimiting one particular key. Because Hauptmann nominally employed just intonation to derive scale members, his key structures have remarkable "wiggle room"-the ability to be shifted one position along the infinite fifth-and-third line without loss of the structural integrity of the key. The bottom row of Figure 2 shows such a shift, the structure having moved one position to the right (towards the dominant side). The minor third between F and a_{\flat} is lost while a major third between D and $f_{\sharp}(\sharp \hat{4})$ is gained. It is in this "stretched" C-minor key system that Hauptmann

¹⁴One can try to repudiate these tendencies with compositional rhetoric that is, by putting these progressions into real musical contexts. Nonetheless, considerable rhetorical effort seems necessary in order successfully to stabilize progressions such as those shown in Example 2a.

¹⁵Hauptmann's minor key is based on the harmonic minor scale. Concerning Hauptmann's derivation of fifths and thirds, especially with respect to minor, see Hauptmann, *Harmony and Metre*, 14–21.

Figure 3. Key system "stretched" in both directions; after Cyrill Kistler



found the origin of the augmented sixth—in this example, the interval between ab and $f\sharp^{.16}$ But this observation is actually beside the point; the intriguing element here is the stretched key system itself, which Hauptmann conceived as still based in the original C-minor system. For Hauptmann, as long as ab was still in the picture, then C minor was still operative. Were the system right-shifted once again, so that ab were lost and A gained, then the C-minor system would have passed into a G minor-major system. But a single right-shifted system, even though it contains $\sharp4$, is still under the control of the original tonic.¹⁷

For a variety of reasons—none germane to the present undertaking—Hauptmann disallowed subdominant shifting in the minor key. Some of his followers, however, ignored this prohibition and explored the consequences nonetheless. Figure 3, for example, shows Cyrill Kistler's doubly stretched system, which has major-third extensions on both sides.¹⁸ In addition to having $f \ddagger as \ddagger 4$, this system also has db as b2 as a major-third extension towards the subdominant side; both

¹⁶Harmony and Metre, 28-33 and 120-23.

of these scale degrees are under the tonic control of C. Two augmented-sixth intervals are found in this system: one between $f\sharp$ and $a\flat$ ($\sharp\hat{4}$ and $\flat\hat{6}$), and another between $d\flat$ and b ($\flat\hat{2}$ and $\sharp\hat{7}$).¹⁹

Figure 3 offers a way to welcome two foreign, chromatic scale degrees into a standard scale system, allowing us thereby to privilege those Figure 1 behaviors in which they participate. In addition, it suggests an explanation for why the augmented sixth tends to bestow tonic or dominant function upon the pitch class of resolution. Both augmented sixths found in Figure 3 are anchored to functionally significant scale degrees within the core, unstretched system. That is, $#\hat{4}$ is attached to $\frac{1}{6}$, a crucial transmitter of subdominant function. while $b\hat{2}$ is attached to $\sharp\hat{7}$, the quintessential dominant scale degree. The behaviors of these significant scale degrees determine the tonal function of the augmented sixths attached to them. $\downarrow \hat{6}$, for example, in moving to $\hat{5}$ discharges subdominant function either upon dominant (as in a Phrygian cadence) or upon tonic (as in a plagal cadence); the augmented sixth $\hat{b}\hat{c} = \hat{4}\hat{4}$, then, also exhibits these functional behaviors.²⁰ The former, dominantizing motion leads directly to the standard augmented-sixth chords, insofar as the Italian, French, and German sixths all resolve to dominantfunctioned chords. The latter, tonicizing motion, although rare before the mid-nineteenth century, leads to wonderful

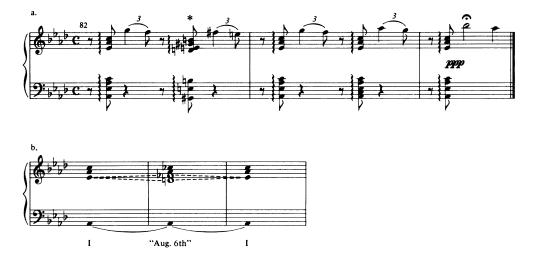
²⁰I am using the term "subdominant" here to blanket both "pre-dominant" behavior (e.g., IV_3^6 -V) and "pretonic" behavior (e.g., IV-I). This usage is consistent with the Riemannian tradition from which I am drawing. Later, taking a cue from William Rothstein ("The True Principles for the Practice of Harmony: Or, Schulz, Schenker, and the *Stufe*," paper read at the Second International Schenker Symposium at the Mannes College of Music, New York City, March, 1992), I reserve "subdominant" for plagal, "pretonic" behavior, using "pre-dominant" for other cases.

¹⁷This point is discussed in greater detail in Daniel Harrison, *Harmonic Function in Chromatic Music* (Chicago: University of Chicago Press, 1994), 122–23.

¹⁸Cyrill Kistler, *Harmonielehre für Lehrende, Lernende und zum wirklichen Selbstunterrichte*, 2nd ed. (Heilbronn: C. F. Schmidt, 1898), translated as *A System of Harmony* by Amanda Schreiber (London: Haas and Co., 1899), 74.

¹⁹It is perhaps not inappropriate, in connection with note 2 above, to observe that Kistler's doubly stretched system contains an augmented third between F# and Db (#4 and b^2).

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Example 5. Liszt, "Sonetto 123 del Petrarca," mm. 82-84

treatments such as that found in Example 5, the final measures of Liszt's "Sonetto 123 del Petrarca," with the effect in question shown at the asterisk. The analysis in Example 5b brings out the underlying augmented-sixth structure of the passage, respelling the chord in order to point out the involvement of $#\hat{4}$ and $\hat{b}\hat{0}$ of $A\hat{b}$ major in the chord. These scale degrees are indicated with open noteheads in the example, and their resolution into a tonic-functioned $E\hat{b}$ ($\hat{5}$) is highlighted by the dotted lines.²¹

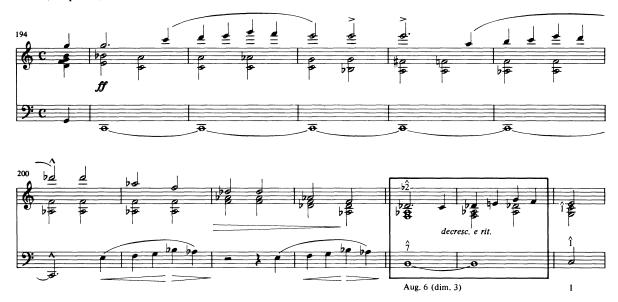
The other augmented sixth found in Figure 3 involves $\ddagger 7$ and $\flat 2$. $\ddagger 7$ being a dominant-functioned entity, the aug-

mented sixth it participates in also takes on dominant function. Another example from Liszt's work, the ebb from the last rhetorical climax in the symphonic poem *Orpheus* (Example 6), is an exemplary illustration. Here, the placement of $\hat{7}-\hat{8}$ in the bass emphasizes the dominant-to-tonic character of the progression.

