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ABSTRACT: Theorists have struggled many decades to explain the first simultaneity of the Prelude to Wagner's *Tristan und Isolde.* An interpretation that seems to be widely credited today equates the TC with the enharmonically related half-diminished seventh chord. The difficulty with this notion is that the outer-voice interval of the TC is specifically an augmented ninth, not a minor tenth, and these two intervals differ radically in tonal music, not only in function but in sheer sonority. The TC is explained here as resulting from an enlarged slide formation together with a daring application of elision.

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[1] One might conclude from the sheer quantity of literature on Wagner's Prelude to *Tristan und Isolde* and in particular on the Tristan Chord (TC hereafter) that every conceivable approach to the explanation of that famous sonority had by now been proposed. A sampling of that literature, however, suggests that the identity and origin of the TC is far from settled. Most historical accounts of the chord have been preoccupied by the often irrelevant a-priori assumptions of one or another "system of harmony" and have failed to address the issue from the perspective of composing technique. I will argue that a particular technique of diminution -- one well precedented in musical

tradition -- has been applied by Wagner in a highly original way with results uniquely suited to depict the psychological milieu of the beginning of the opera. To understand the TC fully, however, we must first be clear about its identity -- that is, the inventory of intervals it comprises.

[2] *The intervals of the TC.* Several recent contributions to the critical and theoretical literature not devoted primarily to *Tristan* or its chord refer to one or another half-diminished seventh chord as a "Tristan-chord,"(1) while the actual TC as it is presented at the beginning of the opera's Prelude has on the other hand been called a "half-diminished seventh chord." Such nomenclature presupposes either that Wagner misspelled the chord on the downbeat of bar 2 of his Prelude or that the language of the music under discussion in the particular case -- whether *Tristan* or another work -- makes no distinction between enharmonically equivalent but differently spelled intervals.

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1. For example, Joseph Kerman "Close Readings of the Heard Kind," *19th Century Music* XVII:3 (1994), p. 214; Allen Forte, "Secrets of Melody: Line and Design in the Songs of Cole Porter," *The Musical Quarterly* 77:4 (1993), pp. 623-624.
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[3] The second of these assumptions seems to me obviously untenable, and I shall not deal further with it here. The first assumption -- that the TC is actually an enharmonic spelling of a different chord -- can, according to Martin Vogel, be traced back at least to an 1899 account by Salomon Jadassohn, who represented the bass f as an alternate spelling of e-sharp, and the TC itself as a leading-tone seventh of the key of F-sharp minor.(2)

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2. Martin Vogel, *Der Tristan Akkord und die Krise der modernen Harmonielehre* (Duesseldorf: Gesellschaft zur Foerderung der systematischen Musikwissenschaft, 1962), p. 24. Exactly how Jadassohn accounts for the inclusion of d-sharp instead of d in this chord is not explained by Vogel.
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[4] How can such an assertion of enharmonic spelling be evaluated? The answer is that it can be evaluated only with respect to the musical context, and only in the light of a principle that I will take as axiomatic: the ear will in general seek simpler explanations over more complex ones, and, in particular, will posit an enharmonic change only if compelled to do so by context. For example, the interval 0-4 (in "atonal" notation) is automatically interpreted by the ear as a major third. An appropriate context can oblige the ear to hear it as a diminished fourth (in which case it sounds radically different), but the conditions under which this will occur are very special ones indeed. Now if we assume, in the first bar plus upbeat of the *Tristan* Prelude, a normal spelling of the first note (a instead of g-double-sharp), then it is inescapable that the second and third notes are f and e respectively, since the first melodic interval will scarcely be heard as an augmented fifth. (The arguments in support of this contention may, after the discussion to follow, be supplied by the reader.) The bass note that enters in bar 2 is at least

enharmonically equivalent, if not identical, to the first melodic note of bar 1, f. Is it possible that this pitch has become enharmonically revalued as e-sharp? Only the continuation can answer this question. One can imagine continuations that would make the assumption of enharmonic change at least plausible, and perhaps even necessary; one such continuation is shown in Ex. 1.

