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The Principle of ‘Time-Reversal’ In Mozart’s Works

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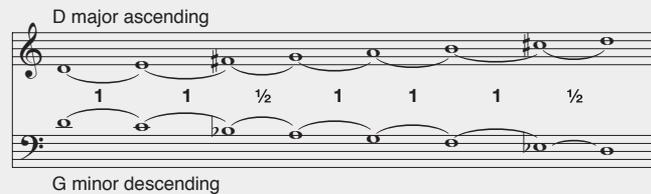
Beginning in 1782-83, Mozart revolutionized the concept of modality, and its relationship to motivic through-composition. As two of his most profound religious works demonstrate, the motet *Ave verum corpus* and his *Requiem*, great musical compositions do not develop in a linear, mechanistic way, from an initial theme, but are conceived from the beginning as a whole, in which it is often the end of the composition, or a key part of it, which determines the beginning. In the case of the motet *Ave verum corpus*, it is the final statement about Christ dying on the cross to save humanity (“in cruce pro homine”) which determines the opening statement “Ave.” In the *Requiem*, one of the most poetic parts is the soloists’ quartet “Recordare” (“Recall”), which again forces the listener to go back to the beginning of the *Requiem* from a different standpoint, that of remembering Christ’s sacrifice on the cross. How the profound moral and religious content of these works of art and their musical motivic development coincide with the idea of “time reversal,” of the future determining our present and past, is the subject of this investigation.¹

Mozart’s *Ave verum corpus*

Beginning in 1782, Mozart made a fundamental creative leap: the treatment of the major and minor modes as a “One,” and not as separate major and minor modes. The “one-ness” of the major and minor, for Mozart, has the following significance. Take the case of the modality of the *Ave verum corpus*, D major/D minor. Think how D major generates G minor, by taking the same intervals of the D major ascending scale, and *changing their direction*, playing the intervals downward, instead of upward, from D (Figure 6.1).

FIGURE 6.1

G minor is derived, by inversion, from D major



D major generates G minor, by taking the same intervals of the D major ascending scale, and changing their direction.

‘Recordare,’ from Mozart’s *Requiem*

STROPHE 1

Recordare, Jesu pie,
Quod sum causa tuae viae:
Ne me perdas illa die.

Recall, merciful Jesus
That I was the reason for Thy journey;
Do not destroy me on that day.

Quaerens me, sedisti lassus:
Redemisti crucem passus:
Tantus labor non sit cassus.

Seeking me, Thou didst sit down weary,
Thou didst redeem me, having endured the cross;
Let not such great pains have been vain.

STROPHE 2

Iuste Judex ultionis,
Donum fac remissionis
Ante diem rationis.

Just Judge of vengeance,
Give me the gift of redemption
Before the day of reckoning.

Ingemisco tanquam reus:
Culpa rubet vultus meus:
Supplicanti parce, Deus.

I groan as one guilty,
My face blushes with guilt;
Spare the suppliant, O God.

Qui Mariam absolvisti,
Et latronem exaudisti,
Mihi quoque spem dedisti.

Thou who didst absolve Mary,
And hear the prayer of the thief
Hast given me hope, too.

STROPHE 3

Preces meae non sunt dignae:
Sed tu bonus fac benigne,
Ne perenni cremer ignae.

My prayers are not worthy,
But Thou, O good one, show mercy,
Lest I burn in everlasting fire.

Inter oves locum praesta,
Et ab haedis me sequestra,
Statuens in parte dextra.

Give me a place among the sheep,
And separate me from the goats,
Placing me on Thy right hand.

Such explicit or implicit *changes of directionality* are crucial, both for the discovery of the paradoxes of the “new modality,” and for Mozart’s development of motivic thorough-composition.

Now, think about all the potentialities that exist in the entire composition—major and minor—as a *One*, and you begin to grasp the higher hypothesis which governs the composition as a whole.

The question is, *What governs the shift which Mozart has made?* To find the answer, we must consider, in succession, each section of the *Ave verum corpus*, in the same way as Plato treats the idea of hypothesis, higher hypothesis, and hypothesizing the higher hypothesis. For example, to begin with, consider the opening interval pairs as a paradox derived from this process. In order to focus us upon the very first interval pair, Mozart departs from the standard Latin text of the poem, by repeating the first word, “Ave” (“Hail”) a second time; instead of “*Ave verum corpus*,” Mozart composes “*Ave, ave verum corpus*.” In this way, Mozart sets up the opening paradox, which is crucial to the development of motivic thorough-composition.