The situation in the *Orpheus* example is, from a purely statistical standpoint, rather rare—so much so that it seems downright irregular; the idea that augmented-sixth chords progress to dominants and not to tonics is deeply entrenched.²² Yet more than a few theorists have tried to en-

²¹Aldwell and Schachter (*Harmony and Voice Leading*, 519) name this the "common-tone augmented-sixth chord." In light of Charles Smith's citation of Wolf's "Man sagt mir, deine Mutter woll' es nicht" in note 13 above, it is appropriate to point out that the common-tone augmented-sixth chord is a principal harmonic motive of that song.

²²For examples of how "exceptional" tonic-resolving cases are discussed and even finessed in current textbooks, see Aldwell and Schachter, *Harmony and Voice Leading*, 496. The authors state matter-of-factly that such things can happen, but the discussion has none of the depth that marks their introduction to augmented-sixths as "Chromatic Preparation for V" (the top-



Example 6. Liszt, Orpheus, mm. 194-206

franchise dominant-functioned augmented-sixth chords as theoretical equals of subdominant-functioned ones. The most telling attempt is also the first: Gottfried Weber's derivation of the chords from two possible sources, °II⁷ or V⁷, in his *Versuch einer geordneten Theorie der Tonsetzkunst* of 1817.²³ Example 7 explains the derivation for a particular

augmented-sixth chord in Weber's own notational system. The first derivation is from a major-minor seventh with B root (B⁷) that functions as V⁷ of E major and E minor. The root is omitted and a minor ninth has been appended, but the crucial feature is the lowering of the chordal fifth from F# to F $\$. The augmented-sixth interval created by this lowering is thus between $\$ 2 (F) and $\$ 7 (D $\$). This is a dominant-functioned augmented-sixth chord. Weber provides another derivation, in which the basic chord is a B half-diminished

level heading at the beginning of the chapter on p. 478). Joel Lester, in *Harmony in Tonal Music*, vol. 2 (New York: Knopf, 1982), 93–94, provides but one illustration of a tonic-resolving augmented-sixth chord accompanied by two short paragraphs of text. Finally, Kostka and Payne segregate any unusual augmented-sixth behaviors, including tonic resolution, into a separate chapter (383–91). While giving the topic more attention, this quarantine is nonetheless a subtle and effective abnormalizing tactic.

²³See Weber, *The Theory of Musical Composition*, § 89–94. Weber initially allows any half-diminished seventh to parent an augmented-sixth chord

in § 89, but later disallows the possibility of VII⁷ in § 148 #7. (A later reference to this disqualification in § 202 wrongly refers the reader to § 38 #7 instead of to § 148 #7. This error is in all the German and English editions.) Janna Saslaw summarizes and discusses aspects of Weber's theory pertinent to the present discussion in "Gottfried Weber and Multiple Meaning," *Theoria* 5 (1990–91): 74–103.

Example 7. Analytic possibilities for German augmented-sixth chord according to Gottfried Weber (from *The Theory of Musical Composition*, § 202)



seventh functioning as II⁷ in A minor (°b⁷). Here again, the root is omitted and a ninth added; the alteration in this case involves raising the chordal third from D to D#, thereby creating an augmented sixth between $\flat \hat{6}$ (F) and $\# \hat{4}$ (D#). This is the subdominant-functioned augmented-sixth chord.²⁴

Despite being given theoretical substance alongside subdominant-functioned augmented-sixth chords, dominantfunctioned augmented-sixths are extremely rare in Weber's analytic work. He was not, however, prejudicially averse to them.²⁵ Rather, his elaborate but extraordinarily sensitive

²⁴The functional designation is my own. Weber's derivation of the augmented-sixth chord from °II⁷ was widely adopted. See, for example, Simon Sechter, *Die Grundsätze der musikalischen Komposition*, 3 vols. (Leipzig: Breitkopf and Härtel, 1853–54), first volume ed. and trans. Carl Christian Müller as *The Correct Order of Fundamental Harmonies* (New York: W. A. Pond, 1871), 148–51; Arnold Schoenberg, *Theory of Harmony*, trans. Roy E. Carter (Berkeley: University of California Press, 1978), 246.

²⁵I have found two examples: Weber's Figure 191*l* (p. 356 in the Warner-Bishop edition), an abstract part-writing specimen; and Weber's Figure 234 (pp. 404–9, annotated on pp. 383–87), an analysis of an accompanied vocal quartet of his own composition ("Polimeter"). Weber spells out his reasoning for choosing the dominant-functioned interpretation in "Polimeter" on p. 384. Saslaw ("Gottfried Weber and Multiple Meaning") discusses the "Polimeter" passage extensively on pp. 89–91.

rules about assigning harmonic meaning to chords skewed interpretations-perhaps unintentionally-towards the °II7 analysis. Briefly put, in a typical modulatory situation involving root motion by ascending fifth (tonic to dominant, for example) or root motion between relative keys, a °II⁷ of some key X would generally be more closely related to the original key than a V^7 of some key a fifth higher than X. In concrete terms, consider Example 7 and notice that the tonic of the °II⁷ analysis (A minor) is a fifth lower than that of the V^7 analysis (E minor). Say now that this chord is encountered in a C-major context. Weber would invariably identify it as a °II in A minor because that key is more closely related to C than is E minor in Weber's structural topography.²⁶ Conditions under which Weber would analyze an augmentedsixth chord as V^7 are rare, in that they involve direct descending-fifth modulatory motion within the tonal space (tonic to subdominant, for example), a comparatively unusual procedure. Hence, because of both modulatory habits in composition and related concepts of tonal topography in theory, the subdominant-functioned augmented-sixth chord prevailed analytically over the dominant-functioned one in Weber's theory. This unequal analytic relationship between the two theoretical equals effectively made the V^7 analysis non-normative and unusual.

Looking at this issue from a different perspective, it is remarkable, given the aforementioned modulatory habits of eighteenth-century composition, that a dominant-functioned augmented-sixth chord would even be considered as a theoretical entity given its analytic rarity.²⁷ And since Weber

²⁶Weber discusses this issue, using these very keys as examples, on pp. 343–44. Weber's topography is alluded to in Fred Lerdahl's "Tonal Pitch Space," *Music Perception* 5 (1988): 315–49. See especially Figure 17a on p. 332, which reproduces a mirror-image of Weber's space. Cf. Saslaw, "Gottfried Weber and Multiple Meaning," 92.