[5] Here the ascending continuation of the notated f strongly suggests its possible interpretation as e-sharp. Wagner's descending continuation, however, dispels any reasonable doubt about the identity of this pitch as f, not e-sharp: the descending half-step of bars 2-3, like the identical (and intimately associated) succession in bar 1, certainly involves two distinct letter names, or, to say the same thing in another way, two different scale degrees.

[6] Jadassohn's account of the TC probably does not need to be refuted for very many modern readers. But the currently fashionable assimilation of the TC into the category of "half-diminished seventh" (or vice versa) is really no more plausible. Since it is established that the bass of this chord is f, a major third lower than the first note of the Prelude, the TC can be a half-diminished seventh only if the oboe's g-sharp of bar 2 is really an a-flat. In that case we must definitely posit an enharmonic change from a-flat of bar 2 to g-sharp of bar 3, for the chordal interval of bar 3 is unquestionably a major third, not a diminished fourth. But why should we assume an enharmonic change? The written g-sharp of bar 2 does, after all, ascend to an a (without prejudice to the question of whether this a is the "resolution" of the g-sharp), and the melodic interval in bar 2 surely is heard as an inversion of that of bar 1 (thus as a minor second) rather than as two different inflections of the same scale degree. The assumption of enharmonic change here would be no less bizarre than Jadassohn's assignment of the four simultaneities of bars 2- 3 to as many different keys.(3) The oboe's g-sharp is indeed a g-sharp, and Wagner's spelling of the remainder of the TC as well reflects aural necessity.

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3. Vogel, p. 24.
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[7] The intervals of the TC as measured from the bass up, then, are: A4, A6, A9 (=A2), exactly as notated. Not one of these intervals is present in a half-diminished seventh chord constructed above its root as bass. Only one of them -- the A4 -- is present in any inversion of such a chord.

[8] *"Precursors" of the TC.* Vogel reports that

> In the course of the treatments [described above, by Schoenberg, Hindemith, and Fortner] it was variously noted that the chords could already be found in earlier style-periods. In the quest for precursors it is possible to go back as far as Guillaume de Machaut and Gesualdo da Venosa. . . . In Beethoven's Piano Sonata in E-flat, Op. 31 No. 3, the Tristan-Chord appears in the same register and at the same pitch. [An example comprising bars 33-36 of the named sonata follow, with an arrow singling out the downbeat chord of bar 36.](4)

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4. "Im Verlauf der Auseinandersetzung wurde verschiedentlich darauf hingewiesen, dass sich die Akkorde schon im frueheren Stilepochen finden lassen. Auf der Suche nach Vorlaeufern kann bis zu Guillaume de Machaut und Gesualdo da Venosa zurueckgegangen werden. . . . In Beethovens Klaviersonate in Es-dur, op. 31, Nr. 3, tritt der Tristan-Akkord in gleicher Lagerung und Tonhoehe auf." Vogel, p. 12.
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[9] If the TC does in fact "appear" in Beethoven's sonata, then in what sense is it a "precursor" in that context? Shouldn't its name be changed, perhaps to something like "the Op. 31 No. 3 chord"? The obvious answer is that Beethoven's chord -- leaving aside the fact that its correctly notated e-flat is the seventh of a 7-6 suspension -- is not a "Tristan Chord" but rather a half-diminished seventh. Its treble pitch is an a-flat, which forms an outer-voice interval of a minor 10th (3d), not an augmented 9th. As such it would be free to proceed by leap -- perhaps to f over a bass b-flat (in the sense of II7 - V of E-flat); any such continuation of Wagner's g-sharp would at the very least create an unbridgeable detachment from the Prelude's first bar. Wagner's g-sharp, as an A9, must in some way ascend by step.

[10] The difference, in tonal music, between a minor third and an augmented second is profound. The two intervals fall on opposite sides of the most fundamental dividing line in its language: that between consonance and dissonance. It is hardly surprising, therefore, that they *sound* very different from one another, as do the TC and the half-diminished-seventh chords.