There is only one other place in the entire composition, where Mozart repeats the text: the concluding line, “in mortis examine”—“in the test of death.” The second “in mortis examine” is totally *different* than the first. What is Mozart saying about how creativity works, and about how the human mind works? How do you reflect on your life, so that you live your life in order to cheat death, by being a creative person? That is why Mozart repeats this “in mortis examine” differently (Figure 6.2).

Bach’s *A Musical Offering*

Let us take a brief look at what Mozart was looking at in J.S. Bach’s *A Musical Offering*. As Lyndon LaRouche states in the main article: “J.S. Bach’s development of a form of polyphony situated with respect to the Florentine ‘*bel canto*’ voice-training standard, led into a determination of both pitch and of counterpoint derived from a rigorous application of the principle of a multiply-con-

FIGURE 6.2

Opening and final hypotheses in Mozart’s *Ave verum corpus*

(a) Musical score for Soprano, Alto, Tenor, and Bass, measures 38-43. The lyrics are: in mor - - - - - tis ex - a - mi - ne.

(b) Musical score for Soprano, Alto, Tenor, and Bass, measures 3-6. The lyrics are: A - ve, a - ve ve - rum cor - pus.

(c) Interval diagram showing an ascending 5th interval: In mor -

(d) Interval diagram showing an ascending 4th interval: A - ve,

Compare the very last phrase of the work, sung on the words “in mortis examine” (a), with the very opening bars (b), sung on “Ave, ave.” Note the greater density of Lydian intervals in (a). Mozart’s transformation of the soprano line, leaping a fifth upward on “in mor-” (c), is an inversion of the ascending fourth in the soprano opening “Ave” (d).

FIGURE 6.3

Opening of six-part Ricercar from J.S. Bach’s *A Musical Offering*

Musical score for six parts, measures 1-19. The score is in G minor and 3/4 time. The parts are numbered 1 through 19.

FIGURE 6.4

High-point of final strophe of ‘Recordare’ in Mozart's *Requiem*

The musical score for Figure 6.4 shows measures 105 through 110. The instruments and their parts are: Basset Horn I (F), Basset Horn II (F), Bassoon I, Bassoon II, Violin I, Violin II, Viola, Soprano Solo, Alto Solo, Tenor Solo, Bass Solo, and Violoncello/Contrabass. The vocal parts (Soprano, Alto, Tenor, Bass) have the lyrics: "ne per-en-ni cre-mer i-gne!". The score includes dynamic markings such as *sf*, *f*, and *p*.

nected manifold. The related treatment of the principle of polyphonic (e.g., ‘cross voice’) inversions led into such crucial of Bach’s works as his *A Musical Offering* and *The Art of the Fugue*.”

The entire six-part Ricercare of the *Musical Offering* is a series of hypotheses, which are progressing to higher orders of changes. Bach unfolds the paradox of the Lydian interval, i.e., the soprano register shift $c'-f\sharp'$ (Figure 6.3). Compare the rates of change throughout the piece as Bach, unfolds each voice entrance, which itself changes the entire ordering of the composition and the different levels of hypothesis, which unfold throughout the entire composition.

Mozart takes his discovery of Bach’s discovery, with the insight he has discovered from Haydn’s work, in motivic thorough-composition, and creates a

revolution in music. Mozart discovers a new higher modality, the “Lydian ” modality, in which the new modality redefines all the relationships of the intervals, including the major/minor, which Mozart now treats as a “One”—and, once again, it is based on inversion. So, intervals are not fixed distances, but are themselves undergoing a constant process of change; a change, which is governed by a valid axiomatic-revolutionary discovery of principle, which also represents elevation to a “higher cardinality.”

As Lyndon LaRouche states in the main article, for Bach, Mozart, et al.: “We must never hear intervals merely within voice parts, or even merely across voices, except that we also hear the totality of the implied, complementary inversion within and across the voices, as these unfold in the course of that motivic development which is the unity of the composition as an indivisible whole.”