²⁷One explanation might be that many early theoretical explanations of augmented-sixth chords connected them to the VII diminished triad, which

provided no justification as to why such a thing could exist, it is impossible to determine his motivation in this matter. Nevertheless, it seems no coincidence that prominent examples of dominant-functioned augmented-sixth chords begin to appear around the time of Weber's treatise. Schubert's works, for instance, abound with them. Well-known examples are the concluding gestures of the String Quintet, D. 956/IV, the A-major Piano Sonata, D. 959/I, and "Der Atlas" from *Schwanengesang*, D. 957, no. 8.²⁸ Within the body of a movement, mm. 722–34 of the C-major Symphony, D. 944/IV, provides another fine illustration. All but the quintet example

²⁸The quintet example is cited in Piston, *Harmony*, 426, and Andrews, *Oxford Harmony*, vol. 2, 61. Aldwell and Schachter, *Harmony and Voice Leading*, 496, and Lester, *Harmony in Tonal Music*, vol. 2, 94, cite the A-major sonata.

involve augmented-sixths harmonized in the "German" fashion. The "French" harmonization found in the quintet can lead one away (as it did Piston) from considering the chord a species of augmented sixth and towards a $V_{b,5}^{-7}$ interpretation in which the chord is in $\frac{4}{3}$ position. Although this analysis clearly points to the dominant origin of the chord, it does not do so in order to connect it to other augmented-sixth chords; rather, it stresses its seventh-chord structure. The augmented sixth created between the major third and diminished fifth of the chord is an accidental, not a primary quality of the chord. This point leads us naturally to consider what kind of structures can be labeled augmented-sixth chords.

TYPES OF AUGMENTED-SIXTH CHORDS

Considering the enormous influence Central European musicians have had on the development of modern music theory in North America, it is surprising to note the continuing presence in our discourse of an English theoretical quirk: the naming of three augmented-sixth chords using the "Italian," "French," and "German" ethnic labels. John Wall Calcott, in *A Musical Grammar* (London, 1806), seems to have been the first to coin these terms, and for the reasons which many have long suspected—namely, ethnic stereotyping.

The Music of France, Italy, and Germany, cannot be illustrated in a smaller compass than by the use of these three Chords. The feebleness of the French sixth, compared with the elegance of the Italian, and the strength of the German, leaves no doubt of their superior excellence. The admirable genius of *Graun* knew when to employ Italian sweetness, and when to change it to German force.²⁹

in turn was connected to the V triad. See, for instance, Marpurg, Historisch-Kritische Beyträge, 162. Besides Weber, Louis and Thuille also recognize a dominant-functioned augmented-sixth chord; see Richard Isadore Schwartz, "An Annotated English Translation of Harmonielehre of Rudolf Louis and Ludwig Tuille" (Ph.D. diss., Washington University, 1982), 286-91. So does H. K. Andrews in The Oxford Harmony (London: Oxford University Press, 1950), vol. 2, 57-62, who follows Alfred Day in this matter (A Treatise on Harmony [London: Cramer, Beale, and Co.: 1845], 121-27). One of the earliest satisfactory explanations of the augmented-sixth chord, that by Johann Philipp Kirnberger, also awarded it dominant function ("The True Principles for the Practice of Harmony," trans. David W. Beach and Jürgen Thym, Journal of Music Theory 23 [1979]: 186-88. Louis and Thuille assert that the possibility of both dominant- and subdominant-functioned augmented-sixth chords is responsible for the idea that an augmented-sixth chord has two roots. One could see how Weber's derivation of the chord from two different sources could lead to this idea, save that Weber viewed these two sources as *potentials*, one of which was eliminated in the act of analysis. By contrast, double-root theories seem to imply that the sources are actuals, as if they were fundamental basses. Schenker discusses the augmented-sixth chord, for example, as a fusion of elements from °II⁷ and V⁷ where the V⁷ is from a key a fifth higher than the °II⁷, as in Weber's formulation (*Harmony*, 277-78). Alfred Day also held to a double-root theory involving fusion (A Treatise, 122). Weber, by contrast, viewed the augmented-sixth chord as derived in its entirety from either of the two sources, not as a fusion of both.

²⁹Callcott, *Musical Grammar*, 1st American ed. (Boston: Manning & Loring, 1810), 239n. Calcott alludes to another reason why the French sixth is so named; he claims that because it "is only found in the theory of Rameau,

Along with the ethnic names, current practice has taken the English predilection for recognizing these as the only types of augmented-sixth chords. Continental practice is more flexible in this matter. While the "big three" augmented-sixth chords are invariably discussed (usually named by their figured-bass signature), other (might we say "cosmopolitan"?) types of augmented-sixth chord also occasionally make an appearance. In their *Harmonielehre*, for example, Rudolf Louis and Ludwig Thuille recognize six distinct types, illustrated in Example 8.³⁰ Versions a, b, and e

As students are very apt to confuse the names of these three forms of the augmented sixth, the following artificial "aid to memory" may be found useful:—the three forms correspond to the character of the music of the three countries—Italian music is the simplest; and the "Italian sixth" is the simplest form of the chord . . . French music is the most piquant, and so is the "French sixth," with the discord between the upper generator, and its seventh . . . Lastly, German music is the richest and fullest in character; and the "German sixth" is richer in its effect than either of the others (203n).

³⁰Stuttgart: Grüninger, 1907. 4th ed., 1913. See Richard Isadore Schwartz, "An Annotated English Translation," 274–76. An unusually broad conception of augmented-sixth chord types, motivated by issues in contemporary harmony, is also found in Vincent Persichetti, *Twentieth-Century Harmony: Creative Aspects and Practice* (New York: W. W. Norton, 1961), 109–11. Example 8. Louis and Thuille's augmented-sixth chord types

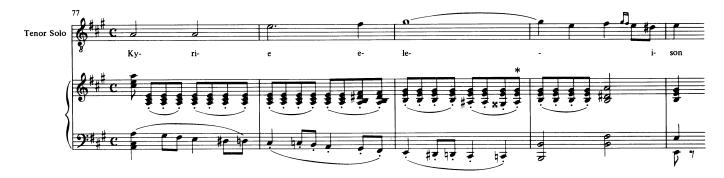


correspond to the well-known chords, and d might be styled a defective Italian or incomplete French sixth. But versions c and f are novel and have no such easy explanation. No compositional use of version c is cited by Louis and Thuille, but Ebenezer Prout cites a passage from Verdi's Requiem, shown in Example 9, which contains the requisite intervals.³¹ To some extent, it is hard to credit this as a substantial chord since it seems to be a by-product of passing motion against a sustained E-major triad, a hearing encouraged by the emphasis on passing motion in the bass in the previous measures. True, it is not difficult to hear an affinity of the chord in question to a German-sixth, which also has two common tones with its chord of resolution (a cadential $\frac{6}{4}$), a relationship that bolsters the pretensions to independence of the present augmented-sixth. But, whereas the German-sixth is rather constrained to progress to a cadential $\frac{6}{4}$ on account of the well-known parallel-fifth problem, no such impediment looms here, the fifth in the version-c chord being augmented, not perfect. The $\frac{6}{4}$ chord here is thus a choice, not a mandate. This choice contributes to the curious lack of "release" upon resolution of the augmented-sixth to the cadential $\frac{6}{4}$, leading us to question the structural independence of the version-caugmented-sixth vis-à-vis its chord of resolution.