[11] *Compositional origin.* Among the many accounts of the TC that have been proposed in the past, those most nearly plausible explain the g-sharp of bar 2 as an accented long appoggiatura to the a that follows. This was the view of Carl Mayrberger, who was represented by the editor of the Bayreuther Blaetter as "the theorist of our art so highly esteemed by Master R. Wagner himself";(5) it is a view that seems to me greatly preferable to the neutralization of this pungent g-sharp that necessarily attends its assimilation as a chord tone. The two notes g-sharp - a form a 9-10 succession above the bass -- a very credible "resolution" formation, especially when the 9 is augmented, as in this case. Yet this account is not completely satisfactory. The following remarks by William J. Mitchell, for example, cannot be summarily dismissed:

> Note that the phrasing slur for the oboe in bars 2-3 begins on the g-sharp^1^ under examination and carries through to b^1^ . . . . But this is not characteristic of the usual two-tone slur (g-sharp^1^ to a^1^) for the indication and execution of an appoggiatura. It should also be observed that the oboe's g-sharp^1^ to b^1^ is accompanied by a very frequent kind of chordal interchange as the bassoon leaps from b to g-sharp . . . .(6)

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5. ". . . den vom Meister R. Wagner selbst so werth geschaetzten Theoretiker unserer Kunst." Hans v. Wolzogen,

Foreword to Carl Mayrberger, *Die Harmonik Richard Wagner's an den Leitmotiven des Preludes zu "Tristan und Isolde" erlaeutert* (Chemnitz, 1882), p. 4. Mayrberger's text was originally published in Bayreuther Blaetter 4 (1881). Although Mayrberger's instinct about the g-sharp was correct, he was otherwise forced into absurdity by his allegiance to Simon Sechter's prescriptions about how fundamental basses might be allowed to move.

6. William J. Mitchell, "The Tristan Prelude. Techniques and Structure," *The Music Forum* I (1967), p. 174.
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[12] It is true that Mitchell's reference to a "chordal interchange" begs the question by presupposing that the g-sharp is chordal. The account offered here will address Mitchell's concerns without reaching his conclusion that the g-sharp is a member of an independent four-note chord.

[13] Example 2 shows, in four stages, what I propose as the origin and evolution that led to the TC. (The augmented-sixth chord in the progression at a has, of course, a still simpler diatonic origin.) The treble in Ex. 2a takes the line of least resistance, which is to follow the bass in parallel tenths and thus to descend a step. If, in a given application of this basic voice-leading pattern, the compositional aim is instead to have the treble ascend, then the tenor may take over the completion of the underlying descent as in Ex. 2b. The ascending step in the treble, however, is "difficult" and requires an expenditure of effort. It is a deeply rooted musical impulse to provide some assistance to the treble in negotiating such an ascending step. One possibility, for example, would be to apply the technique of "reaching over" (Schenker's *Uebergreifen*), perhaps by letting the upper voice first leap to c and reach the b thence by descending a step; this might result in a cadential 6/4 above the bass e. Another possibility, however, is to apply a *slide* (Schleifer) as in Ex. 2c. This ornament makes it possible for the treble to express the stepwise motion in both ascending and descending directions, and to compose out the third-space between the two goal-tones.

[14] Let us digress for a moment and consider bars 100-108 from Scarlatti's Sonata K. 461 shown in Ex. 3a and the graphic interpretation in Ex. 3b. The dominant of C (locally inflected to the minor mode) is reached in bar 102 and extends through bar 107. The extension first repeats the treble c - b with bass set in parallel tenths; bar 105 appears to initiate a second repetition, but in bar 106 the treble not only follows the descent of the bass but also breaks free and ascends to d. (The resulting third-space, b - d, answers the descending third e-flat - c of bars 100-101; the two thirds constitute an instance of "unfolding" (*Ausfaltung*) as indicated by the brackets in Ex. 3b.) It accomplishes this with precisely such a slide as that shown in Ex. 2c, except that instead of being written as an ornament, the slide is composed and expressed in large notation.(7)