Mozart’s Requiem

Another such example of “time-reversal” is Mozart’s *Requiem*. Key to the understanding of the whole work is the soloists’ quartet “Recordare” (the fourth item within the “Sequence” section of the mass, coming after “Dies irae,” “Tuba mirum,” and “Rex tremendae”). Mozart, treats the entire Recordare as a poem [SEE Box, page 79].

As in the case of the *Ave verum corpus*, so, too, in the “Recordare,” Mozart increases the density of singularities in the final strophe, subsuming all previous hypotheses. Within the space of only five measures (Figure 6.4), Mozart develops through inversion, what he has been playing across the entire “Recordare”; this time, it is C major and its inversion F minor (note the play between the strings and the voices, where the voices are unfolding the Lydian pair of $b\flat-f'$ and $a\flat-d''$). The Lydian pairs unfold, $d\flat'$ to g' , across the bass’s $d\flat'$ and the tenor’s g' , and it is this unfolding which is primary and governs the bass voice and part. The point being that the bass line, starting in measure 110, is not a series of ascending and descending half steps, but is generated

from the Lydian modality and the inversion of the interval pairs.

Finally, look at the opening of the “Recordare” (Figure 6.5). Here we have the unfolding of our paradoxical interval pair: in this case, the two basset horns are an inversion of one another. Here, Mozart generates the paradox of the Lydian/fifth between the two voices, unfolding the possibility of the F major/B \flat minor, C minor/F major, G minor/C major, D minor/G major. This is a far cry from the evil textbook approach, which claims this opening as a simple series of suspensions at the second, totally denying the question of the Lydian modality and the generating principle of hypothesis.

It is time to throw out the textbooks of counterpoint, harmony, and Helmholtz’s crazy ideas of chords, notes as vibrations per second, intervals as measurement of distance. Mozart has revolutionized the axioms of those who came before him, i.e., Bach and Haydn, and for all those after, Beethoven, Brahms, Schubert, Schumann. As Lyndon LaRouche says in the main article: “[I]f we continue polyphonic and related developments, there is no simply algebraic determination of a well-tempered scale, but rather a counterpoint-determined interval of non-constant curvature.”

FIGURE 6.5

Instrumental opening of ‘Recordare’ in Mozart’s *Requiem*

The musical score for the instrumental opening of 'Recordare' in Mozart's *Requiem* is presented in two systems. The first system includes Basset Horns (F) and Violoncello. The Basset Horns part starts with a Lydian interval (F-G) in measure 2, followed by a fifth (C-G) in measure 3, and another fifth (C-G) in measure 4. The Violoncello part starts with a fifth (C-G) in measure 2, followed by a Lydian interval (F-G) in measure 3, and another Lydian interval (F-G) in measure 4. The second system includes Basset Horn I and Violoncello. The Basset Horn I part starts with a Lydian interval (F-G) in measure 5, followed by a fifth (C-G) in measure 6. The Violoncello part starts with a fifth (C-G) in measure 5, followed by a Lydian interval (F-G) in measure 6. A 'Paradoxical interval pair' diagram below the score shows the Basset Horn II part (Lydian 5th) and the Basset Horn I part (5th Lydian).

In each measure, Mozart increases the density of singularities of our original, paradoxical interval pair.

1. In an article on “The Essential Role of ‘Time-Reversal’ in Mathematical Economics” (*Fidelio*, Winter 1996, Vol. V, No. 4), Lyndon LaRouche referred to Mozart’s *Ave verum corpus*, and “a presentation by Mindy Pechenuk, with chorus directed by John Sigerson, during the Labor Day weekend conference of the Schiller Institute on August 31, 1996,” as follows: “This highly sophisticated, compact, and beautiful work, is among the most convenient illustrations of the same principle of ‘time-reversal’ otherwise underlying both experimental physics in general, and physical-economic processes specifically. Any master’s Classical composition according to the principles of motivic through-composition, such as those of Wolfgang Mozart, L. van Beethoven, F. Schubert, R. Schumann, Johannes Brahms, et al., must be performed by applying the developed conception reached at the close of the composition, from the beginning of the performance of the composition. The modification so imposed by the intent of such a composer, results in what the celebrated conductor Wilhelm Furtwängler identified as ‘playing between the notes.’ Video recordings of the Aug. 31 pedagogical presentation of the motet are available through the Schiller Institute.”