Example 8f at first glance seems to have a similar relationship to the French sixth that version c has with the German; that is, the G# seems to anticipate the third of the dominant to follow, all other notes belonging to the French

it may be properly termed the French Sixth" (238–39). Although I have not made an exhaustive search of Rameau's works, this statement appears dubious. The chord is conspicuously absent from the Traité, and Matthew Shirlaw (The Theory of Harmony [London: Novello, 1917], 242, 279) points out its omission in Rameau's theories in general as well as in Rameau's own compositions, going so far as to state that "the German form of the chord . . . must have been for Rameau particularly embarrassing. It was impossible for Rameau to explain this chord and its natural resolution on the Dominant, either by means of double 'employment' or any other device known to him" (242). Although Calcott's ethnic names were used sporadically by other English theorists (e.g., William Crotch, Elements of Musical Composition, 2nd ed. [London: Longman, 1830], 54), it was not until Ebenezer Prout's Harmony: Its Theory and Practice (London: Augener, 1889) that the names became firmly ensconced in English theoretical discourse, along with a chauvinistic update of Calcott's stereotyping:

³¹Prout, Harmony, 208.



Example 9. Verdi, Requiem; Kyrie, mm. 77-81

sixth. But version f has intervallic properties that connect it strongly to the German sixth. Example 10 demonstrates this close relationship, showing that version f is an inversion of a German sixth in terms of its internal intervallic adjacencies. No other name suggesting itself easily, I dub version f the "dual" German-sixth chord in recognition of its inversional intervallic relationship to the German sixth.

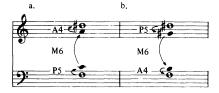
In contrast to version c, the dual German-sixth chord does have compositional existence—in one of the most famous passages in nineteenth-century music, in fact (see Example 11). The "Tristan" chord, marked with the asterisk in the example, is identical to the chord shown in Example 10b, the prototype of the dual German-sixth.³² Although Louis and

³²Nota Bene: Having now a theoretically viable rationale for understanding the actual spelling of the Tristan chord, we need no longer enharmonically convert the chord into an F half-diminished seventh chord and then wonder at its "irregular" resolution. Such enharmonic conversions have been necessitated by the domination of the ethnic-sixth chords and the concomitant exclusion of other chord types. Yet, at the heart of the matter, it is as improper to call the Tristan chord a half-diminished seventh chord as it is to call a German sixth a dominant-seventh chord; its spelling indicates its functional meaning in the same way that the German-sixth spelling does. Thuille mention the Tristan chord in connection with version f, they nonetheless wave off this interpretation—partly because of the habit typical of the time to hear the A as structural and the G# as passing, but also because they find that version f, by virtue of its two common tones with the dominant (B and G#), is more easily heard as a dominant sonority with two auxiliary tones surrounding the root (F and D#).³³ They thus want to hear version f more as an enhanced dominant than as an augmented sixth; since they hear the Tristan chord as subdominant-functioned, they cannot rationalize an explanation that involves the G# as the chordal tone.

It is true that a textbook resolution of the Tristan chord would involve maintaining the common tones G# and B, and that such a resolution would support Louis and Thuille's contention that the chord is an enhanced dominant. But *Wagner's* solution is pointedly to disobey the "Law of the Shortest Way" in order to enhance the tension and release from the

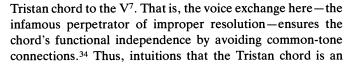
³³The presence of two tones in common with the chord of resolution is the same reason it is difficult to hear the augmented-sixth chord leading to the cadential $\frac{6}{4}$ in the Verdi excerpt (Example 9) as a freestanding harmonic structure.

Example 10. Definition of the "dual" German augmented-sixth chord



Example 11. Wagner, Prelude to Tristan und Isolde, mm. 1-3





³⁴An exhaustive summary of Tristan-chord lore is found in Martin Vogel, *Der Tristan-Akkord und die Krise der modernen Harmonielehre* (Düsseldorf: Gesellschaft zur Förderung der systematischen Musikwissenschaft, 1962). Vogel documents all manner of analytic approaches *except* one that recognizes the Tristan chord as the dual of the German-sixth chord. A dual relationship to the enharmonically equivalent dominant-seventh is recognized (107–10), which association was revived by Benjamin Boretz in "Metavariations: Part IV, Analytic Fallout," *Perspectives of New Music* 11 (Fall-Winter, 1972): 162. But this necessitates an enharmonic reinterpretation of the Tristan chord as a half-diminished seventh, something that Wagner's notation pointedly discourages; see note 32 above. Schoenberg, in *Theory of Harmony* (255–57), also recognizes the dual German sixth, and even mentions it in connection augmented-sixth are correct, but scruples about its resolution are misplaced.

This discussion could continue in this vein for a while, pointing out the limits of the current ethnically fixed stable of augmented-sixth chords and proposing the inclusion of such things as the dual German-sixth. It would also seem natural to release augmented-sixth chords from the traditionally strong theoretical restraints upon inversion by citing many examples from the late nineteenth century that feature diminished-third chords or other manifestations of augmented-sixth inversion. But perhaps the point to be made here is not that we ought to expand the category of augmented-sixth chord in order to include additional chord types, but that we need to reconstitute this category into something more flexible and generous. This program has clearly been suggested from the outset of this article, and is now taken up in earnest.

PROPOSAL

Under the heading of "augmented-sixth chord" ought to appear any chord that depends upon the augmented-sixth (or diminished-third) interval for all or most of its tonal energies. Where the interval appears within a governing key is immaterial, although we can propose that Figure 1 define the constraining limits. In this way, not only are the "big three" enfranchised but also those beautiful examples from Liszt shown in Examples 5 and 6, as well as the interesting lab specimens displayed in Examples 3 and 4. The intervallic constitution of augmented-sixth chords need not be specified or prescribed since it is the augmented-sixth interval that

with the Tristan chord. But then, impishly, he purposely gets bogged down in issues of root and derivation, an excuse to demonstrate his fondness for "vagrant chords," which are to him "most amusing fellows."