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7. A formation related to the composed slide is the appoggiatura from below, when such an appoggiatura is prepared and the note of preparation is embellished by its

own lower neighbor. These idioms are particularly favored by Scarlatti. For only two examples, see the Sonata K. 426, bars 32-33, and the Sonata K. 460, bars 12-13.
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[15] Wagner, too, was capable of composing such a slide, and he did so in bars 2-3 of his Prelude to *Tristan*. The tones g-sharp-a-a-sharp-b of those bars should be understood as an indivisible entity, and indeed one that properly belongs above the bass note E of bar 3. The a that should precede this succession -- indeed, that should appear as the tenth of the bass f of bar 2 -- is, quite simply, missing: it is suppressed, or elided. In its place, the tones of the ascending slide enter prematurely, above the bass note preceding the one to which they really belong (Ex. 2d); the collision of the first of them, g-sharp, with the remaining notes of an otherwise well-precedented augmented-sixth chord, produce the poignant formation that has come to be known as the TC. Although absent, the missing a is to be "understood," as it quite easily can be from the admittedly sparse context provided by bar 1. Its absence, together with the unaccompanied opening and other omissions to be described presently, seems to me a fitting musical depiction of the mysterious psychological state to be established by the beginning of the Prelude.(8)

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8. Here I should emphasize that I have cited an example from Scarlatti not to suggest any historical connection between the two composers, but merely to illustrate a figure of diminution -- applied, to be sure, in a drastically different and otherwise unrelated musical context.
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[16] The elision, or suppression, of the a^1^ of bar 2 is but the first of several such acts that lend the music a portentously laconic quality. The dominant-seventh chord of bar 3 "should" continue to an A-minor tonic chord, almost certainly with c^2^ in the treble; the bass A would provide the point of departure for the chromatic passing A-flat on which the second TC is based. That continuation, however, is suppressed in favor of a direct connection to the second slide formation and the second TC. This establishes the precedent that after the opening melodic statement, each subsequent entrance will begin with a chordal arpeggiation within the preceding statement's final chord. The consequence of this precedent for the third entrance, that of bar 9 plus upbeat, is that it must begin with the broken interval d^2^ - b^2^. The first simultaneity of this entrance (bar 10) is placed analogously to the two TCs but differs from them in intervallic structure. Like the TC, it is enharmonically equivalent to a half-diminished seventh chord (this time in the "third inversion"), but, also like the TC, its specific intervals (in particular the augmented fifth) do not correspond to those of any position of such a chord.(9)

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9. Nevertheless, this chord is much more similar in sonority to a half-diminished seventh than is the TC. I attribute this to the initially uncertain identity of the 'cellos' g-sharp in bar 10; especially as we have just heard a chromatic passing b-flat, the g-sharp can very plausibly be interpreted at the outset as a-flat, in which case the

intervals of the chord in question are exactly those of the half-diminished-seventh chord in the 4/2 position.
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[17] This chord requires a contextual explanation different from that of the two TCs. The bass must enter on C in order to descend by half-step to its destination, B (the root of V of V, which now, finally, falls a fifth as expected). The ascending slide figure in the treble, to be consistent with the procedure followed thus far, must enter on the same note as that with which the preceding slide ended -- that is, on d natural rather than the d-sharp that would be required by strict parallelism to the two preceding slide figures. The 'cello motive that precedes this unique chord likewise requires adjustment in comparison to its two predecessors. As mentioned above, it must begin by arpeggiating the chordal interval d^2^ - b^2^; a descent from the b^2^ of only two half-steps (as in the preceding entrances), however, would leave the 'cellos' voice on the note a, a major rather than an augmented sixth above the bass. This note, rather than moving by half-step into the seventh of the coming dominant-seventh chord as its predecessors did, would in fact anticipate that seventh -- clearly an unacceptable result. The incorporation of one additional half-step, resulting in an arrival on g-sharp, was undoubtedly the best way to approximate a parallelism with the two preceding entrances. As an expansion, it had the additional advantage of agreeing with the necessary expansion (also by one half-step) of the slide motive. The tenor voice (first bassoon in the score) now takes a perfect fourth above the bass (f-natural) in contrast to the analogous augmented fourths of the two TCs. The use of f-sharp here would have anticipated the fifth of the coming harmony (in this case B) just as the previous augmented fourths did; but the f-natural has the distinct advantage of being a diatonic note in the key, so that the two chromatically altered elements (d-sharp and f-sharp) are reserved for the arrival of the chord for which they are required.