Example 12. Richard Strauss, Till Eulenspiegel, mm. 46-49

gives the chord its powers; the remaining notes accompany the generating interval and provide it with different sonorous shadings. In this way the dual German sixth is welcomed, along with any other configuration that a composer might be tempted to use. At this point, we have enough to be able to cut away the puzzlement surrounding the chord marked by the asterisk in Example 12 and analyze it as an augmentedsixth chord, with the interval in question built at the $\hat{4}$ - $\hat{3}$ semitone in F major and accompanied by notes that give the chord a dual German flavor.³⁵ Indeed, under this regime all manner of previously unassuming augmented-sixth behaviors

³⁵Kostka and Payne (Tonal Harmony, 385) also identify the "Till" chord as a type of augmented-sixth chord. Graham H. Phipps, in "The Tritone as Equivalency: A Contextual Perspective for Approaching Schoenberg's Music," Journal of Musicology 4, (1985): 60, also cites the "Till" chord as an augmented-sixth, but he calls the resolution to the F-major chord "deceptive" and also ignores the Till chord's spelling when describing it as a halfdiminished seventh chord. Although not strictly a dual German sixth (Db would have to be a C# in order for the chord to have the requisite interval structure), the Till chord can still be understood as the dual of a German sixth with doubly augmented fourth. See Aldwell and Schachter, Harmony and Voice Leading, 482-83. The similarity of the Till chord and the Tristan chord has been noted by William Austin, Music in the Twentieth Century (New York: W. W. Norton, 1966), 140. Robert Gauldin reinforces this connection and as well makes a good case for considering Till as a whole to be a satire on Tristan ("A Concealed Musical Satire: A Possible Till-Tristan Connection," unpublished MS).

become quite recognizable and salient. Consider, for instance, the role augmented-sixth chords play in a short sequence from Franck's Pièce héroïque shown in Example 13. The chords in question are marked with an asterisk in the score at a; they are re-spelled at b both to highlight (by open noteheads) the propulsive augmented-sixth interval between $b\hat{2}$ and $\sharp\hat{7}$ of the local keys and the dual-German intervallic structure. Finally, by keeping an ear on the augmented-sixth interval, we are able better to understand some of the tonal forces in the opening of Schoenberg's Chamber Symphony, op. 9, cited in Example 14a. The analysis at b points out that two augmented-sixth intervals propel the chord in m. 3 into its resolution in m. 4; one is shown with open noteheads, and the other with filled. Surely, this is just as much an augmented-sixth chord as any other that has been discussed so far.

* * *

The expository speed of the last paragraph was probably sufficient to have raised some dust, with examples racing by like so many billboards on the highway. The result of reconstitution so far is perhaps no more than a flood of newly enfranchised augmented-sixth chords accompanied by their variously unusual tonal functions. But disciplining this now wild herd can be done gently; the recommended method, in light of previous discussions of tonal function, involves segregation by functional attributes.

Figure 4 presents three functional types of augmentedsixth chords. As the figure denotes, these types are derived from judgments concerning the harmonic function both of an augmented-sixth chord and of its chord of resolution. Strictly speaking, it is not the function of an augmented-sixth chord per se that is of ultimate interest, but its functional context.

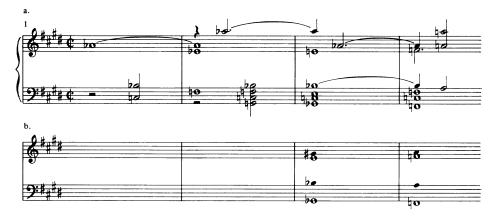
In all the examples cited in this paper, the augmented-sixth chord sets up either a tonic- or a dominant-functioned chord

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Example 13. Franck, Piéce hèroque, mm. 14-18

Example 14. Schoenberg, Chamber Symphony, mm. 1-4



of resolution. If the latter, then the augmented-sixth chord perforce is subdominant in function. A tonic-functioned chord cannot sustain the level of dissonance and activity associated with an augmented sixth, and two consecutive dominant-functioned chords in the same key cannot produce the sense of tonal motion and urge towards resolution we hear when augmented-sixth chords resolve. Thus, both tonic and dominant functions are inappropriate to describe the function of an augmented-sixth chord that resolves to the dominant. The term "subdominant" may be uncomfortable here, for although one of the traditional derivations of augmentedsixth chords is from subdominant chords (the $\#IV^7$ of Ottman, et al.),³⁶ one can be hard pressed not to hear the secondarydominant element in an augmented-sixth chord (#4 as 7-of-\$) and thus not to hear some type of dominant function as a result.³⁷ It is for this reason that Figure 4 calls this functional behavior "pre-dominant," unloading some unneeded freight from "subdominant" and stressing the dominant setup powers of augmented-sixth chords.³⁸

How can one tell that a chord of resolution is dominant? Considerations of local and global key relations are, of course, paramount. But there are other means as well. Majorminor seventh chords, for example, are habitual transmitters of dominant function, so a motion from augmented sixth to major-minor seventh naturally is classified as pre-dominant. (This situation is illustrated in the case of one of the "lab specimens" shown in Example 4.) A cadential $\frac{6}{4}$ also conveys dominant function (or impending dominant function, if one labels the first part of the cadential motion as I_{4}^{6} ; it, too, invites analysis as pre-dominant. Insofar as these motions are the typical behaviors of the traditional ethnic sixth chords, we need not dwell upon this matter much longer. But an interesting twist involving the enharmonic equivalence of the German-sixth and the major-minor seventh is found in Example 15, and it deserves some comment. Underlying the passage is a series of augmented-sixth chords whose essences are expressed by diminished thirds buried in the sound mass.

³⁶Also of note here is the traditionally close association of augmented-sixth chords with IV⁶ chords in Phrygian cadences. See, for example, Aldwell and Schachter, *Harmony and Voice Leading*, 479; Forte, *Tonal Harmony in Concept and Practice*, 353; Lester, *Harmony in Tonal Music*, vol. 2, 85.

³⁷Joel Lester, for example, writes that "the majority of augmented-sixth chords used in tonal music are in fact altered dominants of the dominant" (*Harmony in Tonal Music*, vol. 2, 93).

³⁸Note 20 above discusses the idea of breaking subdominant function apart in this manner.