[18] These observations alone are sufficient to account for the first simultaneity of bar 10. It is certainly possible that the enharmonic equivalence of this chord to the TC and to the half-diminished seventh chord was also a factor in Wagner's choice of the perfect rather than the augmented fourth at the downbeat of bar 10. After all, it is well known that this enharmonicism is exploited extensively as the opera unfolds. It is possible that authoritative documents (unknown to me) exist which permit inferences about Wagner's compositional chronology in this matter, but in the absence of such documents I would maintain that considerations such as those I have mentioned in [17] may well have come first and have served as the cradle for the particular enharmonicisms that come to play such an important role later.

[19] These enharmonicisms are of a very special and novel character. It is well known that the enharmonic equivalence of different spellings of the diminished-seventh had long provided an important musical resource. The same is true of the enharmonic relationship between the dominant-seventh and the augmented 6/3 and 6/5 chords (the "Italian" and "German" sixths, respectively). These relationships differ fundamentally from that between the TC and the half-diminished seventh, however. The diminished-seventh chord

has the property that any normal respelling yields exactly the same collection of intervals to within inversion (A2 = D7, etc.). True, this does not hold of the dominant-seventh, where an appropriate respelling yields an augmented 6/5; but the two enharmonically equivalent intervals (minor seventh and augmented sixth) nonetheless both belong on the same side of tonal music's fundamental dichotomy -- specifically, on the side of dissonance. None of the above properties holds for the relationship between the TC as it appears in bar 2 of the Prelude and a half-diminished seventh constructed above the same bass: here a dissonant interval in the one chord corresponds enharmonically to a consonant interval in the other. This, I submit, is what makes the enharmonic equivalence of the two chords all but unrecognizable to the ear except by a deliberate act of intellect. My speculation is that the exploitation of enharmonic equivalence of exactly this kind is a Wagnerian innovation.

[20] A voice-leading graph incorporating the elements described above as elided might appear as in Ex. 4a (a simplification of which is given in 4b), where elided elements are enclosed in parentheses. The relationship of this graph to the music, however, is perhaps somewhat different from the normal one of a well-made foreground sketch to the music it represents: such a sketch should and does vividly portray the general outline of the finished composition in such a way as to be immediately recognizable to anyone who knows the music well. Ex. 4a as it stands does not satisfy this criterion. The passage depicted incorporates modifications so profound that the overall effect is quite different. Most striking among these is the suppression of the tonic bass note that "should" appear in bars 4-5. The result is that the bass arpeggiation of the tonic triad shown in Ex. 4 is obliterated in favor of a prolongation, through bar 16, of the dominant of bar 3.(10) The connection of bar 16 to bar 3 is confirmed by the reappearance in bars 16-17 of the third-space g-sharp - b, as represented by the brackets in Ex. 5. Thus the structure shown in Ex. 4 might be viewed as a prototype for the music of the Prelude's first seventeen bars, but it cannot be claimed to represent the structure of the finished product.

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10. In this respect I concur with Mitchell's reading; see Mitchell, pp. 170-171 (his Ex. 4).

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[21] The advantages I see in the above explanation of the TC are that it releases me from the apparent dilemma of having to interpret the g-sharp as either a chord tone or a long appoggiatura that resolves specifically and completely to a at the last eighth-note of bar 2. Neither of these alternatives appeared to me to correspond to the sound of the passage. Moreover, it provides a way to acknowledge Mitchell's voice exchange (g-sharp above b moving to b above g-sharp), again without assuming chordal status for the g-sharp.

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