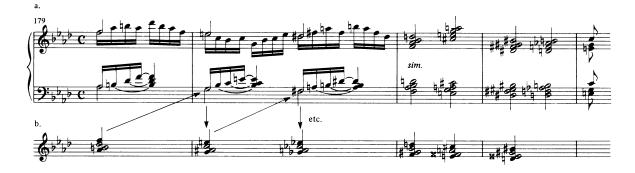
Figure 4. Functional types of augmented-sixth chords

| Augmented-sixth | Resolution | Functional Type |
|-----------------|------------|-----------------|
| Dominant | Tonic | Authentic |
| Subdominant | Tonic | Plagal |
| Subdominant | Dominant | Predominant |

The b staff highlights these intervals in open noteheads. The operation of the series, which involves continual enharmonic reinterpretations complicated by elided resolutions of $\sharp4$, can be read from the arrows in the example. Augmented-sixth chords are shown on the b staff, and their chords of resolution (major-minor sevenths in $\frac{4}{3}$ position) are shown in the left-hand portion of the a staff; the activity of augmented-sixth resolution is indicated by diagonal arrows. After resolution, these $\frac{4}{3}$ chords are enharmonically reconfigured as augmented-sixth chords, a process shown by the vertical arrows from a to b. Liszt takes advantage of enharmonic equivalence here to dovetail a series of pre-dominant augmented-sixth chords with their chords of resolution.

At least two circumstances can discourage dominant function for the chord of resolution, and hence open up the possibility of dominant function for an augmented-sixth chord. The first is the unlikelihood that a minor triad can transmit dominant function. It is for this reason that, as in Franck's *Pièce héroïque* shown in Example 13, the augmented-sixth chords tonicize their chords of resolution.³⁹ What, then, is the function of the augmented-sixth chords—dominant or subdominant? Here we can attend to clues in the voicing and figuration of the chords. Notice in particular the left-hand upper part, which contains a conspicuous motion up to and ultimately through the leading tone. This motion plainly highlights the dominant-functioned aspect of the chord, and, to

³⁹A similar case is found in the "lab specimen" in Example 3.



Example 15. Liszt, Weinen, Klagen, Sorgen, Zagen, mm. 179-83

my mind, tips the balance towards hearing the augmentedsixth chords as dominant- rather than subdominantfunctioned, making for an authentic functional type.

The Till Eulenspiegel citation in Example 12 illustrates the other circumstance discouraging dominant function. The augmented sixth resolves into the third of the following major triad. Such a doubling pointedly rejects dominant possibilities because the doubled third would be, in fact, a doubled leading tone. Hence, the F-major chord is tonic-functioned. Analvsis of the augmented-sixth chord is less routine. Considerable subdominant powers are transmitted by $\hat{b}\hat{b}$ and by the placement of the prominent subdominant element 4 in the bass. Yet the first occurrence of the Till motive (rehearsal 2 +14) interrupts a powerful V⁷ of F, which the resolution to F in Example 12 can be heard to satisfy. Thus, dominant function can still be heard to persist in the Till chord-at least in this incarnation-transmitted by E as $\hat{7}$. To my mind at least, the subdominant elements largely subdue E, leading to a plagal interpretation.

Finally, the opening of Schoenberg's Chamber Symphony, op. 9, cited in Example 14 as a kind of marvel among augmented-sixth chord usage, can also yield its functional

contents with the tools developed so far. The chord of resolution is tonic-again, on account of the doubled third produced by the action of one of the augmented sixths in the preceding chord. The two augmented sixths operating in m. 3 are creatures of dominant and subdominant functions respectively. The Gb-E interval depends on the dominant function of E as $\hat{7}$, while the Bb-G# augmented sixth is built upon $\hat{4}$ as a subdominant element. Dominant function clearly has the upper hand in this chord, as the downbeat of m. 3 contains the basic elements of a V^7 in F: C, E, and Bb. The Gb also sounding there is in an augmented-sixth relationship with E, which relationship strengthens rather than ambiguates the already established dominant function of the chord. The second augmented sixth of the chord is only activated on the second beat of m. 3, and its diatonic member, 4, is buried in the sound mass. Dominant function clearly prevails in this augmented-sixth chord, meaning that it manifests the authentic functional type.

Now that the disarray brought on by the influx of new types of augmented-sixth chords has been reduced by reclassifying chord types, it is appropriate here to show off what this reorganized analytic device can accomplish by turning attention to a composition where the augmented sixth is a conspicuous tonal force, Brahms's part song "Im Herbst," op. 104 no. 5, the score of which appears in Example 16.

BRAHMS: "IM HERBST," OP. 104 NO. 5

Problems with a traditional augmented-sixth chord analysis crop up in the very first measures, as a pre-dominant German sixth in an unusual $\frac{4}{3}$ position at the end of m. 1 resolves irregularly to a cadential $\frac{6}{4}$ in m. 2. It takes but little effort to uncover a more normal underlying structure; the structural notes of the bass and top voices could be considered to be offset, so that the bass line is grounded upon the opening Ab, while the top is fastened to the F# at the end of the measure. In this interpretation, what appears then in the opening measures is no more than a horizontalized Germansixth chord. Yet the very notion of such a horizontalization destabilizes the idea of the augmented-sixth chord being a mere passing verticality, as is generally taught.

Ironically, this freeing-up of the augmented sixth as a technical device serves to repress other types of musical expression. The augmented sixth in this piece is an *idée fixe* which seems to preclude other musical thoughts. Each half verse (mm. 1, 10, 20, and 30) begins with the same unfolding of a melodic diminished third as found in m. 1, during which some augmented-sixth interval is sounded harmonically. (In the German $\frac{4}{3}$ chord at the end of m. 1, a harmonic augmented sixth is formed between the soprano and tenor.) Utterances cannot begin without touching upon the augmented sixth—nor end for that matter, since each verse closes with an authentic cadence approached through a German sixth.

Before dealing with other augmented-sixth matters, I should enlarge upon what is meant by saying that the augmented sixth represses other musical expressions. For the obsession with the chord, insofar as it crowds out (and hence represses) other possibilities, is a consequence of a pervading

sense of constriction and suppression in the poem. In the text, images of "under," "below," and "beneath" are constantly displayed in the first two verses. (Figure 5 offers the text and translation of the poem.) In the first, leaves fall and the heart sinks; then a journey to the south (below) is likened with one to the grave (six feet under, presumably). In the second verse, fog enshrouds the sun and the heart, and existence itself is described as deeply withdrawn. Moreover, the language the poet uses seems overly terse, as if language itself were repressed and enshrouded. The first sentence of text-all of two iambic feet-is remarkable in its sonic economy: Ernst ist der Herbst. The situation eases considerably in the third verse, as discussed shortly, but the overall impression of the first two is one of a laconic solemnity that threatens to lapse into an impassive silence-as if the poet were one with the soundless bards journeying to the south.

Downward tendencies are also quite evident in the melody—notably, in the diminished-third unfolding in the soprano that begins every half verse. Other conspicuous examples are the soprano line in mm. 3–8, which, although broken by an upward octave transfer at the end of m. 6, is nonetheless preoccupied (obsessed, even) with descent and decline. The beginning of the second half-verse in mm. 10–13 seems to promise some alleviation from the downward spiral. Yet the hopeful ascent in these measures seems only to have the attainment of Eb5 in mind since the melody begins thereafter another deliberate descent to $F\sharp4$, traversing the same space as was covered in mm. 7–8.⁴⁰

What role, then, does the augmented-sixth chord play in this story of autumnal depression? It seems to be at once both a symptom and a cure, a paradoxical and intriguing status that

⁴⁰Another important musical aspect of constriction and obsession is the constant alto and tenor motion in parallel thirds. These voices thus have no freedom of action on their own; they move in lockstep, each is unable to break free from the constraining power of the other.

Example 16. Brahms, "Im Herbst," op. 104 no. 5





Example 16 [continued].

explains the attention bestowed upon it. Yes, the sonority pervades the piece—symbolizing the reduced expressive circumstances the poet finds himself in. But the *treatment* of the sonority, as already suggested, hardly agrees with such reduction. Indeed, Brahms explores all manner of possible resolutions and treatments in seeming attempts to uncover and unblock, to find ways out of the constant downward pressures. The fact that the German-sixth chord is given its unusual horizontal array in m. 1 is the first telling clue. But other illustrations abound. Clearly, the V⁷ of the Neapolitan in m. 5 is an attempt, via the usual enharmonic trickery, to find one way out. Ironically, this attempt abets and enables continued downward motion; this method, needless to say, is not repeated in the remainder of the verse.

Measure 10 finds another treatment of an augmented-sixth chord. Again, as in mm. 1 and 5, the same pitch material (in both register and voicing) is reassembled, but the augmented sixth between $A \triangleright 3$ and F # 4 now resolves into the third of an $E \triangleright$ -major triad, thus placing the interval between scale degrees $\hat{4}$ and $\# \hat{2}$ in $E \triangleright$ major. As Example 17 suggests, the functional type here is plagal. The entrance of $E \triangleright$ major seems to augur well for a solution to the persistent downward push, since both soprano and bass lines are able to rise gently in its atmosphere.⁴¹ As already noted, however, once the soprano reaches $E \triangleright 5$ in m. 14, the text takes a decidedly more

⁴¹The reversal of bass motion in m. 10 with respect to m. 1 seems to adumbrate this possibility.

Figure 5. Karl Groth, "Im Herbst." Translation by the author

Ernst ist der Herbst. Und wenn die blätter fallen, sinkt auch das Herz zu trübem Weh herab. Still ist die Flur, und nach dem Süden wallen die Sänger stumm, wie nach dem Grab.

Bleich ist der Tag, und blasse Nebel schleiern die Sonne wie die Herzen ein. Früh kommt die Nacht: denn alle Kräfte feiern, und tief verschlossen ruht das Sein.

Sanft wird der Mensch. Er sieht die Sonne sinken, er ahnt des Lebens wie des Jahres Schluss.Feucht wird das Aug, doch in der Träne Blinken entströmt des Herzens seligster Erguss.

depressing turn, forcing the soprano to plod downwards yet again, the bass following reluctantly after. Evidently, the plagal therapy provided only temporary relief.

The harmonic goal of the descent in m. 17 is the same German $\frac{4}{3}$ sonority met with in m. 1, and the last three pitches of the descent (Ab, G, F \sharp) reprise the opening pitches of m. 1.⁴² Furthermore, the soprano in these mm. 14–17 pointedly

⁴²I have already remarked above on the similarities between the soprano descents in mm. 7–8 and 14–17; i.e., they traverse the same space between Eb5 and F#4. But they also share the Ab-G-F# motive introduced in m. 1, although in mm. 7–8 it is slightly obscured by surface elaboration. The desire to reuse this melodic idea (or the compositional need to restrict vocabulary) thus explains the Neapolitan-sixth in G minor found at the end of m. 7; this chord accommodates Ab as b2. This particular situation prompts additional theorizing about the Neapolitan sixth as manifesting augmented-sixth energies, which I will but briefly sketch. The enharmonic relationship of augmented-sixth chord and V⁷ of the Neapolitan already places them into a special relationship, but the fact that, in normal resolution, b2 supported by a Neapolitan traverses a diminished third to #7 links the two more suggesSolemn is the Autumn. And when the leaves fall sinks also the heart to troubled woe.

Still is the meadow, and towards the south journey the bards in silence, as if to the grave.

Pale is the day, and colorless fog enshrouds both sun and hearts.

Early comes the night: for all Powers celebrate and deeply withdrawn rests the being.

Soft becomes the man. He sees the sun sink; he foresees the end of life and of the year. Moist becomes the eye, yet in the tear-sparkle gushes the heart's most blessed outpouring.

stresses members of the augmented-sixth chord at each downbeat, as Example 18 indicates with a beam. The return of these opening, pre-dominant augmented-sixth concerns reinforces the sense of constriction and expressive repression at work in the song.

An apparently slight difference between the ending of the first and second verses makes for a profound difference in one's evaluation of this constriction. In the first verse at m. 17, Brahms repeats the closing phrase of the poem, "wie nach dem Grab," setting "wie" to a standard German-sixth chord and thereby normalizing the approach to the cadential $\frac{6}{4}$. In the second verse, however, the closing phrase, "ruht das

tively. The Neapolitan could be regarded in general as one element of a horizontalized diminished third between $\frac{1}{2}$ and $\frac{47}{7}$. This line of thinking is implicit in Schenker's discussion of b2 in *Free Composition* (trans. and ed. Ernst Oster [New York: Longman, 1979], 71 and Fig. 74). The excerpt from Liszt's *Orpheus* in Example 6, which has an augmented-sixth chord involving b2 and $\frac{47}{7}$ flowing out of a Neapolitan chord, also supports this hypothesis.

Example 17. Plagal augmented-sixth chord



Aug. 6th (subdominant) Tonic

Sein," contains one less syllable, and Brahms consequently omits the German-sixth. The German $\frac{4}{3}$ thus progresses directly to the cadential $\frac{6}{4}$ just as it did in mm. 1–2. The conclusion of the second verse thus makes its affinity to the opening more explicit and pronounced, its message of constriction and repression more plaintive, and its final empty fifth more desolate.

The third verse is quite different from the first two. Attention is drawn away from the observed world and towards an observing person. Then, the source of the pervasive melancholy is identified and acknowledged (identification of Autumn with Death). And, finally, this acknowledgment permits the poet at last to escape the constriction of the first two verses, symbolized by gushing outpouring from the previously enshrouded heart.

The crucial musical difference between the third and the first two verses is mode. It seems trite to point to a change from minor to major as symbolizing a change in emotional climate for the better, but there is no doubt that the stereotype holds true in this case. What effect does this change have on the augmented-sixth chord obsession? Initially, only a slight one, as the verse begins with the familiar diminished-third unfolding and pre-dominant German- $\frac{4}{3}$ -to-cadential- $\frac{6}{4}$ resolution. The mode shift is signaled subtly by having the passing soprano G4 in m. 20 harmonized by a C-major triad

and then by resolution to a major cadential $\frac{6}{4}$ in m. 21, after which C major blossoms freely.

At the moment of acknowledgement—the presentment of Death that Autumn has caused—the obsession with the augmented-sixth chord becomes extreme; mm. 24–26 contain a sequence emphasizing pre-dominant German-sixth chords. Had this augmented-sixth supersaturation occurred in the first two verses, its significance would have been truly sinister; in the less depressing atmosphere of the C-major third verse, however, this sequence—while still disturbing—seems less threatening. For one thing, the sequence rises, and, moreover, occurs at a point where the first two verses were forced into continued downward motion. For another, the augmented-sixth chord in m. 24 is, from a pitch standpoint, a new entity. Whereas previous augmented sixths in the piece were formed between Ab and $F\sharp$, that in m. 24 is between Bb and $G\sharp$.

The enharmonic equivalence of G^{\sharp} and A^{\flat} is something to note here. In the first two verses, a melodic A^{\flat} is, with one exception, always obliged to drop to G. This is so even when an augmented-sixth chord is not involved, as in m. 4. The transformation of A^{\flat} into G^{\sharp} in the third verse, however, entails a change of directional attribute; G^{\sharp} and its rising tendency encapsulate the breaking-through that the third verse is about.

Significantly, the beginning of the second part of the verse in m. 30, while still structured around the melodic diminishedthird motive, now has that motive traversing the new $B \flat -G \sharp$ space. As in the previous verses, the final chord of the motive involves a harmonic augmented-sixth interval, this time between the tenor and soprano. Yet a change in functional attribute is quite significant here; for the first time in the song, the authentic functional type is heard, as Example 19 illustrates. Here accrues one of the benefits of a reconstituted augmented-sixth category, since the chord in question would otherwise be analyzed not as an augmented-sixth but as a $V_{\sharp 5}^{*5}$ Example 18. "Im Herbst," soprano line, mm. 14-17



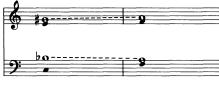
of F. In the context of the song, however, this chord is intended to be just as much an augmented-sixth as those met with earlier—but only by breaking free from traditional chord taxonomies can one appreciate this.⁴³

The opening-up depicted in the third verse receives wonderful musical support. Both soprano and bass lines engage in lengthy ascents in mm. 31-37, and the previously boundtogether alto and tenor lines break loose from each other and pursue largely independent courses. Most significantly, after the soprano breaks through her previous ceiling of $E\flat 5$ and shoots upwards to G5 in m. 35, she is in m. 37 pushed higher yet again by the agency of the $B\flat -G\sharp$ augmented sixth again exhibiting the liberating authentic functional behavior. We find here no clearer illustration of the paradoxical role of the augmented sixth in this piece; symbolizing the brooding repression of the first two verses when behaving predominantly, it is in the third verse an effective therapeutic agent thanks to changes in mode, pitch location, and functional type.

⁴³It is appropriate to note here the enharmonic equivalence of the chord in Example 19 with that shown in Example 8c—that *rara avis* found so fleetingly in the excerpt from Verdi's *Requiem* in Example 9. What is more, the enharmonic equivalence here is between two types of augmented-sixth chords. The differences in spelling between the two indicate differences in how their respective augmented sixths resolve. That in Example 8c resolves to E. Respelling the chord along the lines of the present case—in other words, making the D# an Eb—then places the augmented-sixth interval between C# and Eb, meaning a resolution to D. Despite both being augmented-sixth chords and despite their enharmonic equivalence, these two chords are functionally quite distinct. At first glance, the reappearance of the dark, predominant $A\flat -F\sharp$ augmented sixth in m. 40 might seem to indicate a relapse. But a breakthrough has occurred, giving this reappearance an aspect of reconciliation. The mode is still C major, which guards against relapses of C-minor issues. Alto and tenor pointedly move in a contrary-motion voice exchange, refusing to revert to their C-minor parallel-motion pathology. Finally, as the soprano prepares to settle down upon E4—another gentle coming-to-terms with previous downward obsessions—the alto overlaps her and sings G4. Not to be confused with a symbol of repression (forcing the soprano down), the alto's overlap is rather a symbol of emergence; from out of the enshrouded interior dawns a previously repressed voice—perhaps the very "seligster Erguss" of which the poet speaks.

CONCLUSION

The thesis of this article, that we ought to attend primarily to the augmented-sixth interval and its functional context and to regard its harmonization as an epiphenomenon, receives eloquent support from Brahms's "Im Herbst." Although standard-issue pre-dominant German-sixths abound, there are more than enough nonstandard treatments to call into question the theoretical—and pedagogical—advantages of focusing so intently upon the three ethnic-sixth chords. True, they may be statistically preponderant in commonpractice music and therefore deserve their special names. But when we elevate them to such an extent that we misplace Example 19. The authentic augmented-sixth chord



Aug. 6th (dominant) Tonic

other treatments, we lose theoretically and analytically theoretically, because we succumb to the temptation to circle the wagons of tonal theory in the hopes of closing the system and, as a result, leave non-privileged structures and procedures exposed and unprotected; and analytically, because we are unable to fashion tools and instruments for dealing adequately with compositions whose contents leave them outside the circle.

It is a truism that tonal theory lacks the rigor and welldefined structure of, say, pitch-class set theory. Certainly, instincts towards making tonal theory more consistent and rational ought to be honored, if for no other reason than successful pedagogy requires it. But these instincts conflict with others that desire flexibility and play, which allow theorizing about tonal music to be an artistically creative act, as Schenker and others have demonstrated. This supplement to the theory of augmented-sixth chords is intended to restore more play into a small component of tonal theory without, it is hoped, sacrificing its integrity. This goal perhaps still involves circling the wagons; but if the area encompassed be large enough, there will still be enough room for both standard and nonstandard augmented-sixth chords to run happy and free.

ABSTRACT

Traditional tonal theory, in its emphasis on the three ethnic varieties of augmented-sixth chord, proves inefficient in handling other types of augmented-sixth chords frequently found in late nineteenthcentury music. The paper reconstructs the theory supporting augmented-sixth chords along more general lines so that unusual treatments can be more adequately explained and analyzed. Some support in this reconstruction is given by nineteenth-century theorists such as Gottfried Weber and Rudolf Louis and Ludwig Thuille. Excerpts from the works of Liszt, Wagner, Richard Strauss, Franck, Schoenberg, and Verdi illustrate some of these unusual treatments. The paper also analyzes Brahms's part song "Im Herbst," op. 104 no. 5, in which unusual treatments of augmented-sixth chords abound.